

Instructions for Continued Airworthiness

Aviation Rulemaking Committee

Final Report

[August 12, 2026]

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I. Executive Summary

The Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC) was established in January 2024 by the Federal Aviation Administration (FAA) to conduct a comprehensive review of ICA regulations, policy, and guidance. Comprising a diverse group of industry and government stakeholders, including designers, manufacturers, aircraft owners, operators, maintenance organizations, and international civil aviation authorities, the ARC was tasked with addressing inconsistent understandings and applications of ICA regulations.

This report includes more than a dozen recommendations that achieved full ARC consensus. These recommendations, in Section V, are intended to clarify and enhance the regulatory framework for ICA. Key areas addressed include:

- *ICA Identification and Standardization*: Recommendations to improve the identification of and references to ICA, ensuring that stakeholders can clearly distinguish between ICA and other information.
- *Safety and Criticality*: Guidance on ICA in the context of critical parts and engine components to ensure the highest safety standards are maintained throughout a product's lifecycle.
- *Dynamic Nature of ICA*: Proposals to address the ongoing evolution of ICA, including deferred availability for long-lead items and the incorporation of in-service feedback to update ICA.
- *Oversight and Enforcement*: Suggestions for more robust FAA oversight and enforcement, including a standardized framework for resolving stakeholder complaints regarding ICA access and content.
- *International Harmonization*: Efforts to align FAA's ICA regulations with those of foreign jurisdictions, such as EASA, to reduce redundant reviews and streamline global compliance.
- Various miscellaneous amendments to ICA requirements.

While the ARC achieved consensus on many technical improvements, significant areas of disagreement remain between two primary groups of industry constituents: (1) Type Certificate Holders (TCHs) and some other Design Approval Holders (DAHs) and Production Approval Holders (PAHs), certain maintenance organizations (MROs) and certain suppliers to those TCHs/DAHs/PAHs/MROs (collectively referred to as the TCH subgroup throughout this report); and (2) owners and operators of aircraft, independent MROs, certain members of the aviation community holding Parts Manufacturing Approval (PMA) design and production approval and some other Design Approval Holders (DAHs) (collectively referred to as the OOMRO subgroup throughout this report). These disagreements included differing views on the scope of what must be included in ICA, and conflicting interpretations of the DAH's obligation to "furnish" or "make available" ICA, specifically regarding intellectual property protections, licensing fees,

and the conditions under which data can be provided to third parties. These disagreements can have significant consequences, and both groups have documented their opposing positions in detail in Sections VII and VIII to provide the FAA with a clear understanding of the industry landscape.

Additionally, the report includes several proposals, presented in Section VI, that did not reach full consensus but represent significant deliberation intended to assist the FAA in future rulemaking and policy development.

II. Background

Title 14 CFR 21.50(b) of the Code of Federal Regulations (CFR) establishes that Design Approval Holders (DAHs), including holders of type certificates or supplemental type certificates for aircraft, aircraft engines, or propellers for which application was made after January 28, 1981, must furnish at least one set of complete ICA to the owner of each type aircraft, aircraft engine, or propeller upon delivery or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later.¹ Thereafter, the DAH must make such ICA available to any other person required by Chapter I to comply with any of the terms of those instructions. Section 21.50 also requires ICA to be prepared in accordance with specific provisions² laying out ICA requirements for particular aircraft classes, aircraft engines, or propellers, or as specified in the applicable airworthiness criteria for special classes of aircraft defined in § 21.17(b), as applicable. Finally, § 21.50 provides that changes to the ICA must be made available to any person required by Chapter I to comply with any of those instructions.

Meanwhile, regulators in foreign jurisdictions have ICA regulations, policy, and guidance that often differ from those in the United States.

Section 349 of the FAA Reauthorization Act of 2024 (hereafter referred to as the Reauthorization Act)³ requires the FAA to convene an ARC addressing Instructions for Continued Airworthiness as described in § 21.50, including matters of “international collaboration,” and to develop a report on its findings and recommendations. The text of Section 349 is available in Appendix C.

The FAA chartered the Instructions for Continued Airworthiness ARC in January 2024.⁴ The ARC is sponsored by the Associate Administrator for Aviation Safety. The Charter noted that differing expectations for ICA applicability, content, and availability among stakeholders indicate “a lack of universal understanding and inconsistent structure associated with ICA and its

¹ All regulatory references in this report are to Title 14 of the Code of Federal Regulations unless otherwise indicated.

² [14 CFR 23.1529](#), [14 CFR 25.1529](#), [14 CFR 25.1729](#), [14 CFR 27.1529](#), [14 CFR 29.1529](#), [14 CFR 31.82](#), [14 CFR 33.4](#), and [35.4](#), or [14 CFR part 26](#).

³ [FAA Reauthorization Act of 2024](#). Public Law 118-63, 118th Congress, May 16, 2024. 138 Stat. 1025.

⁴ [Instructions for Continued Airworthiness Aviation Rulemaking Committee Charter](#) (January 22, 2024).

overarching purpose.”⁵ The Charter also noted that the “aviation system is more complex, more interconnected, incorporates new business models, and is more reliant on new technologies, both domestically and internationally. These changes have led the FAA to issue multiple policy clarifications and interpretations of the ICA requirements.”⁶ Therefore, the FAA tasked the ARC to “conduct a comprehensive review of ICA objectives and requirements” and determine if revisions to ICA regulations, policy, and guidance are warranted, including consideration of harmonizing FAA regulations, policy and guidance with those in foreign jurisdictions.⁷ The Charter specified the list of tasks detailed in Appendix D for the ARC to undertake.

Industry stakeholders agreed that there are differing expectations for ICA availability and content. As noted above, ARC membership was generally comprised of two groups of industry constituents with differing interpretations of what is required by the regulations with respect to ICA content and distribution.

The TCH subgroup position is that the obligation to furnish and make ICA available does not require free, unrestricted access. Indeed, these stakeholders considered license agreements that specify intended use and limit redistribution to be necessary to protect the DAH’s intellectual property rights in the data contained within ICA, while still meeting their regulatory obligation to create and furnish or make available the ICA content. Furthermore, with respect to content, TCH stakeholders’ position is that only the data essential to continued airworthiness is ICA; any other information provided by the TCH is not ICA, even if such information is published in the same document as ICA. On the flip side, the OOMRO subgroup stakeholders generally interpret the regulations to require an expansive set of information to be included in ICA. These stakeholders also interpret the regulations to require that such ICA must be delivered upon demand and free of additional fees, contracts, or restrictions. Furthermore, several of the ARC’s OOMRO participants noted a perception that the FAA’s Aircraft Certification Service (AIR) does not proactively oversee or enforce its ICA regulations. Several TCH participants, on the other hand, expressed the opposite belief, stating that AIR actively engages with DAHs to ensure that ICA requirements are met and enforces those requirements.

III. ICA ARC Deliberation Process

After ARC membership was established, the ARC convened its first meetings in May 2024. The ARC Co-Chairs established a monthly plenary meeting cadence, with most plenary meetings held virtually (via Teams), and in-person plenaries scheduled every six months. The in-person plenary meetings were held on the following dates:

- November 2024 (Dallas Fort Worth Airport, TX, hosted by American Airlines).
- April 2025 (Chicago, IL, hosted by United Airlines).

⁵ *Id.*, at Paragraph 2 (p. 2).

⁶ *Id.*

⁷ *Id.*

- November 2025 (Dallas, TX, hosted by Southwest Airlines).

These are herein referred to as the first, second, and third in-person plenaries, respectively.

The ARC's initial focus during its two virtual plenary meetings in May and June of 2024 was to review the Charter objectives and tasks. A subgroup of ARC members also created a database of ICA-related FAA policy statements, orders, advisory circulars, and legal interpretations. This was intended to establish a baseline of knowledge for all ARC participants and provide access to relevant historical FAA documents to support the ARC's deliberations.

In parallel with these reviews, the ARC Co-Chairs requested that ARC participants provide them with feedback on any priority Charter tasks for the ARC, as well as a list of any additional ICA-related topics or concerns (not otherwise specified in the Charter) that industry wanted the ARC to review. This industry feedback was compiled and presented during the July 2024 plenary meeting.

The "takeaways" from the feedback were as follows:

- Identification of tasks A, A.i, and A.ii as the ARC's top priorities, to be completed before most other Charter tasks (53 commenters).
- Interest in understanding how the FAA currently oversees and enforces existing ICA requirements before making recommendations (37 commenters).
- Concerns about lack of standardization in ICA, including variations in content, format, and nomenclature of the document or "book"; certain stakeholders also reminded the ARC to consider ever-evolving technologies for creating, publishing, and distributing ICA (17 commenters).
- OOMRO concerns about the influence of commercial interests hindering availability of all issued maintenance instructions⁸ (14 commenters).
- Interest in learning how these topics have been resolved in foreign jurisdictions (5 commenters).

The ARC established three working groups, including one group at the ARC Co-Chairs' discretion under Task G ("other issues ... deemed worthy of consideration"):

- Working Group A ("Defining ICA") to address the priority tasks A, A.i, and A.ii.
- Working Group F ("International Harmonization") to complete Task F by (among other things) comparing the FAA's ICA regulations and policy with those in Europe, Canada, and Brazil.

⁸ For purposes of this background section, this OOMRO feedback has been edited to replace "ICA" with "maintenance instructions." As will be discussed in detail throughout this report, the ARC could not agree on a definition for ICA or guidelines for the required content of ICA. The TCH participants also have concerns that commercial interests influence OOMRO interpretations of ICA regulations.

- Working Group G1 (“Oversight, Compliance, and Enforcement”) to review the FAA’s processes, procedures, and resources for overseeing, ensuring compliance with, and enforcing ICA regulations. WG-G1 was also later assigned Task C.iii.

The ARC intentionally delayed establishing other working groups to undertake remaining taskings with the expectation that WG-A’s efforts would provide clear definition of or requirements for ICA content, thus providing a better foundation for other tasks to be most effectively handled. However, by the end of 2024, it was clear that WG-A’s efforts would take too long – and potentially conclude without consensus around ICA content requirements – so two additional working groups were initiated in early 2025 to tackle additional tasks:

- Working Group D (“Furnish, Make Available, Cost & Intellectual Property Considerations”) to complete tasks C, C.i, C.v, and D; and
- Working Group E (“Critical Parts and Repairs”) to complete Task E.
- WG-E was also later assigned a modified version of Task B.ii after concluding Task E.

The groups met regularly for periods extending from several months to two years to debate each topic and develop stakeholder positions and recommendations.

At the time each working group was established, at least two industry participants were named as working group leads, with at least one FAA employee nominated by FAA to co-lead each working group. When Working Groups A, F, and G1 were established early in the ARC deliberations, the ARC Co-Chairs named each working group’s leadership based solely upon the participants who actively volunteered to assume such positions. As a result, Working Groups A, F, and G1 did not initially have leadership with balanced representation between the TCH and OOMRO groups, as these constituencies were not yet apparent. WG-A’s initial co-leads and WG-G1’s co-leads were all OOMRO participants; WG-F’s co-leads were TCH participants.

Later, as it became clear that the ARC had coalesced around the TCH and OOMRO groups, the ARC Co-Chairs more deliberately recruited balanced TCH-OOMRO leadership for WG-D and WG-E at their outset, and as WG-A naturally split into TCH and OOMRO subgroups, WG-A ended with leadership representation from both constituencies.

In hindsight, ARC participants note that WG-F and WG-G1’s work product and proposals may reflect the perspective of the TCH and OOMRO constituencies, respectively.

Tasks A.iii, B, B.i, B.ii⁹, C.ii, C.iii, and C.iv were not specifically assigned to one of the five working groups. However, most of these topics naturally arose during the course of ARC discussions, leading the ARC Co-Chairs to determine that these tasks did not warrant additional attention by this ICA ARC.

⁹ A modified version of Task B.ii was assigned to WG-E, but readers should note that Task B.ii, as specifically written in the Charter, was never specifically addressed by this ARC.

- Task A.iii – Various ARC working groups discussed topics related to Task A.iii and attempted to address one or more aspects of Task A.iii through proposals G6A and F9 and recommendations 1 and 2. In particular, the ARC Co-Chairs expected Task A.iii to be resolved via proposal G6A, but this proposal was not adopted as a consensus recommendation by the full ARC, and in any event, would have only moved ICA obligations to subpart A of Part 21 (presumably making it clear that PMA DAHs also need to create and make available ICAs) without fully addressing the portion of Task A.iii referring to variations “in the regulations, policy, and guidance that are not clearly associated with the level of safety expected between different product types or categories.”
- Task B – Due to the ARC’s core, unresolved debate over required ICA content, the ARC Co-Chairs did not believe a separate discussion to distinguish between safety-related and service enhancement provisions contained “within ICA” would be fruitful as the ARC’s TCH participants argued that service enhancements are never ICA (See also TCH position paper in Section VII.A).
- Subtask B.i was similarly difficult for the ARC co-chairs to productively manage given that the OOMRO constituents reject the notion that “customer convenience” is presumed to not be ICA by the Charter. That said, several areas of this report do address topics related to Subtask B.i, including Recommendation 1, and various non-consensus proposals that discuss maintenance documents that contain both ICA and non-ICA. See also the details of various stakeholder positions detailed in Section VII of this report with regard to required ICA content.
- Subtask B.ii. – The ARC Co-chairs did not believe that the specific wording of Task B.ii. would result in any fruitful discussion or resolution because the ARC could not agree on what constitutes required ICA content, or the meaning of “safety and commercial interests.” Instead, the ARC Co-Chairs assigned a modified version of Task B.ii to WG-E; instead of proposing methods to “distinguish between safety and commercial interests when developing ICA,” the ARC Co-Chairs asked WG-E to consider a requirement to distinguish between ICA and other (non-ICA) maintenance information. Various proposals in Section VI, as well as sections VII and IX of this report, include discussion of the TCH and OOMRO positions regarding “safety” and “commercial” interests.
- Task C.ii – FAA published a notice of proposed rulemaking concerning § 145.109(d) in April 2024, just before this ARC began its deliberations.¹⁰ The proposed rule would alleviate the ICA-related concern noted in Task C.ii., so the ARC Co-Chairs determined that it would not be productive for the ARC to spend further time deliberating this task. That said, as of July 2026, the rulemaking has not been finalized.

¹⁰ [Inspection Programs for Single-Engine Turbine-Powered Airplanes and Unmanned Aircraft; and Miscellaneous Maintenance-Related Updates NPRM](#), 89 FR 6056 (Jan. 31, 2024).

- Task C.iv – Addressed by WG-F proposal F3 and WG-G1 proposal G6B and reviewed by the full ARC.

In addition, the ARC established a “Shark Team” of industry attorneys to provide legal review and commentary for each working group proposal.

The following section outlines the focus areas for each group’s work, as well as the process each group used to complete its tasking(s).

IV. Working Group Narratives

A. Working Group A – Defining ICA

Working Group A (WG-A) was assigned Tasks 4.A, 4.A.i, and 4.A.ii from the ARC Charter, which read as follows:

- A. Propose a clear baseline standard defining ICA, recommending performance-based requirements for applicability, content, and availability as necessary to address the following areas of controversy:
 - i. An apparent lack of consistent understanding across segments of industry about the intent for DAH-provided ICA and its contribution toward operators’ compliance with operating rules. The focus should consider the flow down of operator’s airworthiness responsibilities as follows:
 - a. Fulfilling expectations for ICA to provide a means for operators (under parts 121, 125, 135, and part 91 subpart K) to maintain the airworthiness of their aircraft. ICA can provide a basis to establish approved aircraft inspection programs (AAIP), maintenance programs, continuous airworthiness maintenance programs (CAMP), and (approved) maintenance programs.
 - b. Fulfilling expectations for ICA to provide a means for other owner/operators, including non-certificated operators, to inspect and maintain the airworthiness of their aircraft under part 91.
 - ii. The contribution ICA are expected to provide for supporting safety through the availability of information to maintain, verify, and restore airworthiness (conformity with type design and condition for safe operation). If other factors exist that affect ICA’s contribution, they must be identified and addressed.

1. WG-A Leadership

Over the approximately 2-year period that the ARC has been in session, the WG-A leadership transitioned several times. Initially, Mark Wibben (A4A, Southwest Airlines) and Jon Oberdick (American Airlines) co-led WG-A, soliciting volunteers to discuss industry positions on what is

and what is not ICA. Mark and Jon led this group through the “What Does ICA Mean to Me” and “Tiger Team” sessions described below.

In December 2024, the WG-A leadership team separated into two groups, the TCH group and the OOMRO group. Each group worked independently with the goal of allowing both groups to focus on refining their positions while minimizing distractions due to potential disagreements over controversial topics. Shannon Ferrington (A4A, Southwest Airlines), representing the OOMROs, was tasked to lead the team to document the OOMRO substantiation behind their positions. Craig Fabian (GE Aerospace) was tasked to lead a team of TCHs to document the TCH substantiation behind their positions.

In March 2025, a joint WG-A team led by Mark Wibben and Shannon Ferrington (A4A, Southwest), Jon Oberdick and Mandy Lucke (American Airlines), and Mark Watton (A4A, Delta) representing the OOMROs and Craig Fabian and Rick Dubell (GE Aerospace), representing the TCHs, reconvened to review the position papers. Although the meetings did help to identify the differing points of view, ultimately, they did not result in getting any closer to consensus, so the OOMRO and TCH teams continued to work independently on ARC recommendations.

In November 2025, the WG-A leadership team changed again as the OOMRO and TCH teams came back together to discuss the opposing positions and recommendations. Mandy Lucke (A4A, Southwest Airlines), representing OOMROs, and Rick Dubell (GE Aerospace), representing TCHs, took over the committee leadership. In December 2025, WG-A resumed joint OOMRO/TCH meetings while still conducting independent OOMRO and TCH WG-A sessions. Both the joint team and the individual teams conducted weekly meetings working on developing proposed recommendations to be considered for the final report while also working on a joint definition of ICA.

2. Working Group A Operations

WG-A expended thousands of person-hours to try to determine a clear baseline definition for ICA and clarify ICA content requirements. During the first in-person plenary meeting in Dallas, it became obvious that the TCH and OOMRO groups had decidedly different views of what is required as ICA.

Upon beginning its activities, WG-A launched two parallel efforts with the objective of trying to identify where the TCH and OOMRO subgroups were aligned and where they were misaligned:

- “What does ICA mean to me?” (WMTM) to capture and consolidate each stakeholder’s opinions with regard to ICA content requirements. This effort was essentially a survey of ARC participants with the purpose of capturing differing opinions on what constitutes ICA.

- “Tiger Team” (hereafter referred to as “Tiger Team #1” or “TT1”) to perform a sentence-by-sentence review of the ICA requirements in the appendices to parts 23, 25, 27, 29, 33, and 35.

In conducting its detailed review of each ICA requirement, TT1 members reviewed each line of regulatory text and provided comments on their interpretation, which were then the subject of further discussion among the group. Based on that review, FAA contractor support, The Regulatory Group, Inc. (TRG), created a matrix where each detail in the appropriate appendix was listed in its own row. TRG then used its best efforts to capture the commentary from working group participants and place the commentary into the different columns depending on industry agreement or disagreement on the meaning of each requirement. Portions of the TT1 Matrix analyzing and comparing the language in these appendices are provided in Appendix F as a reference. However, the ARC cautions that the content of the matrix has neither been carefully reviewed or approved by all members of WG-A (let alone the full ARC), nor is it intended to convey any sort of ARC (or TCH or OOMRO) position or FAA action with regard to ICA regulation. Rather, this early, preliminary deep dive into ICA regulations was used solely to determine where areas of misalignment were most prevalent and prioritize for further ARC review and discussion. The TT1 and WMTM efforts highlighted a noticeable gap between the content that various OOMRO participants stated a need for and the content that various TCH participants asserted is required to be written and made available. The general undercurrent behind these disagreements seemed to be driven by the question of whether ICA is only required to maintain airworthiness of the product or also includes all other maintenance instructions that are used to maintain and restore parts on the product. For instance, working group members agreed that the ALS section of the manuals and Airworthiness Directives were ICA but did not reach consensus on whether every repair produced by a DAH was also ICA. The TT1 Matrix was ultimately set aside and primarily used as a reference as the WG-A teams focused on trying to build consensus around the four largest areas of misalignment discussed below.

Following the TT1 effort, the ARC Co-Chairs established an agenda for the first in-person plenary meeting centered around full ARC discussion of ICA content requirements. During the in-person meeting, the ARC attempted to find areas of consensus. The majority of the ARC plenary participants also agreed that airworthiness limitations and instructions included in Airworthiness Directives are ICA but there were no other areas of clear consensus. Most of the first in-person plenary meeting focused on a discussion of what ICA content operators felt they needed in order to meet their regulatory requirements in, for example, parts 91, 121, and 135. Ultimately, the group discussion confirmed a potentially significant gap between the information and instructions that DAHs (in particular, TC/STC holders) felt they needed to produce in order to achieve certification and the information and instructions that owners, operators, and maintainers felt they should have to meet their regulatory requirements. This gap included notable disagreements regarding what instructions are required in these four areas:

- Scheduling information, including work recommended.

- When and whether remove/discard/replace (RDR), remove/inspect/reinstall (RIR), and/or remove/repair/reinstall (RRR) instructions are required.
- The level of repair instructions required by parts 33 and 35.
- Whether instructions referenced by higher-level ICA are also ICA.

As a result, following the first in-person plenary meeting, WG-A established a second Tiger Team (TT2) to explore these four key areas of misalignment. TT2 quickly split into two subgroups: one group predominantly composed of TCHs and one predominantly composed of OOMROs.

By the time the ARC reconvened in person for the Chicago plenary meeting, each of the subgroups had developed rough positions for the four misaligned areas noted above. The full ARC received summary briefings from the subgroup leaders, as well as related briefings about the Maintenance Review Board (MRB)/Maintenance Steering Group-3 (MSG-3) process and International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPS). Notwithstanding efforts to find areas of consensus, the two subgroups did not find notable areas of consensus during the Chicago meeting. ARC leadership tasked the TT2 groups with writing formal “position papers” regarding required ICA content addressing the four misaligned areas noted above and supporting their positions with regulatory or policy citations.

By June 2025, the subgroups completed drafts of these position papers. The ARC Co-Chairs and WG-A leads then attempted to combine the TT2 position papers to compare each group’s position on key misaligned areas. ARC leadership attempted to find consensus and/or narrow the scope of any disagreements based on this combined paper but did not identify any obvious areas of consensus. These efforts included a lengthy effort to develop detailed decision trees to answer the “Is it ICA?” questions, but these draft decision trees were ultimately opposed by both stakeholder groups and, therefore, work on these decision trees was halted by ARC leadership.

Given the continued inability to find consensus in key areas of misalignment, the TCH and OOMRO subgroups each returned to writing and enhancing their respective position papers, with the agreed objective that both papers would solely focus on their respective interpretations of *existing* ICA regulations, as opposed to arguing for potential changes to ICA regulations. These position papers can be found in Section VII.

The ARC convened for the third in-person plenary meeting where the ARC spent little time rehashing core disagreements within WG-A, and instead received quick briefings about the position papers and core disagreements, followed by limited discussion confirming that there were no additional avenues the ARC wished to explore to attempt to reach consensus. Following the third in-person plenary meeting, each subgroup spent time drafting separate proposals for the joint WG-A team to consider.

The OOMRO subgroup drafted three proposals covering the following areas:

- A proposed definition of ICA (Proposal AO1).
- Keeping ICA current (Proposal AO2).
- A proposal for realignment of the regulations (Proposal AO4).

The TCH subgroup drafted five proposals covering the following areas:

- A proposed definition of ICA (Proposal AT1).
- A proposed revision to Order 8110.54 primarily focused on clarifications on the major areas of misalignment and correcting errors in the existing order (Proposal AT5).
- Clarifications for PMA ICA responsibilities (Proposal AT2).
- Aligning part 33 and part 25 requirements for repairs (Proposal AT4).
- Changing the Principal Manual concept (Proposal AT3, which became Recommendation 11).

The joint WG-A team came back together in January 2026 and continued to hold weekly meetings to work toward trying to gain consensus on any proposed ICA recommendations. As mentioned above, this team reviewed the recommendations drafted by both the TCH subgroup and the OOMRO subgroup to see if they could reach consensus on any of the above proposals. Unfortunately, the joint WG A participants did not achieve consensus on any of the proposals above. These proposals are provided in Section VI.A for consideration (with the exception of Recommendation 11, which is discussed below and can be found in Section V).

The joint WG-A team also revisited the TT1 matrix to explore if any of the yellow items (Undisputed ICA, but the requirement needs an update or clarification) could be turned into consensus recommendations. Several of these yellow items were proposed for development into formal recommendations. Out of this effort, the following actions were taken:

Recommendation A1 (Format of ICA) was drafted recommending the FAA consider updates to the regulations defining that ICA should be in the form of a manual or manuals given other more digital forms of providing ICA today and in the future. This consensus recommendation can be found as Recommendation 16 in Section V of this report.

Recommendation A5 (Airworthiness Limitations) was later redrafted as Recommendation AT3 to remove the requirement that the airworthiness limitations must be included in the principal manual, which was reviewed by the Joint WG A team and reached ARC consensus. This consensus recommendation can be found as Recommendation 11 in Section V of this report.

A partially developed proposal (A3 on Special Tools) was reviewed by the team but did not have enough WG-A support to build a full proposal for a consensus vote. This proposal was never fully developed, as the Joint WG-A team felt the requirements were generally well understood and this recommendation was not required.

ARC leadership asked the Joint WG-A team to review WG-F (international harmonization) proposals F1, F4, F5, F7, F8, F9, and F12 to see if they could be supported as WG-A consensus recommendations. The following decisions came out of this review:

Proposal F5 (Deferred Availability) was fully supported by the Joint WG-A team as a consensus recommendation and can be found in Section V of this report for consideration as Recommendation 6.

The Joint WG-A Team reached general agreement on Proposal F4 (Maintain and Update ICA Requirements), which was later translated into consensus recommendation G5 (In-Service Feedback), and Proposal F9 (Engine and Propeller Parts), which was drafted by WG-F but did not reach full ARC consensus. Recommendation G5 can be found in Section V of this report for consideration as Recommendation 7, while Proposal F9 can be found in Section VI.

The Joint WG-A Team could not achieve consensus on proposals F1 (ICA Definition), F7 (Harmonizing Engine and Propeller ICA Requirements), and F8 (Content of ICA). Proposal F1 was later translated to TCH proposal AT1 and OOMRO proposal AO1, which are included in Section VI of this report for consideration of the differing views and potential solutions. Proposal F7 drove no further action after the Joint WG A review and as such can be found as drafted by WG-F in Section VI of this report for consideration. Proposal F8 was later translated to TCH Group proposal AT5 (proposed update of Order 8110.54) and OOMRO proposal AO4 (proposed realignment of regulations), which can be found in Section VI of this report for consideration.

The joint WG-A team deemed F12 as no decision, with an action from one of the WG-A members to propose an OOMRO recommendation for restrictive language. WG-A never developed this recommendation, so it did not take any action on a consensus vote. Proposal F12 was later deemed a consensus recommendation through a full ARC discussion and can be found in Section V of this report for consideration as Recommendation 15.

The ARC leadership kicked off a late effort to consider if WG-A could draft a consensus recommendation for part number information. The ARC was made aware of some new EASA guidance that was currently in the public comment period that is proposed to provide additional guidance in EASA guidance material (GM) and Acceptable Means of Compliance (AMC) around the use of IPCs and other publications to address part number management. The EASA author of this proposal provided a briefing on this proposal to the ARC during the April 16, 2026, Plenary Meeting. A small team of TCH and OOMRO participants drafted a recommendation for consideration. It was subsequently approved as Recommendation A.1, which can be found as Recommendation 14 in Section V of this report for consideration.

The efforts of the individual WG-A teams and the joint WG-A team were eventually closed in April 2026 and the leadership team moved to focus on report writing, reviewing proposals and recommendations for the final report, and commenting on the final report drafts.

B. Working Group D – Intellectual Property and Costs

Working Group D formed in early 2025 to address several areas of the Charter. Working Group D was led by three industry co-leads: Corey Wright (GE Aerospace), Tammy Stupalo (Pratt & Whitney Canada), and Jason Dickstein (Modification and Replacement Parts Association). Participants in Working Group D included representatives from across the aviation industry including original equipment manufacturers (OEMs), air carriers, general aviation, and maintainers and repair organizations. The charter tasks assigned to Working Group D were as follows:

- C. Propose definitions and guidelines for the terms “furnish,” “make available,” and “any other person” as used in § 21.50 that are based on the safety intent for ICA. Address the following areas of controversy:
 - i. Which persons must have access to ICA for purposes of safety and regulatory compliance. The meaning of terms used to describe the availability of ICA are not universally understood. Additionally, questions have arisen regarding licensing and operators providing access to other persons (including third-party or subcontracted maintenance providers).
 - v. Cost as an obstacle to the availability of ICA. Specifically, there may be a point at which cost renders ICA unavailable from a practical standpoint. The ARC must propose how the FAA must address and regulate this issue appropriately.
- D. Propose how to protect intellectual property while achieving safety objectives: Identify what intellectual property factors exist that may affect the content of ICA and its availability to product owners and maintenance providers. Describe how these factors can be addressed while preserving the purpose of ICA. Consider whether requirements for ICA availability must be based on maintenance programs or specialized providers, which may lead a maintenance provider to need only a subset of ICA, rather than complete ICA, to perform required maintenance.

Working Group D co-leads convened an initial meeting on February 25, 2025, to discuss and develop a plan for addressing, examining, and analyzing the working group’s assigned tasks. Working Group D first met on March 4, 2025. Meetings were held semiweekly or weekly thereafter, addressing each of the working group’s assigned topics, until July 15, 2025. Many of the most controversial topics, such as the definition of “make available,” “any other person,” and licensing agreements, spanned multiple meetings. The group benefited from active member participation and robust discussion. As the meetings progressed, it became clear that due to

significant philosophical differences regarding how § 21.50 is interpreted and implemented, consensus positions that could result in agreed recommendations from Working Group D were unlikely. Following the July 15, 2025, meeting, the working group agreed to proceed in a bifurcated fashion, with two groups meeting separately to discuss their respective positions and begin development of written positions and explanations.

TCH and OOMRO subgroups emerged around the two primary viewpoints of the issues, each continuing to meet separately on a semiweekly to weekly basis. The subgroups expended significant efforts to research, develop, refine, and document their respective positions from July to November 2025. This work culminated in the presentation and discussion of the respective sides of the issues at the in-person November 2025 plenary. The subgroups held further meetings to continue to refine their written work product in preparation for inclusion in this final report.

A discussion of the TCH and OOMRO positions and their separate proposals is set forth in Section VIII of this report.

1. Working Group D Areas of Consensus

Areas of alignment were limited to agreeing on a subset of people who are included in “any other person required to comply and to whom DAHs must make ICA available” and some people who are not. Note that this section discusses consensus of the Working Group D subgroups and may not reflect the view of the full ARC. Both the TCH and OOMRO subgroups of Working Group D agreed the following individuals are included as “any other person required to comply,” but the OOMRO position was that this list is not exhaustive:

- Subsequent owners.
- Part 91, 121, and 135 operators including management companies that are charter operators.
- Certificated part 145 repair stations rated for the product.
- Certificated part 145 repair stations applying for the product rating provided they can demonstrate a need per the FAA’s Legal Interpretation Letter to ARSA dated August 9, 2012.¹¹
- Certificated part 65 mechanics performing work for the owner/operator.
- Non-certificated owner doing maintenance on an experimental aircraft if it previously held a different type of airworthiness certificate or if the aircraft’s specific operating limitations issued by the FAA with its airworthiness certificate requires the maintainer to comply with a specific aeronautical product’s ICA.

¹¹ See FAA Legal Interpretation. Letter from Rebecca B. MacPherson, Assistant Chief Counsel for Regulations, FAA AGC, to Sarah MacLeod, Executive Director, Aeronautical Repair Station Association, [Re: Request for Legal Interpretation Concerning Availability of Component Maintenance Manuals Referenced in Airworthiness Limitations Sections of Instructions for Continued Airworthiness](#) (Aug. 9, 2012).

Refer to Section VIII.B for the OOMRO subgroup position regarding additional individuals to whom they argue the ICA ought to be made available and why, as well as the TCH subgroup position on this issue, found in Section VIII.A.

Both the TCH and OOMRO subgroups agreed the following individuals are not included:

- Management company developing/maintaining a maintenance program for an operator.
- TSOA holders and applicants.

The TCH and OOMRO subgroups considered, but did not agree on, whether the following individuals are included:

- STC holders and applicants.
- PMA holders and applicants.
- Holders and applicants of major repairs or alterations.
- Certificated part 145 repair stations applying for the product rating that cannot demonstrate a need per the FAA's Legal Interpretation Letter to ARSA dated August 9, 2012.
- Non-certificated repair stations applying for repair station certification and the applicable product rating.
- Companies that disassemble decommissioned, damaged, or retired aviation products to salvage parts for sale as used serviceable material.
- Those non-certificated entities required to comply with 14 CFR 43.10.
- Aircraft holding companies.
- Other aviation actors who do not hold any type of FAA certification (e.g., asset managers, diagnostic, prognostic, health management (DPHM) service providers).

C. Working Group E – Critical Parts and Repairs

1. Initial Assignment

Working Group E, led by Keith Morgan (Pratt & Whitney) and Mark Hitt (Chromalloy), initially focused on the role of repair source approval and criticality of parts and repairs as assigned to the ARC in Task 4.E, including the following tasks:

E. Propose the role of repair source approval and criticality of parts and repairs:

- i. Evaluate whether the current ICA and maintenance regulations provide sufficient controls to maintain required safety characteristics for products and component parts (such as for “critical” and “influencing” parts) and appliances. Consider any differences in rigor regarding process oversight that may exist in the manufacturing environment versus the maintenance environment.
- ii. Determine whether situations exist that warrant different treatment when working on safety critical parts and features. In the interest of safety, assess if

there is a legitimate need to engage the DAH based on the criticality of parts or features when developing or performing repairs or other maintenance. This is an area of consideration due to potential differences in requirements or policy between the FAA and the European Union Aviation Safety Agency (EASA), wherein EASA may include DAHs more closely in critical part repairs and repair source approval.

- iii. Evaluate whether the FAA must expand the scope of critical design configuration control limitations (CDCCLs), currently used solely for transport airplane fuel tank safety, beyond fuel tanks to other products, such as rotorcraft, and to other areas of the aircraft, such as engines.

2. Initial Working Group E Meetings and Deliberative Process

Beginning in February 2025, the Working Group E co-leads met to discuss how they would conduct the meetings and determined initially the team would meet weekly and move to a bi-weekly meeting once substantial progress had been made. The initial group was mostly composed of participants with powerplant expertise, and the co-leads worked over several meetings to add representatives from other product types to provide more balanced representation.

Working Group E initially addressed one question per week to fully understand the implications of the questions and gather the regulations, policy, and guidance materials. It considered whether there were similarities or differences within the airworthiness standards in seeking to craft recommendations that addressed all product types, when possible.

The working group held special sessions outside of its normally scheduled meetings to accommodate ARC members who were working with other groups but had valuable inputs to its effort. It reached out to ARC expertise in the transport and rotorcraft categories, and owner/operators in these special sessions to fully explore the language in its recommendations.

Once the working group formulated initial proposals, it deliberated on the wording and effectiveness. It also considered whether the recommendation was aligned with other ARC working groups and if there were any harmonization benefits with other aviation authorities.

Once the working group achieved team concurrence, it made the draft recommendations available to the full ARC, and all ARC participants were asked to review and comment. Once the comment period closed, the working group dispositioned the comments and adjusted the draft recommendation, if needed. It met with commentators who had concerns and presented the adjusted recommendation based on their concerns. Once the working group achieved concurrence, it made its final proposals available to the full ARC. Several of these proposals were developed into ARC consensus recommendations and are available in Section V as Recommendation 4 and Recommendation 5.

The working group debated the following WG-E ARC questions but did not agree on a recommendation:

- In response to ICA ARC Charter section E.iii, the ARC believes a CDCCL approach is likely not needed in engine and propeller products due to the recognition and treatment of critical and life-limited parts in their respective regulations. While CDCCL could be leveraged to address safety-critical action in other products, the ARC believes there are sufficient controls in place to preclude the use of CDCCL beyond transport category aircraft.
- Regarding the role of repair source approval and criticality of parts and repairs, the working group believes there can be safety benefits when the DAH engages in determining the important criteria for critical repairs or enhanced inspections processes. It also recognized that source demonstrations that are tied to commercial agreements could limit access to independent repair stations. The DAH's goal in providing source demonstration instructions is to provide technical expertise on inspection or repair of critical parts the FAA can use in evaluating the repair station's ability to perform the inspection or repair. While the working group could not agree on a recommendation, it recognized there could be safety benefits to source demonstration but did not want to limit other independent acceptable methods, techniques, or practices that achieve the equivalent safety benefit.
- Regarding determining whether situations exist that warrant different treatment when working on safety-critical parts and features, the working group largely agreed that the current regulation and guidance is adequate to address critical parts. The current airworthiness standards manage critical parts differently but provide effective guidance for the respective products.
- The working group discussed the terms of "critical" and "safety critical" and believes the terms in the airworthiness standards are essentially the same. Both terms were used in sections E.i and E.ii of the ARC charter, showing inconsistency even in the charter language. The working group's initial reaction was to define critical parts but discovered that some areas of title 14 use "safety critical" and attempting to further define critical could create unintended consequences. The working group highlighted the effectiveness of the airworthiness limitation sections produced by the DAHs as an effective method of identifying critical parts.

3. ARC Charter Task B.ii Assignment and Deliberative Process

Having completed the main WG-E tasks, the ARC Co-chairs requested that Working Group E help to develop a recommendation on Task B.ii:

- ii. Propose how industry must distinguish between safety and commercial interests when developing acceptable ICA.

In early January 2026, WG-E co-leads met with ARC leadership to discuss Task B.ii and determined that forming a clear bright line between safety and commercial may not adequately distinguish when an ICA is developed in the interest of safety and when non-ICA is developed for commercial use. The question was reframed to “How should the industry distinguish between ICA and non-ICA within the larger universe of maintenance instructions?”

The WG-E team reconvened with additional members who assisted in the development of this recommendation. In a series of weekly meetings, the team developed the draft recommendation and reached a consensus position.

The working group debated the following considerations:

- Retroactively requiring identification of ICA. WG-E agreed that requiring DAHs to retroactively identify ICA in historic manuals would create an unmanageable burden on the DAHs. The group contemplated the circumstances under which a new type design or § 21.101 Changed Product Rule or other significant events would be likely conditions to trigger the new ICA marking requirements.
- International efforts. The working group identified efforts that other civil aviation authorities undertook to address a means to identify the complete set of ICA to add clarity on where ICA content resides, therefore separating non-ICA-related instructions.
- ICA data durability. The working group discussed the durability of ICA data and under what circumstances that data can be removed, replaced, or amended. The discussion arose from concerns that some data, in the past, had been removed from FAA-accepted ICA, which limited the ability of persons required to comply with any of those instructions to continue to use the previously accepted ICA instructions. Although it did not incorporate this into its recommendation regarding Task B, WG-E recognized the FAA should address ICA durability and provide guidance on removal of ICA data.
- ICA marking regulation or policy. WG-E recognized that placing ICA marking in policy and guidance material, as EASA did in AMC 21A.7, would create an obligation for the DAH without a regulatory basis. Therefore, WG-E proposed to recommend the FAA amend part 21 regulations to provide that all design approval holders are responsible for providing a means to identify the ICA they produce.

The working group presented its proposal on this topic to the ARC at large for review. The comments were dispositioned and the proposal was developed into an ARC consensus recommendation available as Recommendation 1 in Section V.

D. Working Group F – International Harmonization

Working Group F formed in 2024 to address Task F of the Charter:

- F. Propose harmonized requirements for adoption internationally: civil aviation authorities share a common objective of safety through continued airworthiness. Consider the

standards of other authorities and the International Civil Aviation Organization and provide recommendations that may increase harmonization.

WG-F was initially led by Walter Desrosier (GAMA) and Chris Rawden (ASD), with Joseph Sambiasi (GAMA) replacing Desrosier in January 2026.

The group compared FAA requirements and guidance for ICA with those of the National Civil Aviation Agency of Brazil (ANAC), European Union Aviation Safety Agency (EASA), and Transport Canada Civil Aviation (TCCA). These three authorities have partnered with the FAA on the Certification Management Team (CMT), which aims to “use active confidence-building initiatives and risk-based validation principles, to accept partner certification activities with limited or no technical involvement.”¹² One of the CMT’s strategic focus initiatives is to “leverage each other’s certification systems to reduce or eliminate duplicative validation efforts.”¹³ The same four authorities have also formed the Maintenance Management Team (MMT) with similar goals of promoting harmonization and quadrilateral acceptance among the leading authorities regarding continuing airworthiness activities.

Identifying opportunities to harmonize ICA requirements and guidance is therefore consistent with the aims of the FAA and its three strategic partners. WG-F considered whether to include the UK requirements in addition to the four main CMT/MMT partners, as the UK CAA also has some formal cooperation arrangements with the CMT. However, UK requirements, in general, remain closely aligned with the EU requirements, so the group did not consider it necessary to evaluate the UK requirements separately.

WG-F assembled three comparison tables, laying the FAA rules relating to ICA alongside those of each of the other three CMT authorities to facilitate comparing their provisions. This allowed similarities and gaps to be identified. Any guidance material (GM), policy, or Acceptable Means of Compliance (AMC) related to the identified regulations was referenced from the regulation, so the group could also compare interpretation of the regulation. For each requirement, the working group conducted a word-by-word comparison of the language, assessing each requirement as “fully harmonized,” “partly harmonized,” or “not harmonized.” The group then developed proposals and recommendations to address areas that would promote harmonization.

Separately, WG-F reviewed the work launched in November 2022 at the ICAO Airworthiness Panel, in support of the panel’s “Cross-Border Transfer Task Force” activity with the potential for developing standards and recommended practices on ICA applicable to all States. Several of the working group members are active in this work and were able to provide an overview of the aims and potential outcomes. Members presented an overview to the full in-person ARC plenary in April 2025. A key observation was that one of the ICAO tasks is to develop a definition of ICA

¹² [ANAC-EASA-FAA-TCCA Certification Management Team Collaborative Strategy](#), p. 6 (May 2016).

¹³ *Id.* at 4.

based on the definition agreed between the FAA, Transport Canada, and EASA in 2012, which was the subject of Proposal F1.

The group found a high degree of harmonization between the FAA, TCCA, and ANAC requirements. However, EASA contributed the most recent and significant rulemaking activity on ICA within the CMT authorities under rulemaking task RMT.0252, launched (with the initial reference MDM.056) in 2010. EASA published the updated rules and guidance in late 2020 and early 2021 respectively, with the rules coming into effect in 2022. With this update, the EASA requirements have evolved to reflect the most current thinking among the leading States of Design, resulting in a departure in some areas from the current FAA requirements. WG-F recognized that incorporating the most recent EASA developments, where appropriate, offered the most significant opportunity for a harmonized evolution of FAA requirements. Some of the group members participated in this EASA rulemaking activity and were able to offer detailed insight into the aims of the activity and the subsequent changes made.

In summary, the EASA rulemaking task – in which FAA personnel participated in anticipation of an update to part 21 – addressed many of the ARC’s tasked issues. The rulemaking activity produced updated EASA regulatory requirements for the DAH to produce ICA as part of certification, utilizing the definition agreed on by the three authorities, and clarified in guidance and AMC a number of issues relevant to the ARC Charter, including:

- The determination of what information or instructions should be considered ICA.
- ICA deferral.
- The requirements to “make available.”
- The co-existence of both ICA and non-ICA maintenance information.
- The evolving nature of technical “publications.”
- Means for distribution.
- Relationships between different TCHs with the obligation to make ICA available.
- The “persons required to comply” with ICA.
- Changes to ICA.
- The use of information or instructions created by suppliers.
- The need to identify ICA to the end user.

Although the regulatory systems between the EU and the United States differ, many of the solutions resulting from the rulemaking task appeared to be ones that the FAA could adopt in some form, with the dual benefit of resolving some of the issues faced by the ARC and bringing the two sets of regulations closer together to support harmonization.

WG-F also accessed the current published Safety Emphasis Item (SEI) and Significant Standards Differences (SSD) lists¹⁴ to determine whether differences in ICA requirements were among those issues requiring additional work during validation of U.S. products by other authorities or by the FAA for foreign products. Only one set of SEIs/SSDs on ICA was identified under the U.S./EU bilateral Technical Implementation Procedures (TIP), only for the FAA validating ICA for EU engine designs. This appeared inconsistent with the lack of such issues between the authorities at aircraft level. The group considered that it was important to highlight where recommendations offered the opportunity to reduce SEI/SSD items, consistent with both the ARC Charter and the vision of the Charter of the CMT, and such opportunities are identified in the summary of proposals below.

The working group therefore developed proposals based on potential areas for harmonization with these authorities, noting where provisions created by another authority addressed items identified by the ARC Charter, so that both harmonization and an already-mature proposal might result.

Recognizing that the opportunities for harmonization covered the areas being considered by other ARC working groups, WG-F referred its proposals to the relevant working groups, so the working groups could address them, if possible, in their own proposals.

The ARC leadership also recognized that any recommendation made by the ARC may have an effect on harmonization. WG-F, therefore, supported the other working groups to develop explanations of the effect of their efforts on harmonization for inclusion in the text of each recommendation or proposal. WG-F made the following recommendations and proposals.

1. WG-F Recommendations and Proposals

Proposal F1: Definition of ICA

During the early stages of the EASA rulemaking task MDM.056 (RMT.0252) in 2009, it became clear that there were differences between the expectations of EASA, the FAA, and Transport Canada on ICA. To resolve these differences, the original EASA rulemaking activity halted in 2010 until the three involved authorities established their topics of common interest and agreed on a definition. Their conclusions were reported in a common roadmap document. One of the points of agreement between the authorities was the importance of a straightforward definition of ICA, so that the relevant regulations could be applied with a consistent understanding of what ICA is, that it is the responsibility of the design approval holder, and that it is a requirement of the certification process. The report contained the following agreed definition:

¹⁴ See, e.g., [Safety Emphasis Item Summary List, Per FAA-EASA Technical Validation Procedures \(TIP\) Revision 6.1, 14 CFR Part 33 compared to CS-E Revision 1](#) (Oct. 15, 2019); and [FAA Significant Standards Difference Summary List Per FAA-EASA Technical Validation Procedures \(TIP\) Revision 6, 14 CFR Part 35 Amendment 9 compared to CS-P Amendment 2](#), (Dec. 9, 2020).

Instructions for Continuing Airworthiness are the instructions and information that are necessary for the continued airworthiness of the aircraft, engine, propeller, parts and appliances, which must be developed and/or referenced by the Design Approval Holder in accordance with the applicable Certification Basis or Standard.¹⁵

A version of this definition has already been incorporated into the EASA ICA rules in Part 21. WG-F therefore submitted in its Proposal F1 that this previously agreed definition should be adopted in the FAA system to improve harmonization. The clear indication that ICA is information necessary for continued airworthiness could then be used to underpin other provisions already in FAA rules and guidance, plus any recommendations from this ARC, so that these could be applied consistently.

The group forwarded Proposal F1 to Working Group A, the group tasked with addressing ARC Charter Task A (defining ICA). However, WG-A could not agree on a definition, being unable to resolve the different viewpoints of the TCH members with those of the OOMRO members. The TCH members of WG-A created a proposal that is consistent with the intent of Proposal F1. Proposal F1 is fully addressed by Proposal AT1 and therefore Proposal F1 is not offered separately.

Proposal F2: Relocation of ICA requirements to part 21, subpart A

In the EASA rules, the requirements for the creation of ICA are located in subpart A of Part 21, specifically, point 21.A.7, which applies to “the holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change, or repair design approval.”¹⁶ This provision clarifies that the requirements for the creation and subsequent availability of ICA are equally applicable to all these named DAHs. Comparing EASA’s rules to the FAA framework showed that there was an understanding, and indeed some FAA guidance material identifying, that appropriate updates to ICA are expected of other DAHs. However, the part 21 provisions imposing those requirements are located in subpart B, which only applies to type certificate applicants/holders. WG-F therefore offered Proposal F2 to ensure consistent applicability for the ICA requirements by relocating them to part 21 subpart A, making them more generally applicable and also identifying the different, relevant DAHs, thus improving harmonization.

The group forwarded Proposal F2 to both WG-G1 and WG-A. WG-A agreed with the proposal. WG-G1 had formed a similar proposal, G6A. As Proposal G6A (in Section VI) addressed the ideas within F2, a separate proposal from WG-F was therefore not considered necessary.

Proposal F3: Review of ICA related to repair design

¹⁵ EASA Rulemaking Task MDM.056 Working Group, [Status Report for Task MDM.056 \(RMT.0252\)](#) - Instructions for Continuing Airworthiness, p. 4 (Oct. 3, 2012). The TCH community from WG-A proposed the ARC adopt this WG-F Recommendation and this definition as the recommended definition of ICA for FAA to adopt, but could not obtain consensus from the balance of the ARC.

¹⁶ European Aviation Safety Authority, 21.A.7(a) [Instructions for Continued Airworthiness](#).

The creation of a repair has the potential to affect existing ICA. In the EASA regulatory system, all repair designs are considered to have a design approval, and therefore a design approval holder. The EASA requirements therefore include a requirement for repair approval holders to create changes to the ICA, as necessary, and to make such changes, and any updates to them, available to the owners or operators of the product embodying the repair. Comparing EASA's framework to the FAA's showed that the consideration of ICA is only made for major repairs and is contained only in guidance within the FAA system. WG-F proposed in Proposal F3 that the FAA review its provisions for repair instructions creation (especially minor repairs) to establish whether there is sufficient clarity on the potential to affect ICA and the possibility to create alternate ICA for products with the repair embodied.

WG-F referred this proposal to WG-G1. WG-G1 had also reviewed the potential for the creation of repair instructions to affect existing ICA, but noted that, in the FAA's regulatory system, only major repairs are considered a design approval. WG-G1's Proposal G6B proposed the FAA clarify that creators of major repairs are required to create alternate ICA as necessary but also incorporated the WG-F proposal to review the provisions for minor repair creation.

As Proposal G6B addresses the WG-F proposal only in part, being limited to major repairs, Proposal F3 is retained and offered in Section VI to address the issue of minor repairs as a further consideration.

Proposal F4: Maintenance and update of ICA

EASA rules in part 21 place a duty on the DAH to maintain and update ICA; to provide updates to owners, operators, and those required to use ICA; and, on request, to demonstrate the adequacy of the process for doing so to EASA. This is consistent with the wider duty of a DAH to collect data on "any failure, malfunction, defect or other occurrence" on its products, and to review such information to identify potential safety issues.¹⁷ In the FAA system, by contrast, the duty for collection of "failures, malfunctions and defects" is placed on the production certificate holder along with a duty to assist the DAH in determining whether changes to ICA are necessary.¹⁸ The FAA system has no equivalent regulation to the EASA requirements for an ongoing responsibility for a DAH to collect in-service feedback. However, the product certification regulations contain the requirement for a DAH to submit a program to the FAA to show how changes to the ICA will be distributed. Additionally, Order 8110.4C identifies that the DAH should provide changes to ICA according to a plan accepted by the FAA.

WG-F therefore recommended in Proposal F4 that the FAA should adopt clear requirements within part 21, either within § 21.50 or as a revised or replacement section that explicitly defines in regulation the DAH responsibility to maintain and update ICA. Specifically, DAHs should be

¹⁷ European Aviation Safety Agency, 21.A.3A [Reporting System](#).

¹⁸ [14 CFR 21.137](#).

required to: (1) maintain and update ICA over the life of the product; and (2) establish a program or process to collect in-service feedback, incorporate necessary updates into the ICA, and make those updates available. These requirements should be harmonized to the greatest extent possible with the corresponding requirements and guidance found in EASA 21.A.4, 21.A.6, and 21.A.7 to promote a common set of airworthiness and safety requirements and means of compliance regarding DAH responsibility to maintain and update ICA for products operated and maintained worldwide.

The group forwarded Proposal F4 to WG-G1, which had already identified a similar recommendation. Recommendation G5 (included in Section V as Recommendation 7) wholly captures the WG-F proposal; a separate WG-F recommendation was not therefore required.

Recommendation 6: Deferred availability of ICA (formerly F5)

EASA's 21.A.7(c) allows for the deferred availability of certain portions of ICA dealing with long lead time accomplishment instructions of a scheduled nature after the product has entered into service. This includes a clear requirement to develop and make those instructions available in a timely manner, in advance of when they are actually needed in-service, so that they can be incorporated into maintenance programs and planning. By comparison, § 21.50 requires that a complete set of ICA be furnished upon delivery of the aircraft/engine/propeller product or upon issuance of the first standard airworthiness certificate. The FAA recognizes that this is not practical, nor often possible, for certain portions of ICA dealing with long lead times for development. For example, Order 8110.54A, Chapter 3, Section 1(d) states "In the case of airframe structure, the FAA recognizes that DAHs may not be able to complete development of structural inspection procedures or other ICA procedures needed to support maintenance requirements for the entire design life of the aircraft by the delivery of the first new aircraft, or return to service of modified aircraft or at the time of TC issuance."¹⁹ Currently, FAA policy addresses this regulatory disconnect by placing a temporary operational limit in the type design ALS, which both imposes additional regulatory and administrative burden to change type design and TCDS and results in significant commercial and financing implications of high value assets. Additionally, the different approaches between EASA and the FAA have resulted in an SEI/SSD item affecting FAA acceptance of European engine designs, creating an additional burden for both regulators and applicants.²⁰

WG-F therefore recommended that the FAA update the provisions in § 21.50 to harmonize with EASA 21.A.7(c), allowing for the deferred availability of certain portions of ICA dealing with long lead accomplishment instructions of a scheduled nature after the product has entered into service.

¹⁹ FAA Order No. 8110.54A, [Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents](#) Chapter 3, Sec. 1(d) (Oct. 23, 2010).

²⁰ [Safety Emphasis Item, Per FAA-EASA Technical Implementation Procedures \(TIP\) for Environmental Certification, Revision 6.2, CS-34 vs. 14 CFR Part 34](#) (Oct. 15, 2019).

This recommendation was referred to WG-A, which gave its endorsement. It was also referred to WG-G1, which had developed a similar idea in Proposal G12. Proposal G12 was not progressed, as the nature of a “fleet leader” program could not be agreed. Recommendation F5 was modified to suggest that the FAA take account of the relevant EASA guidance and is offered as a consensus recommendation as Recommendation 6.

Proposal F6: Identification of ICA

EASA’s AMC1 21.A.7(a) and AMC1 21.A.7(b) require DAHs to identify the information and instructions that comprise ICA, so that the end user is able to determine when they have a complete set of ICA. The FAA does not have a similar provision.

Proposal F6 suggested that the FAA clarify ICA policy and guidance to state that the DAH should clearly identify all information that comprises a complete set of ICA in a manner that is both transparent and available to owners/operators/maintainers throughout the life of the product. For example, such a list or description of a complete set of ICA can be contained within a reference from the principal ICA manual to a particular document or electronic source available from a website. An appropriate note which identifies the ICA or reference to a complete set of ICA could also be on the TCDS for awareness and transparency.

WG-F also recommended harmonizing to the maximum extent possible with EASA AMC1 21A.7(a) and AMC1 21A.7(b) regarding identification of ICA and identification of a complete set of ICA to promote a common means of compliance for airworthiness and safety requirements regarding DAH development, identification, and availability of ICA for products operated and maintained worldwide.

WG-F referred Proposal F6 to WG-E, which was tasked with addressing Task B.ii of the Charter. WG-E had established a very similar recommendation. The WG-F proposal is wholly captured in Recommendation 1; a separate WG-F recommendation was not therefore required.

Proposal F7: Harmonization of engine and propeller ICA content

In parts 33 and 35, Appendix A, the FAA requirements for engine and propeller ICA content identify the same technical topics as the EASA requirements in CS-E 25 and CS-P 40.²¹ The only difference is that, in the text preceding the list of technical topics, EASA text clarifies that the technical subjects are to be “considered as appropriate” for inclusion into the manual by the applicant for a design approval.²² This means that the subjects (and the level of detail) in the ICA are for the applicant to determine, and justify, based on the meaning and purpose of ICA given by the definition of ICA and the applicable requirements in the certification basis. This is a significant regulatory text difference with the corresponding FAA requirement which, in contrast,

²¹ Compare 14 CFR 33, [Appendix A](#); 14 CFR 35, [Appendix A](#) and European Aviation Safety Agency, CS 25.1529, [Appendix H](#); European Aviation Safety Agency, European Aviation Safety Agency [CS-P 40](#).

²² European Aviation Safety Agency [CS-P 40\(c\)](#).

states “The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate....”²³ The “must contain the following” versus “the following ... should be considered” wording results in redundant reviews. Each individual involved had their own interpretation and opinion on what manuals, sections, or content the ICA “must contain,” whereas the applicant should be responsible for showing that all the information essential for continued airworthiness of the product is included in the ICA.

EASA also has AMC/GM material to support how this determination needs to be made by the applicant, clarifying the basis on which ICA is to be established, the potential for contributions from suppliers, and the relationship between aircraft ICA and engine and/or propeller ICA. WG-F made Proposal F8, described below, to consider incorporation and use of this EASA AMC/GM material for ICA format and content.

Under the U.S./EU bilateral Technical Implementation Procedures (TIP), the expected content of ICA is currently identified as an SEI for the FAA for validation of EU product designs, specifically the expectation of the inclusion of repairs by the FAA.²⁴ The SEI originating from these regulatory differences results in redundant reviews, and the applicant having to rehash and renegotiate the content of ICA for FAA validation of each new product TC/ATC. Adopting provisions similar to those of EASA would address a number of the ARC’s identified issues related to determining an appropriate level of technical content (including when it is appropriate to include repairs in ICA).

WG-F therefore proposed that the FAA amend the text in Appendix a33.3 and Appendix a35.3 regarding content of ICA to harmonize with corresponding text in EASA CS-E 25(c) and CS-P 40(c) to ensure common understanding, interpretations, and expectations regarding required manuals, sections, and content.

The group referred Proposal F7 to WG-A. WG-A did not develop the proposal into a recommendation, preferring to rely on creating a definition of ICA that would ensure that the ICA provisions in the product certification requirements could be appropriately interpreted. As a definition could not be agreed on within WG-A, WG-F maintains and offers Proposal F7 in Section VI.

Proposal F8: Adoption of EASA practical guidance

To support Proposal F7, in which the type certificate holder or DAH must determine the content of ICA (necessary to support continued airworthiness), WG-F proposed that the FAA review the supporting guidance material (AMC/GM) produced by EASA and adopt as far as possible the clarifications and positions contained within it. This includes:

²³ 14 CFR 25 Appendix H, [H25.3 Content](#).

²⁴ Technical Implementation Procedures for Airworthiness and Environmental Certification Between the Federal Aviation Administration of the United States of America and the European Union Aviation Safety Agency Revision 7, [3.5.4.2 Streamlined Validation Application](#) (effective June 10, 2025).

- AMC1 21.A.7 (a) ICA contents.
- AMC2 21.A.7(a) Identification of ICA.
- AMC3 21.A.7(a) DAH responsibility to check the supplier data which is part of the ICA or referenced with the ICA.
- GM1 21.A.7(a) Scope of ICA, their publication format, and typical ICA data.
- GM2 21.A.7(a) Determination of which supplier data is part of the ICA.
- GM3 21.A.7(a) Non-ICA supplier data (e.g., component maintenance manuals (CMMs)).

As each of the various product certification parts of title 14 have been updated over time, different requirements for the creation of ICA are evident between parts. As the subject of ICA should be considered similarly across all product types, the group proposed that guidance should be applicable to all product types, as it is in the EASA system, to ensure that the meaning of ICA does not vary between products, and should include the potential interactions between different type certificate holders, the use of information from suppliers, the use of maintenance information not considered to be ICA, and practical limitations to the purpose of ICA.

To assist in the adoption of the clarification introduced by EASA, WG-F created an update to Order 8110.54A, incorporating the EASA AMC/GM material.

WG-F referred Proposal F8 to WG-A, which attempted to develop the update to Order 8110.54A as a recommendation, but could not reach consensus. The TCH group members of WG-A therefore created Proposal AT5 in Section VI, which is offered for the FAA's consideration, along with the referenced proposed revisions to Order 8110.54A found in Appendix F.

As the proposed update to the order in Proposal AT5 addresses in part the EASA guidance material and contains other changes, the original WG-F update to Order 8110.54 was considered superseded by the WG-A update, and Proposal F8 is retained and offered in Section VI.

Proposal F9: ICA for “all engine/propeller parts”

WG-F proposed that the FAA amend the appendix text of both parts 33 and 35 to clarify that it is not expected that every engine or propeller part should have individual ICA. This can be done by harmonizing with the approach taken by EASA for engines/propellers and with FAA ICA text for other products (parts 23, 25, 27, 29, etc.) with respect to all parts. This change would introduce consistency with ICA requirements at the product level for airplanes and rotorcraft, as well as address an SEI/SSD identified under the FAA/EASA Bilateral Technical Implementation Procedures (TIP).²⁵

Proposal F9 proposes edits to parts 33 and 35 appendices. The proposal suggests replacing the text requiring “ICA for all [engine/propeller] parts” with text requiring that ICA should “ensure that each part of the [engine/propeller] is covered by an appropriate set of instructions,”

²⁵ Safety Emphasis Item List, Per FAA-EASA Technical Implementation Procedures (TIP), [CS-E vs. 14 CFR Part 33](#), Revision 6.2 (Oct. 15, 2010).

recognizing that ICA may cover all parts in an assembly, or be generic across a product, without needing specific information for each component part. This interpretation is consistent with the content and rationale of AC 33.4-1, which states:

The instructions should provide for the continued airworthiness of the entire engine to the extent that the lack of specific instructions for any given part should not adversely affect an operator's ability to maintain the engine in an airworthy condition.²⁶

And also: "Each part needs to be addressed either individually or as part of a group or system."²⁷

WG-F referred Proposal F9 to WG-A, which agreed with the proposal, but considered that other working groups' proposals may address the same issue. WG-F reviewed other groups' proposals, but none addressed the issue, and offered F9 as a recommendation. During the final reviews of the recommendations, however, concerns were raised that prevented consensus. The proposal was therefore rewritten as Proposal F9 and is offered in Section VI.

Proposal F10: Recognition of modern methods of imparting information in ICA

The roadmap document produced by the participating authorities referenced in Proposal F1 above emphasized that ICA is information and instructions, rather than a particular publication. The EASA requirements and guidance avoid using the term "manuals" except when referring to examples of publications, and refer consistently to ICA itself, without requiring the information to be packaged in a particular form or publication. However, the FAA requirements prescribe particular "manuals."²⁸ WG-F recommended that the FAA review the requirements language and create guidance to clarify that ICA may be delivered in a variety of forms beyond a traditional "manual" structure. In addition to online publications using text and graphics, modern ICA may include instructions in the form of videos, animations, virtual reality, or 3D models that can be manipulated, among other means. WG-F recommended harmonizing FAA guidance with the language on format and publication of ICA in GM 21.A.7(a) and GM 21.A.7(b).

The working group referred this proposal to WG-G1, which had developed a similar recommendation. The intent of Proposal F10 is incorporated into Recommendation 16, so that there is no need for a separate WG-F proposal.

Proposal F11: Treatment of Time Limited Dispatch information for engines

One SEI/SSD topic noted was the difference in approach for the Time Limited Dispatch (TLD) information for engines.²⁹ FAA policy expects the TLD information to be included in the

²⁶ FAA Advisory Circular 33.4-1, [Instructions for Continued Airworthiness](#), Sec. 7 (Aug. 27, 1999).

²⁷ *Id.*

²⁸ See e.g., 14 CFR 33, Appendix A, [a33.2 format](#); 14 CFR 35, Appendix A, [a35.2 format](#); 14 CFR 25, Appendix H, [H25.2 Format](#).

²⁹ Safety Emphasis Item List, Per FAA-EASA Technical Implementation Procedures (TIP), [CS-E vs. 14 CFR Part 33, Revision 6.1](#) (Oct. 15, 2010).

Airworthiness Limitations Section (ALS) of the ICA,³⁰ whereas EASA does not require the information to be placed in the ALS. The group discussed whether to recommend harmonization of the issue by recommending the FAA adopt the same level of flexibility as EASA but could not reach a consensus on the proposal. It was understood that this item is under review at the CMT, and therefore the group did not develop this proposal any further.

Recommendation 15: Restrictive language (formerly F12)

To address another SEI/SSD, the working group recommended that the FAA review Policy AIR PS-AIR-21.50-01.

In Policy PS-AIR-21.50-01, the FAA identified practices of the use of “restrictive language” that it considers “unacceptable” for design approval holders to introduce in their ICA. WG-F suggested that this policy should be updated to harmonize with EASA and incorporate text from GM1 21.A.7 guidance:

Certain deteriorations or levels of deterioration may require specific instructions (e.g. inspection or restoration) that will only be developed and provided on a case-by-case basis, as needed, for a given product or article, and as such, will not be included in the ICA. In some exceptional cases, product ICA may ultimately instruct the user to contact the DAH in order to define the specific instructions on a case-by-case basis. This typically happens when the definition of generic instructions covering all possible cases is not possible.³¹

WG-F proposed that, in addition to clarifying that instructions to contact the DAH should not be considered restrictive, the clarification should also address the extent to which a DAH may need to include appropriate protections in its ICA while still fulfilling its obligation to make it available. The position papers developed by Working Group D in Section VIII discuss the appropriateness of access and protections on publications.

The group forwarded its proposal (to review the policy, harmonize with EASA requirements, and address the specific language for special cases in GM1 21.A.7) to WG-A. WG-A expressed interest in developing a specific recommendation on this subject, but this was not progressed, and WG-F therefore offered its recommendation for ARC consensus. Following discussion, the ARC considered it more appropriate for Recommendation 15 to focus on the exceptional cases and refer to Recommendation 12 to address any wider policy review and potential for harmonization. Recommendation 15 is offered in Section V.

³⁰ FAA Policy Statement No. ANE-1993-33.28TLDR1, [Policy for Time Limited Dispatch \(TLD\) of Engines Fitted With Full Authority Digital Engine Control \(FADEC\) Systems](#) (Jan. 10, 2001).

³¹European Aviation Safety Authority, GM1 21.A.7(a) [Scope of ICA, their publication format and typical ICA data](https://www.easa.europa.eu/en/document-library/easy-access-rules/online-publications/easy-access-rules-initial-airworthiness-and?page=8#_Toc256000031)https://www.easa.europa.eu/en/document-library/easy-access-rules/online-publications/easy-access-rules-initial-airworthiness-and?page=8#_Toc256000031.

2. Other Items Discussed

WG-F noted that, as part of the rulemaking activity MDM 056/RMT 0252, EASA identified ICA as part of the type certificate. WG-F considered this approach as a possible recommendation for the FAA to do likewise, but it noted that the current positioning of ICA in the FAA requirements does not seem to create any significant issues. Furthermore, including ICA as part of the type certificate would also require rules for product change in part 21 to be expanded to cover the classification of changes to ICA (referred to by EASA as “stand-alone” changes)³² and include ICA changes in the Changed Product Rule.³³ WG-F therefore decided that proposing to include ICA in the type certificate was not justified at this time.

E. Working Group G1 – Oversight, Compliance, and Enforcement

Paragraph 4.G of the ARC Charter reads as follows:

- G. Consider other issues that arise from this effort that are deemed worthy of consideration by the ICA ARC FAA and Industry Co-Chairs.

Consistent with this paragraph, the ARC Co-Chairs created Working Group G1 to address oversight, compliance, and enforcement concerns that did not fit within the scope of other ARC working groups’ assignments. Working Group G1 was led by Patrick Markham (HEICO) and Christian Klein (ARSA).

1. Working Group G1 Charter

The WG-G1 Charter (scope) was as follows:

- Document FAA Aircraft Certification Service’s current processes for reviewing and accepting ICA (including revisions thereto), and investigating and addressing potential deficiencies in ICA content, applicability, and/or availability. (What does it do, what can it do?)
- Identify any gaps in the FAA’s current regulations and procedures and propose a recommended “should be” set of processes and procedures, including a process for the FAA and design approval holders to receive and investigate feedback from the ICA user community.
- Document the FAA’s options for enforcement action(s) against design approval holders whose ICA are found to be deficient, and, if necessary, recommend changes to the FAA’s enforcement procedures in order to address deficiencies in the content, applicability, and/or availability of ICA. (What should it do?)
- Out of Scope:
- WG-A: (What is and is not ICA?)

³² See [EASA 21.A.90C](#) Stand-alone changes to the Instructions for Continued Airworthiness.

³³ [14 CFR 21.101](#).

- WG-D: (What is the meaning of “must furnish,” “make available,” “any other person,” etc.?)

WG-G1’s membership represented a cross section of the aerospace industry and included representatives from design and production approval holders (TC, STC, PMA, TSOA), air carriers, other operators, repair stations, and the FAA. As necessary, the working group requested input and additional information from ARC members not involved in WG-G1 and from subject matter experts and facilitated presentations by the latter at ARC plenary meetings to inform the conversation.

As the ARC progressed, WG-G1 was leveraged to assume additional tasks as identified by ARC participants.

2. WG-G1 Prioritization and Review Process

WG-G1’s review of the FAA’s processes, procedures, and resources for overseeing, ensuring compliance with, and enforcing ICA regulations was based on feedback solicited from ARC members via an initial electronic survey described in Section III of this report. This feedback is reproduced in tables below (unedited and without attribution) and fell into the three identified areas. (**Note:** Not every issue identified by ARC members was addressed by WG-G1.)

In hindsight it has become clear that the concerns in the tables below were exclusively voiced by members of the (then-unidentified) OOMRO constituency and are aligned with the concepts detailed in the OOMRO position papers in Sections VII and VIII. Although no ARC participants initially objected to the creation of WG-G1, as WG-G1 work product and proposals emerged, opposition from TCH constituents rapidly developed for reasons detailed in the TCH position papers in Sections VII and VIII and elsewhere in this report.

Adequacy/Sufficiency/Completeness

Ensuring ICA appendices include all information that is reasonably necessary to continued airworthiness.	DAHs are removing repairs which appears to render the ICAs incomplete.
Ensure adequate ongoing FAA review of ICA (including revisions) to confirm that ICA meet FAA minimum requirements.	Ensure Operators have a voice, allowing them to raise concerns about adequacy of ICA, with a full understanding that the FAA will address such concerns.
Return to Service Tests are often written to hide the actual testing requirements.	TCH discontinued releasing CMMs for components they manufacture in house.
Known part deterioration is frequently not addressed by ICA.	Significant reduction in ICA provided by DAH, DAH have broadened Source Qualified Repairs for commercial reasons.

"Hidden (secret) Source Substantiated repairs" are not available.	It should not be acceptable to remove ICA from an already published set of ICA.
ICA should restore the limits and fit sections that have been removed in the last several years.	Vendors removing certain levels of repairs.
"CMM Shrink" "Abbreviated CMMs"	Not providing a complete set of ICAs.
"Proprietary repairs" are not put into ICA documents.	Vendors removing certain levels of repairs.
TSOA Holders are making minor design changes that are not documented or communicated to the operator.	DAHs often identify additional service information and safety issues. This information is not always included in amendments to ICA. Sometimes protected by the DAH as "proprietary repair" This undermines the safety intent of ICAs.
TSOA Holders are purposely not rolling P/Ns to avoid re-certification and new ICA.	Consider restrictions on the use of ICA to certain entities.
ICA requirements from STC holder not being maintained after initial installation.	Drafts of ICA can be late in the process or not ready in time for EIS, and revisions to the ICA are not made in an acceptable amount of time.

Perceived Enforcement Gaps

Enforcement mechanisms/guidance for non-compliance of the ICA Rules and Guidance.	FAA's management of changes to ICA should be discussed. Major / Minor Changes, how are they processed, changes to ICA wo/ a design change, etc.
No track record of enforcing the rules against the DAH. Without that, the existence of the rules are useless.	How and when completeness is determined?
This is all pointless if the FAA won't enforce the current rules, the FAA won't enforce future rules.	Whether material published subsequently renders the ICA 'incomplete' unless it is made available.

Feedback Loops, Historical Look Back, & Data Quality/Integrity

The FAA needs a mechanism to collect ICA concerns from the Operator and Maintenance community and resolve them with the DAH.	Historical Pain Points vs Current Pain Points.
Performance based requirements for ICA should be based on the actual performance and feedback	It would be beneficial to determine if the inconsistencies were due to DAH ICA

from the user community. The O/O (owners/operators) and maintainers should have a mechanism to feedback when ICA is incomplete, inaccurate, or unavailable. This feedback should be used to assess the "acceptability" of ICA. Un"acceptable" ICA should have an enforceable corrective action mechanism.	inconsistency or the maintenance organization not following the ICA.
	DAHs should be required to keep and maintain approved repair data.
	Tech data can be of poor quality or minimal content. Some controls should be considered in this area.

In an attempt to ensure a common perspective on the lifecycle of ICA, the working group developed process maps to identify the various FAA ICA touch and choke points and dead ends. WG-G1 mapped the ICA process from cradle to grave (from initial application, through in-service iteration, to DAH going out of business), analyzing how ICA is developed, determined to be acceptable by the FAA, and amended based on in-service feedback and major, minor, or other changes. The working group attempted to map how the FAA handles complaints about availability or content, obsolescence, and surrender of ICA responsibilities. Despite these efforts, the content and utility of the process maps was not agreed upon and most such maps have been excluded from this report or contain appropriate caveats. The process mapping process began by identifying as many ICA scenarios as possible based on input from WG-G1 members and the whole ARC. The scenarios WG-G1 analyzed were as follows:

Content-Related

- Major Change to TC.
- Minor Change to TC.
- Change to ICA w/ P/N change.
- Change to ICA wo/ a P/N change.
- Change to referenced ICA.
- Addition of restrictive language.
- Removal of repair details.
 - What is the process to remove?
 - What is the process to restore?
- ICA reference given as "per vendor's CMM."
- Identification of incorrect instructions.
- Important details in CMM but not AMM.
- ICA Approvals for STC – PMA.
- Supplemental ICA for PMA.
- Service Limit Extensions.
 - One Off Extensions.
 - Fly back limits.
- Incomplete ICA discovered after the fact
- Changes due to obsolete (unavailable) material (HAZMAT Chemicals or electronic parts).
- ICA Provided but does not include appliance information.
- ICA Change (error) Identified by User.
 - Make sure error changes get flowed out to the entire community.
- ICA Change (error) Identified by User in the Airworthiness Limitation Inspections (ALI) or Airworthiness Limitation Section (ALS).
 - Make sure error changes get flowed out to the entire community.
 - Errors in the Transcription of the TC ALS to ICA.
 - Errors in the TC that is properly transcribed to ALS / ICA.
 - The ALS is approved as part of the TC.
- Changes to Electric Wiring Interconnect System (EWIS).

- ALS/Airworthiness Limitations (AWL) Is the whole document approved (every dot and comma; or just the technical content?)
- Have not developed structural ALS Inspections.
 - o Established operational limit.
 - o Process to remove Operational Limit once limits can be lifted (by ICA development).
 - o Setback for operational limit.

Availability-Related

- ICA changed, but change not communicated.
- Flat refusal.
- Requested ICA (DAH not providing or inappropriate packaging.)
- Have the CMM but unable to get the latest CMM.
- Referenced ICA Change Distribution requirements and actual flow (reg ref.)
- Partial compliance.
- Licensing agreement requirements
- Unreasonable costs.
- DAH “Claw Back ICA.”
- Can only be performed at DAH’s approved repair station.³⁴ (WG-D)
- Zombie DAH. (DAH going out of business.)
- ICA Change (error) identified by user.
 - o Make sure error changes get flowed out to the entire community. (Process exists, the speed may be based on severity of the error.)
 - o Does this get fed back through the SMS system?
- Silent Changes?

Applicability-Related

- Major Repairs & Alterations (not DAH)
 - o w/ Approved Data
- Minor Repairs & Alterations
 - o w/ Acceptable Data
- Field Approvals
- ADs and AMOCs
- Repairs developed by Independent (but associated to a DAH) Repair Stations
- TSOA that requires ICA (APU)
- TSOA that requires ICA (Maintenance Instructions)
 - o TC/STC Link for TSOA

SMS (Part 5), Continued Operational Safety, & Dynamic ICA Related

- Changes to ICA because of (errors) should be flowed back through the SMS
- Are the ICA currently compliant with Part 5?
- Are the ICA processes for feedback for error/omission compliant with Part 5 (SMS)?
- Changes to ICA as the products evolve

³⁴ See [Letter from James W. Whitlow, Deputy Chief Counsel, FAA AGC, to Ronald Mzorek, GEAE Legal Operation](#) (Dec. 13, 1999).

3. Methodology and Process Mapping

a. Methodology

WG-G1 discussed and mapped the FAA and industry's processes associated with each of the foregoing items in two stages. The first stage developed comprehensive process maps to ensure all issues were addressed. The second stage focused on identifying gaps and issues requiring clarification to serve as the basis of WG-G1's recommendations.

Note: The process maps were reviewed in detail by WG-G1 and offered to the full ARC for review. There was not full consensus around the accuracy and usefulness of the process maps.

Caution: The process maps reflect (unless otherwise specified) WG-G1's understanding of the current state of processes. If the FAA were to utilize any of the process maps, they should be reviewed for completeness, proposed to all industry stakeholders for review and comment as to their utility and accuracy, and adjusted based on any of the ARC incorporated recommendations, industry comments, or other FAA changes.

b. Process Mapping for Initial Design Approval and ICA Evolution

The process maps covered the various areas of ICA including initial design approval, ICA modification, distribution, and feedback with the respective stakeholder interaction. Each of the cases mapped resulted in one of the following activities (or resulted in a dead end):

- Initial ICA development in conjunction with a design approval.³⁵
- DAH Major Change to type design.
- DAH Minor Change to type design.
- Adding a P/N effectivity to pre-existing ICA data.
- Revised (or new) ICA without a design change.
- Change to Referenced ICA.

c. Certification Branch and Aircraft Evaluation Division (AED) "Normal" Oversight

The oversight performed by the Certification Branch and AED for initial ICA development associated with a design approval was relatively well understood and followed the process presented by the FAA during the ARC's 4th plenary session. However, the oversight of other types of ICA changes was less well understood. At the extreme, one working group member thought that every change to ICA was reviewed and "accepted" by AED before being distributed.

³⁵ For the purpose of this exercise, repair designs were considered design approvals. Some stakeholders think that repair design approvals are design approvals; others do not consider them design approvals. See later discussion in Section IV.E.3.p.

To address the question of under what conditions does the Certification Branch and AED provide oversight to the ICA changes, WG-G1 reviewed each type of ICA change to determine if AED's "normal" review would be triggered.

The triggering event for when an ICA change could potentially be reviewed by AED is entry into the FAA's Certification Project Notification (CPN) system. Once a project is entered into the CPN system, the ICA change could 1) run through the "normal" system of Certification Branch/AED oversight, 2) be delegated to an Organization Designation Authorization (ODA), or 3) not be reviewed based on the AED's discretion.

Note: The FAA will phase out the current CPN system. At the time of the process mapping, there was no visibility into the system that would replace the current CPN system.

Only initial ICA development in conjunction with a design approval and DAH Major Changes to type design (including changes to ALS or EWIS) are entered into the CPN system. Other types of ICA changes listed in Section IV.E.3.b do not have an entry path to the CPN system or the "normal" system of AED/Certification Branch oversight. The other types of ICA changes (or generation) are still required to be "acceptable to" the Administrator (see Section IV.E.3.v for discussion on "acceptable to").

d. Referenced ICA Changes

During the process-mapping exercise, the group identified that some DAHs require any change to referenced ICA to be processed through the DAH's change process, while others delegate the referenced ICA change to the supplier who created the ICA. For the DAHs who delegate the referenced ICA changes, some maintained an auditable database of supplier ICA changes while others did not. Group participants gave examples where a TCH was unaware of changes to their referenced ICA until the owner/operator community notified them that the referenced documents had been changed. These examples illustrate how confusing the process can be because some of the suppliers are DAHs in their own right and produce the referenced ICA under their own authority, while others are not DAHs for the articles and are (knowingly or unknowingly) using the TCH's delegated authority to make the changes.

When applying for a design approval, the DAH assumes obligations associated with making ICA available. This includes supplier ICA referenced in the DAH ICA. While some DAHs sign agreements with suppliers that include language limiting the DAH's ability to distribute supplier maintenance data, FAA guidance provides that a DAH may not avoid its obligations under FAA regulations by entering into contracts that conflict with the regulations.³⁶

The DAH should either provide the referenced supplier ICA directly or ensure it remains practically available to operators and maintainers for as long as it is required.

³⁶ *Id.*

Note that the discussions relating to referenced ICA were complicated by the differing viewpoints of the TCH and OOMRO subgroups relative to the lack of a consensus definition of ICA. For example, there is a difference of opinion as to whether the full content of supplier component maintenance manuals is ICA. However, the subgroups agreed to the recommendation below as being one that clarifies DAH obligations with respect to supplier ICA.

Recommendation G20, included in Section V as Recommendation 3, proposes to clarify DAH obligations regarding supplier ICA. It suggests updating guidance to recommend that the DAH notify any supplier when its documents contain ICA to ensure the supplier is aware of its role in supporting the DAH’s ongoing ICA obligation.

e. In-Service Feedback and “Dynamic” ICA

The working group explored and mapped in detail the process of receiving and dispositioning various types of in-service feedback and the dynamic nature of ICA. In each case, the result of the in-service feedback or DAH-initiated ICA change results in one of the changes listed in Section IV.E.3.b above, or closing the loop with the person who provided the feedback that there was going to be no change. Each of the DAHs has a process or system to collect feedback and to disposition that feedback, typically with a response to the customer.

While exploring the in-service feedback question, it became apparent that many DAHs believe that they already have a regulatory responsibility to collect and evaluate in-service feedback. However, the working group identified that, although the PAHs have a regulatory responsibility through § 21.137(m), to receive, process, and assist the DAH with the disposition of in-service feedback, the DAH does not have regulatory responsibility to update ICA per § 21.137(m) or § 21.3(f). The working group proposed **Recommendation G5**, included in Section V as Recommendation 7, to close this regulatory gap.

Note 1: § 21.99 “Required design changes” contains a specific requirement for unsafe conditions.

Note 2: § 5.75 “Continuous improvement” contains broad requirement for a process that may be relevant to ICA.

The working group had also developed **Proposal G3** to require structure around the DAH’s in-service feedback collection, disposition, and communication. While dispositioning the ARC’s comments, the working group determined that implementation of Recommendation G5 would achieve the intent of proposed Proposal G3. Therefore, the working group did not forward Proposal G3 as a potential consensus recommendation and it did not progress any further.

FAA Order 8110.54A Chapter 2, paragraph 8.b, allows the use of service documents as a method of making ICA available. Paragraph 8.b(3) goes on to recommend that the service documents “are incorporated or referenced into the ICA manual, or manuals, in a timely manner.” The working group developed **Proposal G13** to clarify the meaning of “a timely manner.” While dispositioning the ARC’s comments, the working group determined that “a timely manner”

provided flexibility to account for the case-by-case nature of ICA updates. Therefore, the working group did not forward Proposal G13 as a potential consensus recommendation and it did not progress any further.

f. Restrictive Language Policy Statement, PS-AIR-21.50-01

Working Group G1 discussed OOMRO community concerns about language included in DAH purchase contracts and licensing provisions restricting the sharing of ICA (e.g., between an aircraft owner and its chosen maintenance providers). FAA Policy Statement (PS) PS-AIR-21.50-01, which was issued in March 2012 (after review and comment³⁷) following the revision of FAA Order 8110.54A, says:

[A] DAH may not inhibit an owner/operator from distributing ICA to current or potential future maintenance providers. Therefore, it is not acceptable for a DAH to limit the distribution of ICA through restrictive access or use agreements, or by adding restrictive language that would control the use of ICA by an owner/operator with respect to the maintenance of its product.

In addition, while a DAH must identify the applicability of its ICA, the FAA will not accept restrictive statements or terms in ICA documents, or restrictive access or use agreements that limit the appropriate availability or use of the ICA where the FAA has determined the ICA are acceptable for maintaining a DAH's product with FAA-approved replacement parts, articles, or materials installed (e.g., Parts Manufacturer Approval (PMA) items).³⁸

However, ARC members disagree on the application of PS-AIR-21.50-01. The TCH community takes the position that the PS cannot prohibit restrictive language because it is a policy statement, not a regulatory requirement, and therefore cannot "prohibit" anything. Moreover, as discussed more fully in the TCH position paper in Section VIII of this report, the PS ignores the DAH's right to protect its intellectual property by distributing ICA to those required to comply via licensing agreements that properly limit use of the ICA to its proper intended purpose, and limit unfettered redistribution of the ICA to third parties.

Note: AED and the Certification Branch do not typically review separate contracts for ICA distribution.³⁹

Recommendation G9, included in Section V as Recommendation 12, proposes that, upon adoption of any FAA policy changes because of this ARC, the agency should review and update all existing ICA related documents (e.g., policy statements, legal interpretations, advisory

³⁷ [FAA Document Comment Log, Policy Statement, PS-AIR-21.50-01: Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness](#) (Jan. 30, 2012).

³⁸ FAA Policy Statement No. PS-AIR-21.50-01, [Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness](#), p. 3 (Mar. 23, 2012).

³⁹ See *infra* Sections VIII.A and VIII.B for WG-D's discussion on "make available."

material) and incorporate any requirements or other changes implemented based on this ARC into appropriate consolidated guidance. The guidance updates identified in Recommendation 12 should address issues raised in PS-AIR-21.50-01. See the ICA Availability position papers in Section VIII for the various positions.

g. Repair Removal

WG G1 discussed ICA availability scenarios associated with access to repairs included in previously issued documents containing ICA. The OOMRO community cited examples of repair details included in prior versions of such documents being removed from subsequent revisions.

The ARC was unable to reach consensus on a repair removal recommendation given lack of agreement on the underlying definition of ICA; the TCH community took the position that anything that is not ICA (including most repairs) may be removed at the DAH's discretion, while the OOMRO community asserts that inconsistent interpretation of the term ICA has led to the inappropriate removal of repairs that constitute ICA. The OOMRO constituents of the working group developed **Proposal G19** suggesting the FAA clarify its position on the acceptability of removing ICA data through subsequent revisions and the related issue of access to prior ICA revisions (see discussion in Section IV.E.3.h below). The TCH constituents, for reasons stated above and in the areas of disagreement and the TCH position paper in Section VIII, do not agree with this proposal.

h. Prior Versions of ICA

WG-G1 discussed concerns about inconsistent access to prior ICA versions. The need may arise, for example, when an owner/operator does not incorporate ICA revisions into its maintenance program and directs a repair station to work to an earlier version.

ARC members generally recognized that the need for access to prior ICA versions may arise. However, the TCH community expressed concerns about the practical burden associated with having to make all prior ICA versions (including those distributed using outdated media) available. Given the lack of agreement surrounding the meaning of the term "make available" (both in general and as it applies to prior ICA versions) and uncertainty about what constitutes ICA, the ARC did not reach consensus on a related recommendation. However, WG-G1 **Proposal G19** suggests the FAA clarify whether prior ICA versions must be made available to persons required to comply and under what circumstances. (See Proposal G19 for more details, including the areas of disagreement.)

i. "Vague References" in ICA

FAA regulations (e.g., part 25, appendix H.25.3(b)(10)) allow DAHs to reference the accessory, equipment, or instrument supplier as a source of ICA. However, there are examples where vague references (e.g., "Per vendor recommendation") are incorporated into the scheduling information portion of ICA for items such as Recorder Independent Power Supply, Underwater Locator Beacon, Escape Slides, Escape Slide Lights, Life Jackets, Life Rafts, Survival Kits, Portable

ELTs, Flashlights, Fire Extinguishing, and Oxygen Bottles. **Recommendation G10**, included in Section V as Recommendation 2, proposes to update the guidance to clarify that supplier references should be specific references.

j. “One-Off” Instructions

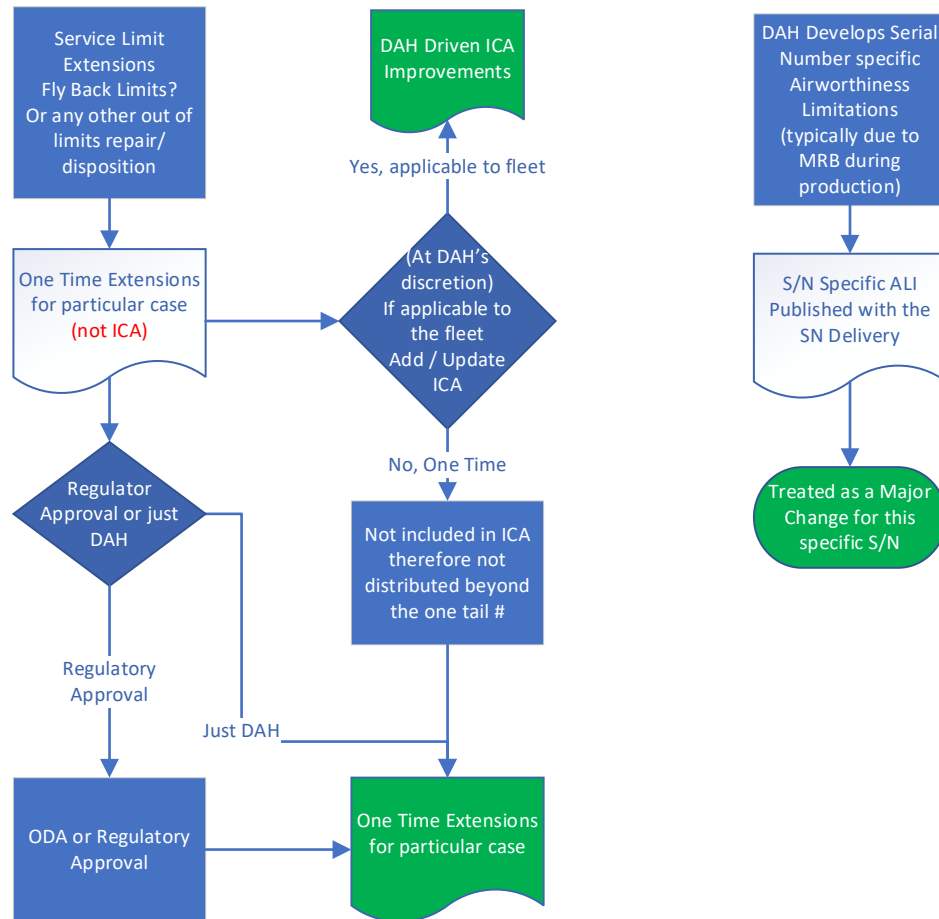
The working group examined “One-Off” instructions (e.g. Service Limit Extensions, Fly Back Limits, other out-of-limit repair or disposition) limited to specific products or articles.

Depending on the particular instruction, the DAH for the instruction would be required to obtain the appropriate regulatory approval (or use acceptable data). The instruction would be limited to that specific product or article. Any subsequent requirements associated with that instruction would follow the affected product or article throughout its operational life.

Note: The choice of “product or article” in the previous paragraph was intentional. For example, if the “One-Off” instruction was for a landing gear, any subsequent requirements would follow the landing gear, not the aircraft, since the landing gear may be swapped from aircraft Serial Number (S/N) to aircraft S/N.

If the DAH in its discretion wants to make a particular instruction applicable to the fleet, it may include that instruction as part of ICA based on in-service feedback (see Section IV.E.3.e above).

Note: S/N specific Airworthiness Limitation Inspections (ALI) may be published by a DAH. These are typically treated as a Major Change for the specific S/N and are part of that specific S/N’s ICA.



No recommendation was proposed, as the concept that “One-Off” instructions (other than those that are airworthiness limitations) are not ICA is consistent with the ARC’s current understanding. Similarly repetitive “One-Off” cases would become part of the DAH’s “In-service feedback,” and the remediation may become ICA.

k. Other Changes

The working group explored and mapped other changes, including supplier unavailability of parts, obsolescence, and customer-requested changes. In each case, if a change to ICA is identified, the change is captured in one of the categories discussed in Section IV.E.3.b above.

l. Technology and Distribution Methods

Technology changes over the last 100 years of aviation have led to changes in ICA distribution methodologies and created challenges for users seeking access. Media to distribute ICA have included paper manuals, microfiche, CDs, and html subscriptions, and in the future could include videos, VR glasses, and neural link. While some members of the aerospace community are actively embracing new technologies, others still maintain their aircraft with paper binders of maintenance data.

The working group considered the question of continued availability of ICA as technology changes and believes that accessibility is inherent in availability. WG-G1 believes DAHs and the FAA should collaborate when implementing media and distribution changes to ensure ICA remains available and changes to the technology used to distribute ICA presently and, in the future, do not render that ICA unavailable.

The working group developed Proposal G11; however, since this recommendation was dependent on the “make available” discussion in WG-D, Proposal G11 did not progress any further and was not forwarded as a potential consensus recommendation.

m. Availability and Content Complaints

Working Group G1 evaluated the FAA’s collection, handling, and resolution of ICA complaints and related enforcement, which depend on two key questions – what is ICA and who is a “person” covered by § 21.50(b)? Working Groups A and D did not resolve those questions (see the opposing position papers found in Sections VII and VIII of this report).

Working Group G1 also identified multiple “on-ramps” by which user complaint data can enter the FAA, including:

- The FAA Hotline.⁴⁰
- Congressional Letter.
- Direct complaint to the Certification Branch.
- Certificate Management Section.
- FSDO or CMO.
- Foreign authorities.

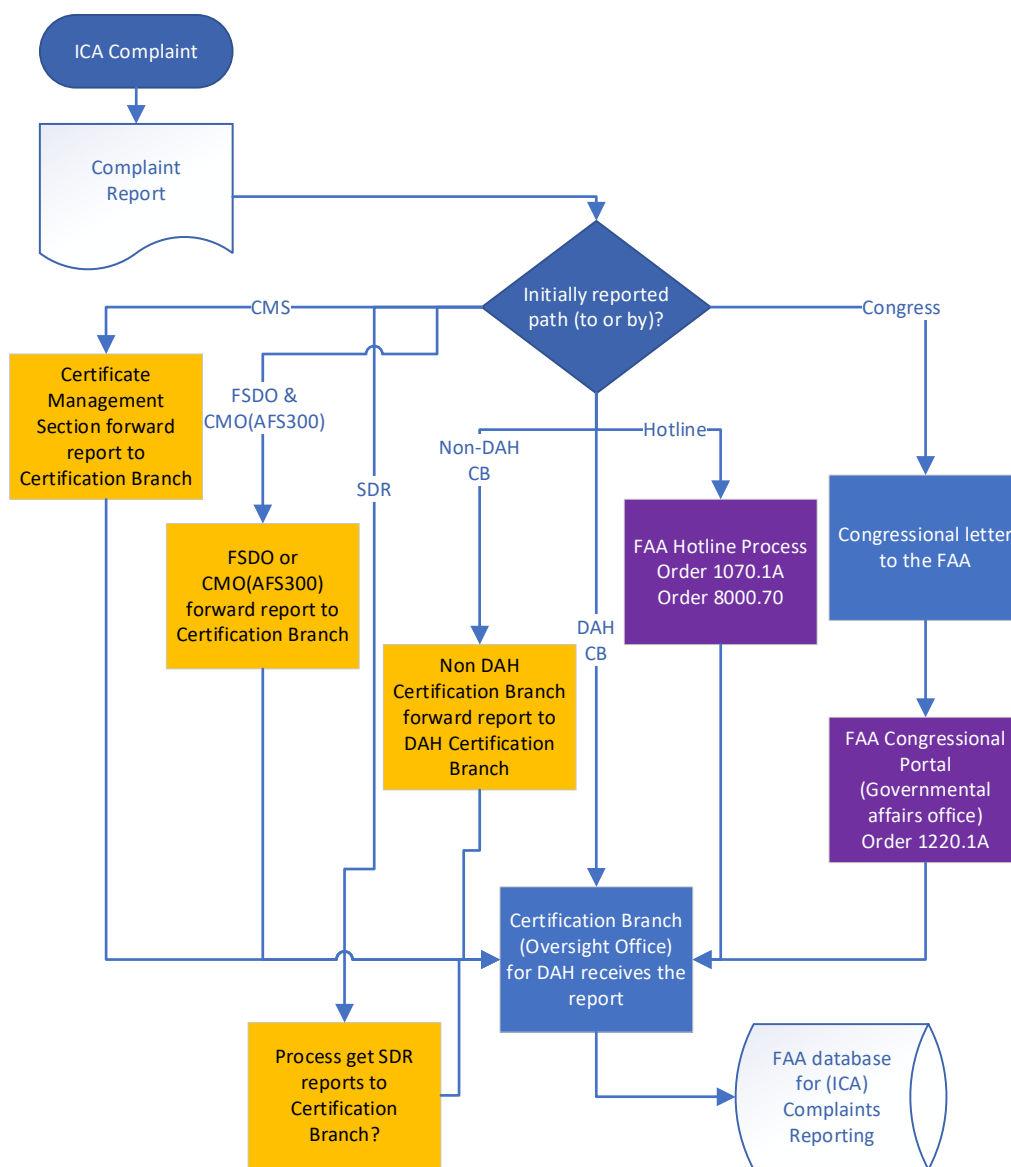
Some participants maintained that each entry point has different or unclear instructions for FAA personnel on how to make sure the complaint gets forwarded for resolution. The ARC took the position that the part 13 enforcement process can and should be used to resolve ICA complaints and that the information required by § 13.5(b) provides sufficient basis for the FAA to initiate an investigation.

However, WG-G1 also identified a process gap that should be closed. If the agency decides to dismiss a complaint, § 13.5(f)(1) requires the agency to notify the person who filed the complaint and explain the reason for the dismissal. In contrast, § 13.5(f)(2) does not require the FAA to notify the person who filed the complaint if the agency proceeds with an investigation and enforcement action. As such, the complainer may never learn how or whether their complaint is resolved; their only option is to examine the FAA’s Formal Complaint Docket at FAA Headquarters in-person to determine the status per § 13.5(h). The ARC believes the FAA should

⁴⁰ [Federal Aviation Administration Hotline, Report Issues Related to Aviation Safety or FAA Personnel and Facilities](#) (last updated May 16, 2025).

close the loop by amending § 13.5 to require that the complainer be notified of the complaint's status.

The process flow below depicts these multiple “on-ramps.” The purple boxes contain the FAA orders that explain how the FAA manages complaints. The orange boxes indicate those areas where the FAA does not currently have a published process for assigning a complaint to the appropriate FAA office for review.



Once a complaint is received by the FAA office with oversight responsibility for the respondent, there is not a consistent and transparent process for resolving all complaints regarding ICA. There is no clear guidance on how the FAA should interact with the party responsible for the ICA and complainants.

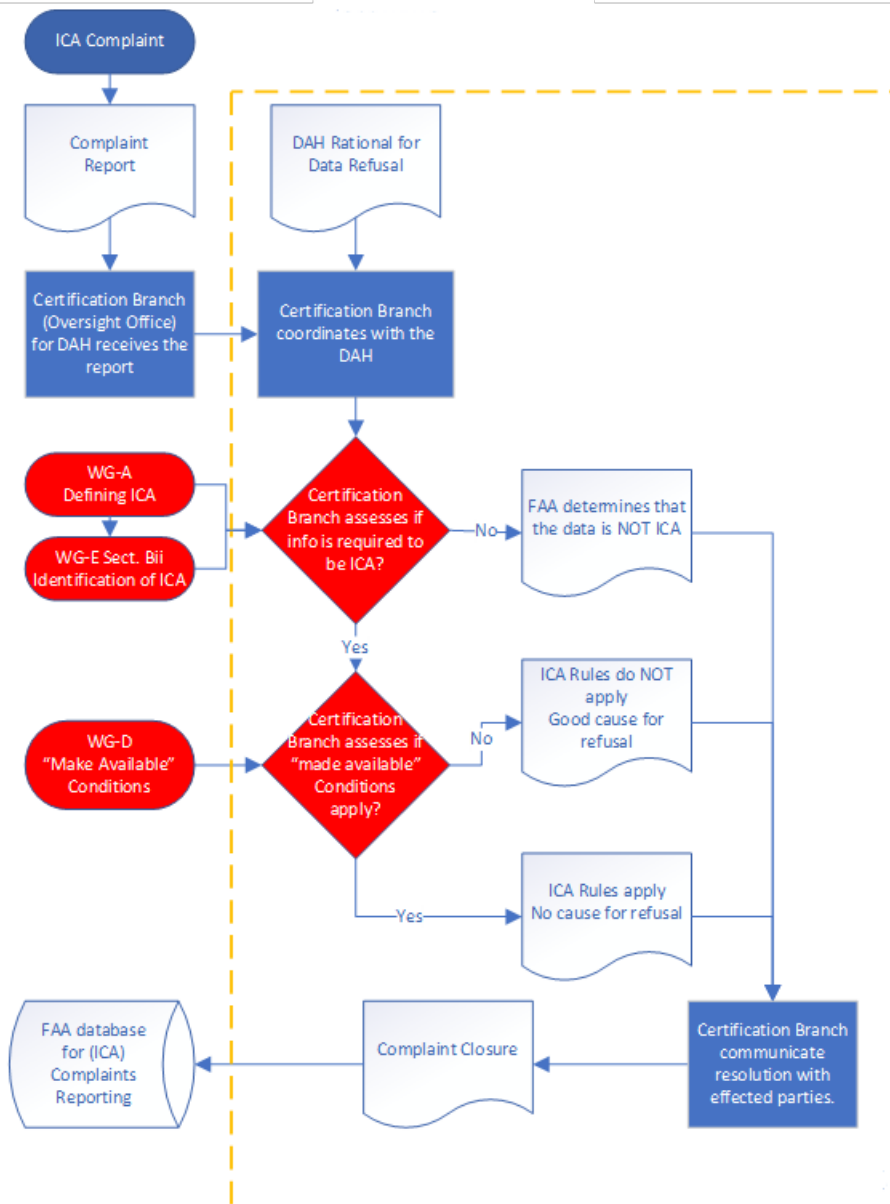
Recommendation G1, included in Section V as Recommendation 9, therefore recommends the FAA direct industry to submit formal complaints per § 13.5 and, for complaints submitted to any FAA office, direct the FAA to re-direct industry to submit formal complaints per § 13.5.

Recommendation G1 had originally included directing industry complaints to the FAA Hotline, which included a feedback loop to the person submitting the complaint (assuming that the complaint was not submitted anonymously). However, during subsequent discussion, the complaint process was redirected to the formal complaint process per § 13.5. While reviewing the formal complaint process, the working group noted that there is a feedback loop included in § 13.5(f)(1) if the complaint is dismissed. However, § 13.5(f)(2) does not include communication with the person who filed the complaint if an investigation is opened.

Recommendation G2, included in Section V as Recommendation 10, proposes regulatory updates to close this gap to include communication when an investigation is initiated and include a process to advise all parties of its resolution. (See Recommendation 10 for more details.)

The OOMRO subgroup participants in WG-G1 believe the FAA's current framework for analyzing ICA content and availability issues is unclear or was not recognizable by the working group. The TCH participants disagree, pointing to the FAA's well-established investigation and enforcement program. **Proposal G4** suggests the agency clarify how it analyzes a complaint prior to dispositioning it (e.g., referral for enforcement, dismissal). The basis for the proposal is the OOMRO group's proposal that: (1) the FAA should have a transparent framework to analyze and dispense with complaints regarding ICA availability and content; (2) the framework should provide the criteria necessary for the FAA to determine whether a given document is ICA that should be available at the time of the request and whether the requester is entitled based on regulatory definitions; (3) the FAA should have a clear methodology to determine if a compliance issue exists; and (4) the framework should assist and inform the existing compliance/enforcement process and not create a new or duplicated adjudication process. The TCH group did not see the necessity or utility of establishing an ICA specific framework within the context of the FAA's existing and well-established investigation and enforcement program.

The OOMRO members' process flow below is designed to depict a framework for evaluating ICA complaints. (See Proposal G4 for more details.)



Note: The criteria for identifying ICA per Recommendation 1 is added to account for a potential future state.

The OOMRO WG-G1 participants assert that clarifying the ICA complaint resolution process will result in more transparency, timely resolution of complaints, and enhanced compliance efficiency through common expectations (industry and agency). They claim the effectiveness of the processes will be monitored, risks will be identified, and the process will be improved based on industry feedback.

While the TCH members agree with Recommendations 9 and 10, they assert that the clear and well-established process that already exists for receiving and processing complaints regarding compliance with ICA requirements, including the FAA's investigative and enforcement

procedures per part 13 and FAA Order 2150.3C, is effective and more than sufficient. Therefore, according to the TCH subgroup, no additional recommendation or guidance from the ARC is necessary.

n. Enforcement

The FAA has established compliance and enforcement rules and orders (e.g., part 13, FAA Orders 8000.373 and 2150.3), but some OOMRO participants believe they are not consistently applied to ICA issues. WG-A Tiger Team 1 identified numerous regulatory provisions that are understood differently by various stakeholders. Although all FAA rules are “enforceable,” the OOMRO group perceived a lack of clarity regarding responsibilities of various FAA functional groups.

The working group developed **Proposal G8** to update FAA orders and guidance to provide clarity on the responsibilities of various FAA functional groups (including potential ICA intra-agency working groups) regarding ICA issues and update FAA work instructions and job aids to describe and enable compliance and enforcement for ICA issues.

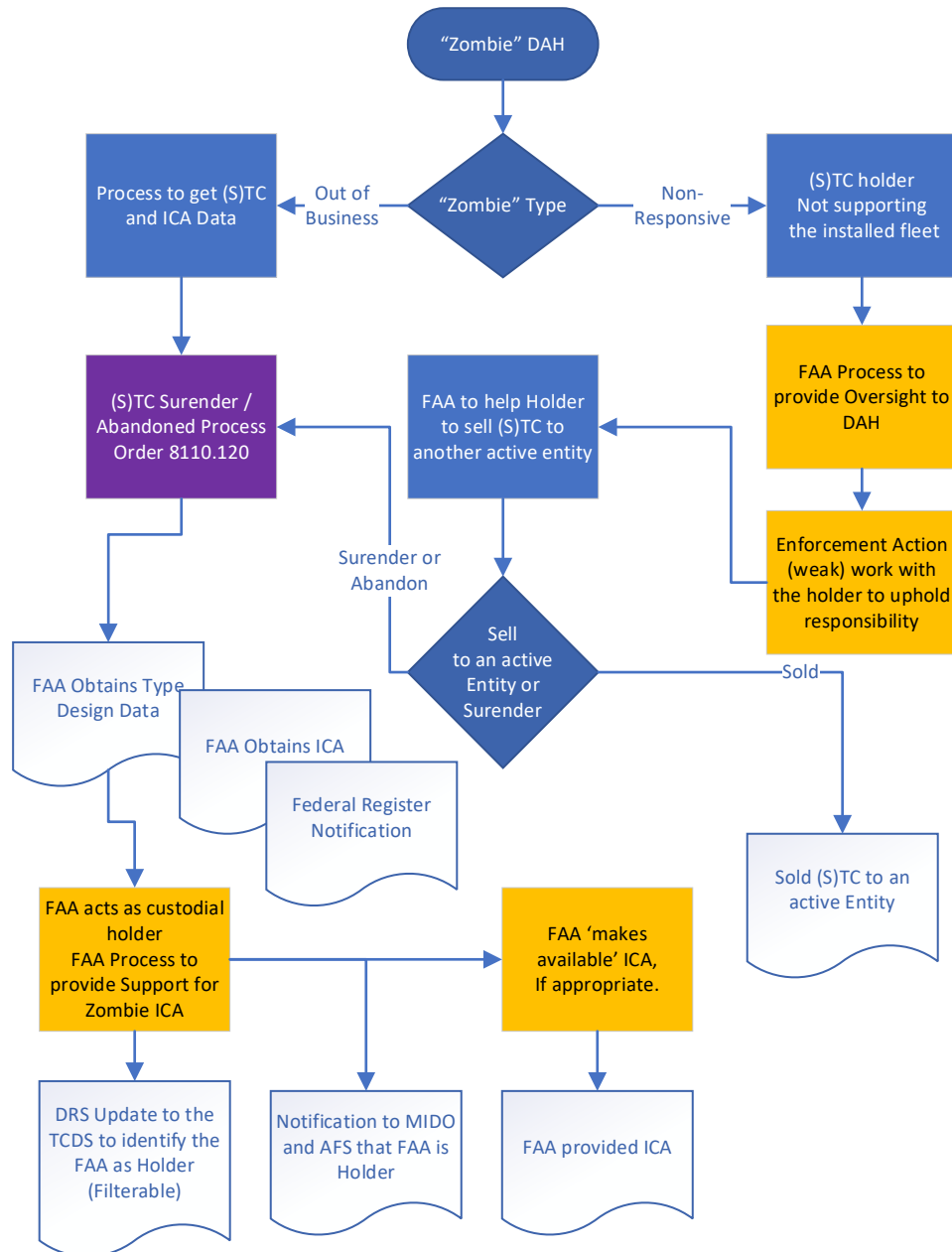
Some TCHs assert that a clear and well-established process already exists for receiving and processing complaints regarding compliance with ICA requirements, including the FAA’s investigative and enforcement procedures per part 13 and FAA Order 2150.3C. Therefore, according to these TCHs, no additional recommendation or guidance from the ARC is necessary. Some TCHs disagree that the FAA fails or is in any way lax in its oversight or enforcement of its rules relating to ICA.

o. “Zombie” DAH

The OOMRO community has encountered situations in which the DAH can no longer make ICA available (e.g., because the company is out of business). Existing guidance does not address all potential scenarios to ensure continued availability of ICA and other data that serves as the basis for issuing all types of design approvals.

Recommendation G21, included in Section V as Recommendation 13, proposes that Order 8110.120 be updated to address situations in which the DAH does not properly surrender its design approval, abandons its design approvals, or has its design approval revoked or suspended.

The process flow below depicts the current process and gaps in guidance. The purple boxes contain the current FAA Order for that process. However, for the orange boxes, there is not a defined process for this activity. (See Recommendation 13 for more details.)



p. Applicability (PMA, § 21.8(d), Repairs and Alterations)

ARC Charter Task 4.A.iii specifically asked the ARC to review the applicability of ICA regulations, policy, and guidance with relation to PMA and design approvals under § 21.8(d). The charter correctly states that there is no regulatory hook for the ICA requirements in § 21.50(b) to apply to either of these types of designs. Similarly, ARC Charter Task 4.C.iv specifically tasked the ARC to look into the applicability of § 21.50(b) distribution requirements for maintenance provider developed data.

FAA Order 8110.54A implies that the § 21.50(b) distribution requirements apply to PMAs and to major repairs and alterations, but this is not embodied in the regulations.

Some PMA holders produce and make supplemental ICA available, while other PMA holders rely on the (S)TCH's existing ICA as being applicable to their alternate design. While FAA Orders 8110.54A and 8110.42⁴¹ and ACs 21.303-4⁴² and 21-43A⁴³ address the need for supplemental ICA, there is no regulatory requirement for PMA holders to produce and make ICA available. FAA Order 8110.42 and AC 21.303-4 provide sufficient direction on when supplemental ICA would be required, how to verify when supplemental ICA is not required, and that the current ICA remains applicable with the PMA parts installed.

Similar to some PMA holders, some major repair and alteration developers produce and make supplemental ICA available, while others do not. Although this is directed in FAA Order 8110.54A, AC 43-210A,⁴⁴ and Order 8300.16, there is no regulatory requirement to do so. FAA Order 8300.16 and AC 43-2104 provide sufficient direction on when supplemental ICA would be required, how to verify when supplemental ICA is not required, and that the current ICA remains applicable with the major repair or alteration applied.

The working group originally developed Proposal G6 to close the regulatory gap for supplemental ICA distribution requirements. However, the working group ultimately decided to propose two separate proposals, Proposals G6A and G6B, because the issues related to PMA and § 21.8(d) approvals are different from those related to repair and alterations.

Proposal G6A proposes moving ICA requirements to subpart A so they are applicable to PMAs and other approvals under § 21.8(d). This would close the regulatory gap for supplemental ICA distribution requirements. (See Proposal G6A for more details.)

Most TCHs agree that all design approval holders who are required to create ICA or “supplemental ICA” should be required to make that ICA and changes associated with that design approval available to any person required by this chapter to comply with the instructions. However, the TCHs were unable to agree with the regulatory language proposed during the working group deliberations relative to moving the ICA requirements to subpart A to make it clear those requirements apply to PMA and other approval holders. The TCHs felt that the language proposed during those deliberations could be taken to imply that PMA holders are “other persons required to comply” with a TCH's ICA, a position the TCHs do not believe is supported by any reasonable reading of the regulations. Therefore, those TCHs do not support the implementation of this proposal. They would support a different proposal with acceptable

⁴¹ FAA Order No. 8110.42D, [Part Manufacturer Approval Procedures](#) 1-2 (Oct. 27, 2023).

⁴² FAA Advisory Circular No. 21.303-4, [Application for Parts Manufacturer Approval Via Tests and Computations or Identity](#) B-2 (Mar. 21, 2014).

⁴³ FAA Advisory Circular No. 21-43A, [Production Under 14 CFR Part 21, Subparts F, G, K, and O](#) 2-I (Oct. 1, 2015).

⁴⁴ FAA Advisory Circular No. 43-2104A, [Standardized Procedures for Obtaining Approval of Data Used in the Performance of Major Repairs and Major Alterations - Change 1](#) (Aug.17, 2016).

wording that accomplishes the same goal of requiring all DAHs to produce, maintain, and furnish/make available ICA applicable to their design/configuration.

Proposal G6B proposes recognition of major repairs and alterations, as design approvals. This in conjunction with Proposal G6A would close the regulatory gap for supplemental ICA distribution requirements. (See Proposal G6B for more details.)

Note: Proposal G6B would have logistical and implementation challenges. The approach section of the proposal includes a section on considerations the FAA would need to address to successfully implement this proposal.

The working group also discussed minor repairs. In the current regulatory system, there could be cases where the implementation of a minor repair could affect the existing ICA. Similarly, in the current regulatory system, minor repairs are performed to acceptable data; therefore, there is no “approved data” for a design approval to be attached to. The working group did not develop a recommendation or proposal for addressing the regulatory gap of supplemental ICA for minor repairs but notes it as an area for future FAA consideration.

Some ARC members believe that major repairs are already recognized as design approvals under § 21.1(a)(1)(i) as “other approved design.” Other ARC members believe that regulatory change would be required to recognize major repairs as design approval under § 21.1(a)(1)(i) or § 21.8(d). Either way, Proposal G6B encourages the FAA to identify or affirm that major repairs are design approvals.

Most TCHs agree that all repair DAHs who are required to create ICA or “supplemental ICA” should be required to make that ICA and changes associated with that repair design approval available to any person required by this chapter to comply with the instructions. However, the TCHs were unable to agree with the regulatory language proposed during the working group deliberations relative to moving the ICA requirements to subpart A to make it clear those requirements apply to design approval holders. As with the PMA and other approval holders discussed above, the TCHs felt that the language during those deliberations could be taken to imply that these non-TCH repair design approval holders are “other persons required to comply” with a TCH’s ICA, a position the TCHs do not believe is supported by any reasonable reading of the regulations. The language also did not make clear that not all repairs are ICA or require the creation of ICA. Therefore, those TCHs do not support the implementation of this proposal.

q. Applicability (TSOA)

TSO approvals typically require furnishing the data to an entity (e.g., operator or repair station) when the article is purchased. However, there is no current regulatory requirement to update furnished data or make the data available to “other persons required to comply.”

Currently, TSO standard language uses the term “furnished data” rather than ICA.⁴⁵ As a matter of practice, TSOA holders produce and make maintenance instructions available as part of “furnished data.” Although this is directed in FAA Order 8110.54A and AC 21-43A, there is no regulatory requirement to do so.

Proposal G6C⁴⁶ proposes adding the ICA requirements to subpart A and changing the name of TSO “maintenance data” to “instructions for continued airworthiness” to ensure that TSOAs, like all other design approvals, have associated ICA maintenance and distribution requirements.

A DAH, in particular a TCH or STCH, may reference a TSOA holder’s maintenance data as the source for the (S)TCH’s ICA (see Recommendation G20, included in Section V as Recommendation 3). Per the current regulations, the TSOA holder’s maintenance data then becomes the (S)TC holder’s ICA. This creates ICA maintenance and distribution responsibilities for the (S)TCH. However, under the current regulations, the TSOA holder is not required to either update their maintenance data, nor to provide any updates to the (S)TCH. The only obligation the TSOA holder currently has is the “furnished data” requirement of the TSOs, which would only be triggered by the delivery of a new TSOA article to the (S)TCH. **Proposal G6C** attempts to close this regulatory gap as well.

Some TCHs expressed concern that including TSO maintenance data in requirements to “make available” and “make those changes available” could inappropriately extend the definition of what is ICA to cover maintenance data that is not necessary for safety or airworthiness. Therefore, those TCHs do not support the implementation of this proposal.

r. Deferred ICA

FAA Order 8110.54A, Chapter 3.1.d, contains an allowance for deferred structural inspection procedures by creating an operational limit and citing it in the ALS. The working group initially considered **Proposal G12** to develop guidance clarifying that ICA should be made available well ahead of operational limits. This proposal was intended to ensure that DAHs develop ICA before the product catches up to the limits and stay well ahead of the “fleet leader.” The ARC also noted that Proposal G12 would align with the EASA approach, which allows deferred ICA availability for long lead items, provided there is a defined plan for completing the ICA in advance of the fleet catching up to the missing ICA (see Recommendation 6 for further discussion on harmonization). The ARC ultimately determined, however, that developing a “fleet leader” program or a plan for completing deferred ICA would not provide sufficient flexibility to account for case-by-case nature of ICA updates. Therefore, the working group did not forward Proposal G12 as a potential consensus recommendation and it did not progress any further.

⁴⁵ As counterexamples, TSO C077 does require the development of ICA and TSO C148 only requires the lot number and quantity of the parts shipped. Similarly, TSOs that predate 1981 may not have “furnished data” requirements.

⁴⁶ Proposal G6C was originally developed as G7, but due to similarities with G6A and G6B, it was renamed to G6C.

Working Group F forwarded a consensus Recommendation 6 that would allow for deferred ICA. The recommendation would also establish requirements to ensure the development and availability of deferred sections of ICA prior to when needed by operators. This would harmonize with the EASA system, in which the DAH must submit to the regulator a detailed plan identifying specific portions of ICA being deferred, specific milestones for the development and verification of those instructions, and specific threshold(s) stating the maximum value in flight hours/flight cycles, calendar time, or a combination as applicable, by which point in time the delayed ICA should be made available.

s. “Dynamic” Nature of ICA

It is well understood that ICA are routinely updated to ensure the ability to maintain airworthiness over the life of the product. The working group mapped various types of in-service events, and the potential DAH responses to those events. The scenarios mapped included COS reports and potential risk, including those that would result in ADs being issued and those that did not meet those criteria. They mapped many start points such as DAH-proposed product improvements (either parts or instructions), DAH-developed new maintenance instructions, and user requests.

In each case, the process mapping resulted in one of the activities identified in Section IV.E.3.b above, or an option for the DAH to elect not to make a change. ICA is well understood to be dynamic, but because each of the dynamic changes explored resulted in an already accepted and understood DAH ICA change (or no action), the working group did not propose any additional recommendation.

t. SMS Interaction with ICA

The working group considered a **Proposal G17** encouraging DAHs to use SMS or equivalent systems to identify and mitigate ICA-related risks. However, many DAHs do not have a current SMS requirement, and those that do are required under part 5 to assess all risks, including ICA.⁴⁷ Therefore, the ARC determined that this proposal was unnecessary, and Proposal G17 was not forwarded as a potential consensus recommendation and did not progress any further.

u. Current and Latest ICA Revisions

The working group considered Recommendation G16 and Proposal G18 to address questions and misunderstandings around the “current” and “latest” ICA revisions. **Recommendation G16**, included in Section V as Recommendation 8, proposes guidance recommending DAHs maintain a process (e.g., website) to allow the agency, owners/operators, maintainers, and others “required to comply” to determine the latest ICA revision/status. Such a process could include a requirement that users must register in order to access the list. This requirement would provide an additional layer of security for the data.

⁴⁷ See [14 CFR 5.55](#).

Proposal G18 was aimed at clarifying the meaning of “current” ICA in 14 CFR 145.109(d).⁴⁸ The existing regulation reads (emphasis added):

A certificated repair station must maintain, in a format acceptable to the FAA, the documents and data required for the performance of maintenance, preventive maintenance, or alterations under its repair station certificate and operations specifications in accordance with part 43. The following documents and data must be **current** and accessible when the relevant work is being done:

- (1) Airworthiness directives,
- (2) Instructions for continued airworthiness,**
- (3) Maintenance manuals,
- (4) Overhaul manuals,

...

The FAA (e.g., aviation safety inspectors inspecting repair stations) interpret this “current” requirement to mean the “latest” revision. There are legal interpretations that have been responsive to this question.⁴⁹ While developing Proposal G18, the working group identified a Notice of Proposed Rulemaking concerning § 145.109(d).⁵⁰ The working group stopped work on Proposal G18 at that point and did not forward it as a potential consensus recommendation.

As stated above, the FAA (e.g., aviation safety inspectors inspecting repair stations), owner/operators, and maintainers require a mechanism to determine the latest DAH ICA revision level to ensure products and articles are either maintained to the most recent ICA or that an informed decision can be made to work to an older version.

Recommendation 8 proposes updates to guidance to recommend DAHs maintain a process (e.g., website) to allow the agency, owners/operators, maintainers, and others “required to comply” to determine the latest ICA revision/status. Such a process could require registration to access the list.

v. “Acceptable to” vs. “Accepted”

The ICA regulations in each certification standard require the DAH to create ICA “acceptable to the Administrator.”⁵¹ However, FAA Order 8110.54A directs AIR to “accept” ICA, which is inconsistent with the Office of Safety Standards (AFS) definition of and practices associated with

⁴⁸ [Inspection Programs for Single-Engine Turbine-Powered Airplanes and Unmanned Aircraft; and Miscellaneous Maintenance-Related Updates NPRM](#), 89 FR 6056, 6059 (Jan. 31, 2024).

⁴⁹ See e.g., Letter from Rebecca B. MacPherson, FAA Assistant Chief Counsel for Regulations, to Manager, Aircraft Maintenance Division AFS-300 (Dec. 5, 2008); Letter from Rebecca B. MacPherson, FAA Assistant Chief Counsel for Regulations, to Manager, AWP-230, [Legal Interpretation of “Current” as it Applies to Maintenance Manuals and Other Documents Referenced in 14 C.F.R. §§ 43.13\(a\) and 145.109\(d\)](#) (Aug. 13, 2010).

⁵⁰ [Inspection Programs for Single-Engine Turbine-Powered Airplanes and Unmanned Aircraft; and Miscellaneous Maintenance-Related Updates NPRM](#), 89 FR 6056 (Jan. 31, 2024).

⁵¹ See e.g., 14 CFR 33, [Appendix A](#).

assessing ICA to determine if it is “acceptable to” the Administrator.⁵² This has created confusion for some members of industry (including some DAHs, operators, and repair stations) and the FAA (ODAs, AFS, AIR) regarding the status of “accepted” ICA and related DAH obligations. The fact that design data associated with design approval is “approved” creates additional confusion.

The working group developed Proposal G14 to address this issue as well as to achieve consistency within AVS. As the working group developed the proposals, it split G14 into G14A and G14B. These proposals do not attempt to confer a definition of what is or is not ICA based on their status as either “acceptable to” or “approved by.”

Proposal G14A proposes that the FAA should standardize the definitions and use of “acceptable to,” “accepted by,” and “approved by” the Administrator by harmonizing within AVS (AFS and AIR).

Proposal G14B proposes that the FAA should clarify that ICA is an ongoing DAH obligation and that ICA once found “acceptable to” the Administrator may become no longer acceptable in the future and require changes. This should not be taken to mean that updates to ICA are required to be routinely submitted for FAA “acceptance.”

The TCHs believe that the generic policy/guidance review envisioned by Recommendation G9, included in Section V as Recommendation 12, is sufficient to capture updates to the regulatory requirement of “acceptable to” vs. the current guidance of “accepted.” Those TCHs are also concerned about the ripple effect identified in Note 1 in Proposal G14A. In other words, while proposing to define “acceptable to” and “accepted” in the context of ICA, the OOMRO proposal could easily be expanded to other parts of the regulations and the potential unintended consequences of such expansion of a definition employed by AFS. It is dangerous to establish set definitions of terms without doing a thorough analysis of all the regulations where those terms are employed to determine potential impact or unintended consequences. Therefore, those TCHs do not support the implementation of these proposals as standalone proposals.

w. Process Mapping and Future Guidance

The working group reviewed the high-level initial ICA review processes presented by the FAA and compared it to FAA Orders 8110.54A and 8110.4C(7) and the regulations, in particular how the DAH and FAA interact. In the detailed process mapping, the working group identified other entry points (based on the type of DAH or the presence of an ODA), and many cases where the FAA is not involved in ICA review for ICA changes (minor design changes, or changes to ICA without a design change).

The product certification requirements (e.g., § 33.4) consistently require ICA to be “acceptable to the Administrator.” The ICA appendices also consistently require the submittal of a “**program to**

⁵² FAA Order 8110.54A, [Instructions for Continued Airworthiness Responsibilities](#), Requirements, and Contents (Oct. 23, 2010).

show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.”

However, FAA Order 8110.54A, Chapter 5.1.1. directs AIR to (emphasis added):

Review and determine (with AEG⁵³ concurrence) the acceptability of the applicant’s program for **submitting ICA changes, not associated with a new design approval, to the FAA for review**. These changes include manual revisions driven by service bulletins or errors found during operation of the product. The program should allow the applicant to send changes to the owners **while sending changes to the FAA for review**, with the exception of changes to airworthiness limitations and certification maintenance requirements. This ensures accurate ICA are immediately available to those operating the product. If you and the AEG find errors in the submitted changes, **contact the applicant and suspend use of the published changes until the applicant can make the proper corrections**. Changes to airworthiness limitations and certification maintenance requirements must be FAA-approved prior to distribution.⁵⁴

The order’s instructions above are inconsistent with both the regulatory requirements for ICA and current DAH and FAA practice. The current practice is reflected in the working group’s process mapping. The working group also generally agreed that the FAA’s resources should be focused on those events that included “on-ramp” to FAA review per paragraph c above (i.e., initial certification and major changes only). All ICA changes are still subject to the “acceptable to” requirements. The FAA can review ICA content for acceptability at any time.

Because Proposal G14A did not progress as a consensus recommendation, **Recommendation 17** was developed to specifically address the lack of consistency between the regulations and FAA Order 8110.54A 5.1.1 with respect to the FAA’s review of ICA revisions without an associated design change.

Because of the diversity of WG-G1 members, it became readily apparent that there was not a common understanding of all the issues associated with ICA (i.e., how other stakeholder communities viewed respective ICA obligations). While working group members possessed considerable knowledge and expertise, they understood ICA issues primarily from the standpoint of the organization they represented. WG-G1 spent considerable time mapping process flows, including making observations regarding compliance challenges or uncertainties. These process maps helped keep the working group focused on what part of the process was being discussed and mapped.

The working group developed **Proposal G15** to propose incorporating process maps into future guidance. While dispositioning the ARC’s comments, the working group agreed that the process

⁵³ AEG has been renamed AED.

⁵⁴ FAA Order 8110.54A, [Instructions for Continued Airworthiness Responsibilities](#), Requirements, and Contents (Oct. 23, 2010).

maps are reflective (mostly) of the current process; however they may still have been incomplete. If the FAA makes changes based on this ARC report, those processes would nevertheless change. Therefore, the working group did not forward G15 as a potential consensus recommendation and it did not progress any further. The process maps may be provided to the FAA in their native (Visio) format to enable the FAA, if they so choose, to incorporate modified versions that would reflect the future state. The TCH group disagrees with the OOMRO group as to the utility of the process maps and would not recommend their use.

The FAA's ICA policies are currently contained in myriad disparate documents, potentially creating confusion for some within the agency and some stakeholders. Certain issues are addressed in one document but not others. **Recommendation G9**, included in Section V as Recommendation 12, proposes to incorporate any requirements, policy statements, legal interpretations, guidance, and changes implemented based on this ARC into consolidated appropriate guidance.

Recommendation 12 also proposes that, upon FAA adoption of policy changes as a result of the ARC, the agency must review all existing ICA-related documents (e.g., legal interpretations, orders, ACs) for consistency with the FAA's updated policies and identify documents that have been changed, modified, or cancelled.

4. WG-G1 Proposals

Upon completion of the mapping phase, WG-G1 developed proposals based on conversations within the working group. As described in Section IV.D.3, the working group provided some of these proposals to the full ARC for review and comment, while others did not progress to that stage.

WG-G1 then analyzed, discussed, and recorded responses to the ARC member feedback, incorporated suggestions, and refined the proposals into recommendations as appropriate. WG-G1 also reviewed the output of other ARC working groups that overlapped with WG-G1's recommendations and held coordinating discussions with other working group leads. For example, WG-G1 and WG-F (Harmonization) leaders met on multiple occasions to discuss consolidating their efforts.

The process yielded both consensus recommendations, found within Section V, and WG-G1 proposals that had not reached ARC consensus, found within Section VI.

F. Shark Team

The Shark Team consisted of aviation industry attorneys participating in the ARC who drew on their expertise to review working group recommendations during the development process. The group offered suggestions to help the working groups craft actionable recommendations providing the FAA with relevant and necessary information.

V. Full Consensus Recommendations

This section contains the details of each full consensus recommendation of the ARC, including the ARC's intent, supporting rationale, and suggested approach. Proposed regulatory text is also included as appropriate.

The ARC notes that implementation of any of these recommendations that change requirements given in regulations, orders, or advisory circulars should be subject to notice and comment rulemaking and should meet all other applicable requirements of the Administrative Procedure Act.

A. Identification of and References to ICA

1. Recommendation 1 – Identification of ICA

The FAA should: 1. Amend regulations to provide that DAHs must identify the information comprising a complete set of ICA for the specific design approval; 2. Develop an Advisory Circular to provide an acceptable means of compliance for this requirement of ICA identification.

INTENT: To provide that DAHs must identify the information comprising a complete set of ICA, which will ensure transparency to the FAA for compliance with product airworthiness ICA requirements and to owner/operators and maintainers regarding ICA available from DAHs. This recommendation is not intended to be a retroactive obligation to re-identify, re-mark, or reissue ICA previously approved or accepted prior to the effective date of new requirements on identification of ICA. This recommendation would not apply if the purpose of the revision is to expand the scope and content of the existing publication to include a new model within an existing type design.

RATIONALE: Operators need a reliable way to know what the full ICA set is to support compliance with operating regulations.

Marking or identifying ICA provides confidence that all the necessary instructions to accomplish the task are identified and considered, including clear identification of what documents (in part or whole), tasks, subdocuments, referenced documents, and/or any other technical publications are considered ICA.

ICA is developed, maintained, and updated by the DAH to show and maintain compliance with applicable certification basis as prescribed in the product airworthiness standards and applicable appendices that establish requirements for content and organization of ICA. The appendices recognize that ICA may be comprised of multiple publications and may reference supplier publications.

DAHs often develop additional maintenance instructions and repairs as a commercial service to their customers above and beyond the regulatory requirements. DAHs may provide these additional “non-ICA” maintenance instructions and repairs within a consolidated and comprehensive source of instructions for ease of use and convenience of reference for their customers. The proposed ICA identification would clearly identify which information within these consolidated sources of instructions (e.g., manual(s), publications, electronic library, database subscriptions, etc.) comprises the ICA.

APPROACH: The FAA should amend part 21 to add ICA identification requirements. The FAA should develop an Advisory Circular providing the DAHs with a means of compliance with this requirement. The FAA could use similar existing language from ACs 33.4-1 and 35.4-1 in the

recommended new advisory circular providing that the full set of ICA should be clearly “identified” to ensure consistency for all product types and their respective airworthiness standards.

Note: The ARC could not reach consensus on the regulatory language the FAA should adopt to effect this change.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA has also recognized the need for identification of ICA and has developed guidance.⁵⁵ Therefore, this recommendation would increase regulatory harmonization with EASA.

Transport Canada and ANAC do not have a similar requirement. Therefore, this recommendation would decrease regulatory harmonization with these two authorities.

See narrative in Section IV.D for discussion on harmonization.

RELATED RECOMMENDATIONS:

Recommendation 8 relates to the revision status of ICA.

⁵⁵ European Aviation Safety Agency, [AMC 21.A.7](#).

2. Recommendation 2 – References With Sufficient Detail

When the DAH references an accessory, instrument, or equipment manufacturer as the source of ICA, then the reference should provide sufficient detail to locate instructions for the recommended work (methods, techniques, and practices).

Note: This recommendation does not address what is or is not ICA.

INTENT: To ensure that, when a DAH’s ICA references another document, including material created by a manufacturer, the reference should be specific enough to ensure that the referenced information can be identified as ICA.

RATIONALE: FAA regulations (e.g., Part 25, appendix H.25.3(b)(10)) allow DAHs to reference the accessory, equipment, or instrument supplier as a source of ICA. However, there have been examples where vague references (e.g., “Per vendor recommendation”) were included in the scheduling information portion of ICA for items such as Recorder Independent Power Supply, Underwater Locator Beacon, Escape Slides, Escape Slide Lights, Life Jackets, Life Rafts, Survival Kits, Portable ELTs, Flashlights, Fire Extinguishing, and Oxygen Bottles. Vague references make it difficult for DAHs to know what must be made available, for owner/operators and maintainers to know what is ICA and how to obtain it, and for regulators to determine § 21.50(b) compliance.

The current MSG-3 process prohibits vague references. This will align approvals that do not use MSG-3 with those that do.

APPROACH: The FAA should clarify through guidance that vague references in ICA are not acceptable to the Administrator. Supplier references should be specific references (e.g., “per CMM xxx-xx-xx inspection check section” or “per CMM xx-xx-xx”). If a DAH references the manufacturer as the source for ICA information, the FAA guidance should clarify that an appropriate reference would identify a specific source of the ICA information, such as a manufacturer/CMM or specific section of a manufacturer/CMM, so as to clearly identify that information as part of the complete set of ICA.

HARMONIZATION: This recommendation is for updates to guidance only and is consistent with the current MSG-3 process. Other regulators do not have guidance of similar specificity in their guidance. Therefore, this recommendation is neutral with respect to regulatory harmonization.

3. Recommendation 3 – DAH Obligations Regarding Supplier ICA

The FAA should update its guidance to clarify DAH obligations regarding supplier ICA and recommend that the DAH notify any supplier when its documents, or parts thereof, become ICA by reference to ensure the supplier is aware of their role in support of the DAH's obligation to make ICA available.

INTENT: To clarify DAH obligations regarding supplier ICA.

RATIONALE: Title 14 CFR 21.50(b) of the current regulations specifically requires that “[t]he holder of a design approval... must furnish at least one set of complete Instructions for Continued Airworthiness...” and that “the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions.” Therefore, when applying for a design approval, the DAH assumes obligations associated with making ICA available. This includes supplier ICA referenced in the DAH ICA. Although some DAHs sign agreements with suppliers that include language limiting the DAH's ability to distribute supplier maintenance data, FAA guidance provides that a DAH may not avoid its obligations under FAA regulations by entering into contracts that conflict with the regulations.⁵⁶

The DAH should either provide the referenced supplier ICA directly or ensure it remains practically available to operators and maintainers for as long as it is required.

The DAH is fully responsible for ICA, including content and distribution. During the design approval process, DAHs may reference supplier data as ICA. Suppliers may not be aware that their instructions were referenced as ICA and may fail to make ICA available when requested because they do not understand the DAH's regulatory responsibilities or the significance of the supplier's data to meet the DAH certification requirements. Notification that the supplier information was included as part of ICA should help ensure that the supplier information remains available.

APPROACH: Update guidance to clarify DAH obligations regarding supplier ICA. The update should recommend that the DAH either make available the supplier documents, or parts thereof, referenced in ICA or notify any supplier of their obligation to make them available. This recommendation is for guidance update only; no regulatory changes are implied.

HARMONIZATION: This recommendation is for updates to guidance only. EASA guidance addresses the duties of a DAH in respect to ICA created by suppliers but does not explicitly address the communication with the supplier providing ICA. Therefore, this recommendation is neutral with respect to regulatory harmonization.

⁵⁶ See Letter from James W. Whitlow, Deputy Chief Counsel, FAA AGC, to Ronald Mzorek, GEAE Legal Operation (Dec. 13, 1999).

B. Critical Parts and Articles

1. Recommendation 4 – Coordination Within FAA Offices and Lines of Business

The FAA should fully leverage internal safety management systems and use data collected during the original certification by the Aircraft Certification Service (AIR), ICA acceptability review by Aircraft Evaluation Division (AED), and operational and maintenance data from Flight Standards (AFS) to enhance future ICA evaluations for acceptability and improve or detect deficiencies in current ICA.

INTENT: To increase communication, coordination, and data sharing between Aircraft Certification Service (AIR) and Flight Standards Service (AFS) to improve and detect deficiencies in ICA using information from certification, operations and maintenance. There should be a method for a continuous improvement process that allows the AED to have improved visibility on factors that affect ICA acceptability review decisions.

RATIONALE: The knowledge gained by the FAA when working with the TCH/PCH during the Type and Production Certificate programs would be beneficial to the AFS inspectors when they are performing oversight of operators and MROs. An enhanced communication process along with data sharing would provide the FAA with improved insight into airworthiness and ICA decisions.

APPROACH: The AED's role in collecting and communicating to both AIR and AFS should be strengthened by using data to improve evaluations of initial ICA and monitor the adequacy and effectiveness of ICA using the FAA's internal SMS⁵⁷ and predictive SMS tools. The FAA should not supplant the longstanding Maintenance Steering Group process (MSG-3) where these types of issues should be resolved.

HARMONIZATION: This recommendation is for improvements to the FAA's internal processes. Therefore, this recommendation is neutral with respect to regulatory harmonization.

⁵⁷ FAA Order No. 8000.369C, [Safety Management System](#) (Jun. 24, 2020).

2. Recommendation 5 – Influencing Engine Parts

The FAA should make clear in its guidance that “influencing parts” are engine parts that may influence the key parameters that impact the operating limitations of engine life-limited parts.

INTENT: To reduce confusion associated with the term “influencing parts,” which lacks a clear definition or understanding of how it fits into the existing engine repair guidance.

RATIONALE: The ARC recognizes the term “influencing parts” is derived from 14 CFR 33.70(a): “ensures that the combination of loads, material properties, environmental influences and operating conditions, including the effects of other engine parts influencing these parameters, are sufficiently well known and predictable so that the life operating limitations can be established and maintained for each engine life-limited part.” However, the term “influencing parts” creates confusion by not having a clear definition or common understanding of how it fits into the existing engine repair guidance. Further, the parts influencing the life-limited parts are not necessarily identified by the DAH in ICA, nor are there necessarily any unique instructions or considerations provided to the owner/operator or maintenance organizations for these parts.

Both Advisory Circulars AC 33-8, Guidance for Parts Manufacturer Approval of Turbine Engine and Auxiliary Power Unit Parts Under Test and Computation, and AC 33-9, Developing Data for Major Repairs of Turbine Engine Parts address the failure modes and effects considerations for life-limited parts along with parts that may influence those parts.

APPROACH: FAA Order 8110.37F, Designated Engineering Representative (DER) Handbook, should emphasize the considerations for parts that influence life-limited parts and point to the well-established ACs 33-8 and 33-9 when considering repairs to engine parts that may influence a life-limited part.

The FAA should update AC 33-9 to further emphasize the considerations for parts that may influence life-limited parts as a Category 2 part. Engine parts that are not life-limited (for example, compressor and turbine airfoils) already exist in Table 2, Category 2; engine part examples within the AC.

HARMONIZATION: This recommendation is for updates to guidance only. Other regulators also already recognize the potential of parts to influence critical parts. Therefore, this recommendation is neutral with respect to regulatory harmonization.

C. Dynamic Nature of ICA

1. Recommendation 6 – Deferred Availability

The FAA should adopt in part 21 a provision providing for deferral of certain parts of ICA until after entry into service (harmonized with EASA 21A.7).

INTENT: To update the provisions in § 21.50 to harmonize with EASA 21.A.7(c) allowing for the deferred availability of certain portions of ICA dealing with long lead accomplishment instructions of a scheduled nature after the product has entered into service. This includes a clear requirement to develop and make those instructions available in a timely manner, in advance of when they are actually needed in service so that they can be incorporated into maintenance programs and planning. This should be harmonized with EASA 21.A.7(c) and, as appropriate, the related AMC and guidance to promote a common set of airworthiness and safety requirements and means of compliance regarding DAH development and availability of ICA for products operated and maintained worldwide.

Some additional safeguards would be needed, including: 1) defined milestones, 2) a transparent compliance plan, 3) required operator visibility into what is deferred, and 4) minimum lead time before the deferred instructions are needed.

RATIONALE: Current § 21.50 requires that a complete set of ICA be furnished upon delivery of the aircraft/engine/propeller product or upon issuance of the first standard airworthiness certificate. The FAA recognizes that this is not practical nor often possible for certain portions of ICA dealing with long lead times for development. For example, Order 8110.54A Section 3.1(d) states: “In the case of airframe structure, the FAA recognizes that DAHs may not be able to complete development of structural inspection procedures or other ICA procedures needed to support maintenance requirements for the entire design life of the aircraft by the delivery of the first new aircraft, or return to service of modified aircraft or at the time of TC issuance.” Currently, FAA policy gets around this regulatory disconnect by placing a temporary operational limit in the type design ALS which imposes additional regulatory and administrative burden to change type design and TCDS and has significant commercial and financing implications of high value assets.

Engine and aircraft TCHs emphasize the significant value and practical need to defer certain long-lead time, scheduled portions of ICA. In cases where deferral is necessary, but not accommodated through current workarounds, TCHs typically either provide minimal or “skeleton” ICA or establish temporary limitations on the life of a product/system/component that are not operationally practical or economical but satisfy current requirements for a complete set of ICA essential to continued airworthiness of the product.

Both FAA and EASA requirements permit some deferral of ICA. The FAA rules require complete ICA to be available at entry into service (EIS), with FAA Order 8110.54A containing a specific provision for aircraft structural procedures and requiring an operational limit in the ALS. EASA permits certain instructions not needed for early service to be deferred post-EIS. EASA AMC/GM in Part 21 covers the acceptable timescales. The EASA deferral of portions of ICA is not accepted by the FAA when validating the designs. Conversely, the certification of U.S. designs does not permit deferral beyond EIS, giving an unequal situation for U.S. design holders. Adoption of similar provisions to EASA's would harmonize the requirements, gaining equal benefit for both U.S. and EU-certified designs, and remove the obstacle to validation. This is also an existing Safety Emphasis Item (SEI) for the validation of engines and propellers between the United States and the EU, which, if removed, would reduce the effort needed for the FAA to validate EU designs.⁵⁸

In practice, some ICA provisions, such as those supporting long-term maintenance, are not required until several years after a product enters service. Allowing these elements to be developed post-EIS, while ensuring they are available well in advance of their operational need, would provide additional time to incorporate valuable in-service data, resulting in more effective and practical maintenance instructions. The ARC therefore recommends that the FAA amend its regulations to permit the deferral of such "long lead time" ICA elements beyond EIS, with appropriate safeguards to ensure readiness and regulatory clarity.

EASA AMC 21.A.7(c) guidance establishes requirements to ensure the development and availability of deferred sections of ICA prior to when needed by operators. The DAH must submit to EASA a detailed plan identifying specific portions of ICA being deferred, specific milestones for the development and verification of those instructions, and specific threshold(s) stating the maximum value in flight hours/flight cycles, calendar time, or a combination as applicable, by which point the delayed ICA should be made available. Based on the DAH/applicant performance on previous projects or inability to meet milestones on the detailed compliance plan for development of ICA, EASA may decide to assign an interim limitation to be published and included in the ALS as a temporary operational limitation. To allow timely review and incorporation of a delayed part of the ICA into continuing airworthiness activities and processes (e.g., amendment of the aircraft Maintenance Programme) by the person or organization responsible for the aircraft continuing airworthiness or for performing maintenance, EASA considers that the delayed ICA should typically be made available two years before the actual ICA has to be used, when using normal revisions as a format. Shorter time margins may be acceptable, provided that the format used ensures prompt notification of the availability of the delayed ICA or the ICA itself, but they should not be less than 1 year before the ICA has to be used.

⁵⁸ Safety Emphasis Item List, Per FAA-EASA Technical Implementation Procedures (TIP), [CS-E vs. 14 CFR Part 33](#), Revision 6.2 (Oct. 15, 2010).

APPROACH: The ARC recommends that the FAA amend the product certification parts of title 14 that currently permit deferral of ICA up to EIS, such as §§ 25.1529 and 33.4, in order to introduce provisions permitting deferral of ICA beyond EIS. The ARC proposes that the revised regulations harmonize to the maximum extent with EASA 21A.7(c), which specifically states DAH “may delay the availability of a part of the instructions for continued airworthiness, dealing with long lead accomplishment instructions of a scheduled nature” and consider the related EASA AMC 21A.7(c) *Completeness and Timely Availability of the ICA* guidance, which provides for additional scenario Option 3:

- Option 1: Complete ICA are available at the time of design approval (TC/Restricted Type Certificate (RTC)).
- Option 2: Complete ICA are available at entry into service (TC/RTC).
- Option 3: Complete ICA are available after entry into service (TC/RTC).
 - Includes guardrails for deferred areas to ensure availability when needed.
 - Detailed compliance plan.
 - Procedure/program to complete and make available.

The FAA should consider additional safeguards associated with deferred availability, including: 1) required operator visibility into what is deferred, and 2) lead time before the deferred instructions are needed.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

This recommendation promotes harmonization with EASA’s provision for deferred availability, thus increasing regulatory harmonization.

Transport Canada and ANAC do not have a similar provision for deferred availability. This recommendation would decrease regulatory harmonization with these two authorities.

See narrative in Section IV.D for discussion on harmonization.

REFERENCE:

FAA	EASA
21.50 Instructions for continued airworthiness and manufacturer's maintenance manuals having airworthiness limitations sections.	21.A.7 Instructions for continued airworthiness
...	...
(b)... must furnish at least one set of complete Instructions for Continued Airworthiness to the owner of each type aircraft, aircraft engine, or	(b) At least one set of complete instructions for continued airworthiness shall be provided by the [DAH]... to each known owner of one or more

FAA	EASA
propeller upon its delivery, or upon issuance of the first standard airworthiness certificate...	products upon its delivery or upon the issuance of the first certificate of airworthiness...
[No comparable requirement]	
	(c) By way of derogation from point (b), the type-certificate holder or restricted type-certificate holder may delay the availability of a part of the instructions for continued airworthiness, dealing with long lead accomplishment instructions of a scheduled nature, until after the product or modified product has entered into service, but shall make those instructions available before the use of this data is required for the product or modified product.
Order 8110.54A	
Chapter 3. ICA Format and Types of Data	AMC1 21.A.7(c) Completeness and timely availability of the ICA
1. ICA Requirements for Design Approval Holders.	
...	[see complete text copied below]
d. In the case of airframe structure, the FAA recognizes that DAHs may not be able to complete development of structural inspection procedures or other ICA procedures needed to support maintenance requirements for the entire design life of the aircraft by the delivery of the first new aircraft, or return to service of modified aircraft or at the time of TC issuance. Under these circumstances, the DAH can establish an operational limit for the first inspection for which the data is not available. The operational limit must be clearly stated in the ALS of the ICA, and no aircraft may be operated beyond this limit. As the data becomes available, the ALS can be revised to extend or eliminate the operational limit.	

Chapter 5. ACO and AEG Responsibilities**1. What ACOs and Directorate Offices**

Responsible for TC, STC, PMA, TSOA and Other Design Approvals Must Do.

...

i. Should not normally issue design approvals before you and the AEG have concurred, where applicable, with the proposed ICA or the assessment showing there is no ICA. If there is a need to issue a design approval without complete ICA coverage, you must approve a program that ensures all ICA requirements will be complete and accepted before the first affected aircraft is operated with a standard airworthiness certificate. The program must at least have:

(1) A list of all parts of the ICA affected or required by the design change or approval;

(2) A detailed schedule for completing and submitting the ICA to the ACO;

(3) A statement saying, "Instructions for Continued Airworthiness are incomplete. The aircraft will be eligible for return to service when the ICA is complete and accepted." You must put this statement in the type certificate data sheet (TCDS) or the "Limitations" section of the STC, as applicable. This means an aircraft can be modified, but cannot return to service until we accept the complete ICA. When we accept the ICA, you can remove the statement; and

(4) A memo to notify the appropriate individual or office (FAA or designee) that a standard airworthiness certificate cannot be issued...

AMC1 21.A.7(c) Completeness and timely availability of the ICA

COMPLETENESS AND TIMELY AVAILABILITY OF THE ICA FOR TYPE-CERTIFICATE (TC) AND RESTRICTED TYPE-CERTIFICATE (RTC) APPLICANTS

(a) An applicant may wish to choose among the three options described below. Once the certification programme starts, it may be necessary to modify the initially selected option to accommodate programme changes. All such changes should be coordinated with EASA.

(1) Option 1: Complete ICA are available at the time of the design approval (TC/RTC)

(i) The ICA will be made available at the time of the design approval. This option minimises the risk of incomplete ICA, especially for changes.

(ii) With all ICA available at the time of the design approval, they should also be furnished / made available to the aircraft operator / aircraft owner and made available to any other person required to comply with any of those instructions in accordance with points 21.A.21(c)(4), 21.A.44 and 21.A.7, without using the provision to delay certain parts of the ICA after the entry into service.

(iii) Frequently, there is only a short period of time between the design approval and the entry into service. Nevertheless, applicants/holders may still wish to apply Option 2 or 3 for a part of their ICA as stated below.

(2) Option 2: Complete ICA are available at entry into service (TC/RTC)

If an applicant plans to make part of the ICA available to EASA at entry into service, the following approach is acceptable:

(i) For the ALS, as part of the type design, notwithstanding the selection of Option 2: the applicant submits the ALS for approval prior to the design approval. Any ALS content that is incomplete, not yet demonstrated for compliance, or delayed beyond the design approval, requires to be compensated through an interim limitation to establish compliance within this limitation. The interim limitation is notified to the aircraft operator(s) concerned as a temporary operational limitation in a manner agreed with EASA.

In this context, ALS content is understood as the task method (e.g. a detailed inspection), including its reference, title and applicability, and the associated threshold / interval / life-limit. The accomplishment procedure itself, i.e. how to carry out the task, is usually described in other parts of the ICA (e.g. in the AMM or NDT manual). However, the feasibility study of the accomplishment procedure is required for compliance with specific requirements (e.g. CS 25.611).

(A) This may typically apply when the aircraft structural full-scale fatigue testing required for compliance with the fatigue- and damage-tolerance requirements, considering the expected operational life, will not be completed prior to the type certificate being issued. In this case, a temporary operational limitation is assigned and stated in the ALS, dependent on the aircraft full-

scale fatigue testing progress. The ALS is effectively incomplete beyond this temporary operational limitation, as the required justification and the resulting ICA are not yet available to support the safe operation of the aircraft beyond this limitation.

(B) A TCDS notation is not necessary, since the product is provided with complete ALS content up to the established temporary operational limitation.

(ii) A compliance plan identifying those parts of the ICA that are only to be made available at entry into service is produced, submitted to EASA and agreed between the applicant and EASA prior to the design approval (refer also to (iv) for ICA considered to be necessary at the time of the design approval.

(iii) A commitment is provided to produce, verify and submit (when requested) to EASA the relevant ICA prior to entry into service. This commitment should be provided in a certification document (e.g. the compliance plan) and should also be addressed in a more general manner in a DOA procedure for EU holders/applicants in accordance with points 21.A.239 and 21.A.263. If the respective DOA holder has not previously exercised the practice of delaying the ICA beyond the design approval in order for the DOA to demonstrate this capability in its design assurance system (DAS), the required procedural changes need to be addressed via a significant change to the DAS in accordance with point 21.A.247.

(iv) ICA considered to be necessary at the time of design approval are provided or made available in a format that adequately defines the data. Furthermore, the way the data is presented at the time of the design approval offers the same understanding of the data as in the final published format.

The applicant should agree with the Agency, in a compliance plan, on all ICA necessary at the time of design approval. The Agency investigation may vary from no involvement or evaluating a limited sample of the ICA to performing a thorough review of specific parts of the ICA.

(v) In cases where the Agency EASA [*sic*] has doubts as to whether the applicant/holder can fulfil the applicable requirements of point 21.A.44 to control and support delaying the ICA beyond the design approval, or TC/RTC, and until entry into service, EASA can decide to assign a condition for entry into service for non-ALS ICA.

As a condition for the entry into service, a note should be included in the type certificate data sheet (TCDS) as a result of these pending issues under the ICA paragraph as follows:

‘Note: The ICA are not complete. As per point 21.A.7 of Commission Regulation (EU) No 748/2012, they must be completed before the entry into service of the aircraft. Contact EASA for information on the status.’

The decision to assign a condition may be based on the applicant’s performance, e.g. if the applicant has already demonstrated in previous projects that it provided the complete set of ICA before the entry into service, if the applicant has already experienced difficulties in providing the

ICA considered necessary at the time of the design approval, or has previously failed on a different project to meet its commitment to complete the ICA prior to entry into service, or if the applicant/holder has no previous experience with the practice of delaying the ICA beyond the design approval.

(vi) Post-TC action is established together with EASA (if EASA requests such a review) to review the ICA status at entry into service.

(vii) If all ICA are made available to EASA at the time of entry into service, they should also be furnished at this time to the aircraft operator / aircraft owner and made available to any other person(s) required to comply with any of those instructions in accordance with points 21.A.21(c)(4), 21.A.44 and 21.A.7, without using the provision to delay certain parts of the ICA beyond the entry into service. For an EU holder/applicant, this should be supported as part of the DOA/ADOA procedure.

(3) Option 3: Complete ICA are available after the entry into service (TC/RTC)

As per point 21.A.7(c), certain ICA dealing with the ‘overhaul or other forms of heavy maintenance’ may be delayed until after the aircraft entry into service. Although there is no definition of what is meant by ‘overhaul or other forms of heavy maintenance’, the intention of the rule is to provide flexibility to applicants/holders for long-lead ICA of a scheduled nature.

If an applicant plans to make part of the ICA available only after the entry into service, the following is acceptable for the complete set of ICA:

(i) for the ALS, as it cannot be delayed until after the entry into service, point (i) of Option 2 applies;

(ii) for ICA considered to be necessary at the time of the design approval, point (iv) of Option 2 applies.

(iii) a detailed compliance plan identifying those parts of the ICA that are to be provided prior to and after the entry into service. For ICA made available after the entry into service, the plan should account for when the ICA are needed so that they can be complied with. This approach may only be used for scheduled maintenance accomplishment procedures, where threshold / interval / life-limit requirements of the related scheduled tasks are established. In that respect, the following aspects should be considered:

(A) The majority of the ICA are of an unscheduled nature; therefore, these items should be available at entry into service at the latest.

(B) Consideration should be given to the fact that a number of tasks are used for both scheduled and unscheduled maintenance (e.g. an operational check of a system is planned as a scheduled task at a certain point in time, but is also required as part of the installation procedure to determine the operational status of the system).

(C) For ICA to be made available after entry into service, the detailed plan should contain threshold(s) controlled by the applicant/holder, stating the maximum value in flight hours (FH) / flight cycles (FC) or calendar time (CT), or a combination of them as applicable, by which point in time the delayed ICA should be made available.

(D) This detailed plan should be available prior to the time of the design approval and should be either directly integrated or cross-referenced in a compliance plan.

(E) Information on the format in which the ICA delayed until after entry into service will be made available in time (e.g. regular revisions or temporary revisions (TRs) or service information (SBs, SIL, etc.).

(iv) A procedure/programme that ensures a detailed plan is produced and implemented in the applicant's organisation in order to ensure the timely availability (to the aircraft operator / aircraft owner and to any other person required to comply with any of those instructions and to the Agency, if involved and when requested). For an EU holder/applicant, this should be part of the design organisation approval (DOA) procedure in accordance with points 21.A.239 and 21.A.263.

(v) A commitment is made to produce, verify and provide the relevant ICA in accordance with the detailed plan. This commitment should be provided in a certification document (e.g. a compliance plan) and should also be addressed in a more general manner in a DOA procedure for EU holders/applicants in accordance with points 21.A.239 and 21.A.263. If the respective DOA holder has not previously exercised the practice of delaying the ICA beyond the design approval in order for the DOA to demonstrate this capability in its design assurance system (DAS), the required procedural changes need to be addressed via a significant change to the DAS in accordance with point 21.A.247.

(vi) In order to ensure that the applicant/holder can meet their obligations as set out in point 21.A.44 to control and support delaying the ICA, EASA may decide:

(A) for ICA delayed until entry into service, to assign a condition/notation for the entry into service to be included in the TCDS as a result of these pending issues under the ICA paragraph, as per point (v) of Option 2;

(B) for ICA delayed until after entry into service, to assign an interim limitation to be published and included in the ALS as a temporary operational limitation, also for non-ALS ICA, to compensate for the delayed ICA; this approach may only be used for scheduled maintenance accomplishment procedures, where task and interval requirements are available.

The decision to assign a condition/limitation may be based on the applicant's performance, e.g. if the applicant has already demonstrated in previous projects that it provided the complete set of ICA before the entry into service, if the applicant had already difficulties in providing the ICA considered necessary at the time of the design approval, or has failed before in a different project

to control and support delaying the ICA, or if the applicant/holder has not previously exercised the practice of delaying the ICA beyond the design approval.

(vii) Post-TC action should be established with EASA to regularly review the ICA status, if EASA requests such a review, taking into account the DOA oversight activities.

(viii) An applicant/holder should provide visibility, regarding the ICA that are delayed beyond entry into service, to the aircraft operator / aircraft owner and to any other person(s) required to comply with any of those instructions. This can be achieved by providing this information, for example, on a website or in a document, such as an MPD or AMM, preferably in the principal ICA manual. This visibility information is then itself considered to be ICA information.

(ix) It is assumed that for those ICA that are made available to EASA at the time of entry into service, they are also at the same time furnished to the aircraft operator / aircraft owner and made available to any other person(s) required to comply with any of those instructions in accordance with points 21.A.21(c)(4), 21.A.44 and 21.A.7.

This is to satisfy EASA that such a delayed publication will not have an adverse effect on the continuing airworthiness of any individual aircraft.

To allow the timely review and incorporation of a delayed part of the ICA into continuing airworthiness activities and processes (e.g. amendment of the aircraft Maintenance Programme) by the person or organisation responsible for the aircraft continuing airworthiness or for performing maintenance, the Agency considers that the delayed ICA should typically be made available two years before the actual ICA has to be used, when using normal revisions as a format. However, shorter time margins may be acceptable, provided that the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but they should not be less than 1 year before the ICA has to be used.

(b) Completeness and timely availability of changes to the ICA (TC/RTC)

Point 21.A.7(d) regulates the distribution of changes to the ICA required from the TC/RTC holder. Those changes to the ICA could result from the design change process (minor and major changes), in-service experience, corrections, and others.

For an EU TC/RTC holder/applicant, a programme showing how changes to the ICA are distributed is part of the respective procedures (e.g. design organisation procedures, or alternative procedures used to demonstrate capabilities). For changes to the ICA triggered by design changes, typically these procedures follow the same principles as those available for TC/RTC, Options 1 to 3, while taking into account the relevant privileges, e.g. that a DOA may approve minor changes in accordance with point 21.A.263(c)(2).

2. **Recommendation 7 – In-Service Feedback**

All DAHs should receive and review in-service feedback related to ICA and update ICA to address newly identified safety risks.

INTENT: To ensure DAHs determine if any changes to the Instructions for Continued Airworthiness are necessary based on in-service feedback, take action as appropriate, and communicate the rectification to the agency and those required to comply.

RATIONALE: Not all DAHs are required by FAA rules to determine if changes to ICA are appropriate based on in-service feedback. Title 14 CFR 21.137 requires production certificate holders to have a written quality system which, per § 21.137(m), must include procedures for “receiving and processing feedback on in-service failures, malfunctions, and defects” and must “include a process for assisting the design approval holder to— (1) Address any in-service problem involving design changes; and (2) Determine if any changes to the Instructions for Continued Airworthiness are necessary.” When the DAH and the PAH are the same, there will be internal communication of in-service feedback, but there is no parallel requirement for DAHs without production approval to collect, process, and review in-service feedback and amend ICA as necessary. Title 14 CFR 21.3 requires DAHs to report certain failures, malfunctions, and defects to the FAA and address unsafe conditions. Conversely, § 21.3(f) imposes the obligation on the PAH (not the DAH) to provide the data necessary for issuing an appropriate Airworthiness Directive when an accident or service difficulty report shows a product or article is unsafe.

In contrast, EASA regulation 21.A.7(a) requires the DAH to ensure that ICA “is maintained throughout the operational life of the aircraft, when demonstrating compliance with the applicable type-certification basis established and notified by the Agency in accordance with point 21.B.80.”⁵⁹

TCCA CAR 521.367(1) requires the DAH to:

Develop and maintain the manuals and their supplements that are required by the certification basis of the aeronautical product and are required to support the operation of the product in service, including

- (a) an installation manual;
- (b) an operating manual;
- (c) a maintenance manual;
- (d) an overhaul manual;

⁵⁹ European Aviation Safety Authority, 21.A.7(a) [Instructions for Continued Airworthiness](#).

- (e) servicing instructions;
- (f) instructions for continued airworthiness;
- (g) an illustrated parts manual; and
- (h) service bulletins or equivalent documents.⁶⁰

Per CAR 521.356, when TCCA determines that corrective action is necessary to rectify an unsafe condition in a product (e.g., identified through the service difficulty reporting), the DAH must submit to the TCCA a corrective action plan and, upon its approval, “make available to each owner and each operator of the aeronautical product the information needed to rectify the unsafe condition.”⁶¹

During the recommendation review, questions arose regarding the impact of the proposed change on current design and production approval holders. The chart below illustrates the current gaps that would be closed by the change.⁶²

Case	Case Examples	AS9100	DAH	PAH	Comments
1	TC/PCH	Y	Yes	Same	AS9100 requirements provide the same as the proposed change
2	TC/PCH	N	Yes	Same	21.137(m) should fill the gap as TC/PCH must assist the DAH (themselves) to determine....
3	TCH wo/ PC	Y	Yes	License PC	AS9100 requirements provide the same as the proposed change
4	TCH wo/ PC	N	Yes	License PC	No requirement to determine if ICA changes are necessary
5	TSOA	Y	Yes	Same	AS9100 requirements provide the same as the proposed change
6	TSOA	N	Yes	Same	21.137(m) should fill the gap as TC/PCH must assist the DAH (themselves) to determine....
7	TCH	Y	Yes	License PMA	AS9100 requirements provide the same as the proposed change
8	TCH	N	Yes	License PMA	No requirement to determine if ICA changes are necessary
9	T&C PMA	Y	Yes	Same	AS9100 requirements provide the same as the proposed change
10	T&C PMA	N	Yes	Same	21.137(m) should fill the gap as TC/PCH must assist the DAH (themselves) to determine....
11	License PMA w/ Delegated ICA	Y	TCH	License PMA	AS9100 requirements provide the same as the proposed change
12	License PMA w/ Delegated ICA	N	TCH	License PMA	TCH not involved in ICA review
13	STC w/ PMA production	Y	Yes	Same	AS9100 requirements provide the same as the proposed change
14	STC w/ PMA production	N	Yes	Same	21.137(m) should fill the gap as TC/PCH must assist the DAH (themselves) to determine....
15	STC wo/ PMA production	Y	Yes	License PMA	AS9100 requirements provide the same as the proposed change
16	STC wo/ PMA production	N	Yes	License PMA	No requirement to determine if ICA changes are necessary

Addressing the issue will clarify the responsibility of DAHs to address issues based on in-service feedback that do not rise to the level of an Airworthiness Directive.

APPROACH: The FAA should consider adding a responsibility for DAHs to have a system for feedback collection and resolution to address newly identified safety risks. The FAA should review § 21.137(m) to clearly identify the PAH’s responsibility to pass collected feedback to the DAH.

This can be accomplished by adding this requirement to subpart A. The ARC could not reach consensus on the regulatory language the FAA should adopt to effect this move of ICA requirements to subpart A.

⁶⁰ Transport Canada, [Canadian Aviation Regulation \(CAR\) 521.367\(1\)](#).

⁶¹ Transport Canada, [CAR 521.356](#).

⁶² The key for this chart is as follows: Green – No impact given current AS9100 requirements. Blue – Would have additional benefits as there is no current auditable requirement; however, the production organization would need to coordinate with another part of the same organization. Pink – Gaps that would be closed by adopting the recommendation.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

This recommendation promotes harmonization with EASA's and Transport Canada's DAH responsibility for assessing in-service feedback, thus increasing regulatory harmonization with these two authorities.

ANAC, similar to the current FAA requirement of § 21.137(m), places this responsibility on the PAH without an associated DAH responsibility. This recommendation would decrease regulatory harmonization with ANAC.

See narrative in Section IV.D for discussion on harmonization.

3. **Recommendation 8 – Awareness/Communication**

DAHs should have a mechanism in place to allow the FAA, owner/operators, and maintainers to determine the latest revision level of each ICA.

INTENT: To ensure the FAA, owner/operators, and maintainers have a reliable way to easily determine the “latest” DAH ICA revision level.

RATIONALE: Title 14 CFR 21.50(b) of the current regulations specifically requires that “the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions. In addition, changes to the Instructions for Continued Airworthiness shall be made available to any person required by this chapter to comply with any of those instructions.” Therefore, there is already a requirement for design approval holders to make the latest version of the ICA available to any person who would need to use it.

The FAA (e.g., aviation safety inspectors inspecting repair stations), owner/operators, and maintainers require a mechanism to determine the latest DAH ICA revision level to ensure products and articles are either maintained to the most recent ICA or that an informed decision can be made to work to an older version. According to § 43.13(a), each person performing maintenance must use “the methods, techniques, and practices prescribed in the current manufacturer’s maintenance manual or Instructions for Continued Airworthiness prepared by its manufacturer, or other methods, techniques, and practices acceptable to the Administrator, except as noted in Sec. 43.16.” (Emphasis added.) Therefore, it is necessary for the FAA, owners/operators, and maintenance providers to know what is “current.”

This recommendation supports compliance, reduces superseded-data risk, and helps maintenance providers verify current data.

APPROACH: Update guidance to recommend DAHs maintain a process (e.g., website) to allow the agency, owners/operators, maintainers, and others “required to comply” to determine the latest ICA revision/status. Such a process could require registration to access the list. See, e.g.:

- HEICO: <https://heico.com/continued-airworthiness/>.
- Hartzell: <https://hartzellprop.com/services/product-support-library/manuals/manual-revision-status-sheet/>.
- Textron: <https://ww2.txtav.com/TechnicalPublications/RecentPubs>.
- GE: <https://www.geaerospace.com/customer-support/technical-manuals-indexes>.
- P&W Canada: <https://www.prattwhitney.com/en/services/pwc-engine-services/technical-publications/revision-status-report>.
- Garmin: <https://support.garmin.com/en-US/aviation/ql/manuals/>.

- P&W USA: <https://portalidentity.prattwhitney.com/identity/userRegistration> (requires registration to access list).
- Boeing: <https://www.myboeingfleet.com> (requires registration to access list through data and services catalog).

Note 1: Hyperlink references were correct when the report was published. References in this report will not be maintained.

Note 2: This recommendation does not envision any prescriptive format, mechanism, or media for providing the list.

HARMONIZATION: This recommendation is for updates to guidance only. EASA guidance identifies the need to identify ICA in guidance material but does not directly address the revision level. Other regulators also have “make available” requirements. This recommendation is neutral with respect to regulatory harmonization.

RELATED RECOMMENDATIONS:

Recommendation 1 relates to the identification of ICA.

D. FAA Oversight and Enforcement of ICA Regulations

1. Recommendation 9 – FAA Complaint Receipt and Tracking Process

The FAA should identify and clarify the agency’s process for receiving and tracking complaints about ICA content and availability.

INTENT: To ensure there is a process to capture and track complaints related to ICA content and availability.

RATIONALE: The ARC identified multiple “on-ramps” by which user complaint data can enter the FAA, including:

- The FAA Hotline.⁶³
- § 13.5 complaint.
- Congressional Letter.
- Direct complaint to the Certification Branch.
- Certificate Management Section.
- FSDO or CMO.
- Foreign authorities.

Each entry point has different or unclear instructions for FAA personnel on how to make sure the complaint gets forwarded for resolution, and the information that must be included in the complaint is also unclear. Industry and agency must have a common understanding of how the complaint system works.

A consistent approach is needed for managing complaints to ensure they are directed to the appropriate FAA office, facilitating compliance, oversight, and enforcement.

APPROACH: The ARC recommends updating guidance to:

- Recommend industry to submit formal complaints per § 13.5.
- For complaints submitted to any FAA office, direct the FAA to re-direct industry to submit formal complaints per § 13.5.

HARMONIZATION: This recommendation is for updates to the FAA’s internal processes for complaint handling. Therefore, this recommendation is neutral with respect to regulatory harmonization.

RELATED RECOMMENDATIONS/PROPOSALS:

Recommendation 10 relates to transparency and communication for complaint resolution.

⁶³ [Federal Aviation Administration Hotline, Report Issues Related to Aviation Safety or FAA Personnel and Facilities](#) (last updated May 16, 2025).

Proposal G8 relates to ensuring ICA rules and guidance are clear and that the responsibilities of various FAA services are understood.

2. Recommendation 10 – Resolution Communications

The FAA should ensure accountability and feedback for all parties and improve transparency with regard to formal complaints submitted via a § 13.5 complaint.

INTENT: To clarify the ICA complaint resolution process established by the FAA rules and ensure that all parties are made aware of the status and resolution of formal complaints. To close out complaints, the FAA should convey its decision and rationale to all parties.

RATIONALE: Regulations and guidance should establish how the FAA interacts with the party responsible for the ICA and with complainants.

Clarifying the ICA complaint resolution process will result in more transparency, timely resolution of complaints, and enhanced compliance efficiency through common expectations (industry and agency). Industry feedback will facilitate monitoring of process effectiveness, identification of risks, and process improvements.

Title 14 CFR 13.5(f)(1) includes communication to “the person who filed the complaint and the subject(s) of the complaint” if the complaint is dismissed.

Title 14 CFR 13.5(f)(2) includes communication to “[t]he subject(s) of a complaint” if an investigation is initiated. However, it does not include communication to the person who filed the complaint. Therefore, the FAA should amend it to include this communication.

Closed loop communication for complaint closure is not included in § 13.5(f)(2). The “person who filed the complaint” would need to review the Formal Complaint Docket to determine the status of any complaint. This gap could be closed by adding the requirement for the Administrator to communicate with all parties when the complaint is closed.

The complainer may never learn how or whether their complaint is resolved; their only option is to examine the FAA’s Formal Complaint Docket at FAA Headquarters in-person to determine the status per § 13.5(h). This imposes a significant burden on the complainer. By incorporating this recommendation, the agency would relieve this industry burden.

APPROACH: Update § 13.5(f)(2), as follows, to include communication to advise all parties of the initiation of an investigation. Added text indicated */in blue/*

If the Administrator determines that reasonable grounds exist, an informal investigation may be initiated or an order of investigation may be issued in accordance with subpart F of this part, or both. The */person who filed the complaint and the/* subject(s) of a complaint will be advised */, in writing,/* which official has been delegated the responsibility under § 13.3(b) or (c), as applicable, for conducting the investigation.

Add § 13.5(f)(3) to include communication to advise all parties of ultimate resolution:

/Upon conclusion of any investigation under [13.5\(f\)\(2\)](#), the Administrator will advise, in writing, the person who filed the complaint and the subject(s) of a complaint of the resolution./

Amend § 13.5(g) to include communication to advise all parties of the Administrator’s action taken:

If the investigation substantiates the allegations set forth in the complaint, the Administrator may take action in accordance with applicable law and FAA policy. /[The Administrator will advise, in writing, the person who filed the complaint and the subject\(s\) of a complaint of the action taken./](#)

In making the above changes, the FAA must ensure alignment with statutory obligations (e.g., Privacy Act) and update existing guidance, as appropriate, to ensure the communication occurs.

HARMONIZATION: This recommendation is for updates to the FAA’s internal processes for complaint handling. Therefore, this recommendation is neutral with respect to regulatory harmonization.

RELATED RECOMMENDATIONS:

Recommendation 9 relates to complaint initiation and resolution.

E. Miscellaneous Cleanup of ICA Regulations and/or Guidance

1. Recommendation 11 – Airworthiness Limitations

The FAA should revise the applicable ICA Appendices (i.e., H25.4(b)) to remove the requirement that the airworthiness limitations must be included in the principal manual.

INTENT: To allow flexibility for each DAH to determine the most appropriate location for the airworthiness limitations for their product, accommodate electronic manual systems, and eliminate/reduce administrative burden associated with deviation from the literal text of this requirement for both the DAH and the FAA.

RATIONALE: The FAA has already acknowledged that current manual requirements in applicable FAA regulations do not appropriately accommodate the use of electronic manuals and that those requirements needed to be updated to accommodate modern technology. Some guidance material, such as AC 120-78B, has been updated to address use of electronic manual systems by certificate holders conducting operations and individuals performing maintenance and preventive maintenance, however, excludes TC/STC holders who also have a need to accommodate the use of modern technology. FAA Order 8110.54A provides a limited amount of flexibility for TC/STC applicants to prepare ICA as a “manual or manuals,” depending on how much data is necessary to provide complete ICA and allows the applicants to propose a format or standard including sample format ASD-S1000D that results in electronic data-centric output in lieu of document-centric manuals. This flexibility is made somewhat moot by the actual text of the regulation (i.e., H25.4(b)) pertaining to the Airworthiness Limitations Section (ALS), which requires the ALS to be in the principal manual if ICA otherwise consists of multiple documents, even if those documents are published in electronic format. Some products have unique airworthiness limitations requirements such as those related to fuel tank system which have been successfully segregated from other types of airworthiness limitations such as structural airworthiness limitations and Certification and Maintenance Requirements with no adverse effects through the use of an Equivalent Level of Safety (ELOS) finding TC6918SE-T currently approved for use on 26 models. Although this ELOS improves flow times and streamlines the document revision/approval process for the DAH and FAA and provides more expedient publication of airworthiness limitations to the owners/operators of those products than there would be if they were all in one principal manual, it creates an unnecessary administrative burden to specifically acknowledge that ELOS for each certification effort that ever affects airworthiness limitations for the life of those products. The removal of the outdated concept of a principal manual in the text of the regulation would eliminate this burden by mandating only the identification of the airworthiness limitations, instead of the packaging of those limitations

allowing them to be provided in a format that is appropriate for the quantity and arranged in a practical manner.

APPROACH: The Airworthiness Limitations Section of the applicable ICA regulations, as well as FAA Order 8110.54A Chapter 4.1.b., should be updated to require that all locations within the ICA which contain Airworthiness Limitations Section requirements be clearly identified instead of requiring them to be in the principal manual. The proposed locations of airworthiness limitations would be addressed by the applicant and coordinated with the FAA as part of the program that is to be approved by the FAA.

The ARC recommends the following proposed updates. Removed text is shown with ~~strikethrough in red~~, added text shown ~~/in blue/~~:

8110.54A chapter 4.1.b.

If the ICA consists of multiple manuals, ~~\we require applicants to include the ALS in the “principal manual.”\~~ ~~/all locations within the Instructions for Continued Airworthiness which contain Airworthiness Limitations Section requirements must be clearly identified whether in a single dedicated manual or in multiple locations/documents/~~. Coordinate with the applicant to identify the ~~\principal manual. In general, the principal manual will be the document used for maintenance. However, it may also be the document used for scheduled maintenance to ensure all required inspections and associated limitations are contained within a single document.\~~ ~~/location of Airworthiness Limitations Section requirements./~~ ICA complexity and the type of product will determine ~~\assignment of the principal manual.\~~ ~~/where the Airworthiness Limitations Section requirements are located within the Instructions for Continued Airworthiness./~~

Applicable ICA Appendix Update:

H25.4(b)

If the instructions for Continued Airworthiness consists of multiple documents, ~~\the section required by this paragraph must be included in the principal manual. This section\~~ ~~/all documents which contain Airworthiness Limitations/~~ must ~~/be clearly identified and/~~ contain a legible statement in a prominent location that reads: “The Airworthiness Limitations section is FAA-approved and specifies maintenance required under §§ 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved.”

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA, Transport Canada, and ANAC regulations are harmonized with the current FAA requirement in that they refer to the ALS as “a section” (singular) of the ICA and to the use of a “principal manual” to identify ICA content. This recommendation reduces regulatory harmonization with these regulators.

It should be noted, however, that the products subject to the ELOS above have been accepted by EASA, and that EASA GM2 21.A.7(b) “ICA — format” covers the acceptability of ICA in multiple documents and specifically addresses the acceptability of ALS separated (and referenced) from a “principal manual.”

See narrative in Section IV.D for discussion on harmonization.

2. Recommendation 12 – Consolidation of FAA Policy

Upon the completion of the ARC and the adoption of any regulatory and related policy changes, the FAA should update its guidance to reconcile FAA policy (e.g., policy statements, legal interpretations, exemptions) regarding ICA content, availability, and applicability.

INTENT: To reconcile FAA policy to align with regulations and facilitate compliance and enforcement subsequent to the completion of the ARC and the adoption of any policy changes by the agency.

RATIONALE: The FAA's ICA policies are currently contained in myriad disparate documents, creating confusion for the agency and stakeholders. Certain issues are addressed in one document but not others.

APPROACH: Upon the adoption of any FAA policy and regulatory changes as a result of the ARC, the agency must review all existing ICA-related documents (e.g., legal interpretations, Orders, ACs) for consistency with the FAA's updated policies and identify documents that have been changed, modified, or cancelled.

The ARC compiled a partial list of potentially affected documents that the FAA may use as a starting point. The list is available in Appendix F.

Note: This list was compiled at the beginning of the ARC. It may be incomplete.

HARMONIZATION: This recommendation is for updates to guidance only. Therefore, this recommendation is neutral with respect to regulatory harmonization.

3. Recommendation 13 – Continuing Availability of ICA

The FAA should update Order 8110.120 to better address the continuing availability of ICA if the DAH is no longer in a position to make it available (e.g., when the DAH is no longer in business).

INTENT: To provide for the continued availability of ICA if a DAH is no longer in a position to provide it (e.g., DAH has ceased to exist and no successor organization is available to provide the ICA).

RATIONALE: The user community has encountered situations in which the DAH can no longer make ICA available (e.g., because the company is out of business).⁶⁴ Existing guidance does not address all potential scenarios to ensure continued availability of ICA and other data that serves as the basis for issuing all types of design approvals.

The statutory provision in 49 U.S.C. § 44704(a)(5) allows the FAA to make engineering data available for certificates the FAA determines are abandoned. Order 8110.120 addresses the scenario in which a DAH is no longer in business.

Order 8110.120 addresses obtaining the data from the defunct DAH; however, the order does not provide instructions on how the ICA should be made available after the FAA has obtained them. The order could also use more direction on how to identify and resolve abandoned (S)TCs (e.g., references to the part 13 process).

APPROACH: Order 8110.120 should be updated to address situations in which the DAH does not properly surrender, abandons their design approvals, or has design approval revoked or suspended. The order should be expanded to include a mechanism for the FAA to make ICA available, if appropriate, if the DAH is no longer in a position to do so.

Note: Order 8110.4C, paragraph 3-2, subparagraph h deals with cancelled TCs. Subparagraph i deals with surrendered TCs. Order 8110.4C points to Order 8110.120 for situations in which the TC holder cannot be located.

HARMONIZATION: When considering this recommendation, the FAA should consider harmonization with other civil aviation bilateral partners.

This recommendation is for updates to the FAA's internal processes. Other regulators do address the surrender or abandonment of TCs, but do not have guidance of similar specificity. This recommendation is neutral with respect to regulatory harmonization.

⁶⁴ See e.g., [Notice of Intent to Designate as Abandoned John Benham Supplemental Type Certificate No. SA3866SW](#), (Aug. 19, 2025).

4. Recommendation 14 – Configuration Information

The FAA should revise the product ICA rules to require ICA to convey approved configurations of the product (i.e., part numbers that can be fitted).

INTENT: To ensure that DAHs' ICA convey the part numbers that may be fitted within the product because this information is essential for continued airworthiness.

RATIONALE: For an aeronautical product to be airworthy, it must conform to its type design and be in a condition for safe operation. Therefore, OOMROs, who are responsible for configuration control, need configuration information. Configuration information consists of the following elements:

- Configuration of the as-delivered product (not ICA, but information DAHs must deliver with the product).
- Approved configurations of the product (i.e., part numbers that can be fitted).
- An indication of which configuration the maintenance data applies to if the data is configuration-specific (already implicitly required by the ICA regulations).

Configuration information is not explicitly mentioned in the ICA rules (i.e., the appendices of §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, or 35.4, or part 26 of subchapter C). While EASA guidance suggests that configuration information is a required component of ICA, FAA Order 8110.54 states “a method for parts configuration control is not a required part of ICA compliance but is encouraged.” Therefore, there is a lack of harmonization between the FAA and EASA on this topic.

Despite no explicit requirement to include configuration information in ICA as it pertains to their designs, most DAHs provide OOMRO with it, but sometimes only as a contractual requirement.

The intent is that applicants only be required to convey valid configurations they hold approvals for (i.e., the engine Type Certificate Holder need not list third-party STCs, PMAs, or repairs).

While there is general agreement that configuration information is essential to continued airworthiness, some DAHs expressed concern about needing to provide the associated publications for Administrator acceptance prior to certification or design approval. Therefore, the proposed approach includes provisions for delivery of configuration information no later than product delivery, rather than prior to design approval.

APPROACH: Revise the ICA rules (i.e., the appendices referenced in §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26 of subchapter C) to include the following new element of ICA content:

/(x) Information that conveys approved product configurations (i.e., part numbers that can be fitted)./

In guidance material:

- Only require applicants to convey valid configurations they hold approvals for (i.e., the engine Type Certificate Holder need not list third-party STCs, PMAs, or repairs).
- Allow the applicant to furnish and make available the associated publications following design approval but no later than product delivery provided the DAH proposes an acceptable method of conveying the approved design configuration. This should not be considered an ICA deferral.
- Do not require AED acceptance of ICA publications that only convey the approved configurations of the product, such as Illustrated Parts Catalogues or Service Bulletins, since the design itself would not yet be approved at the time of ICA submittal, and the publication simply conveys this information once it has been approved.

Consider a harmonized approach with EASA proposed GM1 21.A.7(a), scope of the ICA, their publication format, and typical ICA data, updates.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA has also recognized the need for configuration information within ICA and has developed guidance. This recommendation would increase harmonization with EASA guidance.

Transport Canada and ANAC do not have a similar requirement. This recommendation would decrease regulatory harmonization for these authorities.

See narrative in Section IV.D for discussion on harmonization.

5. Recommendation 15 – Restrictive Language for Exceptional Cases

The FAA should adopt guidance similar to GM1 21.A.7 guidance for exceptional cases when specific instructions (e.g., inspection or restoration) will only be developed on a case-by-case basis, as needed, for a given product or article.

INTENT: Ensure that FAA policy and guidance allow for exceptional cases when specific instructions (e.g., inspection or restoration) will only be developed on a case-by-case basis, as needed, for a given product or article.

Note: This recommendation is limited to only the exceptional cases when instructions will only be developed on a case-by-case basis. These exceptions shall not include cases when instructions could or should reasonably be developed in the normal course of a product’s development or lifecycle.

RATIONALE: The FAA policy regarding “restrictive language” is a SEI/SSD item between FAA and EASA. A DAH’s intent to handle exceptional cases on a case-by-case basis could be interpreted as “restrictive language” in violation of FAA policy. For example, where the DAH has included an instruction to contact the DAH in the case of unusual occurrences, this instruction is provided to offer assistance in circumstances where the potential degradation to the product cannot be presumed, and therefore a pre-determined course of action cannot be defined. The ARC believes that these exceptional cases should not necessarily be interpreted as “restrictive language.”

This recommendation would potentially move closer to resolving the SEI/SSD between the FAA and EASA, reduce the validation burden for the FAA for EU products, and present an updated and practical set of expectations for U.S. design approval holders.

APPROACH: The FAA should review its policy and guidance to ensure that such exceptional cases can be accommodated when appropriate.

The ARC notes that EASA, in its guidance to Part 21.A.7 (and applicable to all products), provides potential language for FAA to consider, both for purposes of addressing the SEI/SSD issue and of harmonization with EASA:

Certain deteriorations or levels of deterioration may require specific instructions (e.g. inspection or restoration) that will only be developed and provided on a case-by-case basis, as needed, for a given product or article, and as such, will not be included in the ICA.

In some exceptional cases, product ICA may ultimately instruct the user to contact the DAH in order to define the specific instructions on a case-by-case basis. This typically happens when the definition of generic instructions covering all possible cases is not possible. For example, following an aircraft hard landing, a detailed analysis may have to

be carried out by the DAH to determine the specific instructions to be followed, which depends on the touchdown loads, recalculated postflight, based on recorded flight data.

HARMONIZATION: This recommendation is for updates to FAA policy only. No equivalent policy exists for other regulators. However, this proposal introduces specific cases from EASA guidance, and is therefore promoting harmonization with EASA. The broader issues identified in the Related Recommendations of considering wider harmonization and addressing the SEI/SSD will further promote harmonization with EASA if taken up by the FAA.

This proposal is neutral with respect to harmonization with ANAC and Transport Canada.

RELATED RECOMMENDATIONS:

Recommendation 12 directs the FAA to review ICA policy and guidance generally. As part of Recommendation 12, the FAA would review policy statement PS-AIR-21.50-01 on “restrictive language.” Any such review should consider the position papers presented in Section VIII of this report, as well as means of promoting harmonization with EASA to address the SEI/SSD item.

REFERENCE:

FAA	EASA
Policy PS-AIR-21.50-01	[No equivalent]
21.50 Instructions for continued airworthiness and manufacturer's maintenance manuals having airworthiness limitations sections.	21.A.7 Instructions for continued airworthiness
..	(a) The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change or repair design approval shall develop or reference the instructions which are necessary for ensuring that the airworthiness standard related to the aircraft type and any associated part is maintained throughout the operational life of the aircraft, when demonstrating compliance with the applicable type-certification basis established

FAA

(b) The holder of a design approval, including either a type certificate or supplemental type certificate for an aircraft, aircraft engine, or propeller for which application was made after January 28, 1981, must furnish at least one set of complete Instructions for Continued Airworthiness to the owner of each type aircraft, aircraft engine, or propeller upon its delivery, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later.

The Instructions for Continued Airworthiness must be prepared in accordance with §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26 of this subchapter, or as specified in the applicable airworthiness criteria for special classes of aircraft defined in § 21.17(b), as applicable. If the holder of a design approval chooses to designate parts as commercial, it must include in the Instructions for Continued Airworthiness a list of commercial parts submitted in accordance with the provisions of paragraph (c) of this section.

Thereafter, the holder of a design approval must make those instructions available to any other

EASA

and notified by the Agency in accordance with point 21.B.80.

(b) At least one set of complete instructions for continued airworthiness shall be provided by the holder of:

1. a type-certificate or restricted type-certificate to each known owner of one or more products upon its delivery or upon the issuance of the first certificate of airworthiness or restricted certificate of airworthiness for the affected aircraft, whichever occurs later,
2. a supplemental type-certificate or design change approval to all known operators of the product affected by the change upon the release to service of the modified product,
3. a repair design approval to all known operators of the product affected by the repair upon the release to service of the product in which the repair design is embodied. The repaired product, part or appliance may be released into service before the related instructions for continued airworthiness have been completed, but this shall be for a limited service period, and in agreement with the Agency.

Thereafter, those design approval holders shall make those instructions available on request to any other person required to comply with those instructions.

...

FAA

person required by this chapter to comply with any of the terms of those instructions.

EASA

(d) The design approval holder, who is required to provide instructions for continued airworthiness in accordance with point (b), shall also make available changes to those instructions to all known operators of the product affected by the change and, on request, to any other person required to comply with those changes. That design approval holder shall demonstrate to the Agency, on request, the adequacy of the process of making changes to the instructions for continued airworthiness available in accordance with this point.

GM1 21.A.7(a) Scope of ICA, their publication format and typical ICA data

(a) ICA can be published in documents or in a manner other than the traditional understanding of a document – for example, as a series of web pages, or Information Technology (IT) tools, or in a publishing format linked to tasks or data modules rather than pages.

(b) The design approval holder (DAH) can decide – within the framework provided by point 21.A.7 and its acceptable means of compliance and guidance material – to publish the ICA in the most suitable location as part of all the information published to support the airworthiness of an aircraft. Publications typically produced by DAHs (e.g. for the demonstration of compliance with a certification basis established on the basis of

FAA**EASA**

CS-25), and which may therefore include ICA, consist of:

- aircraft maintenance manuals (AMMs);
- scheduled maintenance requirements (e.g. MRBRs);
- off-wing component maintenance or overhaul manuals;
- parts catalogues;
- tooling manuals;
- wiring diagram manuals;
- weight and balance manuals;
- electrical loads analyses;
- extended range operations (ETOPS) configuration maintenance programs/plans;
- supplemental structural inspection documentation;
- certification maintenance requirements;
- Airworthiness Limitations items;
- ageing aircraft maintenance requirements;
- fuel tank safety related limitations (e.g. critical design configuration control limitation (CDCCL));
- electrical wiring interconnection system instructions;
- corrosion prevention and control programmes;
- troubleshooting manuals.

Note: The above is only an example of the publications that may contain ICA according to CS-25; the list is not exhaustive, nor does it represent a minimum list of ICA.

(c) The requirement for ICA is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be permanently withdrawn from service, and restoration may not be reasonably achievable. Notwithstanding the above, the existence of an MRBR task other than 'Discard (DS or DIS)' should be a clear indication of the necessity/obligation to produce a corresponding ICA.

Certain deteriorations or levels of deterioration may require specific instructions (e.g. inspection or restoration) that will only be developed and provided on a case-by-case basis, as needed, for a given product or article, and as such, will not be included in the ICA.

In some exceptional cases, product ICA may ultimately instruct the user to contact the DAH in order to define the specific instructions on a case-by-case basis. This typically happens when the definition of generic instructions covering all possible cases is not possible. For example, following an aircraft hard landing, a detailed analysis may have to be carried out by the DAH to determine the specific instructions to be followed, which depends on the touchdown loads, recalculated postflight, based on recorded flight data.

6. Recommendation 16 – Format of ICA

The FAA should clarify that ICA information may be packaged and provided in various formats, as technology evolves.

INTENT: To ensure that DAHs have sufficient flexibility to respond to evolving technology in furnishing and making ICA available.

RATIONALE: Regulatory requirements for ICA in the respective product appendices state that “Instructions for Continued Airworthiness **must be in the form of a manual or manuals...**”

The roadmap the FAA, EASA, and Transport Canada agreed upon in 2012 clarified that the information within ICA is the important aspect, whereas the way in which the information is presented to the end user is based on its applicability and useability. Requiring information to be packaged into “manuals” introduces an unnecessary limitation.

The aviation industry has seen technology changes through the last 100 years of aviation that have led to changes in available publication methods. Media to publish ICA have included paper manuals, microfiche, CDs, and online, downloadable web pages. In many cases, electronic or online publishing systems are based around linked data modules or similar. A modern instruction set may also include instructional videos or manipulatable 3D models, if that is considered the most appropriate means to instruct the maintenance activity.

APPROACH: The ARC recommends that the FAA clarify that ICA may be packaged and provided to suit the use of the data, and, therefore, the format may vary.

This clarification may be through updates to the certification regulations that currently require ICA to be provided “in the form of a manual or manuals” and/or guidance to clarify that the term “manual” is intended to convey the collection of information and instructions for an end user, rather than prescribe a specific format or media.

If the FAA chooses to remove the requirement from the regulations, it could be a path to deregulation that allows for implementation of other new regulatory requirements. It would be cost neutral and would provide flexibility for the users of ICA to have access to a variety of formats.

HARMONIZATION: When developing this amendment or updating guidance, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA guidance material also clarifies that no specific format for ICA is presumed or required. This recommendation would increase harmonization with EASA.

Transport Canada, and ANAC regulations are harmonized with the current FAA requirement in that they refer to “a manual or manuals.” This recommendation reduces regulatory harmonization with these regulators.

See narrative in Section IV.D for discussion on harmonization.

7. Recommendation 17 – ICA Updates Not Associated with New Design Approval – Clarification

The FAA should revise FAA Order 8110.54A Chapter 5.1.l to clarify expectations regarding ICA changes that are not associated with new design approvals and to reflect current industry experience.

INTENT: To clarify verbiage in FAA Order 8110.54A Chapter 5.1.l regarding ICA changes that are not associated with a new design approval, such as manual revisions driven by service bulletins or errors found during operation of the product, which currently states these changes would be submitted to the FAA for review. Instead, it is the program for publishing those changes that must be submitted to the FAA for review.

RATIONALE: FAA Order 8110.54A Chapter 5.1.l contains verbiage that is inconsistent with the ICA regulations and contrary to current industry experience.

Specifically, Chapter 5.1 discusses what the ACO's and Directorate Offices responsible for TC, STC, PME, TSOA, and other design approvals must do "after you receive an application." Included in that list is item l, service bulletins or errors found during operation of the product not associated with a new design approval. Changes not associated with new design approvals would not have an application and therefore would be handled differently from changes that would be associated with an application and that would ultimately result in an ICA submittal to the FAA.

It is understood that major changes to type design, including any changes that affect airworthiness limitations, would be associated with a design approval and would have an application. ICA would be submitted to the FAA for review and acceptance in alignment with the stated level of involvement for the ICA review during the CPN process. This is not the case for other changes to ICA that are intended to improve ICA throughout the operational life of the related product but do not rise to the level requiring a new design approval.

There is also no debate that the FAA has the authority and ability to conduct a review of published ICA unsolicited at any time, including reviews that may be associated with audits/supervisions/investigations. This type of review is not the subject of item l, which mentions submitting ICA changes not associated with a new design approval to the FAA for review.

Title 14 CFR 21.3, Reporting of failures, malfunctions, and defects, also does not seem to be the subject of item l, but clarification in the verbiage could address the possibility where an error found in ICA data during operation could result in an unsafe condition that would necessitate the suspension of the use of that ICA but would not result in a design change.

Some members of the TCH community believe that the intended focus for item I was on submitting the program for distributing ICA changes not associated with new design approvals to the FAA for review. The FAA will determine if the program is acceptable.

APPROACH: A revision to the text of FAA Order 8110.54A Chapter 5.1.1 could provide clarification that would be consistent with ICA regulations and would reflect industry experience that it is the program that is submitted for acceptability, not the ICA changes themselves.

The ARC recommends revising the text of Chapter 5.1.1 as follows. Removed text is shown with ~~strikethrough in red~~, added text shown in ~~blue~~:

I. Review and determine (with AEG concurrence) the acceptability of the applicant's program for ~~submitting~~ ~~/publishing/~~ ICA changes, not associated with a new design approval ~~, to the FAA for review~~. These changes include manual revisions driven by service bulletins or errors found during operation of the product. ~~The program should allow the applicant to send changes to the owners while sending the changes to the FAA for review, with the exception of changes to airworthiness limitations and certification maintenance requirements.~~ This ensures accurate ICA are immediately available to those operating the product. If you and the AEG find errors in the ~~submitted~~ ~~/published/~~ changes, contact the applicant and, ~~/if necessary,/~~ suspend use of the published changes until the applicant can make the proper corrections. Changes to airworthiness limitations and certification maintenance requirements, ~~/even if correcting an error,/~~ must be FAA-approved prior to distribution.

HARMONIZATION: This proposal is for improvements to the FAA's internal processes. Therefore, this proposal is neutral with respect to regulatory harmonization.

VI. Other Working Group Proposals

Section VI includes various proposals from the different working groups, as well as some proposed by the TCH group and others by the OOMRO group. None of these proposals were able to gain full ARC consensus, and so they are not being presented to the FAA as consensus recommendations of the ARC. They are presented by their proponents for FAA consideration. The opponents' reasons for not agreeing to these proposals are noted in the "Areas of Disagreement" accompanying the proposals.

A. Working Group A TCH Stakeholders

1. Proposal AT1 – ICA Definition

The FAA should adopt the agreed FAA/EASA/TCCA ICA definition of ICA, or a close equivalent definition, and incorporate that definition within the part 21 ICA requirements.

INTENT: To provide additional regulatory consistency and understanding for DAHs, operators, maintenance organizations, and other stakeholders to clearly understand that information which is ICA and subject to § 21.50 regulatory requirements is developed and/or referenced by the DAH in accordance with the applicable certification basis or standard. To facilitate understanding that DAHs and other stakeholders may develop additional maintenance information and instructions that are used for maintenance and airworthiness of products, articles, and parts, but are not developed for the purpose of showing or maintaining compliance with an applicable certification basis, are not essential to the continued airworthiness of a product, and, therefore, are not ICA.

RATIONALE: The airworthiness standards design requirements for each type certificated product (e.g., airplane rotorcraft, balloon, engine, propeller) requires, as part of the certification basis, that ICA be prepared by the DAH in accordance with the respective ICA appendix that are acceptable to the Administrator (Reference: §§ 23.1529, 25.1529, 27.1529, 29.1529, 31.82, 33.4, and 35.4). The ICA appendix corresponding to each product airworthiness standard FAR part prescribes the respective requirements for the format and content of ICA. The general section of each ICA appendix requires that the ICA includes the information essential to the continued airworthiness of the product.

For example, H25.1 states the “*Instructions for Continued Airworthiness for the airplane must include the information essential to the continued airworthiness of the airplane*”; and A.33.1 states the “*Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.*” This makes it clear that ICA are those instructions developed by the DAH for showing compliance to the applicable certification basis of the product which must include the information essential to the continued airworthiness of the product.

Part 21 prescribes certification procedures for products and articles and the rules governing the applicants for, and holders of, design approvals. Section 21.50 prescribes an ongoing obligation for a DAH to furnish a complete set of ICA upon delivery of a product and thereafter to make ICA and changes to ICA available to any person required to comply with those instructions. Section 21.50 states the ICA “must be prepared in accordance with §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26,” but does not provide a clear understanding or definition that ICA is comprised of information essential to the continued

airworthiness of the product developed for the purpose of showing or maintaining compliance with the applicable certification basis.

The FAA, EASA, and TCCA established an ICA roadmap in 2011 that identified specific issues of common interest regarding ICA regulations, guidance and procedures, and areas of major need for harmonization. The first key area for harmonization is an FAA/EASA/TCCA-agreed definition of ICA, which was published as follows and supported with additional notes to provide clarification and understanding of the intent of the text:

FAA, EASA, TCCA Agreed Definition of ICA

[Note: Quote extracted directly from the authority agreement]:

Instructions for Continuing Airworthiness are the instructions and information that are necessary for the continued airworthiness of the aircraft, engine, propeller, parts and appliances, which must be developed and/or referenced by the Design Approval Holder in accordance with the applicable Certification Basis or Standard.

It is important to note the following:

- *This definition can also cover Supplemental Type Certificates (STCs), Technical Standard Orders (TSOs), Parts Manufacturer Approval (PMAs), Part Design Approval (PDAs), repairs, etc, when ICAs are required by the Certification Basis or Standard.*
- *This definition gives the possibility of providing ICA also by reference to documents developed by other organizations. This could be, for example, the case of a reference given to a particular Component Maintenance Manual (CMM) or “Overhaul Manual.”*
- *This definition includes the terms “Certification Basis or Standard” in order to cover those cases (such as TSOs) where the requirements for ICA are contained in Standards.*

The working group discussed whether the term “airworthiness standard” would provide better understanding than the term “certification basis” in the definition above. WG-F discussed the Authority notes and agreed that the term “certification basis” is more accurate as it captures complete set of applicable requirements that ICA must consider, such as special conditions, exemption/ELOS, or TSOs. Also, this recognizes that ICA are intended to be developed and maintained throughout the lifecycle of the product.

Adopting the agreed upon definition of ICA provides clarification in part 21 for DAHs, owners, operators, and maintainers that ICAs are those instructions necessary for the continued airworthiness of the products that must be developed and/or referenced by the DAH in showing and maintaining compliance with the applicable certification basis. Having such a clear definition of ICA in part 21 aligns with the requirement for DAH to prepare ICA for products

certified under parts 23, 25, 27, 29, 31, 33, and 35 in accordance with the respective ICA appendices (see reference section below for each product's airworthiness standard requirement for the development of ICA and the format and content of ICA).

A clear definition of ICA relating to the applicable certification basis and each product's respective ICA appendix provides a basis for DAH applicants and the FAA to determine whether the ICA contains all the necessary information for compliance. In addition, adopting a harmonized definition among the FAA, EASA, TCCA, and ANAC establishes a clear basis for consistent interpretation of the requirements for respective type designs and reduces inefficient, redundant reviews and difficulties when validating product designs. ICA is currently identified as a Safety Emphasis Item (SEI) for the validation of engines and propellers between the U.S and the EU, which, if removed, would reduce the effort needed by applicants and both the FAA and EASA to validate their respective designs.

APPROACH: The joint WG-A considered Working Group F's Proposal F1 (see Section IV.D.1) and continued the discussion related to airworthiness standard and certification basis. Out of those discussions with the joint WG-A team, the TCH subgroup proposed the definition below that addressed the certification basis and airworthiness standard debate and tied them to the ultimate goal of maintaining the product in an airworthy condition:

Instructions for Continued Airworthiness are the maintenance instructions and information established by the design approval holder, in accordance with the applicable certification basis or airworthiness standard, that are essential to maintain the aircraft, aircraft engine, or propeller in an airworthy condition.

This definition would still be consistent and harmonize with EASA section 21.A.7(a). It is also consistent with the agreed "ICA roadmap" between the FAA, Transport Canada, and EASA from 2012 and is considered by WG-A TCHs as addressing the tasking to consider a recommendation to the FAA to incorporate this definition of ICA in § 21.50.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

This proposal is based on the definition agreed upon between the FAA, EASA, and Transport Canada in 2012, and is specifically designed to harmonize with it, as far as practicable, specifically the key elements of the purpose of ICA, the role of the DAH, and the link to the product certification basis (not just identified certification standards). EASA has included provisions based on (though not identical to) the 2012 definition in its Part 21, but Transport Canada has not yet done so, and the ICAO Airworthiness Committee has a task to base its definition of ICA on the 2012 definition.

This proposal would improve harmonization with EASA.

Transport Canada and ANAC regulations are harmonized with the current FAA lack of a definition for ICA. This recommendation would decrease regulatory harmonization with these regulators.

See narrative in Section IV.D for discussion on harmonization.

AREAS OF DISAGREEMENT: The TCH and OOMRO groups both separately developed their own proposals for an ICA definition, and it quickly became clear that the two groups have fundamental differences in their interpretation of ICA requirements. See Proposal AO1 for the OOMRO proposal on the same topic. See also Section VII of this report for the complete TCH and OOMRO position papers regarding required ICA content.

This proposal is using the second half of the if-then statement in the second sentence of H25.1(b) or a33.1(b). For example, a33.1(b) states, “*The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.*” The first sentence clearly states that the ICA for each engine includes ICA for all engine parts, not, as this proposal implies, limited to only information essential to continued airworthiness of the engine.

Harmonization: On harmonization specifically, OOMRO members are not persuaded that the proposal harmonizes with EASA or the 2012 ICA Roadmap with respect to the scope of ICA or its reference standard.

Proposal AT1 vs. FAA, EASA, TCCA Agreed Definition (ICA Roadmap) of ICA (**emphasis added**):

Proposal AT1	ICA Roadmap
Instructions for Continued Airworthiness are the maintenance instructions and information established by the design approval holder, in accordance with the applicable certification basis or airworthiness standard, that are essential to maintain the aircraft, aircraft engine, or propeller in an airworthy condition.	Instructions for Continuing Airworthiness are the instructions and information that are necessary for the continued airworthiness of the aircraft, engine, propeller, parts and appliances, which must be developed and/or referenced by the Design Approval Holder in accordance with the applicable Certification Basis or Standard.

Proposal AT1 vs. EASA 21.A.7. (a) (emphasis added):

Proposal AT1	EASA 21.A.7(a)
Instructions for Continued Airworthiness are the maintenance instructions and information established by the design approval holder, in accordance with the applicable certification basis or airworthiness	The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change or repair design approval shall develop or reference the instructions which are necessary for ensuring that the

Proposal AT1	EASA 21.A.7(a)
standard, that are essential to maintain the aircraft, aircraft engine, or propeller in an airworthy condition.	airworthiness standard related to the aircraft, the UAS and the CMU type and any associated part or CMU component is maintained throughout the operational life of the aircraft or the UAS, when demonstrating compliance with the applicable type-certification basis established and notified by the Agency in accordance with point 21.B.80.

The 2012 ICA Roadmap and EASA 21.A.7(a) both scope ICA to include more than just a product level acceptance.

Proposal AT1	2012 ICA Roadmap	EASA 21.A.7(a)
the aircraft, aircraft engine, or propeller	the aircraft, engine, propeller, parts and appliances,	the aircraft, ... and any associated part

The 2012 ICA Roadmap specifically includes parts and appliances, and includes TSOAs, PMAs, PDAs, and repairs, in the additional notes. EASA 21.A.7(a) specifically includes any associated part within the scope of ICA.

While the 2012 ICA Roadmap and EASA 21.A.7(a) both include instructions that were developed related to the airworthiness standard in the definition of ICA, Proposal AT1 appears to limit ICA to just those instructions essential to maintain airworthiness of the product.

Proposal AT1	2012 ICA Roadmap	EASA 21.A.7(a)
established ... in accordance with the applicable certification basis or airworthiness standard, that are essential to maintain the aircraft, aircraft engine, or propeller in an airworthy condition.	that are necessary for the continued airworthiness ... which must be developed and/or referenced ... in accordance with the applicable Certification Basis or Standard.	shall develop or reference ... instructions which are necessary for ensuring that the airworthiness standard

Proposal AT1's reduced scope (product only) and additional limitation to only "essential" instructions, would be a significant reduction in ICA content relative to both the 2012 ICA Roadmap and EASA 21.A.7(a).

REFERENCE:

FAA	EASA
§ 21.50 Instructions for continued airworthiness and manufacturer's maintenance manuals having airworthiness limitations sections.	21.A.7 Instructions for continued airworthiness

FAA	EASA
[no comparable text providing a definition or clear understanding of ICA and its content]	(a) The [DAH] shall develop or reference the instructions which are necessary for ensuring that the airworthiness standard related to the aircraft type and any associated part is maintained throughout the operational life of the aircraft, when demonstrating compliance with the applicable type-certification basis ...
(b) The holder of a design approval, including either a type certificate or supplemental type certificate for an aircraft, aircraft engine, or propeller for which application was made after January 28, 1981, must furnish at least one set of complete Instructions for Continued Airworthiness to the owner of each type aircraft, aircraft engine, or propeller upon its delivery, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later. The Instructions for Continued Airworthiness must be prepared in accordance with §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26 of this subchapter, or as specified in the applicable airworthiness criteria for special classes of aircraft defined in § 21.17(b), as applicable. ... Thereafter, the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions. In addition, changes to the Instructions for Continued Airworthiness shall be made available to any person required by this chapter to comply with any of those instructions. [Note: The relevant airworthiness standards are shown below, illustrating that, while there are similar requirements between many of the standards, there is limited, and non-uniform, definition of ICA as information essential to continued airworthiness.]	(b) At least one set of complete instructions for continued airworthiness shall be provided by the holder of: 1. a type-certificate or restricted type-certificate to each known owner of one or more products upon its delivery or upon the issuance of the first certificate of airworthiness or restricted certificate of airworthiness for the affected aircraft, whichever occurs later, 2. a supplemental type-certificate or design change approval to all known operators of the product affected by the change upon the release to service of the modified product, 3. a repair design approval to all known operators of the product affected by the repair upon the release to service of the product in which the repair design is embodied. The repaired product, part or appliance may be released into service before the related instructions for continued airworthiness have been completed, but this shall be for a limited service period, and in agreement with the Agency. Thereafter, those design approval holders shall make those instructions available on request to any other person required to comply with those instructions.

PART 23—AIRWORTHINESS STANDARDS: NORMAL CATEGORY AIRPLANES

§ 23.1529 Instructions for continued airworthiness. The applicant must prepare Instructions for Continued Airworthiness, in accordance with appendix A of this part, that are acceptable to the Administrator...

Appendix A to Part 23—Instructions for Continued Airworthiness

A23.1 General

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by this part.

(b) ...the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued airworthiness of the airplane.

§ 25.1529 Instructions for Continued Airworthiness. The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix H to this part that are acceptable to the Administrator...

...

A23.2 Format

...

A23.3 Content

...

A23.4 Airworthiness limitations section.

...

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

§ 25.1529 Instructions for Continued Airworthiness. The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix H to this part that are acceptable to the Administrator. The instructions may be incomplete at type certification if a program exists to

ensure their completion prior to delivery of the first airplane or issuance of a standard certificate of airworthiness, whichever occurs later.

§ 25.1729 Instructions for Continued Airworthiness: EWIS. The applicant must prepare Instructions for Continued Airworthiness applicable to EWIS in accordance with Appendix H sections H25.4 and H25.5 to this part that are approved by the FAA.

Appendix H to Part 25—Instructions for Continued Airworthiness

H25.1 General.

(a) This appendix specifies requirements for preparation of Instructions for Continued Airworthiness as required by §§ 25.1529, 25.1729, and applicable provisions of parts 21 and 26 of this chapter.

(b) ...the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued airworthiness of the airplane.

...

A25.2 Format

...

A25.3 Content

...

A25.4 Airworthiness limitations section.

...

H25.5 Electrical Wiring Interconnection System (EWIS) Instructions for Continued Airworthiness.

...

Part 26 - Continued Airworthiness and Safety Improvements for Transport Category Airplanes

§ 26.1(a) This part establishes requirements for support of the continued airworthiness of and safety improvements for transport category airplanes. These requirements may include performing assessments, developing design changes, developing revisions to Instructions for Continued Airworthiness (ICA), and making necessary documentation available to affected

persons. Requirements of this part that establish standards for design changes and revisions to the ICA are considered airworthiness requirements.

Part 27 - Airworthiness Standards: Normal Category Rotorcraft

§ 27.1529 The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the Administrator. The instructions may be incomplete at type certification if a program exists to ensure their completion prior to delivery of the first rotorcraft or issuance of a standard certificate of airworthiness, whichever occurs later.

Appendix A to Part 27 - Instructions for Continued Airworthiness

A27.1 General

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 27.1529.

(b) ...the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.

...

A27.2 Format

...

A27.3 Content

...

A27.4 Airworthiness limitations section.

...

Part 29 - Airworthiness Standards: Transport Category Rotorcraft

§ 29.1529 The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the Administrator. ...

Appendix A to Part 29 - Instructions for Continued Airworthiness

A29.1 General

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 29.1529.

(b) ...the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.

...

A29.2 Format

...

A29.3 Content

...

A29.4 Airworthiness limitations section.

...

Part 31 - Airworthiness Standards: Manned Free Balloons

§ 31.82 The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the Administrator...

Appendix A to Part 31—Instructions for Continued Airworthiness

A31.1 General

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 31.82.

(b) ... the Instructions for Continued Airworthiness for the balloon must include the information essential to the continued airworthiness of the balloon.

...

A31.2 Format

...

A31.3 Content

...

A31.4 Airworthiness limitations section.

...

Part 33 - Airworthiness Standards: Aircraft Engines

§ 33.4 The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the Administrator...

Appendix A to Part 33—Instructions for Continued Airworthiness

A33.1 General

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 33.4.

(b) ...the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.

...

A33.2 Format

...

A33.3 Content

...

A33.4 Airworthiness limitations section.

...

Part 35 - Airworthiness Standards: Propellers

§ 35.4 The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the Administrator...

Appendix A to Part 35 - Instructions for Continued Airworthiness

A35.1 General

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 35.4.

(b) ...the Instructions for Continued Airworthiness for the propeller must include the information essential to the continued airworthiness of the propeller.

...

A35.2 Format

...

A35.3 Content

...

A35.4 Airworthiness limitations section....

2. Proposal AT2 – Parts Manufacturer Approval ICA

The FAA should consider updates to FAA requirements and/or guidance to clarify ICA requirements for PMA holders related to alternate part approvals that impact ICA.

INTENT: To clarify whether DAHs must make ICA available to PMA applicants as persons required by Chapter 1 to comply with any of those instructions as required by 14 CFR 21.50(b) and to clarify the obligations of PMA holders with respect to the development and distribution of ICA.

RATIONALE: FAA Orders 8110.42 and 8110.54A are being referenced by some in the OOMRO subgroup to argue that a PMA applicant is a person that DAHs must make ICA available to as “other persons required to comply” with the DAH’s ICA. PMA holders are not required to comply with the ICA of a product by choosing to design their own article(s), so they clearly are not “other persons required to comply” simply because they seek FAA approval of their alternate article design. Moreover, the FAA does not regulate competition and has made this clear through guidance contained in multiple orders and other materials. Generally, PMA applicants are competitors to TCHs. The FAA stated within Order 8110.54A Chapter 6.4.f., When DAHs Must Make ICA Available. “The FAA does not regulate competition between repair stations, but rather safety.” The FAA should not require a DAH to make its ICA available to a competitor who is not required to comply with the ICA.

Furthermore, the deviation memorandum AIR-600-DM20 clarifies that, “When an applicant is seeking PMA by identity, no ICA impact assessment or Aircraft Evaluation Division (AED) involvement is required.”

Thus, the proposed edits clarify the position of the FAA as evident within the policy memorandum.

APPROACH: FAA Order 8110.42 Parts Manufacturer Approval Procedures should be revised as follows. Removed text is shown with ~~strikethrough in red~~:

2-8 Special Considerations—Test Reports and Computations, e. ICA or Maintenance Instructions.

If the applicant proposes that no ~~new~~ ICA or maintenance instructions are necessary, assess the applicant’s rationale for such and denote this on the CPN.

FAA Order 8110.54A Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents should be revised as follows, removed text is shown with ~~strikethrough in red~~, added text shown in blue:

Chapter 2. Regulatory Requirements for ICA, 5. ICA for Parts Manufacturer Approvals.

A PMA is a design... An applicant can ~~either~~ show the current ICA are still valid, ~~/if the design of the article was obtained by a licensing agreement/~~² or ~~/the approval was granted based on identity.~~ An applicant must/ ~~can~~ provide supplemental ICA ~~/for any other basis of approval/~~ ~~/for any differences.~~ See FAA Order...

HARMONIZATION: When considering this recommendation, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA does not have a PMA system. The European Parts Approval (EPA) is a design approval only. The EPA system is based on the Part 21 design change process, and, as with all design change and repair approvals, includes the requirement to identify changes to ICA if necessary. The system does not differentiate the means to gain approval in the same way as the PMA system. The EPA system permits the approval of the design through arrangements with the (S)TCH or through the applicant's own resources. In both cases, it places the same duty to create ICA changes if the applicant determines they are necessary. This change limits the applicant's ability to determine if ICA changes are/are not necessary for applications based on test and computation. This is less flexible than the EASA requirements and therefore reduces harmonization with EASA for these cases.

The Transport Canada PDA process prevents approval if new ICA is required, except when the use of existing ICA would result in an unsafe condition. This is already dis-harmonized with the PMA process. The proposal would not change this, and so is neutral with respect to regulatory harmonization for Transport Canada.

ANAC requirements are harmonized with the FAA, and therefore this proposal may reduce harmonization between the FAA and ANAC.

(See narrative in IV.D. for discussion on harmonization.)

AREAS OF DISAGREEMENT: The Rationale and the Approach do not match (they appear to be addressing two different issues), so this Disagreement responds to both issues raised.

I) Disagreement with Rationale

First, the Rationale suggests that PMA applicants are not required to comply with the ICA for the article that would be replaced by the applicant's part. This is incorrect, based on current FAA regulations and FAA policy.

Chapter I, Subchapter C, contains the airworthiness requirements applicable to aircraft, aircraft engines, propellers, and their components, including instructions found in parts 23, 25, 27, 29, 31, 33, and 35.⁶⁵ These requirements are not limited to type certificate holders; they extend to

⁶⁵ 14 CFR 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4.

any person whose design or manufacturing activity must meet these standards – a group that includes PMA applicants.

PMA applicants must demonstrate that their articles meet the applicable airworthiness requirements. Section 21.303 sets out that PMA applicants must provide, among other things, test reports and computations necessary to show that the design of the article meets the airworthiness requirements.⁶⁶ This regulatory language makes clear that PMA applicants are directly responsible for ensuring their products comply with the airworthiness standards found in Chapter I, Subchapter C. Part of these airworthiness requirements includes a requirement to show the ICA for the original article remains valid for the replacement article.⁶⁷

FAA Advisory Circular (AC) 21-51 further clarifies that applicants for PMA must show compliance with ICA,⁶⁸ and while the guidance does not explicitly state the “means” of compliance, it does clarify that substantiating data and a statement of compliance must be provided to the FAA prior to issuance of the PMA.⁶⁹ This means that PMA applicants must, as part of their application, demonstrate that their design meets the relevant airworthiness standards, which inherently includes any requirements set out in Instructions for Continued Airworthiness.

The FAA’s guidance on ICA, as detailed in FAA Order 8110.54, emphasizes that ICAs are essential for maintaining the continued airworthiness of the product.⁷⁰ DAHs must ensure that ICAs are acceptable to the Administrator and that there is enough information in the ICA to maintain the product’s airworthiness. Importantly, DAHs must make these instructions available not only to product owners but also to “any other person required to comply with any of the terms of those instructions” under Chapter I.

Those applying for design approval – including PMA applicants – are specifically required to first assess existing ICA before determining whether those instructions remain adequate or if the PMA application requires supplemental Instructions for Continued Airworthiness (Supplemental ICA).⁷¹ Furthermore, the order specifically instructs that a DAH may not prohibit the application of its ICA to subsequent design approvals if the FAA has determined that the existing ICA is acceptable.⁷² FAA guidance specifies that the requirement for a PMA applicant to assess ICAs

⁶⁶ 14 CFR 21.303.

⁶⁷ *E.g.*, *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, FAA Order 8110.54A, Chapter 2, § 4(a) (requiring applicants to assess existing ICAs) (Oct. 23, 2010); *cf.* 14 CFR 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4 (ICA airworthiness standards).

⁶⁸ *Applicant’s Showing of Compliance and Certifying Statement of Compliance*, FAA Advisory Circular 21-51 (Sept. 28, 2011).

⁶⁹ *Id.* at ¶ B(2).

⁷⁰ *E.g.*, *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, FAA Order 8110.54A, App’x I(11) (definition of Instructions for Continued Airworthiness) (Oct. 23, 2010).

⁷¹ *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, FAA Order 8110.54A, Chapter 2, § 4(a) (requiring applicants to assess existing ICAs) (Oct. 23, 2010).

⁷² *Id.* at Chapter 2, § 4(c) (“A DAH may not prohibit the application of its ICA to subsequent design approvals if the FAA has determined that existing ICA is acceptable”).

falls within the scope of § 21.50(b), which clarifies that PMA applicants are within the “make available” class.⁷³

Order 8110.54A is not the only source of this guidance. FAA Order 8110.42 provides explicit guidance on the role of ICA in the PMA process. It requires the applicant to submit a statement concerning the applicability of existing ICA to the applicant’s article.⁷⁴ If the ICA for the original article is valid for the replacement article, a showing of this applicability must be made as part of the PMA application regarding ICA submissions (and the FAA is required to assess this determination).⁷⁵ This means that PMA applicants must not only demonstrate technical compliance with airworthiness standards but also address the continued airworthiness of the product through the provision or validation of ICA. This would require review of ICA already existing before determining if supplemental ICA is necessary.

Moreover, FAA Order 8110.42 requires PMA applicants to provide a plan for continued operational safety, which includes ensuring that ICA are available and applicable to the PMA part or product, as necessary. This requirement underscores the FAA’s expectation that PMA applicants take an active role in ensuring the continued airworthiness of their products, which includes compliance with existing ICA.

The § 21.50(b) “make available” language is intentionally broad and applies to anyone required under Chapter I to comply with the ICAs.⁷⁶ It should be interpreted to include PMA applicants, when the applicants have an obligation to make a compliance finding relative to the ICAs. Since (1) PMA applicants must demonstrate compliance with the airworthiness requirements,⁷⁷ (2) the airworthiness requirements include a requirement to create ICAs,⁷⁸ and (3) the FAA’s guidance explains that this includes an obligation to assess whether the existing ICAs are sufficient,⁷⁹ it follows that PMA applicants fall within the group of entities that must make a compliance finding related to the ICAs, and thus they are within the class of entities to whom DAHs are required to make ICA available. There is no practical distinction between the requirement to demonstrate compliance with ICA and any other means of required compliance by other entities required to comply.

The requirement for PMA applicants to certify that all applicable requirements – including airworthiness requirements – have been complied with is not merely procedural; it is substantive. Compliance with airworthiness standards necessarily includes ensuring that the product can be

⁷³ *Id.* at Chapter 2, § 4(c) (“The methods above [requiring PMA applicants to assess existing ICAs] comply with both the development and distribution requirements of 14 CFR § 21.50(b)”).

⁷⁴ *Part Manufacturer Approval Procedures*, FAA Order 8110.42D, Chg 2, Chapter 1, Table 1 (2023).

⁷⁵ *Id.* at Chapter 2, § 2-8(e).

⁷⁶ 14 CFR § 21.50(b).

⁷⁷ 14 CFR § 21.303(b)(1).

⁷⁸ *E.g.*, 14 CFR §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, and 35.4 (airworthiness standards requiring production of ICAs).

⁷⁹ *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, FAA Order 8110.54A, Chapter 2, § 4(a) (Oct. 23, 2010).

maintained in an airworthy condition throughout its service life, which is the purpose of ICA.⁸⁰ The PMA holder has an ongoing compliance obligation to assess whether ICA changes are necessary.⁸¹ As a matter of practical implementation, if the PMA holder did not have access to the changes in the ICAs that apply to both the PMA article and the original article it replaces, then the PMA holder would be unable to meet its ongoing obligations related to potential changes in ICAs.⁸²

II) Disagreement with Approach

Second, the changes proposed under the Approach section would eliminate the option under Order 8110.42 to determine that “no new ICA” are necessary, and replace it with an assessment of whether “no ICA” are necessary. Where existing ICA address an article, it follows that some ICA are likely applicable to the replacement part as well, so this assessment becomes meaningless in light of the context; and it also eliminates the possibility of relying on the existing ICA. The Approach also proposes a change to Order 8110.54 to limit the showing that the existing ICA continue to apply *only* to licensed PMAs (it includes “identity” but this category is irrelevant in light of the very small number of PMA applications that are based on identity without licensing). This change would create an unnecessary new burden for both the applicant and for the operator, and it would undermine safety by creating new and unnecessary confusion.

Under current practice, it is common for most PMA parts to be drop-in replacements that do not need to change the associated inspection and maintenance practices for the product. The FAA has permitted that, for these replacement parts, it is adequate to make a showing that the current ICAs remain applicable to the drop-in replacement part.⁸³ This allows operators and MROs to rely on a single set of ICAs. This makes maintenance uncomplicated, in the sense that the difference in manufacturer of the part does not change the associated maintenance practices.

Where the PMA part represents a modification that requires different inspections or different maintenance instructions, the current policy (FAA Order 8110.42 and AC 21.303-4) already adequately requires supplemental ICA to reflect that difference. For example, a change in materials may change the associated inspections.

This proposal would require PMAs that do not need different ICA to nonetheless create competing ICAs. The result of this would be to create unnecessary alternative parallel ICAs. Those alternative ICAs could create complications in the industry. This proposal could also create unnecessary compliance issues because of the need to use the “right” ICAs: Under current

⁸⁰ This is a continuing obligation for the PMA holder. See 14 CFR § 21.137(m)(2) (requiring the PMA holder to have an in-service feedback mechanism that includes a process for determining if ICA changes are necessary).

⁸¹ *Id.*

⁸² *Id.* The original ICAs could change in a way that invalidates the PMA holder’s determination that the ICAs had applied to its article at the time of application. Without access, the PMA holder would be unaware of the change, and would not be in a position to meet its obligations under 14 CFR 21.137(m)(2).

⁸³ *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, FAA Order 8110.54A, Chapter 2, § 4(a) (Oct. 23, 2010).

conditions, it might be that an inspection of a part can be accomplished on-wing. The on-wing inspection might not reveal the part number if that part number is hidden by the installation condition (and identifying the part number from past maintenance records may represent an unnecessary waste of the mechanic's time). Under current conditions, the identification of the part and the "right" ICAs is not a problem when both possible parts are subject to one set of ICAs. The inspections and maintenance are the same. But if there are two different ICAs, the MRO has to maintain both and has to identify the right resource to "use" for the relevant inspection (even if the inspections are practically identical).⁸⁴ This injects additional complications and additional compliance obligations into the process that are not necessary and that do not add to safety in any way.

The proposed proliferation of manuals could also undermine safety. Right now, there is a knowledge that a supplemental PMA ICA is published when there is a difference, and thus installers and maintainers pay attention to these supplemental ICAs. If it was required to create supplemental ICAs even when they were not strictly necessary, and if most of those supplemental ICAs were not substantively different from the original ICAs, then the proliferation of manuals could drown out the recognition of differences that might be occasioned by modifications.

This proposal would complicate maintenance in a way that threatens to undermine safety. It adds no safety value to the current system. It also requires additional work on the part of both manufacturers and maintainers that adds no value. For that reason, the OOMRO community disagrees with this proposal.

⁸⁴ The FAA has brought enforcement actions against maintainers for using the "wrong" manual even though the instructions were practically identical in both versions. This arose in cases where the maintenance provider relied on the military version of a manual to overhaul a WWII era engine rather than the civilian manual. (The instructions were identical.) This has also arisen in cases of reliance on the CMM rather than the product ICA.

3. Proposal AT4 – Consistent ICA Appendix Wording

The FAA should revise the ICA content requirements in Part 33 Appendix A and Part 35 Appendix A to provide consistent language regarding repair requirements with other airworthiness standards (e.g., part 25).

INTENT: To provide a consistent set of requirements for all products, as the lack of consistency and understanding of what are considered ICA and non-ICA repairs causes confusion about what is required as ICA to be provided to owners/operators and maintenance providers.

RATIONALE: A review of the regulations and policies across all products revealed an inconsistency regarding repair requirements in the ICA for engines and propellers from aircraft. Correcting this inconsistency would benefit the industry by having consistent regulations and guidance and help eliminate misunderstandings about DAH obligations for providing repairs and associated technical data.

The working group observed that engine and propeller airworthiness standards were very closely aligned, likely for the benefit of the former FAA Engine and Propeller Directorate. The FAA's current functionally aligned organizations rather than product-based directorates will likely contribute to consistent review and alignment of airworthiness standards in the future.

APPROACH: The FAA should adopt consistent ICA Appendix language for all products and the working group proposes the following updates using Part 33 Appendix A as an example. Removed text is shown with ~~\strikethrough in red\~~, added text shown [/in blue/](#):

a33.3 content

.....

(b) Engine Overhaul Manual or Section.

- (1) Disassembly information including the order and method of disassembly for overhaul.
- (2) Cleaning and inspection instructions that cover the materials and apparatus to be used and methods and precautions to be taken during overhaul. Methods of overhaul inspection must also be included.
- (3) Details of all fits and clearances relevant to overhaul.
- (4) Details of ~~\repair methods\~~ [/serviceable limits/](#) for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.

/ (5) Details of repair methods to restore parts and components that have been taken out of the approved configuration for inspection required per a33.3(b)(2), back to the original or properly altered configuration./

~~(5)~~ (6) The order and method of assembly at overhaul.

~~(6)~~ (7) Instructions for testing after overhaul.

~~(7)~~ (8) Instructions for storage preparation, including any storage limits.

~~(8)~~ (9) A list of tools needed for overhaul.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA regulations identify repairs as part of ICA content but place the duty on the DAH to include them “as appropriate.” This proposal specifies the repair information that must be included in ICA, and therefore moves closer to the existing EASA flexibility, but is not fully harmonized.

EASA, Transport Canada, and ANAC regulations are harmonized with the current FAA requirement. This proposal would decrease regulatory harmonization.

(See narrative in Section IV.D for discussion on harmonization.)

AREAS OF DISAGREEMENT: Several ARC members disagree with this proposal because it would weaken the language in the current a.33.3(b)(4).

(4) Details of **repair methods** for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.

The TCH subgroup proposed this update to clarify that repair instructions are considered ICA when the part must be altered to facilitate inspection (e.g., to strip a coating to perform the inspection) and then returned to its proper configuration. This does not constitute a weakening of the regulation as stated in the OOMRO position above.

Some ARC members note that this proposal recommends changing part 33 and 35 appendices to be consistent with other appendices (e.g., part 25). However, those other appendices do not contain “Overhaul Manual or Section” requirements, or similar language to the proposed change.

Some OOMRO ARC members note that this proposal could significantly reduce the amount of repair details that would be included in ICA. See Section VII.B for additional details on the OOMRO position on ICA content.

4. Proposal AT5 – Guidance for ICA Content

The FAA should harmonize and expand guidance for ICA content by incorporating proposed changes to FAA Order 8110.54.

INTENT: To update FAA Order 8110.54 in an effort to incorporate changes to regulations proposed by this ARC, to clarify some areas of misinterpretation, to harmonize with other authorities, and to correct some known errors in the current order.

RATIONALE: This ARC was commissioned to resolve differences in interpretation between the TCH and OOMRO communities on what is required as the content for ICA. Over the past several years, there have been several such commissions on how to provide guidance that improves the understanding of what ICA is.

It is important to determine what the required technical content of ICA is, in a manner that can be presented and justified by the applicant to the FAA as part of the certification of the product, and, equally, to have a clear basis by which the FAA may judge whether the ICA contains all the necessary information. There is a need to be able to clearly determine when certain information is required for ICA and when it is not (recognizing that a significant volume of maintenance information is not ICA and additional to the minimum necessary for continued airworthiness).

It is also important to note that EASA has made some changes to its regulations more recently that have moved away from harmonization given that the FAA has not taken similar actions.

As the TCH community considered how it might assist the FAA in this update, it created a proposed revision to FAA Order 8110.54, which is included in Appendix F of this report. The changes proposed are intended to capture consensus recommendations from this ARC and update the guidance to be consistent with those proposed changes, address some known areas of misinterpretation, and correct known errors in the order.

APPROACH: The TCH subgroup spent several months reviewing recommendations coming from this ARC, previous rulemaking, and guidance coming out of EASA and other regulatory authorities, as well as performing a line-by-line review of Order 8110.54. This review led to proposed changes in several areas of the order, as outlined in Appendix F.

The major changes recommended are as follows:

- Format of ICA – Current regulations and guidance suggest all ICA should be in the form of a manual. Consistent with Recommendation 16 in this report, the TCH subgroup proposed updates to the order to include language that would allow other forms of publications.
- Identification of ICA – Currently, the FAA does not require DAHs to identify what is ICA. EASA has adopted a requirement for DAHs to identify what is ICA so it is clear to

users and the regulator what is and what is not ICA. Consistent with Recommendation 1 in this report, the TCH subgroup proposed language for the order to address this new requirement.

- Airworthiness Limitations (ALS) Publication Approach – Consistent with Recommendation 11, which was generally accepted by both the TCH and OOMRO communities, the TCH subgroup proposed language that would clarify that the ALS can be put in several locations of the total maintenance guidance, providing that where it can be found is clearly stated. This is an approach the FAA has previously approved for Boeing.
- Part Configuration Information – Consistent with Recommendation 14 in this report, the TCH subgroup proposed updates to the order to align with this new requirement for ICA.
- DAH Obligations Regarding Supplier ICA – Consistent with Recommendation 3 in this report, the TCH subgroup proposed updated language for the order to clarify these DAH obligations.
- ICA Content – Although the ARC participants struggled to get to consensus on the definition of ICA or ICA content, the TCH subgroup proposed some edits to the order in an attempt to better clarify what is required as ICA.
- The proposed edits to the order also include error corrections and other more minor suggested changes to improve understanding.

HARMONIZATION: When considering this recommendation, the FAA should consider harmonization with other civil aviation bilateral partners.

This proposal is for updates to guidance only. Many of the changes proposed are based on EASA guidance material and may therefore improve harmonization with EASA at the guidance level.

Transport Canada and ANAC may have similar guidance, but a comprehensive review could not be done at the level of detail needed. Therefore, this proposal is neutral with respect to regulatory harmonization for these regulators.

RELATED PROPOSALS:

Proposal F8 in this report discusses harmonization with existing or new EASA guidance.

AREAS OF DISAGREEMENT: The TCH subgroup developed this recommendation and proposed revision of FAA Order 8110.54 outside the typical ARC working group setting. According to the OOMRO subgroup, this appears to be a highly focused TCH wish list of changes and a cherry picking of current FAA guidance. The OOMRO subgroup could have similarly developed an OOMRO wish list of changes. However, the OOMRO subgroup believes that it is inappropriate to propose revisions to the existing FAA Order 8110.54 until the FAA determines which of the ARC recommendations and proposals it will incorporate.

Consensus Recommendation 12 states “Upon the completion of the ARC and the adoption of any regulatory and related policy changes, the FAA should update its guidance to reconcile FAA policy (e.g., policy statements, legal interpretations, exemptions) regarding ICA content, availability, and applicability.” Recommendation 12 should be sufficient to update guidance based on which recommendations and proposals the FAA decides to adopt.

The TCH and OOMRO subgroups both developed different proposals for ICA definition. See Proposal AO1 for the OOMRO proposal and Section VII.B for the OOMRO position paper.

B. Working Group A OOMRO Stakeholders

1. Proposal AO1 – Defining and Clarifying ICA Requirements

To ensure consistent application, the FAA must clearly define the scope and level of detail required for ICA. The ICA descriptive language must be complete and thorough enough to clearly delineate which items are not considered ICA and affirm the DAH's regulatory responsibility for the creation, delivery, and ongoing revision of ICA under the applicable regulations.

INTENT: To provide a consistent set of requirements for all products, changing the regulations applicable to DAHs to more comprehensively define the scope and content of ICA so the information that is not ICA is clear and the DAH knows what must be created, delivered, updated, and/or revised under the applicable regulations.

RATIONALE: The current scope of ICA is described within generic appendices under the individual certification standards (e.g., parts 23, 25, 27). As a result, there is no clear, standardized definition of ICA. Thus, there is no reliable means to distinguish between ICA and other supporting maintenance information, and maintainers lack a consistent framework for defining aircraft configuration to ensure proper work performance.

Aircraft owners, operators, and maintenance providers must be able to efficiently and effectively maintain aircraft to meet regulatory obligations.

Further, the existing regulatory text does not fully reflect the original intent of ICA. The final rule that introduced the term “Instructions for Continued Airworthiness” established that ICA are intended to provide clear, concise, and comprehensive instructions sufficient for maintainers to ensure continued airworthiness.⁸⁵ However, current regulations rely heavily on checklist-style appendices (parts 23, 25, 27, 29, 33, 35, 101) that do not articulate this purpose or its practical application. Interpretations throughout industry were more consistent in the 1980 timeframe, although it was not well documented but more a matter of practice. Since then, interpretation has varied dramatically, and efforts should be made to prevent this in the future to ensure the integrity of ICA interpretation.

A clear, consistent definition of ICA will close the gap among design, certification, and operational use by establishing a shared understanding across all affected parties and ensuring that ICA remain accurate, complete, and accessible throughout the product lifecycle.

⁸⁵ “...FAA has found that the recommended maintenance procedures made available under current regulations are frequently inadequate in scope and content, and often do not provide a sound basis for the operator/owner to maintain the airworthiness of the aircraft.” (See [45 FR 60154](#), [60157](#), Sept. 11, 1980.)

APPROACH: To address this gap, the FAA should:

(1) **Amend § 1.1** to add the following definition:

/“Instructions for Continued Airworthiness (ICA)” means the maintenance instructions and information required to be prepared by the design approval applicant in accordance with §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26 of this title; and includes all changes made by that design approval holder following the issue of the design approval. The ICA associated with a design approval shall include all instructions and information that are necessary to maintain the product that is subject to the design approval, or the article that is subject to the design approval, in an airworthy condition throughout its operational life. If the design applicant for a product was permitted under this title to rely on the instructions published by a part manufacturer, and if the product ICA do not include the information essential to the continued airworthiness of that part as it is installed in the product, then the design approval holder’s ICA should include those part manufacturer instructions. For the purposes of this definition, the terms Article and Product have the meanings found in 14 CFR 21.1(b)./

The last sentence of the definition ensures the intended definition of the terms “product” and “article” is maintained.

In addition, the FAA should add the term “ICA” to § 1.2 Abbreviations and symbols.

§ 1.2 Abbreviations and symbols.

IAS means indicated airspeed.

/ICA means Instructions for Continued Airworthiness./

ICAO means International Civil Aviation Organization.

(2) **Amend the applicable sections** of parts 21, 23, 25, 27, 29, 33, 35, 101, and their associated appendices to:

- o Incorporate clear, comprehensive requirements for ICA content.
- o Incorporate defined responsibilities for DAHs regarding the creation, delivery, updating, and/or revising of ICA.
- o Clarify in all the appendices that ICA includes information on the aircraft as delivered.
- o Add the “throughout the service life” as a requirement in the appendices (EASA definition in 21.A.7).
- o Update the phrase “Remedial actions” to make it clear that repairs are included.

- o Add clarification that the ICA definition applies to Type and Supplemental Type Certificate holders, Technical Standard Orders authorization, and Parts Manufacturer Approval holders as well as holders of major repair and alteration designs, and similar approvals when ICAs are mandated by the Certification Basis or Standard.
- o Update the term “part” to “article” throughout the ICA appendices (concurrent with the roadmap and current EASA definition).

(3) Ensure ICA include:

- o Comprehensive maintenance information for each product and article required by certification and for any equipment necessary for approved operations.
- o Type-specific ICA detailing:
 - Clear inspection and test criteria for determining serviceability.
 - Task intervals (initial and repetitive) and the associated methods, techniques, and practices for compliance.
 - Troubleshooting and remedial actions for each probable failure mode.
 - Methods and practices for restoring unserviceable articles to at least their original or properly altered condition.
 - Overhaul data and procedures where applicable.
 - Clear identification of any “remove and replace” instructions as limited-use ICA only when safe rectification is not otherwise possible.
 - Descriptions of failure modes, recognition criteria, and corresponding remedial actions.

(4) Clarify supplier responsibilities to allow a DAH to reference supplier data only when rectification requires specialized techniques, test equipment, or expertise. This does not supersede the requirement for all tasks required to maintain the airworthiness of the product in the product’s ICA.

(5) Develop supporting policy and guidance, such as FAA Orders or Advisory Circulars, that:

- o Reinforce the purpose and scope of ICA;
- o Provide examples of acceptable ICA content; and
- o Promote uniform interpretation and enforcement across FAA offices.

(6) Provide education and training materials for FAA and industry personnel to ensure consistent understanding and application of the revised ICA framework.

(7) **Leverage the FAA’s Safety Management Systems (SMS)** tools to collect operational and certification data to:

- o Continuously evaluate ICA adequacy and effectiveness;
- o Detect deficiencies or gaps; and
- o Inform future ICA improvements through predictive analysis and data-driven oversight (ref. FAA Orders 8000.369 and 8000.368A).

The creation of requirements for ICA that are clear and concise enables people to differentiate between ICA and non-ICA content. Additionally, it ensures that ICA is updated properly and consistently.

The purpose of ICA is to provide clear, concise, and comprehensive instructions sufficient to ensure continued airworthiness. This requires the development of ICA beyond initial type certification requirements. The industry requires **continuous** airworthiness, which is paramount to the safety of the NAS. It is accomplished by providing comprehensive maintenance information for each part and appliance required to return the product or article to at least its original or properly altered condition.

The FAA has a chasm between the interpretation of ICA requirements by Aircraft Certification and Flight Standards personnel. Acceptance or non-compliance can be enhanced by using data to improve evaluations of initial ICA and monitor the adequacy and effectiveness of ICA. Therefore, the FAA should fully leverage its SMS tools to collect data during original certification, **and** during operations and maintenance activities, to enhance future ICA requirements, for improvement of or to detect deficiencies in existing ICA.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA has placed a constructive definition for ICA in Subpart A of part 21. This proposal would place the ICA definition in part 1. This proposal’s definition is different than EASA’s constructive definition. This proposal would be neutral with respect to regulatory harmonization, as it is currently not harmonized and would remain not harmonized.

Transport Canada and ANAC regulations are harmonized with the current FAA lack of a definition for ICA. This proposal would decrease regulatory harmonization with these authorities.

See narrative in Section IV.D for discussion on harmonization.

AREAS OF DISAGREEMENT: The TCH and OOMRO subgroups both separately developed their own proposals for an ICA definition, and it quickly became clear that the two groups have fundamental differences in their interpretation of ICA requirements. See Proposal AT1 for the

TCH proposal on the same topic. See also Section VII of this report for the complete TCH and OOMRO position papers regarding required ICA content.

The TCH subgroup further notes that the OOMRO proposed definition, unlike the TCH proposed definition from Proposal AT1 above, does not reference the applicable certification basis or airworthiness standard for the applicable product. The TCH proposal including this language is consistent and harmonizes with EASA section 21.A.7(a) and is also consistent with the agreed “ICA roadmap” between the FAA, Transport Canada, and EASA from 2012. The TCH proposed definition also has the benefit of capturing all required elements that should fall under the definition of ICA in a much simpler, consistent, and straightforward manner, which minimizes the opportunity for confusion or misinterpretation. The WG-A TCHs believe their AT1 definition is the superior version to address the tasking to consider a recommendation to the FAA to incorporate a definition of ICA into the regulations. Moreover, the TCH subgroup responds to the following additional points in this proposal:

- A. The TCH position paper describes which repairs are considered ICA and which are not. This blanket attempt to include all repairs as ICA is inappropriate.
- B. The TCH holders disagree with these items as a group. The various points are discussed throughout the report, proposed updates to Order 8110.54 and portions of these recommendations are already included in current regulations.
- C. All data referenced in ICA is ICA. It is not clear what this recommendation is trying to accomplish.
- D. There is already a recommendation that policy and guidance should be updated. Providing examples has shown to be counterproductive in other regulatory scenarios.
- E. Education and training material are always supported for industry participants.
- F. A process is already in place to address new findings.

2. Proposal AO2 – Keeping ICA Current

The FAA must require DAHs to provide continuous support for ICA throughout the lifecycle of the type design. ICA are to be reviewed and updated whenever design changes, in-service experience, or other factors indicate that existing instructions are no longer sufficient to ensure continued airworthiness.

INTENT: To amend the regulations governing DAHs to clearly define the requirement for ongoing review and update of ICA when design, operational, or reliability factors change.

RATIONALE: Type design is dynamic and continually evolves through design changes, supplier updates, maintenance, and operational experience. Accordingly, ICA must evolve.

The continued safe operation of aircraft depends on maintenance instructions that accurately reflect the current design configuration and reliability of each product, part, and appliance. When ICA are not updated to address design changes, service history, or emerging technology, maintainers unknowingly rely on outdated or incomplete information – compromising both safety and regulatory compliance.

Requiring DAHs to proactively assess and revise ICA ensures that maintenance data remain accurate, relevant, and aligned with the current type design. This continuous improvement approach supports a culture of safety and allows the DAH and the FAA to leverage in-service data to validate and enhance ICA content over time.

APPROACH: To accomplish this, the FAA should:

- o **Amend Part 21**, to require DAHs to assess baseline ICA content and update ICA in a timely manner when any of the following occur:
 - o **Design changes**, including those made by suppliers or licensees.
 - o **Reports of failures, malfunctions, or defects** submitted under § 21.3.
 - o **In-service feedback** collected under 14 CFR 21.137(m) or direct feedback indication issues with design, production, or maintenance instructions in the ICA. (**Recommendation 7** covers this aspect of this proposal.)
 - o **Advancements in technology** that offer improved, safer, and more efficient methods, techniques, or practices.
- o **Service experience or reliability data** indicating the recommended maintenance schedule is not maintaining the design in an airworthiness condition, including changes in troubleshooting and remedial actions for each recognized failure mode.
 - o **Deficiencies** in existing ICA identified through internal or external reporting.

- o **Multiple requests** from operators or maintainers seeking clarification or “one-off” instructions that indicate systemic gaps.
- o **New inspection criteria or repairs** applicable to one or more product types.
- o **Clarify regulatory expectations** that DAHs remain responsible for monitoring in-service performance, analyzing feedback, and incorporating necessary ICA revisions to ensure continued airworthiness in a timely manner. (**Recommendation 7** covers this aspect of this proposal.)
- o **Develop FAA policy and guidance**, such as Advisory Circulars and orders, describing acceptable means of compliance and examples of triggers for ICA revision.
- o **Require the DAH to use SMS risk assessment and hazard management** tools to evaluate the adequacy of the ICA from design throughout the lifecycle of the DAH designs.

The FAA should utilize its SMS, change management, risk assessment, and hazard management processes to enhance application, communication, and enforcement of ICA requirements and adequacy throughout the lifecycle of each design it oversees.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

As mentioned in the proposal, Recommendation 7 covers part of the proposal. See Recommendation 7 for its harmonization impact. Similarly, the current Part 5 SMS regulations may also cover some of this proposal.

AREAS OF DISAGREEMENT: The WG-A TCH subgroup believes this proposal is unnecessary. It is already well understood that ICA must be updated to ensure there are instructions to maintain the applicable product in an airworthy condition for the life of the product. For example, § 21.50(b) contemplates changes to ICA and provides those changes must be made available to those required by Chapter 1 to comply with the ICA. The appendices for the various product types also require design approval applicants to submit to the FAA a program to show how changes to ICA will be distributed. Those appendices also make clear that the ICA must include the information essential to the *continued* airworthiness of the product – reflective of the on-going obligation of a DAH to update ICA as needed. Below is a high-level summary illustrating how the FAA ensures that ICA remain current and are amended as necessary across the operational life of affected products.

The ICA regime is anchored in part 21 and the product airworthiness standards (parts 23, 25, 27, 29, 33, 35), reinforced by maintenance and operational rules (parts 39, 43, 91, 121, 125, 129, 135, 145), and implemented operationally through FAA orders to the agency and Advisory Circular guidance to the industry. Examples of regulatory ICA obligations, and provisions illustrating that ICA is subject to change, are as follows:

- Section 21.31(c) includes, as part of the approved type design, the Airworthiness Limitations Section (ALS) of the ICA for applicable products. The ALS is FAA-approved and thus part of the type design baseline that must be controlled and maintained over time.
- Section 21.50 establishes the duty of DAHs to furnish complete ICA and “thereafter” make ICA and changes thereto available to any person required by Chapter 1 to comply with them. It references the product-specific ICA requirements in parts 23, 25, 27, 29, 31, 33, 35 and part 26, and the use of the term “thereafter” in the regulation is the regulatory hook whereby ICA is maintained for the life of the product.
- Section 21.97 governs major changes in type design requiring a showing of compliance to the requirements of Subchapter C to obtain approval of the major change – which includes the product ICA requirements and airworthiness standards.
- Similarly, § 21.99 governs design changes mandated by an Airworthiness Directive to correct an unsafe condition, or changes to type design based on service experience that will contribute to the safety of the product – this regulation specifically requires that descriptive data and information on these design changes be made available to all operators, and the FAA in approving the changes will evaluate and require ICA updates as needed.
- Section 21.101 requires an applicant for a change to a type certificate, with certain limited exceptions, to show compliance to the product airworthiness requirements that are in effect “on the date of the application for the change;” which will include a showing that any required ICA updates have been made as well.

Existing continuing airworthiness, maintenance, and operations rules also entail, as noted elsewhere in this report, the “dynamic nature” of ICA:

- Airworthiness Directives (ADs) (part 39) often require revisions to ICA and/or the ALS.
- Part 43 requires maintenance in accordance with the ALS.
- Part 91 places the primary responsibility for airworthiness on owners/operators and mandates compliance with the ALS. In addition, inspection programs reference current instructions.
- Part 121/125/129/135 maintenance programs and manuals reflect applicable ICA.
- Part 145 repair stations must have accessible current ICA.

FAA Order 8110.54A also details responsibilities, content, and ACO/AED review of ICA, including the provision of changes to ICA to those required to comply.

3. Proposal AO4 – Aligning the Regulations

The FAA should review and revise regulations that might create misaligned and/or conflicting requirements amongst DAHs, owners, operators, and maintainers.

INTENT: To ensure alignment and coordination of the regulations supporting continued airworthiness across all the design, production, operation, and maintenance applicants, approvals, authorization, and certificate holders.

RATIONALE: The current regulations contain misalignments among the responsibilities imposed on DAHs, owners, operators, and maintenance providers.

The DAH is responsible for providing ICA to the owner and operator,⁸⁶ who in turn is responsible for maintaining the product in an airworthy condition. Owners and operators are also responsible for maintaining aircraft records that provide vital information on the aircraft's configuration and inspection status.⁸⁷ Yet, under part 91,⁸⁸ the owners and operators are not required to make either the ICA or the aircraft records available to maintenance providers. Further, maintenance providers are subject to different recordkeeping requirements than owners and operators.⁸⁹

Maintenance providers are responsible for performing maintenance or alterations that ensure the aircraft or article is returned to at least its original or properly altered condition. If owners and operators are not required to provide the maintenance data, instructions, or records that establish the configuration of the aircraft, or the life-status of life-limited parts, the maintenance provider's obligation to ensure the work is performed in an airworthy manner is problematic.

These anomalies and inconsistencies within the current regulations must be rectified to ensure the status of airworthiness can be determined by those responsible.

APPROACH: Revise existing regulations to promote coordination and establish clarity among various title 14 sections for maintenance data and records to delineate when information must be made available to another certificate or approval holder to ensure continued airworthiness.

For example, §§ 91.403 or 91.405, 91.409, and 91.417 can be changed to add the requirement for owners and operators to provide the records and maintenance data, both ICA and non-ICA, to maintenance providers to ensure the continued airworthiness of the aircraft.

The differing requirements for maintenance records, inspection status, life-limited parts can be reconciled among §§ 43.9, 43.10, 43.11, 91.417, and 91.419 to ensure each contain the same

⁸⁶ 14 CFR 21.50(b)

⁸⁷ See, e.g., 14 CFR 91.417.

⁸⁸ Part 121 and 135 operators are required to provide this information under §§ 135.1(a)(2), 135.426(e), 121.1(b), and 121.368(f).

⁸⁹ See, e.g., 14 CFR 43.9 and 145.219.

information and a requirement for the owner/operator to provide the information to complete the record required of the maintenance provider (e.g., the inspection status of the aircraft and life-limited parts' status).

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

This proposal is a reconciliation of FAA's operating and maintenance requirements. Therefore, this proposal may be neutral with respect to regulatory harmonization.

AREAS OF DISAGREEMENT: Most TCHs believe that requiring flowdown of ICA and non-ICA data from the owners and operators to the maintainers would prevent their desire for privity of contract with the maintainer. See Section VIII.A.4 for more details.

C. Working Group F

1. **Proposal F3 – Applicability of ICA Requirements to Repair and Alteration Design Data Approvals**

The FAA should consider whether updates to FAA requirements and/or guidance are needed to clarify ICA requirements for developers of design data approvals related to repairs and alterations which impact ICA.

INTENT: To clarify ICA requirements for developer of design data approvals related to repairs and alterations which impact ICA.

RATIONALE: A significant regulatory difference identified between the FAA and EASA is regulatory treatment of design data related to repairs. EASA regulates repair data as a design approval under Part 21, Subpart M, and issues a repair design approval to the holder and requires the same 21.A.7 ICA requirements and obligations as all other design approval holders (e.g., TC, STC). Working Group F recognized this significant regulatory difference between EASA and FAA in terms of treating repair data as a design approval under part 21 but also recognized that the FAA has significant policy and guidance which establishes comparable processes for FAA review of design data and approval when necessary.

FAA requirements, policy, and guidance for minor/major repairs and alterations include provisions and processes that define when FAA-acceptable and FAA-approved data, in accordance with part 21, is required. Order 8300.16A – Major Repair and Alteration Data Approval provides guidance applicable to the data approval process for major repairs and alterations, including field approvals. Additional relevant guidance is in AC 120-77A – Performance Rules: Provisions Contained in an Operator Manual Under § 43.13(c).

In addition, FAA guidance states that, when steps like new ICA or changes to a product's existing ICA may be necessary during the development of design data to support a repair/alteration, such steps are required to ensure that the repaired and properly altered product continues to comply with its certification basis by providing updated instructions essential to its continued airworthiness. Below are specific excerpts from FAA Order 8110.54A, which specifically states that, for the purposes of the § 21.50 ICA requirement, the FAA classifies major repairs and alterations as a “design approval,” regardless of the method of approval. The guidance further states that repairs and alterations may require supplementary ICA or may change ICA and therefore the developer of such repairs and alterations would be responsible for furnishing, or making available, these supplementary or changed instructions in accordance with § 21.50(b).

However, the requirements in § 21.50, which obligate a DAH to maintain and make available ICA throughout a product's lifecycle, do not apply to the developer or holder of repairs and

alterations. This creates a potential regulatory gap regarding the responsibilities of repair developers and holders to maintain and provide ICA related to repair data over the repaired or altered product's operational life.

This gap represents a significant regulatory difference compared to EASA's Part 21, Subpart M, where repair design approvals must follow certification procedures, and the 21.A.7 ICA requirement applies equally to holders of a repair design approval.

While Proposal G6B also addresses the potential for major repairs to affect existing ICA, it is limited in scope to major repairs. Proposal F3 also includes minor repairs, and it was noted that these are not seen as design approvals.

APPROACH: The FAA should consider whether current FAA requirements and/or guidance should be updated or clarified. In particular, it should consider the responsibility of the developer of a repair or alteration design data which includes an ICA supplement to maintain and make available ICA throughout the operational lifecycle of the repaired and properly altered product consistent with the requirements for design approval holders that develop ICA. All applicable policy and guidance should be identified and used as a basis for this assessment and consideration of whether recommendations are necessary for ICA developed as part of repair or alteration.

HARMONIZATION: When reviewing this proposal, the FAA should consider harmonization with other civil aviation bilateral partners.

This proposal asks the FAA to review existing requirements and determine if an amendment is necessary. Any introduction of clearer duties to create ICA for DAHs for the creators of major and/or minor repairs may move towards harmonization with EASA and Transport Canada, as all repairs are required to introduce ICA as necessary in the EASA and Transport Canada systems.

There is potential, therefore, for moving away from harmonization with ANAC, depending on the action the FAA takes.

See narrative in Section IV.D for discussion on harmonization.

AREAS OF DISAGREEMENT: While Proposal G6B also addresses the potential for major repairs to affect existing ICA, it is limited in scope to major repairs. Proposal F3 also includes minor repairs, and it was noted that these are not seen as design approvals. As a consequence, a review of the potential for the creator of minor repairs to assess the effect of their repair on existing ICA may obligate the FAA to classify the minor repair as a design change (as does EASA) and therefore introduce unintended restrictions on the creators of minor repairs, which may be beyond the scope of this ARC.

REFERENCE:

EASA - Regulation

Part 21, Subpart A – General

21.A.7 Instructions for continued airworthiness

(a) The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change **or repair design approval**

Part 21, Subpart M – Repairs

21.A.431A Scope

(a) This Subpart establishes the procedure for the approval of a repair design of a product, part or appliance and establishes the rights and obligations of the applicants for, and holders of, those approvals.

...

FAA - Regulation

Note: No comparable FAA regulation regarding design data related to repairs and alterations which impact ICA

FAA - Policy

Order 8110.54A, Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents

Chapter 2. Regulatory Requirements for ICA

...

3. Design Approvals Needing ICA. As stated in paragraph 1 of this chapter, we require DAHs to furnish acceptable ICA to product owners per 14 CFR § 21.50(b). We also require that they make the ICA available to any persons required to comply with the ICA. We classify all the following as design approvals for the purposes of this order:

...

h. Major repairs and alterations, regardless of the method of approval; including:

(1) Field approvals; and

(2) Approved data (one or more FAA Forms 8110-3, *Statement of Compliance with the Federal Aviation Regulations Aircraft or Aircraft Component Identification*, and/or FAA Forms 8100-9, *Statement of Compliance with Airworthiness Standards*).

...

4. Supplementary ICA and Subsequent Use of Existing ICA. Products are subject to parts replacement from various sources, repairs, and alterations through their operational life. These activities will have approval through the various means in the preceding paragraph, and each action has the potential to create new ICA applicable to a given product. This is particularly true for STCs, PMAs, and major repairs and major alterations. ICA from separate actions has the potential to “layer,” requiring maintenance providers to research the available ICA to determine the appropriate data for a given configuration.

a. Each person applying for a design approval, including a repair or alteration approval is responsible for developing and providing ICA for the actions they propose. The applicant must assess existing ICA and then:

(1) Develop and propose any necessary changes as supplementary instructions. He would then be responsible for furnishing, or making-available, these supplementary instructions in accordance with 14 CFR 21.50(b);

...

7. Major Repairs and Alterations May Change ICA. Products must continue to meet their appropriate airworthiness, noise, and emissions standards after any repairs and alterations have been incorporated, regardless of the process of data creation and acceptance, or, approval. Major repairs and alterations must be accomplished using data approved by the FAA. Two sources of these data are field approvals, issued by a qualified Flight Standards Service inspector, and “approved data,” which is data that has been approved using FAA Form 8110-3 or FAA Form 8100-9 by qualified designated engineering representative(s) (DER) or an organization designation authorization (ODA).

a. Major Repairs May Change ICA. Because a major repair can change existing maintenance practices or inspection intervals we require the developer of the repair to assess the impact of the major repair for changes to the ICA or existing maintenance practices. For example, major structural repairs may need more inspection. Repairs on static aircraft engine components could even influence the life limits on critical rotating parts.

b. Major Alterations May Change ICA. Because a major alteration can also change existing maintenance practices or inspection intervals we require the developer of the alteration to assess the impact of the major alteration for changes to the ICA or existing maintenance practices.

2. Proposal F7 – Harmonizing Engine and Propeller ICA Requirements

The FAA should harmonize engine ICA Appendix a33.3 and propeller ICA Appendix a35.3 regarding content of ICA with corresponding EASA CS-E 25(c) and CS-P 40(c).

INTENT: To ensure common understanding, interpretation, and expectation regarding required manuals, sections, and content.

RATIONALE: It is important to clearly identify any required technical content of ICA, in a manner that can be presented and justified by the applicant to the FAA as part of the showing of compliance for certification of the product. It is equally important to have a clear basis on which the FAA may judge whether the ICA contains all the necessary information. It is necessary to clarify when certain information should be considered to be incorporated into ICA, and when certain information is not required for compliance with the applicable certification basis requirements and therefore not required ICA content (recognizing that there is a significant volume of maintenance information created by DAHs and other stakeholders that is beyond that necessary for continued airworthiness and is not ICA).

In Appendix A to Part 33 a33.3 and Appendix A to Part 35 a35.3, the FAA requirements for engine and propeller ICA content identify the same technical topics as the EASA requirements in CS-E 25 and CS-P 40. The only difference is that the EASA text clarifies that the technical subjects are to be “considered as appropriate” for inclusion into the manual by the applicant for a design approval. This means that the subjects (and the level of detail) in the ICA are for the applicant to determine and justify, based on the meaning and purpose of ICA and the applicable requirements in the certification basis. This is a significant regulatory text difference with the corresponding FAA requirement which, in contrast, states “The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate.”⁹⁰ The “must contain” wording, as opposed to wording that the following “should be considered,” results in redundant reviews and each individual involved having their own interpretation and opinion on what manuals, sections, or content the ICA “must contain.” Instead, the applicant should be responsible for showing that all the information essential or necessary for continued airworthiness of the product is included in the ICA.

EASA also has AMC/GM material to support how this determination needs to be made by the applicant, clarifying the basis on which ICA is to be established, the potential for contributions from suppliers, and the relationship between aircraft ICA and engine and/or propeller ICA.

Under the U.S./EU bilateral Technical Implementation Procedures (TIP), the content of ICA is currently identified as a Safety Emphasis Item (SEI)/Significant Standards Difference (SSD) for

⁹⁰ See 14 CFR 33, Appendix A, [a33.2 format](#); 14 CFR 35, Appendix A, [a35.2 format](#).

the FAA for validation of EU product designs primarily due to the significant difference in regulatory text. This results in redundant reviews and the applicant having to re-hash and re-negotiate the content of ICA for FAA validation of each new product TC/ATC.

The plain English meaning of the wording in CS-E 25(c) and CS-P 40(c) that a list of example content is “...to be considered, as appropriate, by the applicant for inclusion in the Instructions for Continued Airworthiness” is consistent with the custom and practice in the DAH and FAA interpretation and application of the product airworthiness ICA appendices regarding required content for engine and propeller ICA.

APPROACH: The FAA should amend the introductory text in Appendix A to Part 33, engine airworthiness standards in a33.3 regarding content of ICA to harmonize with EASA CS-E 25(c) Part 33 Appendix A, a33.3 and Part 35 Appendix A, a35.3 regarding content of ICA to harmonize with the corresponding EASA text in CS-E 25(c) and CS-P 40(c) as follows:

Part 33 Appendix A, a33.3 Content [of ICA] currently states: “The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:...”.

Change Part 33 Appendix A a.33.3 to read the same as EASA CS-E 25(c): “The following are to be considered, as appropriate, by the applicant for inclusion in the Instructions for Continued Airworthiness....”

The working group recognized that the text for ICA content in the regulatory appendices for other products, part 25 and CS-25 transport airplanes, parts 27/29, and CS-27/29 rotorcraft ICA use the same language “The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information.” Experience has shown that, given the harmonized text between both the FAA and EASA in these respective appendices for ICA content and reference to ICA as “essential to continued airworthiness” in the harmonized text, there is a common interpretation and application of this text and expectation consistent with applicant airplane and rotorcraft DAH experience. No change is therefore proposed in these cases.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

This recommendation promotes using EASA’s regulatory text, thus increasing regulatory harmonization with EASA.

Transport Canada and ANAC regulations are harmonized with the current FAA requirement. This recommendation would decrease regulatory harmonization with these authorities.

See narrative in Section IV.D for discussion on harmonization.

AREAS OF DISAGREEMENT: In the absence of an agreed definition of ICA, or performance-based criteria against which the proposed content of ICA could be judged, some ARC members were concerned that the proposed change to the regulatory language placed the responsibility for determining the content of ICA on the DAH's judgement alone.

Some OOMRO ARC members note that this proposal could significantly reduce the amount of data included in ICA. See Section VII.B for additional details on the OOMRO position on ICA content.

Because parts 23, 25, 27, 29, 31, 33, and 35 and CS-25, 27, and 29 all have consistent wording and only CS-E and CS-P have the alternate wording, some members propose that EASA revise CS-E and CS-P for consistency and harmonization.

REFERENCES:

FAA	EASA
Note: /Highlighted text/ is NOT harmonized between the FAA and EASA	
A33.3 content The contents of the manual or manuals must be prepared in the English language. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:.../	CS-E 25 Instructions for Continued Airworthiness ... (c) /The following information must be considered, as appropriate, for inclusion into the manual(s) required by CS-E 25(a).../
a35.3 content The contents of the manual must be prepared in the English language. /The Instructions for Continued Airworthiness must contain the following sections and information:/...	CS-P 40 Instructions for Continued Airworthiness ... (c) /The following information must be considered, as appropriate, for inclusion into the manual(s) required by CS-P 40(a)./
NOTE: /Highlighted text/ is harmonized between the FAA and EASA	
14 CFR H25.3 Content. The contents of the manual or manuals must be prepared in the English language. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:/	CS 25. H25.3 Content The contents of the manual or manuals must be prepared in a language acceptable to the Agency. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:.../

FAA	EASA
14 CFR H27.3 Content. The contents of the manual or manuals must be prepared in the English language. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:.../	CS 27. H27.3 Content The contents of the manual or manuals must be prepared in a language acceptable to the Agency. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:.../
14 CFR H29.3 Content. The contents of the manual or manuals must be prepared in the English language. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:.../	CS 29. H29.3 Content The contents of the manual or manuals must be prepared in a language acceptable to the Agency. /The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:.../

3. Proposal F8 – Guidance for ICA Content

The FAA should harmonize and expand guidance for ICA content by incorporating related EASA AMC/GM, which clarifies and explains the duties of design approval holders with respect to creating ICA and expected content.

INTENT: To support the type certificate holder (or design approval holder) in determining the content of ICA (necessary to support continued airworthiness).

RATIONALE: The duty of the DAH is to create ICA to meet the certification basis for the relevant product. It is important to determine what the required technical content of ICA is, in a manner that can be presented and justified by the applicant to the FAA as part of the certification of the product, and equally, to have a clear basis on which the FAA may judge whether the ICA contains all the necessary information. There is a need to be able to clearly determine when certain information is required for ICA, and when it is not (recognizing that a significant volume of maintenance information is not considered as ICA by the DAH and is additional to the minimum necessary for continued airworthiness).

The subject of ICA should be considered similarly across all product types. It does not seem appropriate, for example, for the engine ICA to be treated differently in regulation from that of the aircraft of which it is a part. This is possible unless the various CFR parts covering different products are very similar (including the supporting orders, policies, and ACs), or ICA is covered more fully in parts applicable to all products, such as part 21.

EASA has addressed this by providing most of the applicable requirements in its part 21, so that they are applicable regardless of the product being certified and so that the relationship between different products' ICA can be made clear. The requirements for part 21 are supplemented by EASA AMC/GM material to cover issues such as the interaction between different type certificate holders and their ICA, the practical limits on ICA availability, the use of suppliers' data, and the existence of "non-ICA" maintenance data from design approval holders. The FAA should consider whether this approach could be adopted, and/or conduct a review across parts to coordinate their content.

This approach would also permit discussion of how the different product design approval holders discharge their duties and interact with each other.

In addition, in a few cases, the correct instructions for the operator can only be determined as the outcome of a detailed analysis conducted by the DAH. This is particularly true for special events such as hard landings or certain cases of foreign object damage (FOD). Not all possible instructions can be pre-defined and included in the documentation.

APPROACH: The FAA should introduce the content of EASA Acceptable Means of Compliance and Guidance Material on the selection of information for inclusion in ICA, given

below, either through additional regulation or the development of the provisions in an Advisory Circular:

- AMC1 21.A.7(a) ICA contents.
- AMC2 21.A.7(a) Identification of ICA.
- AMC3 21.A.7(a) DAH responsibility to check the supplier data which is part of the ICA or referenced with the ICA.
- GM1 21.A.7(a) Scope of ICA, their publication format, and typical ICA data.
- GM2 21.A.7(a) Determination of which supplier data is part of the ICA.
- GM3 21.A.7(a) Non-ICA supplier data (e.g., component maintenance manuals (CMMs)).

The FAA should consider whether ICA material should be transferred to part 21 to apply consistently across all products and/or conduct a review across parts to coordinate their content.

As each of the various product certification parts of title 14 have been updated over time, different requirements for the creation of ICA are evident between parts. As the subject of ICA should be considered similarly across all product types, guidance should be applicable to all product types to ensure that the meaning of ICA does not vary between products and should include the potential interactions between different type certificate holders, the use of information from suppliers, the use of maintenance information not considered to be ICA, and practical limitations to the purpose of ICA.

As examples, the EASA AMC/GM material contains:

- 1) Practical understanding of the limits of ICA itself, and what may realistically be instructed:

GM1 21.A.7(a) (c):

The requirement for ICA is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be permanently withdrawn from service, and restoration may not be reasonably achievable. Notwithstanding the above, the existence of an MRBR task other than 'Discard (DS or DIS)' should be a clear indication of the necessity/obligation to produce a corresponding ICA.

Certain deteriorations or levels of deterioration may require specific instructions (e.g. inspection or restoration) that will only be developed and provided on a case-by-case basis, as needed, for a given product or article, and as such, will not be included in the ICA.

In some exceptional cases, product ICA may ultimately instruct the user to contact the DAH in order to define the specific instructions on a case-by-case basis. This typically

happens when the definition of generic instructions covering all possible cases is not possible. For example, following an aircraft hard landing, a detailed analysis may have to be carried out by the DAH to determine the specific instructions to be followed, which depends on the touchdown loads, recalculated postflight, based on recorded flight data.

2) The rationale for determining the expected content of ICA:

AMC1 21.A.7 (a):

(a) The instructions for continued airworthiness (ICA) should identify the following, in accordance with the applicable certification specifications:

- (1) any limitations that are necessary for the continued airworthiness of the product or article;
- (2) the means to determine when the product or article has deteriorated to the extent that it is no longer airworthy;
- (3) the minimum actions required to restore the airworthiness of the product or article before the limitations (as per point (1)) have been exceeded or before their deterioration (as per point (2)), as an alternative to the withdrawal of the product or article from service.

(b) The ICA should, therefore, include, in accordance with the applicable certification specifications:

- (1) any limitations determined through the certification of the product or article, and instructions on how to determine that the limitations have been exceeded;
- (2) any inspection, servicing or maintenance actions determined to be necessary by the certification process;
- (3) any inspection or troubleshooting actions determined to be necessary to establish the nature of faults and the necessary remedial actions;
- (4) sufficient general information on the operation of the product or article to enable the understanding of the instructions in (a)(1) to (a)(3) above.

Note that the above are only examples to illustrate the nature of the AMC/GM content. The FAA should consider EASA's supporting material (AMC and GM) for Part 21.A.7 in its entirety for use in the U.S. regulatory system.

AREAS OF DISAGREEMENT: The TCH and OOMRO subgroups both developed different proposals for ICA definition. See Proposal AO1 for the OOMRO proposal and Section VII.B for

the OOMRO position paper. See Proposal AT1 for the TCH proposal and Section VII.A for the TCH position paper.

Recommendation 12 states “Upon the completion of the ARC and the adoption of any regulatory and related policy changes, the FAA should update its guidance to reconcile FAA policy (e.g., policy statements, legal interpretations, exemptions) regarding ICA content, availability, and applicability.” The OOMRO group believes that Recommendation 12 should be sufficient to update guidance based on which recommendations and proposals the FAA decides to adopt.

HARMONIZATION: This proposal identifies EASA guidance material and Acceptable Means of Compliance for use by the FAA in its own guidance material. The proposal would therefore increase harmonization between the FAA and EASA at the guidance level.

There is potential, therefore for moving away from harmonization with ANAC and Transport Canada, depending on the action the FAA takes.

RELATED PROPOSALS:

Proposal AT5 proposes some of these additions (EASA Guidance) in the proposed revision to Order 8110.54.

REFERENCE:

FAA	EASA
Order 8110.54A Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents	AMC1 21.A.7 (a) ICA contents AMC2 21.A.7(a) Identification of ICA AMC3 21.A.7(a) DAH responsibility to check the supplier data which is part of the ICA or referenced with the ICA GM1 21.A.7(a) Scope of ICA, their publication format and typical ICA data GM2 21.A.7(a) Determination of which supplier data is part of the ICA GM3 21.A.7(a) Non-ICA supplier data (e.g. component maintenance manuals (CMMs)).

4. Proposal F9 – Engine and Propeller Parts

The FAA should clarify the practical interpretation of the need for ICA to be developed “for all engine parts” and “all propeller parts” by updating appendix text harmonizing with the approach taken by EASA for engines/propellers and with FAA ICA text for other products (parts 23, 25, 27, 29, etc.).

INTENT: To clarify that it is not expected that every single engine or propeller part should have individual ICA by harmonizing with the approach taken by EASA for engines/propellers and with FAA ICA text for other products (parts 23, 25, 27, 29, etc.) with respect to all parts, introducing consistency with the way in which ICA is required at the product level as for airplanes and rotorcraft. Clarifying this language would also be consistent with how the FAA has historically interpreted the aircraft engine and propeller appendix language and existing FAA guidance, as ICA for every single part has never been required, but the existing language is consistently misinterpreted by some in the industry as requiring just that.

RATIONALE: Section a33.1(b) states:

“The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts.” Similar language exists in part a35.1(b) for propellers.

This can be construed to mean that each single engine or propeller component should have its own ICA. The working group submits that this is not a practical interpretation of this phrasing and was not intended to be seen in this way. The equivalent instruction is not given in the certification regulations covering aircraft, and it is not clear why this form of words has been used for engines and propellers only, given that ICA is a concept that applies commonly across products.

Recognizing that engines and propellers (and aircraft) are complex assemblies, and that ICA may be provided in a generic form, to be applied across the product, or instructions may be given for a given sub-assembly or an individual part, or feature of a part, or across a system (such as the oil system), the working group suggests that, instead of the idea that each component or part of an engine or propeller needs ICA, it should be clear that it is only necessary to ensure that there are no gaps in the ICA, so that each part of the engine or propeller is appropriately covered by ICA, to allow for the different ways in which ICA may be constructed.

The full text of the existing regulation provides additional context and clarification after the requirement for ICA for “all engine parts” – text in italics for emphasis:

A33.1

...

(b) The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. *If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.*

The second sentence is consistent with the interpretation above, and states the prime point of ICA – that it is the information essential for continued airworthiness of the product.

This interpretation is also consistent with the content and rationale of the acceptable means of compliance in AC 33.4-1 Section 7 Guidance for A33.1 – General, which, in discussing the regulatory text requiring ICA for “all engine parts,” states:

“The instructions should provide for the continued airworthiness of the entire engine to the extent that the lack of specific instructions for any given part should not adversely affect an operator’s ability to maintain the engine in an airworthy condition.”

And also:

“Each part needs to be addressed either individually or as part of a group or system.”

The working group interprets this as clarification that it is appropriate to provide ICA at a meaningful level in the overall assembly, provided that the deterioration envisaged to require ICA is appropriately addressed. This means that there should be no part of the engine that can degrade in a manner that will affect airworthiness without there being some ICA to identify, and respond to, such degradation.

This is an existing Safety Emphasis Item (SEI)/Significant Standards Difference (SSD) identified under the FAA/EASA bilateral technical implementation procedures for the validation of engines and propellers, which, if removed, would reduce the effort needed for the FAA to validate EU designs.⁹¹

The equivalent EASA provision (CS-E 25 and AMC E25) requires the applicant to ensure that the whole of the engine is considered, so that all necessary ICA is created, and every part of the engine is addressed, but without requiring that every single part should have individual inspections and instructions. The EASA CS-E 25 requirements identify a series of technical subjects for the ICA to address, without needing to use the term “all engine parts” or “each part of the engine,” but also include the need to include “scheduling information for each part of the engine that provides for the recommended periods at which it should be cleaned, inspected, adjusted, tested and lubricated, and the degree of inspection, the applicable serviceability limits, and work recommended at these periods.” This detail does not imply that this information is required for every component part because the entire CS-E 25 requirements are prefaced with the

⁹¹ Safety Emphasis Item List, Per FAA-EASA Technical Implementation Procedures (TIP), CS-E vs. 14 CFR Part 33, Revision 6.2 (Oct. 15, 2010).

need for the DAH to “consider, as appropriate,” the information described for inclusion into the ICA. This flexibility enables the DAH to address the distribution and coverage of the ICA across the product in a pragmatic manner, and ensures that both component deterioration and system deterioration are considered. The EASA text is provided in the References section below. Proposal F7 considers this EASA approach in more detail. In addition, this CS-E requirement is consistent in that manner with Part 21.A.7, which defines ICA for all products as “instructions which are necessary for ensuring that the airworthiness standard related to the aircraft type and any associated part is maintained throughout the operational life of the aircraft, when demonstrating compliance with the applicable type-certification basis...” without prescribing any granularity level for defining those ICA.

As this is an SEI/SSD item, the working group recommends that the FAA consider harmonizing with the EASA approach.

To avoid the interpretation that every component must have its own ICA, the working group recommends amending the language in the part 33 requirements to require that every part of the engine is covered by ICA (i.e., ensuring that there are no gaps in coverage) without specifying that every component must have its own ICA.

It is also important to treat ICA in the same way for different products, so although this provision is highlighted for part 33, it should be applicable to all products. Specifically, part 35 contains the same form of words regarding “all propeller parts” and the comments above apply equally to this provision.⁹²

The working group notes that other product level certification requirements refer to, for example, “each part of the airplane” in terms of recommendations for scheduling, the level of inspection, and recommended action as part of the ICA provisions. “Each part of the airplane” enables the design approval holder to identify a sensible level at which the airplane scheduling information is to be described, which is more flexible than the engine provisions, in that “all engine parts” or “all propeller parts” may be taken to imply a component-level instruction. Using the term “each part of the engine/propeller” also includes the consideration of engine systems, and the deterioration of functionality in total, rather than focusing on individual components (“each engine/propeller part”) alone.

APPROACH: The working group recommends amending Part 33, Airworthiness Standards: Aircraft Engines, Appendix A a33.1(b) to read as follows. Removed text is shown with ~~strikethrough in red~~, added text shown in /blue/:

(b) The Instructions for Continued Airworthiness for each engine must ~~include the Instructions for Continued Airworthiness for all engine parts/~~ensure that each part of the engine is covered by an appropriate set of instructions/. If Instructions for Continued Airworthiness are not

⁹² Safety Emphasis Item List, Per FAA-EASA Technical Implementation Procedures (TIP), CS-E vs. 14 CFR Part 33, Revision 6.2 (Oct. 15, 2010).

supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.

The working group recommends similarly amending Part 35, Airworthiness Standards: Propellers, Appendix A a35.1(b) to read.

(b) The Instructions for Continued Airworthiness for each propeller must ~~include the Instructions for Continued Airworthiness for all propeller parts~~ /ensure that each part of the propeller is covered by an appropriate set of instructions/. If Instructions for Continued Airworthiness are not supplied by the propeller part manufacturer for a propeller part, the Instructions for Continued Airworthiness for the propeller must include the information essential to the continued airworthiness of the propeller.

HARMONIZATION: As noted in the Rationale, the requirement for ICA for “all engine parts” in FAA regulation on the scope of ICA is identified as an SEI/SSD by the FAA for the validation of engines certified by EASA. EASA does not use this term in its engine certification requirements. Replacing this term with “all parts of the engine” in the FAA requirements is consistent with the phrasing used in the aircraft ICA certification requirements for both the FAA and EASA, when describing the need to cover the whole product with the ICA, and is offered as a route to remove the SEI/SD.

This proposal therefore improves regulatory harmonization between the FAA and EASA.

Transport Canada and ANAC regulations are harmonized with the current FAA requirement. This proposal would decrease regulatory harmonization with these authorities.

See narrative in Section IV.D for discussion on harmonization.

AREAS OF DISAGREEMENT: Some members of the OOMRO subgroup do not support Proposal F9 as worded. The recommendation is presented as a harmonization measure intended to clarify an existing requirement. These members are concerned that the proposed text would not harmonize the FAA and EASA requirements on equivalent terms. As written, it could be read to lower the FAA floor for engine ICA, and in doing so create a new and larger problem than the one it seeks to solve.

The starting point is operational, not theoretical. The maintenance industry already faces real difficulty obtaining adequate ICA and component maintenance data for engine-attached accessories and components such as fuel controls, starters, and generators, whose continued airworthiness depends on disassembly, inspection, repair, and test information held by the engine TCH or its suppliers. The industry also faces significant reductions in inspection and repair content in engine overhaul and repair manuals, with many TCH’s moving more content into commercially restricted or licensed repairs. Any change that makes it easier to withhold that

information at the engine level would worsen a problem the field already struggles with. That is the lens through which these members read the proposed text.

The proposal’s emphasis on the first sentence of a33.1(b) generates significant concern for the OOMRO community. The removal or diminution of the “all engine parts” portion of a33.1(b) might shift engine ICA requirements to an engine-level standard instead of a part-level standard. A TCH could reasonably read this to mean that remove-and-replace instructions for a higher-level unit satisfy the requirement, and that the underlying disassembly, inspection, serviceability, and/or repair data need not be provided or referenced as part of the engine ICA. FAA Order 8110.54A recognizes this consequence directly. Where ICA contain only remove-and-replace instructions and do not reference component repair documentation as a necessary airworthiness action, that documentation may not be treated as part of the ICA at all. The practical result is less available data, not clearer data.

Harmonization:

On harmonization specifically, these members are not persuaded that the proposal harmonizes with EASA in any meaningful sense. The recommendation relies on the CS-E 25 phrase regarding scheduling information for each part of the engine, but read in full, CS-E 25 also requires instructions for removal, the order and method of disassembly and assembly, cleaning and inspection, repair methods for worn or otherwise non-serviceable parts and components, testing, storage, and required tools. EASA’s framework, taken as a whole, does not endorse a high-level module-replacement model. Harmonizing to a single selectively-read phrase, while relaxing the FAA “all engine parts” requirement and leaving the relationship to the Appendix A overhaul-content requirements unclear would not produce an equivalent standard. It would produce a standard lower than either authority currently requires, and it would introduce a new undefined term, “appropriate,” whose meaning would be left to the discretion of the party with the least incentive to read it broadly. A change intended to reduce divergence and ease validation could instead create new divergence in interpretation, and new disputes between TCHs and the OOMRO community over what coverage is “appropriate.” That matters.

This proposal seems to be mixing sections of the various appendices. This proposal is drawing language from EASA CS-E 25(c)(5), which is harmonized with the beginning of FAA a33.3(a)(6).

FAA a33.3 (a) (6)	EASA CS-E 25 (c) (5)
Scheduling information for each part of the engine that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection the applicable wear tolerances, and work recommended at these periods...	Scheduling information for each part of the Engine that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested and lubricated, and the degree of inspection, the applicable serviceability limits, and work recommended at these periods....

Therefore, there is no harmonization issue in these paragraphs.

The reader should more appropriately compare FAA a33.1 (b) to EASA 21.A.7. (a) (emphasis added).

FAA a33.1 (b)	EASA 21.A.7 (a)
The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.	The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change or repair design approval shall develop or reference the instructions which are necessary for ensuring that the airworthiness standard related to the aircraft, the UAS and the CMU type and any associated part or CMU component is maintained throughout the operational life of the aircraft or the UAS, when demonstrating compliance with the applicable type-certification basis established and notified by the Agency in accordance with point 21.B.80.

Although constructed differently, both regulations refer to the content required to be included in ICA. The FAA language of “must include [ICA] for all engine parts.” compares to “shall develop or reference the [ICA] ... related to the aircraft, ... and any associated part.” Therefore, the comparison should be FAA’s “all engine parts” vs. EASA’s “any associated part.”

FAA’s current a33.1(b) is harmonized with ANAC’s a33.1(b) Transport Canada’s A533.1(b) with respect to the “all engine parts” requirement. Therefore, the proposal would decrease harmonization.

Summary:

These members also note that the difference at issue is an identified Safety Emphasis Item/Significant Standards Difference under the FAA-EASA Technical Implementation Procedures, retained deliberately by the FAA. The burden should rest with the proponents to demonstrate that removing it costs no safety margin. The recommendation does not make that showing. It also reads AC 33.4-1 selectively. While the AC states that not every part requires separate scheduling information, it also provides that each part must be addressed either individually or as part of a group, assembly, module, or system, and it emphasizes the value of opportunity inspections. The AC recognizes that every part of the engine is exposed for inspection at some point in its life, and that inspection criteria should identify the required action at each level. That opportunity to detect and correct latent conditions during shop visits is part of the existing safety value of the current requirement, and it is precisely what a module-replacement reading would erode.

Removing the requirement for the engine DAH to produce parts-level instructions lowers the safety standard by reducing the requirement to provide data-driven instructions. It would create a disharmony from the EASA standards (rather than achieving the purported harmonization goal). It is a change that corrects no safety issues, nor does it appear to correct any disclosed commercial issues.

For these reasons, OOMRO members recommend that the FAA retain the substance of the existing “all engine parts” requirement and the Appendix A overhaul-content obligations.

REFERENCE:

The material below shows the terms used by current FAA and EASA requirements to indicate how the coverage of ICA across products (engines, propellers, and large aircraft) is described, showing the use of the term “each part of the [product]” rather than “all [product] parts,” in cases other than parts 33 and 35:

FAA	EASA
§ 33.4 Instructions for Continued Airworthiness. The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the Administrator. The instructions may be incomplete at type certification if a program exists to ensure their completion prior to delivery of the first aircraft with the engine installed, or upon issuance of a standard certificate of airworthiness for the aircraft with the engine installed, whichever occurs later.	CS-E 25 Instructions for Continued Airworthiness (a) In accordance with 21.A.61(a), manual(s) must be established containing instructions for continued airworthiness of the Engine. They must be updated as necessary according to changes to existing instructions or changes in Engine definition. (b) The instructions for continued airworthiness must contain a section titled airworthiness limitations that is segregated and clearly distinguishable from the rest of the document(s). For Engine Critical Parts, this section must also include any mandatory action or limitation for inservice maintenance and repair identified in the Service Management Plan required under CSE 515. ... c) The following information must be considered, as appropriate, for inclusion into the manual(s) required by CS-E 25(a).

Appendix A to part 33 – ICA

FAA	EASA
a33.1 general	...
(b) The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.	(5) Scheduling information for each part of the Engine that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested and lubricated, and the degree of inspection, the applicable serviceability limits, and work recommended at these periods. Necessary cross references to the airworthiness limitations section must also be included. In addition, if appropriate, an inspection programme must be included that states the frequency of the inspections necessary to provide for the continued airworthiness of the Engine.

FAA	EASA
14 CFR Part 25 Appendix H:	CS-25 Appendix H:
H25.3 Content.	H25.3 Content
The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:	The contents of the manual or manuals must be prepared in a language acceptable to the Agency. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:
...	
25.H25.3 (b) Maintenance instructions	H25.3 (b) Maintenance Instructions
(1) Scheduling information for each part of the airplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the airplane.	(1) Scheduling information for each part of the aeroplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, reference may be made to information from an accessory, instrument or equipment manufacturer as the source of this information if it is shown that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, an inspection programme that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the aeroplane must be included.
...	...
§ 35.4 Instructions for Continued Airworthiness.	CS-P 40 Instructions for Continued Airworthiness (a) In accordance with 21.A.61(a), manual(s) must be established containing instructions for continued airworthiness of the Propeller. They must be up-dated as necessary
The applicant must prepare Instructions for Continued Airworthiness in accordance with appendix A to this part that are acceptable to the	

FAA

Administrator. The instructions may be incomplete at type certification if a program exists to ensure their completion prior to delivery of the first aircraft with the propeller installed, or upon issuance of a standard certificate of airworthiness for an aircraft with the propeller installed, whichever occurs later.

Appendix A to Part 35—Instructions for Continued Airworthiness

a35.1 general

...

(b) The Instructions for Continued Airworthiness for each propeller **must include the Instructions for Continued Airworthiness for all propeller parts**. If Instructions for Continued Airworthiness are not supplied by the propeller part manufacturer for a propeller part, the Instructions for Continued Airworthiness for the propeller must include the information essential to the continued airworthiness of the propeller.

EASA

according to changes to existing instructions or changes in Propeller definition.

(b) The instructions for continued airworthiness must contain a section titled airworthiness limitations that is segregated and clearly distinguishable from the rest of the document(s). This section must set forth each mandatory replacement time, inspection interval and related procedure required for type certification. (c) The following information must be considered, as appropriate, for inclusion into the manual(s) required by CS-P 40(a).

...

(5) **Scheduling information for each part of the Propeller** that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested and lubricated, and the degree of inspection, the applicable wear tolerances and work recommended at these periods. Necessary cross-references to the airworthiness limitations section must also be included. In addition, if appropriate, an inspection programme must be included that states the frequency of the inspections necessary to provide for the continued airworthiness of the Propeller.

D. Working Group G1

1. Proposal G4 – Resolution Framework

The FAA should define a consistent and transparent analytical framework to determine whether a potential ICA compliance issue exists. The analysis should include input from the complainant and the DAH and identify a particular FAA office to be the final arbiter.

INTENT: To develop a comprehensive, transparent framework for the FAA to analyze and resolve complaints regarding ICA availability and content.

RATIONALE: The FAA's current framework for analyzing ICA content and availability issues is unclear or was unable to be determined by the ARC. This proposal directs the agency to clarify how it analyzes a complaint prior to dispositioning it (e.g., referral for enforcement, dismissal). Proposal G8 addresses the enforcement process.

APPROACH: Update FAA guidance to explain the analytical framework to determine whether a compliance issue exists and identify the FAA office responsible for the determination.

The framework should provide the criteria necessary for the FAA to determine whether a given document is ICA that should be available at the time of the request and whether the requester is entitled based on regulatory definitions and the identification of ICA during the certification process. The FAA's decision should consider the DAH's rationale provided in any previous feedback to the requester and any information provided by the requester. The FAA should have a clear methodology to determine if a compliance issue exists. The framework is intended to incorporate ICA issues into the existing compliance/enforcement process and not to create a new or duplicated adjudication process.

Note: To make this framework workable, the FAA would first need to describe a methodology to determine what is and is not ICA, and what the meaning of "make available" is. See Sections VII and VIII for positions on these topics.

The FAA presented its compliance and enforcement process during plenary sessions. This process could be leveraged for this proposal.

HARMONIZATION: This proposal is for improvements to the FAA's internal processes. Therefore, this proposal is neutral with respect to regulatory harmonization.

AREAS OF DISAGREEMENT: During ARC review of Proposal G4, some DAHs asserted that a clear and well-established process already exists for receiving and processing complaints regarding compliance with ICA requirements, including the FAA's investigative and enforcement procedures per part 13 and FAA Order 2150.3C. Therefore, according to these TCHs, no additional recommendation or guidance from the ARC is necessary.

RELATED RECOMMENDATIONS:

Recommendation 9 recommends that ICA complaints be processed with the part 13 complaint process.

Recommendation 1 addresses ICA identification both to facilitate compliance and to harmonize with EASA. Better identification of ICA during the certification process will minimize and allow quicker resolution of ICA complaints.

2. Proposal G6A – ICA Requirements for PMA and § 21.8(d)

The FAA should close the regulatory gap regarding supplemental ICA for PMA articles approved under § 21.8(d) by moving the ICA requirements at § 21.50(b) into subpart A.

INTENT: To ensure that all design approvals have the requirement to make ICA and/or supplemental ICA and changes associated with that design approval available to any person required to comply.

RATIONALE: Some PMA holders may produce and make supplemental ICA available. While this is directed in FAA Orders 8110.54A and 8110.42 and ACs 21.303-4 and 2-43A, there is no regulatory requirement to do so. Moving the ICA requirements at § 21.50(b) to subpart A of part 21 would ensure that all design approvals have associated ICA requirements.

APPROACH: This could be accomplished by moving ICA requirements to subpart A so they are applicable to PMAs and other approvals under § 21.8(d). In doing so, the FAA must define “design approval holder” and clarify that ICA obligations are for design approval holders. A definition of “design approval holder” could be added to § 21.1 to create a link to these requirements. Details regarding ICA content requirements will remain in other parts of title 14 (e.g., part 25). In the case of PMAs, STCs, and other approvals under § 21.8(d), the ICA requirement would apply to supplemental ICA developed as part of the design approval.

HARMONIZATION: When developing this amendment, the FAA should consider harmonization with other civil aviation bilateral partners.

EASA places the DAH ICA responsibility in subpart A. Thus, this proposal would increase regulatory harmonization with EASA.

Transport Canada places the ICA responsibility on the DAHs. This proposal will therefore increase regulatory harmonization with Transport Canada.

ANAC, similar to the current FAA requirement of § 21.50(b), places this responsibility on the PAH without an associated DAH responsibility. Therefore, this recommendation would decrease regulatory harmonization with ANAC.

See narrative in Section IV.D for discussion on harmonization.

AREAS OF DISAGREEMENT: Most TCHs agree that all design approval holders that have the requirement to create ICA or “supplemental ICA” should have a requirement to make that ICA and changes associated with that design approval available to any person required by this chapter to comply with the instructions. However, the TCHs could not agree as a consensus recommendation to the language used by the OOMRO subgroup proposing the recommendation, as it could be used out of context to argue that PMA and § 21.8(d) holders are “any other person required to comply” with the TCH’s ICA under Chapter I. The TCHs do not agree that PMA or §

§ 21.8(d) approval holders are required to comply with TCH's ICA. Therefore, those TCHs do not support the implementation of this proposal, even though they support the concept of moving all ICA rules to subpart A and out of subpart B. See Section VIII.A.5.b for the TCH position with regards to PMA applicants not being "any other person required to comply."

RELATED RECOMMENDATIONS/PROPOSALS:

Proposal G6B relates to repair design approval responsibilities regarding supplemental ICA.

Proposal G6C relates to TSOA Holder responsibilities regarding ICA/maintenance instructions.

Recommendation 7 relates to DAH responsibilities to maintain and update ICA based on in-service feedback.

Note that Working Group G1 addresses repair design separately in Proposal G6B.

3. Proposal G6B – ICA Requirements for Major Repairs and Alterations

The FAA should codify and clarify the current guidance that holders of major repairs are required to produce and make supplemental ICA available.

INTENT: To standardize ICA requirements for major repair design approvals.

RATIONALE: As a matter of practice, major repair and alteration developers produce and make supplemental ICA available. However, while this is directed in AC 43-210 and in FAA Orders 8110.54A and 8300.16, there is no regulatory requirement to do so.

Major repair design approvals are the same as other design approvals because:

- Whenever an article is required to be approved, it may be approved in any manner approved by the FAA.
- Articles are defined as material, part, component, *process*, or appliance.
- Repair processes that result in major repairs must be based upon approved technical data under parts 65, 121, 135, and 145.
- Those “persons” must have an acknowledged and documented application and issuance process to receive approval of the repair design (engineering and substantiating data showing the article was returned to at least its original condition when the process was applied properly).

Recognizing major repairs as design approvals under § 21.1(a)(1)(i) would require supplemental ICA development, as appropriate or required, as part of the design approval process.

Some ARC members believe that major repairs are already recognized as design approvals under § 21.1(a)(1)(i) as “other approved design.” Other ARC members believe that regulatory change would be required to recognize major repairs as design approval under § 21.1(a)(1)(i) or §21.8(d). Either way, this proposal encourages the FAA to identify or affirm that major repairs are design approvals.

This proposal addresses the gap for major repairs, but not for minor repairs.⁹³

APPROACH: Section 21.1(4) currently defines design approval to mean “a type certificate (including amended and supplemental type certificates) or the approved design under a PMA, TSO authorization, letter of TSO design approval, or other approved design.”

⁹³ The ARC considered ICA for minor repairs because, in the current regulatory system, there could be cases where the implementation of a minor repair affects the existing ICA. However, the ARC concluded that, because minor repairs are performed to *acceptable data*, and not *approved data*, there are no “approval” holder obligations related to maintenance data for minor repairs. Accordingly, the ARC did not develop recommendations to specifically address ICA for minor repairs, but notes that if a minor repair impacts the product such that ICA changes are warranted, the resulting ICA changes should be managed in accordance with the ARC’s recommendations. (See Recommendations 1 and 7 and Proposal F3.)

The provision could be amended as follows to include major repairs: “a type certificate (including amended and supplemental type certificates) or the approved design under a PMA, TSO authorization, letter of TSO design approval, major repair, or other approved design.”

This recommendation could be accomplished by amending § 21.8 as indicated below to add major repair, which is consistent with inclusion of “process” in the definition of “article.” Additions indicated /in blue/.

§ 21.8 Approval of articles, /including major repairs./

If an article is required to be approved under this chapter, it may be approved—

- a. Under a PMA;
- b. Under a TSO;
- c. In conjunction with type certification procedures for a product; or
- d. In any other manner approved by the FAA;/ or/
- e. /Under a major repair./

However, the foregoing may not be required if major repair design approvals are considered approved under the current § 21.8(d).

In addressing the status of major repair approvals as design approvals, the FAA should consider the following:

- Harmonization with other leading authorities (especially EASA and TCCA, which recognize major repair design approval holders.)
- Transferability of major repair design approvals:
 - o Major repair designs should be transferable (like STCs).
 - o Some major repairs are “one-off” and only applicable to a single tail number, while other repair specifications may be applied across the fleet.
 - o Repair specification design approvals could be transferred like STCs, in which case the “make available” requirements would transfer with the design approval.
 - o Differences between “one-off” repairs vs. Repair Specification (RS) repairs (e.g., “one-off” repair responsibility transfers to the owner/operator, whereas Repair Specification is treated like other design approvals):
 - When the aircraft gets sold, the one-off major repair supplemental ICA responsibility transfers with the aircraft.
 - The airline that made the major repair w/ supplemental ICA would transfer the Supplemental ICA when the aircraft exits the fleet. The new owner would become responsible for the supplemental ICA.
 - o Currently when an aircraft gets transferred:
 - For one-off repairs, the descriptive data and supplemental ICA would transfer with the aircraft, thus transferring the DAH responsibility.

- For RS repairs, the supplemental ICA would transfer, but not the descriptive data.
- It will be necessary to review the requirements of §§ 121.380(a) and 91.417(b)(2) for transferring aircraft to include Supplemental ICA (§ 91.417(b)(2) currently does not include ICA).

In support of transferring the one-off repair data, the STC installer is responsible for compatibility, thus the owner of the aircraft with the Major Repair should be responsible for the Major Repair Design.

- Communication regarding supplemental ICA is the responsibility of the owner/operator, which must flow the information down to any maintainer, e.g., via the part 121 operator's maintenance program, logbook entries for others.
- Aligning major repair design holder responsibilities with those of other design approval holders.
- Part identification post-repair to ensure traceability to the repair design and related ICA. This could be done through reference to a design approval holder number, if created (e.g., cage code).
- Related Major Repair, Alteration, and Airworthiness (MRA) ODA responsibilities when acting as a "consulting" ODA/designee (which designs a major repair on behalf of, and transfers it to, another holder) vs. a "holding" ODA/designee (which designs a major repair, maintains ownership through a related entity, and licenses it to another party).
- The holder of the major repair design approval must be established at the outset of the approval process (e.g., based on the indicated applicant on the approval form).
- Necessary related amendments to parts 43, 145, and 183 and to applicable guidance (e.g., Order 8100.15).

HARMONIZATION: The working group notes that moving the requirement to subpart A and identifying major repairs as repair design approvals would capture major repair design approval holders. This proposal would align the FAA requirements more closely with those of EASA and Transport Canada, thus increasing regulatory harmonization.

ANAC requirements, similar to the current FAA requirement of § 21.50(b), only apply to TC and STC applicant/holders. Therefore, this proposal would decrease regulatory harmonization with ANAC.

AREAS OF DISAGREEMENT: Most TCHs agree that all design approval holders are required to create ICA or "supplemental ICA" and should have a requirement to make that ICA and changes thereto associated with that design approval available to any person required by this chapter to comply with the instructions. Some TCHs believe that this proposal as worded could be taken out of context to argue that Major Repair Design Approval Holders are persons required to comply with TCH's ICA. Therefore, those TCHs do not support the implementation of this

proposal, though they agree with the concept of moving ICA rules out of subpart B and into subpart A for all DAHs. See Section VIII.A.5.b. for the TCH position with regards to PMA applicants not being “any other person required to comply.” While this does not relate directly to Repair Design development, the same principle would apply.

RELATED RECOMMENDATIONS/PROPOSALS:

Proposal G6A relates to PMA and other § 21.8(d) DAH responsibilities regarding supplemental ICA.

Proposal G6C relates to TSOA holder responsibilities regarding ICA/maintenance instructions.

Recommendation 7 relates DAH responsibilities to maintain and update ICA based on in-service feedback.

Proposal F3 relates to evaluating the repair design approval responsibilities regarding supplemental ICA.

4. Proposal G6C – Applicability of ICA Requirements to TSOA Holders

TSOA holders should have the same responsibilities as other design approval holders, including the requirements to receive and address in-service feedback, update designs and TSO-required maintenance data, and make those changes available to “any other person required to comply.”

INTENT: To standardize responsibilities (including in-service feedback, design and data updating, and making changes available) for all DAHs.

RATIONALE: TSO approvals require furnishing the data to an entity (e.g., operator or repair station) when the article is purchased. However, there is no current regulatory requirement to update furnished data or make the data available to “other persons required to comply.”

Currently, TSO standard language uses the term “furnished data” rather than ICA. As a matter of practice, TSOA holders produce and make maintenance instructions available as part of “furnished data.” While this is directed in FAA Order 8110.54A and AC 21-43A, there is no regulatory requirement to do so. Moving the ICA requirements at § 21.50(b) to subpart A of part 21 and renaming TSO “furnished data” to “instructions for continued airworthiness” would ensure that TSOAs, like all other design approvals, have associated ICA requirements.

This will ensure maintenance instructions associated with TSOA articles are available when the TSOA article is incorporated into the design approval (i.e., as part of (S)TC or amended TC).

In situations in which TSOA items are included in a TC or STC and the TSOA holder’s “ICA” is referenced in the (S)TC holder’s ICA, this creates a dual requirement – one for the STC holder and one for the TSOA holder. For TSOA articles incorporated in (S)TC items, the Declaration of Design and Performance (DDP) concept/requirement would improve coordination between (S)TC and TSOA holders.

For TSOA items that are not included in an (S)TC or the ICA for which is not referenced, the TSOA holder ICA requirement remains. For example, Unit Load Devices (TSO C-90e) and Galley Cart, Containers, and Associated Components (TSO-C 175) are not included in an (S)TC and therefore there is no regulatory tie-in to aircraft-level ICA.

APPROACH: Change references to TSO “maintenance data” to “instructions for continued airworthiness” globally for all TSOs. This could be accomplished through the pending TSO C-0 and moving ICA requirements to part 21, subpart A.

The concept of a DDP may need to be added to TSO C-0 or subpart O.

Note: In considering this proposal, the FAA must review the scope of data included in the term “maintenance data” as used in various TSOs to avoid potential unintended consequences.

ALTERNATIVE APPROACH: If moving the ICA requirements to subpart A and the pending TSO C-0 approach is not implemented, an alternative approach would be to more closely match EASA’s version 21.A.609(d) by adding the requirement directly into subpart O.

Add a new section to § 21.616 as follows:

/(“i) Make available to users of the article on request those maintenance, overhaul and repair manuals, per the applicable TSO, necessary for the usage and maintenance of the article, and changes to those manuals.”/

HARMONIZATION: EASA 21.A.609(d) requires ETSOA holders to “make available to users of the article and to the Agency on request those maintenance, overhaul and repair manuals necessary for the usage and maintenance of the article, and changes to those manuals....” TSO C-0 is an effort to harmonize with EASA, as is the concept of a DDP requirement (EASA 21.A.608). This proposal would align the FAA requirements more closely with those of EASA and Transport Canada, thus increasing regulatory harmonization.

ANAC requirements, similar to the current FAA requirement of 21.50(b), only apply to TC and STC applicant/holders. Therefore, this proposal would decrease regulatory harmonization with ANAC.

AREAS OF DISAGREEMENT: Some TCHs expressed concern that including TSO furnished data in requirements to “make available” and “make those changes available” would more broadly define what is included in ICA. More specifically, defining as ICA all TSOA “maintenance instructions” is overly broad, as some of those maintenance instructions may be ICA and some may not be ICA. Therefore, those TCHs do not support the implementation of this proposal.

RELATED RECOMMENDATIONS/PROPOSALS:

Proposal G6A relates to PMA and other § 21.8(d) DAH responsibilities regarding supplemental ICA.

Proposal G6B relates to repair design approval responsibilities regarding supplemental ICA.

Recommendation 7 relates to DAH responsibilities to maintain and update ICA based on in-service feedback.

Proposal F3 relates to evaluating the repair design approval responsibilities regarding supplemental ICA.

5. Proposal G8 – Oversight, Compliance, and Enforcement

The FAA should document the respective oversight, compliance, and enforcement responsibilities of its functional groups with regard to ICA issues.

INTENT: To improve compliance through mutual understanding of the oversight, compliance, and enforcement process.

RATIONALE: The FAA has established compliance and enforcement rules and orders (e.g., part 13, FAA Orders 8000.373 and 2150.3), but they are not consistently applied to ICA issues. The working group identified numerous regulatory provisions that are understood differently by different stakeholders. While all FAA rules are “enforceable,” a perceived lack of clarity exists regarding responsibilities of various FAA functional groups.

APPROACH: Update FAA orders and guidance to provide clarity on the responsibilities of various FAA functional groups (including potential ICA intra-agency working groups) regarding ICA issues. Update FAA work instructions to describe and enable compliance and enforcement for ICA issues.

The process should include provisions to use the FAA’s State Safety Program (SSP) system to track and trend complaint data to ensure problems are addressed in a timely manner.

HARMONIZATION: This proposal is for improvements to the FAA’s internal processes. Therefore, this proposal is neutral with respect to regulatory harmonization.

AREAS OF DISAGREEMENT: Some DAHs take the position that there is a clear and well-established process for intake and processing of complaints regarding compliance with ICA requirements, including any FAA enforcement of the regulations, found in part 13 and FAA Order 2150.3C. According to this view, these regulations and the FAA enforcement program are available for handling of any complaints and enforcement of FAA regulations, and no other recommendation or guidance from the ARC is necessary. Some DAHs disagree that the FAA fails or is in any way lax in its oversight or enforcement of its rules relating to ICA.

RELATED RECOMMENDATIONS/PROPOSALS:

Recommendation 4 relates to coordination within FAA offices and Lines of Business.

Recommendation 9 relates to how the FAA receives and manages complaints.

Recommendation 10 relates to the communication of the status and closure of complaints.

Proposal G4 relates to the process by which complaints are resolved within the FAA.

6. Proposal G14A – Standardization of Definitions

The FAA should standardize the definitions and uses of “acceptable to,” “accepted by,” and “approved by” the Administrator by harmonizing within AVS (AFS and AIR).

INTENT: To clarify the use of the terms “acceptable to,” “accepted by,” and “approved by” the Administrator.

RATIONALE: ICA regulations (e.g., § 25.1529) say ICA must be “acceptable to” the Administrator. However, FAA Order 8110.54A directs AIR to “accept” ICA. This practice is inconsistent with the AFS definition of the expectations associated with “acceptable to.” This has created confusion for some within industry (including DAHs, operators, and repair stations) and the agency (ODAs, AFS, and AIR) regarding the status of “accepted” ICA and related DAH obligations. The fact that design data associated with design approval is “approved” creates additional confusion.

Order 8900.1, Volume 3, Chapter 1, Section 1, initiated by the Executive Director of the Flight Standards Service for aviation safety inspectors and AFS employees, defines the terms “acceptable to” and “accepted by” the Administrator. It states:

“Acceptable to” the FAA or the Administrator. This term means that the item at issue must be submitted to the FAA with reference to some standard or publication as the basis for the intended application, procedure, method, etc. Assessment of the item at issue by the FAA prior to use is normally not required. In exercising its oversight responsibilities, the FAA may make case-specific determinations as to a particular item’s acceptability. A person or certificate holder (CH) should be able to reference some standard or publication as the basis for the acceptability of the intended application, procedure, method, etc. The standard or publication used should be an accepted industry practice previously found acceptable by the FAA, or, at a minimum, the person using it should be able to articulate a clear and reasonable basis for the action taken being an acceptable practice or procedure. This could include, but is not limited to, a practice or procedure contained in an FAA-issued advisory circular (AC) or other published guidance, information contained in the Original Equipment Manufacturer (OEM) published procedures for performing a maintenance task, or relevant information from an ASTM International standard. When a regulation requires that a submission must be “acceptable to” the FAA as a precondition for the FAA to act, the FAA may exercise discretion as to whether the determination must be made before or after the FAA acts. For example, operations specifications (OpSpec), which contain authorizations, typically necessitate an item to be acceptable to the FAA before the FAA issues the authorization.

NOTE: A person should be able to demonstrate, if called upon to do so, that the method, technique, practice, etc., would in fact be acceptable to the FAA. For example, it would

not be an acceptable practice for a maintenance provider to torque bolts by “feel” when part 43, § 43.13(a) states that each person performing aircraft maintenance must use “methods, techniques, and practices acceptable to the Administrator.” Instead, an acceptable industry practice is to use a properly calibrated torque wrench to ensure the required torque values are achieved. The practice of failing to use a torque wrench and hoping for the best would be a practice the FAA would not find acceptable.

“Accepted by” the FAA or the Administrator. This term appears infrequently in the FAA’s regulations. Where the term is used, it means that the item at issue must be submitted to the FAA for review and acceptance prior to use. By whatever means the FAA’s acceptance of an item is communicated to the submitter, the acceptance means that the item meets the FAA’s applicable criteria, and that the FAA has no objection to the submitted item.

Unless the context of the situation clearly provides otherwise, “accepted by” the FAA does not simply mean receipt by the FAA (i.e., that the item was given to a representative of the FAA and that person received (accepted) it on behalf of the FAA).

NOTE: If an operator implements an item that should have been submitted for FAA review and acceptance, but was not submitted, that circumstance alone does not mean the person would be in violation of the underlying regulation requiring the item to be “acceptable.” That determination would require an independent analysis of acceptability. At a minimum, however, the person may be in violation of a regulation requiring that the item be submitted.

FAA “Approved”: part 1, § 1.1 defines “approved” as “unless used with reference to another person, means approved by the FAA or any person to whom the FAA has delegated its authority in the matter concerned, or approved under the provisions of a bilateral agreement between the United States and a foreign country or jurisdiction.”

NOTE: The FAA affirms approval by letter, stamp of approval, issuance of OpSpecs, or some other official means. This affirmation signifies the FAA’s or an FAA-delegated person’s assessment of the “item at issue” is complete and the FAA accepts⁹⁴ and authorizes its incorporation and use.

WG RESEARCH: The working group reviewed the number of times the words “approved,” “approved by,” “accepted by,” and “acceptable to” are used in some of the FAA’s regulations. Below is a table of those results for reference.

⁹⁴ FAA Order 8900.1 reads “...the FAA accepts...” in this quoted paragraph. This should be “...the FAA approves...” Working Group G1 recommends that the FAA correct this typo at the next opportunity.

Part	Approved	Approved by	Accepted by	Acceptable to
21	84	2	0	26
23	13	2	2	4
25	161	15	0	10
33	31	5	1	8
35	9	4	1	3
43	40	6	1	8
91	254	49	17*	27
121	449	68	2	33
135	214	38	1	18
145	12	4	0	27

* All 17 “accepted by” refer to special training for Mitsubishi MU-2B.

APPROACH: The FAA should standardize the definitions and use of “acceptable to,” “accepted by,” and “approved by” the Administrator. The FAA could use the AFS as a starting point for these definitions but should ensure that the definitions and use would be appropriate for both AFS and AIR. The definitions should also consider under what conditions data must/should be submitted to the FAA for review and what actions the FAA would/should take.

Note 1: In considering this proposal, the agency must address the fact that the terms “approved by,” “accepted by,” and “acceptable to” are widely used in the regulations and consider how definitions of the terms could affect existing regulatory text. Included in this proposal would be for AIR to review and update, if applicable, the various FAA orders and Advisory Circulars that use these terms for appropriateness. The agency must evaluate the different contexts in which these terms are used to ensure that guidance matches rules, and the definitions are used consistently. For example, Order 8110.54A and its associated draft AC 120-ICA should be updated to reflect the agreed and consistent definitions of “acceptable to,” “accepted by,” and “approved by” as appropriate.

Note 2: This proposal is limited to AVS (AFS and AIR) but could be expanded to include all other FAA lines of business.

HARMONIZATION: This proposal is for improvements to the FAA's internal processes. Therefore, this proposal is neutral with respect to regulatory harmonization.

AREAS OF DISAGREEMENT: Some TCHs believe that the generic policy/guidance review envisioned by Recommendation 12 is sufficient to capture updates to the regulatory requirement of "acceptable to" vs. the current guidance of "accepted." Those TCHs are also concerned about the ripple effect identified in Note 1 above. In other words, while proposing to define "acceptable to" and "accepted" in the context of ICA, the OOMRO proposal could easily be expanded to other parts of the regulations and the potential unintended consequences of such expansion of a definition employed by AFS for a specific context. It is dangerous to establish set definitions of terms without doing a thorough analysis of all the regulations where those terms are employed to determine potential impact or unintended consequences. Therefore, those TCHs do not support the implementation of this as a standalone proposal.

RELATED RECOMMENDATIONS/PROPOSALS:

Proposal G8 relates to ensuring ICA rules and guidance are clear and that the responsibilities of various FAA services are understood.

Proposal G14B relates to clarification of ongoing DAH obligations.

Recommendation 17 specifically addresses the lack of consistency between the regulations and FAA Order 8110.54A 5.1.1 with respect to the FAA's review of ICA revisions without an associated design change.

7. Proposal G14B – Ongoing ICA Obligation

The FAA should clarify that ICA is an ongoing DAH obligation and that ICA once found “acceptable to” the Administrator may become unacceptable in the future and require changes.

INTENT: To clarify that the DAH’s obligations to maintain ICA do not end when a design approval is issued, regardless of whether the ICA was previously found “acceptable to” or “accepted by” the Administrator.

RATIONALE: The ICA regulations, in each certification standard, require the DAH to create ICA “acceptable to the Administrator.” “Acceptable to” is an ongoing obligation; it means compliance must be maintained and changes in circumstances may render ICA no longer acceptable. Although a DAH may have provided ICA “acceptable to” the Administrator during the certification process, in the future the ICA may become unacceptable due to in-service feedback or omissions and therefore must be updated to once again be “acceptable to” the Administrator.

APPROACH: Order 8110.54A and its associated AC (not yet published) should be updated to clarify the DAH’s ongoing obligation to maintain ICA acceptable to the FAA. “Acceptable to” means that the DAH complied with all requirements at certification and allows the FAA to use its discretionary authority to evaluate the document prior to issuing the design approval. ICA deemed “acceptable” may be deemed no longer acceptable to the Administrator in the future (e.g., based on deficiencies identified by the agency or the DAH itself during investigations of airworthiness concerns, assessments of potential unsafe conditions, or special certification reviews) and require updates.

Acronyms for various FAA offices and business lines must be updated as appropriate.

HARMONIZATION: This proposal is for improvements to the FAA’s internal processes. Therefore, this proposal is neutral with respect to regulatory harmonization.

AREAS OF DISAGREEMENT: Some DAHs believe that the generic policy/guidance review envisioned by Recommendation 12 and the in-service feedback addressed in Recommendation 7 are sufficient to establish the DAH’s ongoing obligations. The obligation to maintain and update ICA for the life of a product is also clear in the regulations, as discussed in other parts of this report. Therefore, those DAHs do not support the implementation of this as a standalone proposal.

RELATED RECOMMENDATIONS/PROPOSALS:

Proposal G8 relates to ensuring ICA rules and guidance are clear and that the responsibilities of various FAA services are understood.

Proposal G14A relates to the inconsistent use of the terms “acceptable to,” “accepted by,” and “approved by.”

FAA regulations currently require the ICA continue to be acceptable to the Administrator, which is equivalent to the EASA “ongoing adequacy” requirement. As such, the related regulatory changes proposal could be addressed through guidance as proposed in G14B.

Recommendation 17 specifically addresses the lack of consistency between the regulations and FAA Order 8110.54A 5.1.1 with respect to the FAA’s review of ICA revisions without an associated design change.

8. Proposal G19 – Removal of Data From Subsequent Revisions and Availability of Prior Revisions of ICA

The FAA should clarify whether and under what circumstances prior revisions of ICA must be made available to persons required to comply with ICA. The FAA should also clarify its position on the acceptability or unacceptability of removing data through subsequent revisions.

INTENT: To ensure that a repair station has access to older versions of ICA if the owner/operator has directed that the specific, older revision of ICA must be used. To clarify the FAA's position on the acceptability or unacceptability of removing ICA data through subsequent ICA revisions.

RATIONALE: Section 21.50(b) of the current regulations specifically requires that “the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions. In addition, changes to the Instructions for Continued Airworthiness (ICA) shall be made available to any person required by this chapter to comply with any of those instructions.” Therefore, there is already a requirement for design approval holders to make the initial ICA and changes of the ICA available to any person who would need to use it.

Unless an Airworthiness Directive exists prohibiting the use of specific instructions, FAA regulations and guidance allow for an owner or operator to direct that maintenance be performed in accordance with an earlier revision of ICA. In such a case, FAA regulations require the maintainer to use the earlier, specified revision.

However, some DAHs might consider such older revision(s) of ICA to be superseded by the most recent revision(s) to those instructions, and thus may be reluctant to make such prior revisions available.

The TCH community believes that DAHs need only make prior revisions of ICA available in exceptional circumstances. Most DAHs likely have processes in place to evaluate requests for prior revisions of the documents containing ICA but believe that they are not obligated to provide them. TCH believe that they are only required to make the latest revision available.

The OOMRO community voiced concerns about potential licensing restrictions that might prohibit the sharing of ICA revisions between an owner/operator and its chosen maintenance provider. For example, a repair station may have Rev. 2 of a particular instruction, while the owner/operator customer is directing the repair station to use Rev. 4, and the DAH might consider all such prior revisions to be superseded by Rev. 6. If the owner/operator cannot share Rev. 4 due to licensing restrictions, then the DAH is the repair station's only source for Rev. 4.

The OOMRO community also cited examples of repair details included in prior versions of ICA being removed from subsequent revisions.

WG RESEARCH: The working group reviewed the plain language of the regulations and two legal interpretations – Busch, dated August 11, 2006,⁹⁵ and Manager AFS-300, dated December 5, 2008.⁹⁶ Based on that review, the working group presented a “bright line” interpretation that the only way ICA data could be removed or become no longer valid for use would be through the issuance of an Airworthiness Directive.

APPROACH: The FAA should clarify DAH’s responsibilities with regards to prior ICA revisions and the acceptability or unacceptability of removing ICA content in subsequent revisions of ICA.

HARMONIZATION: This proposal is for updates to guidance only. Therefore, this proposal is neutral with respect to regulatory harmonization.

AREAS OF DISAGREEMENT: It was difficult to get consensus on this proposal because there was difficulty in getting consensus on what is and is not ICA. The DAH community believe that the majority of “removed maintenance data” is not ICA, whereas the OOMRO community believes the majority of “removed maintenance data” is ICA.

The TCH community believes that DAHs need only make prior revisions of ICA available in exceptional circumstances. Most DAHs likely have processes in place to evaluate requests for prior revisions of the documents containing ICA but should not be obligated to provide them. Where requests for prior revisions may result from the DAH deleting content that was desirable for the owner, operator, or maintainer, the DAH may be justified in not fulfilling the request. (See Section VIII.A.3.c for more details.) The TCH community expressed concerns about the burden associated with having to make all superseded (prior) versions of manuals containing ICA available.

The OOMRO community believes that the plain language of § 21.50(b) establishes that the (S)TCH must: 1) furnish a complete set of ICA, 2) thereafter, make those instructions available, and 3) in addition, make changes to the ICA available. The make available requirements apply to the initial complete set, and changes to ICA, not just the latest revision. The TCH community disagrees.

The OOMRO community also believes that owner or operator may flow down any valid ICA revision to their maintainer of choice, without restriction, and that the DAH has the obligation to make available any prior revisions of ICA, unless that prior version is subject to an AD. The TCH community disagrees.

⁹⁵ Letter from Rebecca B. MacPherson, FAA Assistant Chief Counsel for Regulations, to Michael D. Busch, [Request for Interpretation of 14 CFR § 43.13\(a\) and part 43, appendix D](#) (Aug. 11, 2006).

⁹⁶ Letter from Rebecca B. MacPherson, FAA Assistant Chief Counsel for Regulations, to Manager, Aircraft Maintenance Division AFS-300, [Legal Interpretation of 14 C.F.R. § 91.409\(f\)\(3\)](#) (Dec. 5, 2008).

Please see Section VIII for details of the TCH and OOMRO positions regarding the “make available” provisions of ICA regulations.

VII. Core Area of Disagreement: ICA Content

Industry and the FAA have struggled for decades to agree on a common interpretation of the regulations governing ICA content. As detailed in earlier sections of this report, a majority of ARC members considered tasks A.i and A.ii to be the most important topics to be resolved by the committee⁹⁷ and Working Group A spent tens of thousands of person-hours debating the topics where various stakeholders are not aligned.

Unfortunately, the ARC was unable to reach consensus on most of the core ICA content debates. Rather, in most such debates, the ARC split into two groups, generally referred to as (1) the TCH subgroup, and (2) the OOMRO subgroup, as described in Section II. Because no full ARC consensus could be reached on core ICA content topics, including the task to define ICA, these two stakeholder subgroups each wrote a detailed position paper explaining their interpretation of the ICA content required by existing FAA regulations. The two position papers follow in this section.

⁹⁷ See *infra* Appendix D.

A. TCH Subgroup Position Paper

The following position paper written by a group of ARC participants representing the TCH stakeholder subgroup is included to present a full picture of this group's thought processes and key concerns in their own words, as well as further background on each of the areas discussed. It is presented exactly as written and does not represent the position of the full ARC.

1. Overview

This document summarizes the general views of the TCH community on the definition, content, and distribution of ICA. We then discuss the outcome of discussions between members of the TCH community that participated in “Tiger Team 2” under Working Group A (WG-A), which focused on the following “misaligned” areas established previously by WG-A: scheduling information, referenced Instructions for Continued Airworthiness (ICA), and repairs. The TCH community position paper developed within Working Group D, found below, further expands on our view that compliance with ICA requirements is fully compatible with an approach to ICA distribution that permits DAHs to protect their intellectual property they have invested significantly to develop.

The TCH community strongly believes that existing FAA regulations and long-standing FAA guidance for ICA are both clear and being met. The TCH community also notes more recent EASA regulations and guidance may provide even greater clarity on ICA requirements, and would encourage greater harmonization with those requirements as opposed to the wholesale changes in ICA requirements proposed by the OOMRO community, which would significantly widen the gap between FAA and EASA requirements. We recognize that the “International Harmonization” Working Group F was tasked with the comparison to other international ICA requirements, so EASA references in this document are provided mainly for additional visibility. Harmonization is addressed briefly below but is not a focus of this paper. Having said that, the TCH community supports many of the proposals generated by Working Group F that would result in further harmonization between the FAA and EASA.

The FAA Regulates Safety, Not Commerce

As an overarching consideration that needs to be kept front of mind in considering the work and output from this ARC, the FAA's “continuing mission is to provide the safest, most efficient aerospace system in the world.” Safety is the core mission of the FAA, and all segments of our industry should always demonstrate an unyielding commitment to the safety of flight.

In the context of ICA, the FAA has acknowledged that it “does not regulate competition between repair stations but rather safety. The FAA's intent for 21.50(b) was ... not ... to assure that any person wishing to enter the repair/overhaul business is provided with repair manuals.” FAA Legal Interpretation to Alcor Engine Company, Inc. (April 14, 2003); FAA Legal Interpretation to Aeronautical Repair Station Association (August 9, 2012); FAA Order 8110.54A.

The FAA's ICA rules and guidance outlined below ensure that the intent of the ICA distribution requirements is met, in the interest of safety, while also ensuring that it does not intrude upon the ability of regulated entities to enter into commercial agreements prohibiting improper use of its ICA for purposes other than those intended by the regulations, and agreements to protect their intellectual property they invested to develop. The TCHs believe any proper reading and interpretation of the existing rules and guidance must be read in conjunction with this core mission of safety in mind. The wholesale changes to the scope, content, and permissible distribution of ICA being proposed by the OOMRO community would not only stifle innovation in our industry but also are not tied to this core mission of safety.

2. Definition of ICA

When presenting an aircraft, aircraft engine, or propeller (i.e., "product" as defined in § 21.1) design for certification, the applicant for the type certificate must demonstrate that its product design meets the relevant airworthiness standards (e.g., part 25 for aircraft, part 33 for aircraft engines, and part 35 for propellers). Those airworthiness standards represent the minimum acceptable safety requirements for the product. While the product design may exceed these requirements, the type certificate is awarded if the design meets the applicable airworthiness (safety) standards in the type certification basis.

The applicable airworthiness standards include the requirement for the applicant to develop "ICA" as defined in those standards. TCHs develop this ICA based upon the extensive data developed or obtained through the comprehensive certification program required for the product type design approval.

ICA are the product design approval holder's recommended means to monitor product degradation and ensure the product does not drop below the established safety standards described above. The ICA include a collection of checks and actions, representing a minimum instruction set of what is required to maintain compliance with the safety standard throughout the product's service life (i.e., continued airworthiness).

Therefore, the TCH community believes the following to be the definition of ICA, grounded in the existing regulations:

Instructions for Continued Airworthiness are the maintenance instructions and information established by the design approval holder, in accordance with the applicable certification basis or airworthiness standard, that are necessary to maintain the aircraft, aircraft engine, or propeller in an airworthy condition.

Regulation on ICA Distribution

The FAA's requirement that a DAH must furnish or make ICA available is found in § 21.50(b) (emphasis added):

The **holder of a design approval** ... must **furnish** at least one set of complete Instructions for Continued Airworthiness to the owner of each type aircraft, aircraft engine, or propeller.... Thereafter, the holder of a design approval must **make those instructions available** to any other person required by this chapter to comply with any of the terms of those instructions. In addition, changes to the Instructions for Continued Airworthiness shall be made available to any person required by this chapter to comply with any of those instructions.⁹⁸

Not All Maintenance Instructions are ICA

The ICA are a specific subset of maintenance instructions (i.e., “methods, techniques, and practices” in the context of § 43.13(a)) that are developed during and after type certification of the product. Using aircraft engines as an example, some certification testing (e.g., engine teardown inspections required under § 33.93 and § 33.201) incorporates use of ICA developed by the applicant for the type certificate. But as noted above, the applicant for a type certificate must prepare ICA as part of the engine certification process. See FAA AC 33.4-1, paragraph 4(a). The ICA provide information for proper maintenance to ensure engines of that type design are maintained in a state of “continued airworthiness”; meaning the engines conform to the type design and are safe to operate, such that they remain eligible for installation on aircraft. *Id.* at paragraph 4(a), (b). Applicants for a type certificate submit the ICA for acceptance to the FAA Aircraft Certification Office (ACO) overseeing the certification project, and the ACO is ultimately responsible for final acceptance of the complete ICA. *Id.* at section 2, paragraph 6(a), (b).

While the methods, techniques, and practices developed by the TCH may include additional instructions that offer economic benefits to users, these are not considered ICA unless they are essential to maintaining the product's compliance with safety (or airworthiness) standards in the certification basis. Not all information provided by TCHs is automatically ICA; only the information necessary to prevent degradation below the safety standard qualifies. The additional instructions not used to satisfy minimum ICA requirements are provided as a courtesy or through commercial agreements and not under any regulatory obligation. This point is clearer in current

⁹⁸ The full text of § 21.50(b) is as follows: “The holder of a design approval, including either a type certificate or supplemental type certificate for an aircraft, aircraft engine, or propeller for which application was made after January 28, 1981, must furnish at least one set of complete Instructions for Continued Airworthiness to the owner of each type aircraft, aircraft engine, or propeller upon its delivery, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later. The Instructions for Continued Airworthiness must be prepared in accordance with §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26 of this subchapter, or as specified in the applicable airworthiness criteria for special classes of aircraft defined in § 21.17(b), as applicable. If the holder of a design approval chooses to designate parts as commercial, it must include in the Instructions for Continued Airworthiness a list of commercial parts submitted in accordance with the provisions of paragraph (c) of this section. Thereafter, the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions. In addition, changes to the Instructions for Continued Airworthiness shall be made available to any person required by this chapter to comply with any of those instructions.”

EASA regulations and guidance, particularly AMC2 21.A.7(a) which states, in part, that ICA “may be provided together with other, additional or optional, maintenance information.”

TCHs Must Make ICA Available When There Is “Impending Need”

The requirements that TCHs develop, “furnish,” and “make available” a complete set of ICA have been defined and clarified by the FAA over several years. One of the key components of the FAA’s well-settled guidance is that TCHs are required to furnish ICA to product owners but only have to make ICA available to others required to comply with ICA under Chapter 1 where they can demonstrate an impending need for the ICA.

If the person or entity requesting ICA is a repair station, they must be “currently rated for the product/part...” FAA Order 8110.54A, Ch. 6.4.a(3). Currently rated is “defined as either appropriately class rated for the product or part, or, appropriately limited rated for the product or part and the product or part is on the repair station’s capability list or operations specifications as applicable.” *Id.* The repair station must also meet “all other applicable requirements, including §§ 145.109, 145.201, and 145.215.” *Id.* This means a TCH is only required to make ICA available “to those authorized persons with an impending need to comply with the terms of the ICA” – and an “impending need” means the repair station is both currently rated and has “ongoing work on the product that requires the instructions,” as indicated by an existing contract or work order to perform the work. See FAA Legal Interpretation to Aeronautical Repair Station Association (August 9, 2012); FAA Legal Interpretation to Piedmont Propulsion Systems, LLC (March 31, 2014).

TCHs Support Relocating ICA Requirements to Part 21 Subpart A

The TCHs believe there should be an even playing field in terms of ICA development and distribution requirements applicable to holders of alternative designs – for example designs approved by FAA through parts manufacturer approval (PMA). Those design approval holders need to establish requirements to ensure the continued airworthiness of their designs relative to degradation of the article approved under the PMA. A TCH cannot account for those alternative designs in the product ICA it developed, and was accepted by FAA, during product certification.

One way to achieve this goal is to relocate the ICA requirements from Part 21, Subpart B, to Subpart A, and to make it clear that other DAHs beyond TC, Supplemental TC, and Restricted TC holders have the same requirements to develop and furnish ICA. The ARC was not able to develop a consensus recommendation to accomplish this, although proposals from Working Groups F and G were drafted in an attempt to achieve this goal or a similar goal. While these proposals were not agreed as consensus recommendations, the DAH community urges the FAA to adopt regulations that would require PMA and other alternative design holders⁹⁹ to create and

⁹⁹ Under EASA rules, this would include Repair Design Approval Holders.

furnish ICA unless the basis for design approval was part identity. As noted in the Working Group F proposal, this would also increase harmonization with the approach taken by EASA.

International Harmonization

In 2012, the FAA, European Union Aviation Safety Agency (EASA), and Transport Canada Civil Aviation (TCAA) established an ICA roadmap identifying specific issues of common interest regarding ICA regulations and guidance, including areas in need of harmonization. While this position paper will not attempt an exhaustive review of harmonization efforts, there are a few key areas where relatively simple changes to the FAA regulations to be more consistent with the EASA approach to ICA would improve the clarity of FAA ICA requirements while maintaining consistency with the intent of existing FAA regulations.

With this in mind, the TCH community proposes that FAA consider the following points in connection with ICA regulations and guidance:

- **ICA is limited to instructions and information essential to continued airworthiness of the product, developed to show compliance to the certification basis:** The definition of ICA proposed by the TCHs above is consistent with the definition of ICA the FAA agreed to with EASA and TCAA in 2012:

“Instructions for Continuing Airworthiness are the instructions and information that are necessary for the continued airworthiness of the aircraft, engine, propeller, parts and appliances, which must be developed and/or referenced by the Design Approval Holder in accordance with the applicable Certification Basis or Standard.”

This definition of ICA is consistent with existing FAA regulation and guidance and makes clear that there are instructions and information developed by TCHs that are not ICA subject to the requirements of §21.50(b). Simply put, ICA is limited to those instructions and information developed by a TCH to show compliance to the applicable certification basis of the product and that are essential to the continued airworthiness of the product. The ICA must be maintained and updated, as needed, for the life of the product.

- **The TCH should convey what is and is not ICA:** The TCH develops the initial complete set of ICA to show compliance with applicable certification basis set forth in the airworthiness standards (*i.e.*, parts 23, 25, 27, 29, 33, 35, etc.) and applicable appendices regarding ICA content. The TCH should convey what instructions and information constitute ICA. This would eliminate confusion as to applicability of § 21.50(b) requirements to a TCH’s instructions and information. This is consistent with EASA’s published Acceptable Means of Compliance (AMC) contained in AMC2 21.A.7(a) Identification of ICA, and AMC1 21.A.7(b) Identification of a complete set

of ICA, which provide that the DAH should clearly identify as ICA the instructions and information necessary for continued airworthiness of the product.

In addition, the FAA regulations governing the required technical content of engine ICA in part 33 contain the same technical requirements as EASA's requirements in CS-E. However, EASA provides that the list of CS-E technical requirements should be "considered, as appropriate," for inclusion as ICA by the DAH. Under EASA's approach, the subjects and level of detail contained in ICA are ultimately for the TCH to determine and justify to the agency when the FAA accepts the ICA as part of the certification project, consistent with the definition of ICA referenced above. This same approach could be made to apply to all product types.

- **ICA requirements should apply to all Part 21 DAHs:** To clarify which DAHs are required to comply, the proposal discussed above to relocate ICA requirements to Part 21 Subpart A would further harmonization with the approach used in EASA 21.A.7. In the EASA regulation, the ICA requirement is located within Subpart A (General), and the text specifically applies to "the holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change, or repair design approval." The FAA could relocate the ICA requirements within part 21 to subpart A (General) and revise the regulation text to specifically apply to all part 21 design approval holders.

3. Scheduling Information

Existing FAA regulations require Design Approval Holders (DAH) to provide scheduling information to maintain continued airworthiness. Using aircraft engines as an example, Part 33, Appendix A, paragraph a33.3 ("Content") states in part that:

The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, ***as appropriate***, and information:

...

Engine Maintenance Manual or Section.

...

(6) Scheduling information for each part of the engine that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross

references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the engine.

(emphasis added)

Existing FAA guidance for that paragraph in Advisory Circular (AC) 33.4-1, dated August 27, 1999, provides the following in section 3, paragraph 9(a)(5)(a):

Scheduling information need not be provided for “every part”, but rather the scheduling information should provide for the continued airworthiness of the entire engine ***to the extent that the lack of specific scheduling information on any part will not adversely affect the continued airworthiness of the engine.*** The substantiation for scheduling information may be derived from engine certification testing, development testing, service experience of the same or similar type design engine, or a combination thereof. The ICA should state that those parts not scheduled need not be serviced other than to be inspected when exposed. *(Emphasis added.)*

In that same guidance, the FAA recognizes that ICA to maintain airworthiness at the product level does not require instructions in ICA for every single part or subcomponent that may be installed on a product:

- The ICA “should provide for the continued airworthiness of the entire engine to the extent that the lack of specific instructions for any given part should not adversely affect an operator’s ability to maintain the engine in an airworthy condition.” FAAAC 33.4-1, section 3, paragraph 7(a).
- In determining whether instructions are needed as part of ICA for “parts, subassemblies, assemblies or modules,” the DAH should consider “airworthiness limitations, safety assessments, classification of parts, and compliance requirements. Each part needs to be addressed either individually or as part of a group or system. Id., section 3, paragraph 7(b) *(emphasis added)*.

Moreover, if “ICA contains ‘remove and replace’ instructions for certain components, rather than referencing CMM’s or specific repair procedures, the aircraft can be maintained in an airworthy condition by replacement action, and the CMM or repair documentation is not part of the ICA.” FAA Legal Interpretation to Alcor Engine Company, Inc. (April 14, 2003); see also FAA Legal Interpretation to Aeronautical Repair Station Association (August 9, 2012) (If “DAH’s ICA indicates that the airworthiness of the product can be maintained by removing and replacing the component at issue, then any CMM that exists or is developed by the component manufacturer ... does not constitute ICA....”).

In light of the above, our position is that ICA must include, as applicable:

“When to” - Thresholds and repeat intervals for maintenance tasks.

“What to do” - Actions such as inspection, replacement, or restoration.

“How to” - Methods, techniques, and practices for performing the recommended tasks.

These instructions are specific to the recommended tasks. For example, if discard and replace is recommended, instructions for that specific action must be provided. This does not mean that all methods, techniques, and practices or all Component Maintenance Manuals (CMMs) are automatically considered ICA. Moreover, replacing a part versus repairing a part is a commercial decision driven by economics – regardless of whether a part is repaired or replaced, there is no impact to safety or airworthiness.

4. Referenced ICA

TC holders may reference other documents, such as component maintenance manuals (CMMs), to satisfy ICA requirements aimed at maintaining the continued airworthiness of the product (see, e.g., the cited paragraph above from Part 33, Appendix A). However, as established long ago in FAA legal interpretations (see, e.g., AGC-210 letter to Alcor Engine Company dated April 14, 2003), not all CMMs or other documents are considered ICA. That same FAA position is reflected in Order 8110.54A, Ch.6, para.4(b) which provides that:

If the requested ICA data are a CMM or specific repair information, the DAH must have identified the CMM or repair information in its ICA (aircraft, aircraft engine, or propeller ICA) as the source of information for continued airworthiness actions. If the ICA contain “remove and replace” instructions for the components, and don’t refer to CMM or specific repair procedures for necessary airworthiness actions, then the aircraft’s airworthiness can be maintained by replacement action, and CMM or repair documentation is not part of the ICA for the product. (*Emphasis added.*)

Since both the *Alcor* interpretation and Order 8110.54A citation acknowledge “CMM or specific repair information,” only the information explicitly referenced by the product’s ICA and deemed essential to maintain continued airworthiness qualify as ICA (not automatically an entire CMM or document).

For example, if only specific sections of a CMM are referenced, only those sections are considered ICA, provided they sufficiently fulfill the ICA requirements. It must also be feasible to make only those sections available (including revisions), if the entire CMM is not made available.

Again, as it applies to aircraft engines, FAA AC 33.4-1 provides the following FAA guidance in section 3, paragraph 9(a)(5)(e):

The ICA should clearly identify and reference any component manuals that are part of the ICA. In such cases, the TC holder remains responsible to control the content and changes in component manuals in accordance with the program provided to the FAA under section A33.1(c) of the appendix to part 33. The TC holder may work in conjunction with the component manufacturer to distribute changes to component manuals.

5. Repairs (Engines)

Again, using aircraft engines as an example, Part 33, Appendix A, Paragraph a33.3 states in part that:

The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, ***as appropriate***, and information:

...

Engine Overhaul Manual or Section.

...

(4) Details of repair methods for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.

(Emphasis added.)

The following FAA guidance for that requirement in AC 33.4-1, section 3, paragraph 9(b)(4)(a) states that:

The main objective of this requirement is that worn or substandard parts that do not meet the ICA's inspection limits can not *[sic]* be returned to service. Such parts should be either replaced or repaired in order to make the engine airworthy. While the ICA's need not contain repairs for all engine parts, the ICA's should identify when or under what conditions parts must be replaced or repaired. If a part or component fails to meet the requirements in the Inspection/Check section of the ICA's, replacement is an acceptable alternative to repair in order to maintain the continued airworthiness of the engine.

The group identified several examples where a repair could be required as part of ICA – for example, restoration of a coating on an engine part if that coating must be removed for required inspections of the part. However, the group does not agree with any notion that any repair design ever developed by a TC holder is or must be included in the subset of methods, techniques, and practices that are ICA. In fact, there is no regulatory requirement imposed on a TCH to develop or issue repairs at all, other than that contained in § 21.99 to correct unsafe conditions. Pursuant

to § 21.99, absent an unsafe condition, a TCH is required to make information relating to design changes available to operators only where those changes “contribute to the safety of the product.” Therefore, consistent with § 21.99, other than the example noted above relating to repairs necessary to enable required inspections, a requirement to include repairs developed after certification in ICA exists only when design changes are “necessary to correct the unsafe condition of the product,” or were made to “contribute to the safety of the product.” If a repair is related to rectification of an unsafe condition, or is intended to make the product safer, the TCH is required to “make available the descriptive data covering the changes to all operators of products previously certificated under the type certificate,” which necessarily requires inclusion of such repairs in ICA. Otherwise, repairs developed by the ICA are unrelated to continued airworthiness and are not ICA.

Finally, the regulatory history behind the term “repairs” in Part 33, Appendix A goes back to the Civil Aeronautics Board’s Civil Air Regulations (CAR). Looking at this history, it is clear that the term “repair” as used in the regulations contemplates remove and replace as being an acceptable approach to continued airworthiness. CAR Section 13.32, “Manufacturer’s Instructions,” required that:

The holder of a type certificate shall within a reasonable time after receiving such certificate prepare and submit for approval by the Administrator suitable instructions for the installation, operation, servicing, maintenance, repair and overhaul of the type certificated engine model or models. The holder of a type certificate shall make the approved instructions available to persons engaged in the operation, maintenance, repair or overhaul of engines manufactured under such certificate and shall prepare, submit for approval, and make available such revisions to the instructions as are found advisable from service experience.

In turn, the term “repair” was defined in CAR section 18.3 as:

A repair is any operation other than routine maintenance which is required to restore an aircraft, aircraft engine, propeller, or instrument to a condition for safe operation, including the mending or replacement of damaged or deteriorated parts. *[Emphasis added.]*

When the FAA was established, CAR part 13 procedural requirements were transferred to FAA part 21 and airworthiness requirements to FAA part 33, with § 33.5 (“Instruction Manual”) requiring that: “Each applicant [for an engine type certificate] must prepare and make available an approved manual or manuals containing instructions for installing, operating, servicing, and maintaining the engine.” Regulatory changes were then enacted in 1980, moving the maintenance instruction requirements in § 33.5 to a new § 33.4 (“Instructions for Continued Airworthiness”) and creating § 21.50(b). It is therefore the opinion of this group that inclusion of the term “repairs” with regard to engines is based on use of that term in the CARs. With that in mind, we feel strongly that moving away from a product level definition of “repairs” to any

definition that would focus solely on part level repair technology and seeking to define all repairs developed by a type certificate holder as required ICA content represent a seismic shift from the historical definition of repair and longstanding turbine engine guidance material for ICA.

For aircraft, the FAA provided the following commentary in the preamble to the final rule creating ICA requirements (see 45 FR 60161):

Three commenters object to the concept of supplying generalized repair data. One contended that – (1) the nature of the damage may not be known in a particular case, though it may appear to fall under a general repair “fix”; (2) the safety of the product may be seriously impaired by repairs made in such instances; and (3) the manufacturer can provide alternate means for a mechanic to obtain repair data. In the light of these comments, the FAA agrees that it is not necessary to include the repair information in the Instructions for Continued Airworthiness as proposed.

Beyond the issue of repairs, the extensive regulatory history behind § 21.50 is also generally instructive as to the overarching purpose of ICA. Over the years, the FAA-required substantive content evolved from maintenance data requirements into what is now called “ICA.” That regulatory pedigree is rooted in aircraft engine airworthiness requirements under part 13 of the Civil Aeronautics Board’s Civil Air Regulations (CAR), and specifically in CAR section 13.32 (effective August 1, 1941), quoted above.

As noted above, after the FAA was established in 1958, these CAR part 13 procedural requirements were moved to part 21 of the FAA regulations, and continuing to use engines as an example, the engine airworthiness requirements were published in FAA regulations part 33. Initially, § 33.5 (“Instruction Manual”) required that “Each applicant [for an engine type certificate] must prepare and make available an approved manual or manuals containing instructions for installing, operating, servicing, and maintaining the engine.” See 29 FR 7452, et seq. (June 9, 1964). Later, the FAA created “maintenance manual” requirements for airplanes type certificated under parts 23 and 25, noting that similar obligations already existed for engines and other products.

The preamble to that final rule made it clear that FAA expectations for content of maintenance instructions were what the applicant/TCH considered essential for the continued airworthiness of the product. The FAA stated that “it should clearly be understood that the rule merely requires the manual be available to the owner at the time of delivery of an airplane and that it need contain only that information which the manufacturer considers essential for proper maintenance. It was not intended that the manufacturer had to supply each of the items listed unless the manufacturer considered such information essential for proper maintenance. To remove any possible confusion in this regard, proposed §§ 23.1529 and 25.1529 have been revised to make it clear that the manufacturer must consider the listed items in determining the information essential for proper maintenance of his airplane.” Thus, the FAA left it to the TCH to determine

what was needed to ensure continued airworthiness of the product it designed – exactly what EASA does today.

Regulatory changes were then enacted in 1980, moving the maintenance instruction requirements formerly found in § 33.5 to a new § 33.4 (“Instructions for Continued Airworthiness”) and creating § 21.50(b) requiring distribution of the ICA.

The clear underlying purpose for ICA requirements is to ensure that the equipment owner/operator or approved maintenance provider has the requisite instructions necessary to conduct maintenance in a way that ensures the continued airworthiness of the product. The regulatory history recognizes that the product TCH is in the best position to determine what instructions are required to meet that goal – an approach EASA has adopted.

6. Conclusion

TCHs have long relied on the well-established FAA guidance outlined above and in the Working Group D **TCH** paper below. This guidance provides **TCHs** and recipients of ICA alike a regulatory framework that is understandable, and that fairly balances and protects the **TCHs’** rights to compensation, intellectual property protection, and freedom to develop non-safety repairs, versus the ICA recipients’ rights to up-to-date and complete ICA.

The OOMRO community advocating for significant changes to the ICA framework would turn this well-settled guidance upside down. The **TCHs** believe updated FAA guidance clarifying the requirements could be useful, especially where the regulations and guidance could be further harmonized with EASA’s approach. The FAA should continue to ensure that ICA requirements provide for appropriate distribution of complete ICA in the interest of safety, but should not undermine the ability of **TCHs** to ensure the ICA is not used for improper purposes, like development of maintenance practices or repairs for other products, or to appropriately protect their intellectual property, including but not limited to trade secrets, contained in the ICA.

FAA regulations must not force innovators to hand over confidential information to third parties – particularly proprietary repair technology unrelated to unsafe conditions – that has never been considered ICA, that is not necessary for maintaining products in an airworthy condition, and which the **TCHs** invest significant dollars and resources to develop.

To that end, the **TCHs** propose FAA do the following:

- Continue to limit the focus of ICA policy and guidance to safety and airworthiness, consistent with the purpose of ICA to enable owners and operators to maintain their products in an airworthy condition. The FAA must avoid attempting to address commercial competition issues. The Chairman of the ARC may wrongly believe that **TCHs** have a “monopoly” on the maintenance – a position that is clearly disproven by the existence of extensive global third-party MRO networks servicing products designed by **TCHs** – but even if that were true, it is not within the FAA’s purview to address

competition issues through regulation. If the OOMRO community believes there is a monopoly, they can pursue legal remedies in the area of competition law. The FAA regulates safety, not commerce.

- Align ICA policy related to repairs developed after certification with the requirements of § 21.99, making it clear that only repairs “necessary to correct the unsafe condition of the product” are required to be included in ICA. This would also include repairs necessary to restore a part to an airworthy condition after it is altered to provide access for required inspections.
- Enhance harmonization with EASA ICA requirements to ensure ICA consists of only the instructions and information needed to show compliance to the applicable certification basis of the product that are essential to continued airworthiness. This harmonization would also recognize that TCHs convey what is and is not ICA, as proposed above. The FAA should also move the ICA requirements to Part 21 Subpart A (General) and revise the regulation text to specifically apply to all part 21 design approval holders.
- Ensure that the language in current and future ICA policy and guidance material affords TC and STC Holders the same intellectual property protection rights for ICA and other intellectual property, including repair data, as provided by the FAA to other DAHs or developers of DER Repairs, who currently have no obligations with respect to ICA. FAA policy and actions related to handling of TCH intellectual property should also remain consistent with U.S. Government trade diplomacy and global efforts to protect the intellectual property of U.S. companies.
- Address actions allegedly taken by any TCH to inappropriately restrict the availability, distribution, and use of ICA through part 13 rather than through sweeping regulatory changes that would widen the gap between FAA and EASA rules, and would discourage innovation by TCHs who would no longer have any effective mechanism to protect their IP from their commercial competitors in this ARC seeking to use the guise of “safety” (without pointing to any actual system examples of safety gaps) to gain access to TCH proprietary information. Rather than upend a system that is working, any bad actors not complying with their obligations under the ICA rules should be subject to enforcement action.

B. OOMRO Subgroup Position Paper

The following position paper written by a group of ARC participants representing the OOMRO stakeholder subgroup is included to present a full picture of this group's thought processes and key concerns in their own words, as well as further background on each of the areas discussed. It is presented exactly as written and does not represent the position of the full ARC.

1. General ICA Considerations

To maintain the validity¹⁰⁰ of an aircraft's certificate of airworthiness, Title 14 of the Code of Federal Regulations requires aircraft owners and operators to ensure the aircraft remains airworthy throughout its lifecycle.¹⁰¹ To ensure airworthiness requires constant verification that aircraft meet an FAA-approved type design and remain safe for operation. To understand the extent of the owner-operator mandates for continued airworthiness, refer to Appendices in Section VII.B.5 for examples.

To verify airworthiness, aircraft and parts must have maintenance,¹⁰² preventive maintenance,¹⁰³ and alterations performed at mandatory and regular intervals. Maintenance providers, which include mechanics, certain aircraft operators, and repair stations, must use methods, techniques, and practices (maintenance data) acceptable to the FAA when performing maintenance, preventive maintenance, and alterations.¹⁰⁴

The FAA and its predecessors have required maintenance providers to first look at the Design Approval Holders (DAHs) for access to clear, comprehensive, and continuously updated Instructions for Continued Airworthiness (ICA).¹⁰⁵ Owners and operators are similarly bound to use ICA from DAHs to maintain the airworthiness of their individual aircraft and fleets.¹⁰⁶ FAA regulations and guidance reference the use of "current" information from the DAH as the appropriate source of methods, techniques, and practices. Alternative methods, techniques, and

¹⁰⁰ See [14 CFR 21.181\(a\)\(1\)](#).

¹⁰¹ See [14 CFR 91.7\(a\)](#).

¹⁰² See [14 CFR 1](#). "Maintenance means inspection, overhaul, repair, preservation, and the replacement of parts, but excludes preventive maintenance."

¹⁰³ See [14 CFR 1](#). "Preventive maintenance means simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations."

¹⁰⁴ See [14 CFR 43.13](#).

¹⁰⁵ ICA is a term that resulted from the 1980 [final rule](#); prior to ICA, aircraft engine, propeller, and rotorcraft manufacturers were required to provide maintenance manuals, which is why the latter term is used in 14 CFR 43.13 to describe the types of methods, techniques, and practices acceptable to the FAA. See [Airworthiness Review Program; Amendment No. 8A; Aircraft, Engine, and Propeller Airworthiness, and Procedural Amendments Final Rule](#) 45 FR 60170, 60154 (Sept. 11, 1980).

¹⁰⁶ For expectations that part 121 and 135 operators use manufacturer programs and recommendations to establish compliance with 14 CFR part 121, subpart L and part 135, subpart J, see FAA Advisory Circular 120-16G, [Air Carrier Maintenance Programs](#) (Apr. 1, 2016); FAA Advisory Circular 120-49B, [Parts 121 and 135 Certification](#) (Oct. 07, 2024); FAA Advisory Circular 135-10C, [Approved Aircraft Inspection Program](#) (Dec. 2, 2024). See also FAA Order 8900.1, V.20 [Continuous Airworthiness Maintenance Program](#) (June 17, 2024) for criteria used by the FAA to approve air carrier and commercial operator inspection and maintenance programs that makes it difficult to use any alternatives to the manufacturer recommendations.

practices are discouraged by the FAA; if used, they can be continuously questioned by agency representatives.¹⁰⁷

Furthermore, while only a minority of states require insurance, cash, or bonds to own a private aircraft, most lending companies require insurance as surety on a loan for the aircraft. Commercial operators and air carriers are required to carry insurance under 49 U.S.C. § 41112 to cover among other things “...loss of, or damage to, property of others, resulting from the operation or maintenance of the aircraft under the certificate.” Insurance companies, in turn, can require adherence to manufacturer recommendations for maintenance and alteration. DAH power-by-the-hour contracts and leases require adherence to the manufacturer’s recommendations, and some specifically exclude the use of independent DER-approved maintenance data and PMA parts.

Maintaining the continued airworthiness of a product requires access to initial and updated ICA from the DAHs. The ICA that DAHs are willing to provide has changed substantially over the years. Uncertainty in ICA content creates difficulty in certification and oversight causing inefficiencies for both the agency and the industry. Differing interpretations of the content requirements, ICA availability, and distribution exacerbate the situation.¹⁰⁸ The FAA frequently enforces the requirement on owners, operators, and maintenance providers to obtain, maintain, and follow the manufacturer’s ICA. On the other hand, the agency allows the DAH to determine the content of the ICA resulting in a wide variety in detail, availability, and distribution practices.

Moreover, business decisions and economics have driven major DAHs to become full participants in the maintenance market as evidenced by the number of repair station certificates issued to those companies today versus 45 years ago. The combination of direct competition in the maintenance market with the uncertainty in ICA detail has created an unfair imbalance in aviation safety.

Under the regulations, it is the air carrier’s responsibility to develop, implement, and provide the methods for compliance with its inspection and/or continuous airworthiness maintenance program to its maintenance providers under §§ 121.1(b), 121.368(e), 135.1(a)(2), and 135.426(e). Instead, owners, operators, and maintenance providers are forced to rely on the DAH and its chosen maintenance providers when ICA is not made available.

Although substantial progress has been made in discussions, there are gaps between the way owners, operators, and maintenance providers view the current regulatory requirements and the view of the DAHs.

¹⁰⁷ Examples include but are not limited to difficulties in obtaining approval of seatbelt replacement material for dynamic seats and the inability to use previous approved data in similar applications. Additionally, FAA repeatedly instructed Piedmont Propulsion Systems not to use its DER-approved major repair for the 568F propeller compression wrap replacement, despite the DAH’s refusal to make its ICA available. The agency openly discourages Aerospace Turbine Rotables, Inc. and other appropriately rated repair stations from creating or using their own DER-approved overhaul instructions for the G-IV landing gear despite the DAH’s refusal to make its ICA available for this scheduled maintenance task.

¹⁰⁸ Currently, it is the DAH that determines the amount and content of ICA, rather than the agency’s regulations, which leads to variety in access, application, and content.

Addressing these gaps will not only improve aviation safety but also ensure the agency, design and production approval holders, aircraft owners and operators are able to efficiently and effectively meet regulatory obligations.

2. Sufficient Detail

DAHs must provide ICA with sufficient details to enable owners, operators, and maintenance providers to fulfill their regulatory obligations. The ICA for the product must include the maintenance data for parts that are essential to the continued airworthiness of the aircraft. Section VII.B.6 contains samples of those systems and parts that are essential to obtaining a type (TC) or supplemental type certificate (STC) and therefore are “essential to the continued airworthiness” of a product. If these systems are installed to obtain the design approval, the ICA must be provided for them. The TC/STC holder may provide the information, or refer to the supplier, but in either event, scheduling information and how to fix discrepancies must be included.

The regulations for maintenance data and the content required to ensure continued airworthiness are clear to the owners, operators, and maintenance providers. The maintenance data must inform the maintenance provider how to return the article to at least its original or properly altered condition.¹⁰⁹ It must be in the form of methods, techniques, and practices necessary to clean, inspect, repair or replace as necessary, reassemble, and test an article.

Therefore, owners, operators, and maintenance providers believe that the current regulations require the DAH to provide complete ICA at the time of delivery of the aircraft.¹¹⁰ Complete ICA means comprehensive maintenance information for each part required to obtain a TC or STC and for each appliance¹¹¹ required by Chapter I.¹¹²

The ICA for each product, its parts, and appliances must specify task intervals (initial and repetitive)¹¹³ and the method of compliance, *i.e.*, written methods, techniques, and practices for completing all scheduled tasks. The schedule and tasks for each product, its parts, and appliances are to be based upon the expected reliability and wear modes obtained from the failure analysis required for type certification. To troubleshoot and perform remedial actions for each probable

¹⁰⁹ See [14 CFR 43.13](#).

¹¹⁰ For instructions that are incomplete at the time of delivery, the type certificate holder must be given a restriction on its type certificate that ensures timely availability and delivery of those ICA to ensure the continued airworthiness of its in-service aircraft. The availability and delivery must take place in sufficient time for scheduling to avoid aircraft- on-the-ground.

¹¹¹ See [14 CFR 1.1](#) “Appliance means any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft, and is not part of an airframe, engine, or propeller.”

¹¹² Refer to the appendices to each airworthiness standard for the words “the Instructions for Continued Airworthiness for the [product] must include the information essential to the continued airworthiness of the [product].” See *e.g.* [14 CFR 25 Appendix H25.1](#). See *infra* Section VII.B.6 for the information, products, accessories, instruments, and other appliances required for original certification and therefore essential to continued airworthiness after the certificate of airworthiness is issued.

¹¹³ Includes, but is not limited to, intervals that are based on cycles, flight hours, calendar time, and/or are “on-condition.”

failure mode of a product, its parts and appliances, the ICA must include a description of the failure mode, how to recognize the failure mode, and the remedial action for the failure mode.¹¹⁴

The type-specific ICA includes—

- Clear inspection or test criteria to determine serviceability¹¹⁵ of each part and appliance of the product that is essential to continued airworthiness.
- All troubleshooting and remedial actions for each probable failure mode of a product, its parts and appliances, and all “work recommended” for each part and appliance essential to the continued airworthiness of the product.
- Methods, techniques, and practices for performing maintenance¹¹⁶ to rectify defects on parts and appliances that do not meet the continued service (serviceable) criteria. The ICA is to include the maintenance data, up to and including overhaul, for each part and appliance. Remove and replace is only acceptable ICA for defects that cannot be rectified within current technology in a safe manner based upon the type design data, testing, and reliability expected at the time of certification.
- The DAH may refer to its supplier for the ICA¹¹⁷ only if rectification of the part or appliance requires “specialized maintenance techniques, test equipment, or expertise.”¹¹⁸

When the DAH refers to its supplier for ICA on a part or appliance, the DAH is responsible for ensuring the ICA contains sufficient detail, is formatted to industry standards, made available, and furnished.

Once ICA content is determined to be sufficient by the FAA for a type certificated product, further amendments would be required to provide ongoing support as described under VII.B.4.

3. Differentiated

ICA is to be clearly differentiated from non-ICA. If the instruction, document, or other set of information contains any ICA, it is all ICA and must be made available, even content that may not be required by regulation. This is necessary for the following reasons—

¹¹⁴ See [14 CFR 23 Appendix A](#); [14 CFR 25 Appendix H](#); [14 CFR 27 Appendix A](#); [14 CFR 29 Appendix A](#); [14 CFR 31 Appendix A](#); [14 CFR 33 Appendix A](#); [14 CFR 35 Appendix A](#). Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.

¹¹⁵ The industry uses the term “serviceable” to indicate that the article can remain installed or be reinstalled without any further maintenance or alteration actions than the inspection to confirm the acceptable criteria is present. The inspection can be entered on a maintenance record under 14 CFR 43.9 such as an FAA Form 8130-3.

¹¹⁶ See [14 CFR 1.1](#) “Maintenance means inspection, overhaul, repair, preservation, and the replacement of parts, but excludes preventive maintenance.”

¹¹⁷ See [14 CFR 23 Appendix A](#); [14 CFR 25 Appendix H](#); [14 CFR 27 Appendix A](#); [14 CFR 29 Appendix A](#); [14 CFR 31 Appendix A](#); [14 CFR 33 Appendix A](#); [14 CFR 35 Appendix A](#).

¹¹⁸ For example, it is not acceptable for the DAH or its supplier to state “source demonstration is required” or “return to manufacturer” for any work recommended. ICA must include maintenance data, up to and including overhaul. The DAH is not the arbiter of the persons authorized to perform maintenance, preventive maintenance, or alterations; see [14 CFR 43.3](#).

- The FAA found the ICA acceptable under § 21.50 at the time of certification or design change.
- Once information is ICA, those instructions remain acceptable to the Administrator unless the Administrator takes action to render it unacceptable, such as issuing an airworthiness directive or some other notice-and-comment rulemaking.¹¹⁹
- ICA cannot be withheld on the basis that the instruction, document, or other set of information includes non-ICA content. Nor can it be withheld because it was created by a supplier to the DAH.

4. Ongoing Support

ICA cannot be static.

The DAHs are to provide continuous updates to ICA content throughout the product's lifecycle.¹²⁰ In accordance with the requirement to distribute changes to the ICA, content must be updated to correct any conditions that indicate the recommended schedule of maintenance activities or when methods, techniques, and practices are insufficient to maintain reliability or to rectify defects. This ensures the realization of inherent reliability and safety level of equipment, restores safety and reliability levels when deterioration has occurred, obtains information necessary for design improvement for those items whose inherent reliability proves inadequate, and does so at minimum cost, including the cost of residual failure.

The DAH must assess the need to update ICA when—

- Design changes, including those changes made by its suppliers.
- Reports of failures, malfunctions, and defects under § 21.3.
- In-service feedback reports under § 21.137(m).
- Changes in technology that can provide recommended methods, techniques, or practice for addressing defects in a safe manner.
- Service conditions that indicate the design is not maintaining airworthiness under the recommended schedule of maintenance activities.
- Deficiencies in the method, technique, or practice found or reported.
- Multiple requests from owners, operators, or maintenance providers on the same and similar situations that required “one-off” resolution but could be applied to the product type.
- New inspection criteria or repairs that can apply to single or multiple product types.

¹¹⁹ *FAA Chief Counsel's Opinion Letter to John D Collins*, pp 2-3 (Apr. 8, 2011).

¹²⁰ *E.g.*, *Instructions for Continued Airworthiness*, FAA Advisory Circular 33.4-1 § 3, ¶ 9(b)(4)(c) (Aug. 27, 1999) (requiring ICA evaluation in response to design changes); cf. 14 CFR 21.99(a)(2) and 21.99(b) (requiring descriptive updates following required design changes).

- Reliability issues and product improvements, including but not limited to information received from in-service operational data, *e.g.*, unforeseen wear modes that become “probable” based on in-service experience.

5. Appendices Regarding Operating and Maintenance Regulations

To operate in the National Air Space (NAS),¹²¹ all owners and operators must ensure the continued airworthiness of their aircraft. The minimum requirements involve choosing and following an inspection program. In order to maintain the validity of the airworthiness certificate, required maintenance actions must be taken. As mentioned above, the preferred option for the inspection program and the required maintenance is the recommendations from the DAH.

Further, the general operating rules prohibit flight with inoperative instruments and equipment installed without special dispensation, *see* § 91.213. In other words, all equipment and appliances required by chapter I, part 91, *et al.* must be airworthy.

a. Appendix (A) Part 91 Operator Requirements

Terms and Conditions for Airworthiness. Title 14 states that a U.S. Standard Airworthiness Certificate is effective until it is surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator.

A U.S. Standard Airworthiness Certificate is effective only as long as the aircraft is registered in the United States and the inspections, maintenance, preventive maintenance, and alterations are performed in accordance with parts 91 and 43. Under § 91.405, all owner/operators of civil aircraft registered in the United States that wish to maintain an airworthiness certificate issued under part 21, subparts H and I are responsible for ensuring the appropriate maintenance records are created to comply with § 91.417(a)(2) that establishes the airworthiness of the aircraft under § 91.7.

Under § 91.403 the owner or operator of the aircraft is primarily responsible for ensuring the aircraft remains in an airworthy condition. The responsibility includes—

- Section 91.403(c) requires current maintenance data to comply with any airworthiness limitations. When life extensions are granted, the updated information from the DAH allows for continued compliance.
- Ensuring only qualified persons perform the required inspections, maintenance, preventive maintenance, and alterations and that the proper maintenance record entries are made.

¹²¹ See [32 CFR 245.5](#). “National Airspace System (NAS). The NAS consists of the overall environment for the safe operation of aircraft that are subject to the FAA’s jurisdiction. It includes: air navigation facilities, equipment and services, airports or landing areas; aeronautical charts, information and services; rules, regulations and procedures, technical information, and manpower and material. Included are system components used by the DoD.” See also, Federal Aviation Administration, [National Airspace System Overview](#) (last updated Apr. 20, 2023).

- Creating time in service, requirements for time between overhaul (for products or components that must be overhauled), and life status records for life-limited parts and obtaining adequate maintenance records for the aircraft records to provide tangible evidence that the aircraft complies with the appropriate airworthiness requirements.

In accordance with the terms and conditions listed in block 6 of FAA Form 8100-2, insufficient or nonexistent aircraft records may render the Standard Airworthiness Certificate invalid.

b. Appendix (B) Part 91 Maintenance Requirements

The regulations require the owners and operators of privately owned small aircraft to choose an appropriate inspection program, while the commercial requirements for owning an aircraft extend to other state and federal requirements, lending institutions, leasing companies, and other obligations. The commercial requirements often mandate compliance with DAH recommendations.

(1) General Part 91 Maintenance Requirements

Under § 91.405, each owner or operator of an aircraft shall:

- Have that aircraft inspected as prescribed in subpart E of part 91.
- Between required inspections, have discrepancies repaired as prescribed in part 43, except for placarded inoperative equipment as provided in § 91.405(c).
- Ensure that maintenance personnel are authorized and make appropriate entries in the aircraft maintenance records indicating the aircraft has been approved for return to service.

The persons that are authorized to perform inspections, maintenance, preventive maintenance, and alterations and approve the work for return to service can be found in §§ 43.3 and 43.7.

To accomplish inspections and other appropriate maintenance, the aircraft maintenance records, time in service, requirements for time between overhaul (for products or components that must be overhauled), and life status records for life-limited parts must be available to maintenance and inspection personnel.

Have any inoperative instrument or item of equipment, permitted to be inoperative by § 91.213(d)(2), repaired, replaced, removed, or inspected at the next required inspection.

Ensure that a placard has been installed as required by § 43.11 when listed discrepancies include inoperative instruments or equipment. (§ 91.405(d)).

(2) Fractional Ownership Maintenance Requirements

Fractional owners are treated much like part 135 operators (see below) that operate aircraft with 10 or more seats, they are to maintain aircraft in accordance with a Continuous Airworthiness Maintenance Program.

§ 91.1015(a)(4) and (5) Management specifications requiring—

- Authorization for an inspection program approved under § 91.1109, including the type of aircraft, the registration markings and serial numbers of each aircraft to be operated under the program. No person may conduct any program flight using any aircraft not listed.
- Time limitations, or standards for determining time limitations, for overhauls, inspections, and checks for airframes, engines, propellers, rotors, appliances, and emergency equipment of aircraft.

§ 91.1109(a) Aircraft maintenance: Inspection program to include—

- (1) Instructions and procedures for the conduct of inspections for the particular make and model aircraft, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, engines, propellers, rotors, and appliances, including survival and emergency equipment required to be inspected.
- (2) A schedule for performing the inspections that must be accomplished under the inspection program expressed in terms of the time in service, calendar time, number of system operations, or any combination thereof.

§ 91.1413 CAMP: Responsibility for airworthiness.

1. For aircraft maintained in accordance with a Continuous Airworthiness Maintenance Program, each program manager is primarily responsible for the following:
 - i. Maintaining the airworthiness of the program aircraft, including airframes, aircraft engines, propellers, rotors, appliances, and parts.
 - ii. Maintaining its aircraft in accordance with the requirements of this chapter.
 - iii. Repairing defects that occur between regularly scheduled maintenance required under part 43 of this chapter.

c. Appendix (C) Air Carrier Maintenance Requirements

Air carriers and commercial operators are required to maintain the highest level of safety. Maintenance requirements move from choosing an *inspection* program to the requirement for a continuous airworthiness maintenance program (CAMP). These more stringent requirements apply to part 121 and 135 operators. Consequently, the requirements must be followed by the air carrier or commercial operator's maintenance providers.

(1) Part 121 Maintenance Requirements

§ 121.1 Applicability. This part prescribes rules governing—(b) Each person employed or used by a certificate holder conducting operations under this part including maintenance, preventive maintenance, and alteration of aircraft.

§ 121.135 Manual contents. (b)(17) Instructions and procedures for maintenance, preventive maintenance, and servicing, (18) Time limitations, or standards for determining time limitations, for overhauls, inspections, and checks of airframes, engines, propellers, appliances and emergency

equipment, and (20) Airworthiness inspections, including instructions covering procedures, standards, responsibilities, and authority of inspection personnel.

Subpart L—Maintenance, Preventive Maintenance, and Alterations

§ 121.363(a) Responsibility for airworthiness. Each certificate holder is primarily responsible for—

- (1) The airworthiness of its aircraft, including airframes, aircraft engines, propellers, appliances, and parts thereof; and
- (2) The performance of the maintenance, preventive maintenance, and alteration of its aircraft, including airframes, aircraft engines, propellers, appliances, emergency equipment, and parts thereof, in accordance with its manual and the regulations of this chapter.

(b) A certificate holder may make arrangements with another person for the performance of any maintenance, preventive maintenance, or alterations. However, this does not relieve the certificate holder of the responsibility specified in paragraph (a) of this section.

§ 121.368(e) Contract maintenance. Each certificate holder who contracts for maintenance, preventive maintenance, or alterations must develop and implement policies, procedures, methods, and instructions for the accomplishment of all contracted maintenance, preventive maintenance, and alterations. These policies, procedures, methods, and instructions must provide for the maintenance, preventive maintenance, and alterations to be performed in accordance with the certificate holder's maintenance program and maintenance manual.

§ 121.368(h) The policies, procedures, methods, and instructions required by paragraphs (e) and (f) of this section must be acceptable to the FAA and included in the certificate holder's maintenance manual as required by § 121.369(b)(10).

§ 121.369 Manual requirements. (1) The method of performing routine and nonroutine maintenance (other than required inspections), preventive maintenance, and alterations. (10) Policies, procedures, methods, and instructions for the accomplishment of all maintenance, preventive maintenance, and alterations carried out by a maintenance provider. These policies, procedures, methods, and instructions must be acceptable to the FAA and provide for the maintenance, preventive maintenance, and alterations to be performed in accordance with the certificate holder's maintenance program and maintenance manual.

Reminder--§ 43.13(c)—Special provisions for holders of air carrier operating certificates and operating certificates issued under the provisions of Part 121 or 135 and Part 129 operators holding operations specifications. Unless otherwise notified by the administrator, **the methods, techniques, and practices contained in the maintenance manual or the maintenance part of the manual of the holder of an air carrier operating certificate or an operating certificate under Part 121 or 135 and Part 129 operators holding operations specifications (that is**

required by its operating specifications to provide a continuous airworthiness maintenance and inspection program) constitute acceptable means of compliance with this section.

(2) Part 135 Maintenance Requirements

§ 135.1(a) Applicability This part prescribes rules governing— (2) Each person employed or used by a certificate holder conducting operations under this part including the maintenance, preventative maintenance and alteration of an aircraft.

§ 135.21 Manual requirements. One pilot operation includes §135.23 Manual contents. (o) The approve aircraft inspection program, when applicable.

Subpart J—Maintenance, Preventive Maintenance, and Alterations

§ 135.411(a)(1) Applicability. 9 seats or less = shall be maintained under parts 91 and 43 of this chapter and §§ 135.415, 135.417, 135.421 and 135.422. An approved aircraft inspection program may be used under § 135.419.

§ 135.411(a)(2) Applicability. 10 seats or more = shall be maintained under a maintenance program in §§ 135.415, 135.417, 135.423 through 135.443.

§ 135.426(e) Contract maintenance. Each certificate holder who contracts for maintenance, preventive maintenance, or alterations must develop and implement policies, procedures, methods, and instructions for the accomplishment of all contracted maintenance, preventive maintenance, and alterations. These policies, procedures, methods, and instructions must provide for the maintenance, preventive maintenance, and alterations to be performed in accordance with the certificate holder's maintenance program and maintenance manual.

§ 135.426(g). The policies, procedures, methods, and instructions required by paragraphs (e) and (f) of this section must be acceptable to the FAA and included in the certificate holder's maintenance manual, as required by § 135.427(b)(10).

See Reminder above.

(3) Repair Station Requirements

§ 145.205.- Maintenance, preventive maintenance, and alterations performed for certificate holders under parts 121, 125, and 135, and for foreign air carriers or foreign persons operating a U.S.-registered aircraft in common carriage under part 129.

A certificated repair station that performs maintenance, preventive maintenance, or alterations for an air carrier or commercial operator that has a continuous airworthiness maintenance program under part 121 or part 135 must follow the air carrier's or commercial operator's program and applicable sections of its maintenance manual.

A certificated repair station that performs inspections for a certificate holder conducting operations under part 125 must follow the operator's FAA-approved inspection program.

A certificated repair station that performs maintenance, preventive maintenance, or alterations for a foreign air carrier or foreign person operating a U.S.-registered aircraft under part 129 must follow the operator's FAA-approved maintenance program.

6. Appendices Regarding Airworthiness Standards and Requirements for Type or Supplemental Type Certification

Each airworthiness standard, *i.e.*, parts 23, 25, 33, *et.al.*, requires systems which are made up of parts that must be present to obtain the design approval. A *sampling* of those systems and parts is included under each airworthiness standard below.

Appendix (A) Part 23—Normal Category Airplanes

§ 23.1457 Cockpit voice recorders.

§ 23.1459 Flight data recorders.

§ 23.2300 Flight control systems.

§ 23.2305 Landing gear systems.

§ 23.2310 Buoyancy for seaplanes and amphibians.

§ 23.2315 Means of egress and emergency exits.

§ 23.2320 Occupant physical environment.

§ 23.2325 Fire protection.

§ 23.2405 Automatic power or thrust control systems.

Appendix (B) Part 25—Transport Category Airplanes Control Systems

§ 25.671 General.

§ 25.677 Trim systems.

§ 25.679 Control system gust locks.

§ 25.685 Control system details.

§ 25.689 Cable systems.

§ 25.697 Lift and drag devices, controls.

Appendix (C) Part 33—Aircraft Engines

§ 33.15 Materials.

§ 33.21 Engine cooling.

§ 33.23 Engine mounting attachments and structure.

§ 33.25 Accessory attachments.

§ 33.27 Turbine, compressor, fan, and turbosupercharger rotor overspeed.

§ 33.28 Engine control systems.

Appendix (D) Part 35—Propellers

§ 35.23 Propeller control system.

Appendix (E) Appliances Required by Chapter 1

To operate in the NAS, all aircraft must have certain instruments and equipment installed and operative. The definition of appliance¹²² includes all items that are used or intended to be used to control the aircraft, and are not part of the airframe, aircraft engine, or propeller. In other words, all parts required to be installed to operate the aircraft in the NAS.

The requirements for having specific parts installed and operational during any flight within in the NAS are many. Some are obvious, while others are contained within prohibitions or requirements for operating in certain airspace, such as—

§ 91.9(a) Civil aircraft flight manual, marking, and placard requirements.

§ 91.107 Use of safety belts, shoulder harnesses, and child restraint systems.

§ 91.108 Use of supplemental restraint systems.

§ 91.203 Civil aircraft: Certifications required.

§ 91.205 Powered civil aircraft with standard U.S. airworthiness certificates: Instrument and equipment requirements.

§ 91.207 Emergency locator transmitters.

§ 91.209 Aircraft lights.

§ 91.211 Supplemental oxygen.

§ 91.213 Inoperative instruments and equipment.

(1) Part 91, Subpart C—Equipment, Instruments, and Certificate Requirements

The subpart has 12 sections that dictate the equipment that must be installed and maintained to operate in the NAS depending upon the configuration and operational environment.

¹²² See [14 CFR 1.1](#). “Appliance means any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft, and is not part of an airframe, engine, or propeller.”

(2) Part 91, Subpart F—Large and Turbine-Powered Multiengine Airplanes and Fractional Ownership Program Aircraft

This subpart has additional requirements to those in part 91, subpart C for equipment that must be installed and maintained to operate in the NAS, depending upon the configuration and operations conducted. For example—

§ 91.503 Flying equipment and operating information.

§ 91.507 Equipment requirements: Over-the-top or night VFR operations.

§ 91.509 Survival equipment for overwater operations.

§ 91.511 Communication and navigation equipment for overwater operations.

§ 91.513 Emergency equipment.

§ 91.521 Shoulder harness.

§ 91.525 Carriage of cargo.

(3) Part 91, Subpart G—Additional Equipment and Operating Requirements for Large and Transport Category Aircraft

This subpart has additional requirements to those in part 91, subpart C for equipment that must be installed and maintained to operate in the NAS, depending upon the configuration and operations conducted. For example—

§ 91.603 Aural speed warning device.

§ 91.607 Emergency exits for airplanes carrying passengers for hire.

§ 91.609 Flight data recorders and cockpit voice recorders.

§ 91.613 Materials for compartment interiors.

(4) Part 91, Subpart H—Foreign Aircraft Operations and Operations of U.S.- Registered Civil Aircraft Outside of the United States; and Rules Governing Persons on Board Such Aircraft

This subpart has additional requirements to those in part 91, subpart C for equipment that must be installed and maintained to operate in the NAS, depending upon the configuration and operations conducted. For example—

§ 91.706 Operations within airspace designed as Reduced Vertical Separation Minimum Airspace.

§ 91.711 Special rules for foreign civil aircraft.

(5) Part 91, Subpart K—Fractional Ownership Operations

This subpart has additional requirements to those in part 91, subpart C for equipment that must be installed and maintained to operate in the NAS using a fractional ownership aircraft. For example—

§ 91.1045 Additional equipment requirements

§ 91.1115 Inoperable instruments and equipment.

- (6) Part 121 – Operating Requirements: Domestic, Flag, and Supplemental Operations
Subpart H – Aircraft Requirements, § 121.157 – Aircraft certification and equipment
requirements.

Subpart J – Special Airworthiness Requirements contains 41 sections that dictate the equipage that must be installed or maintained to operate under part 121, depending upon the configuration and/or operation of the aircraft.

Subpart K – Instruments and Equipment Requirements contains 44 section that dictate the equipage that must be installed or maintained to operate under part 121 depending upon the configuration and/or operation of the aircraft.

- (7) Part 135—Operating Requirements: Commuter and On Demand Operations and Rules
Governing Persons on Board Such Aircraft

§ 135.25 Aircraft requirements.

§ 135.89 Pilot requirements: Use of oxygen.

§ 135.91 Oxygen and portable oxygen concentrators for medical use by passengers.

§ 135.128 Use of safety belts and child restraint systems. Subpart C—Aircraft and Equipment

§ 135.147 Dual controls required.

§ 135.149 Equipment requirements: General.

§ 135.150 Public address and crewmember interphone systems.

§ 135.151 Cockpit voice recorders.

§ 135.152 Flight data recorders.

§ 135.154 Terrain awareness and warning system

§ 135.155 Fire extinguishers: Passenger-carrying aircraft.

§ 135.157 Oxygen equipment requirements.

§ 135.158 Pitot heat indication systems.

Requirements continue through § 135.179 Inoperable instruments and equipment.

VIII. Core Areas of Disagreement: ICA Availability, Including Cost, IP Protections, and Other Factors

Similar to the ICA content topic discussed in Section VII, industry stakeholders split into two distinct groups with regard to their interpretations of the “furnish” and “make available” provisions of ICA regulations, with the TCH subgroup and OOMRO subgroup each submitting a position paper explaining their interpretations.

A. TCH Subgroup Position Paper

The following position paper written by a group of ARC participants representing the TCH stakeholder subgroup is included to present a full picture of this group’s thought processes and key concerns in their own words, as well as further background on each of the areas discussed. It is presented exactly as written and does not represent the position of the full ARC.

1. Executive Summary

The TCH subgroup of Working Group D offers the following positions and analysis as to the topics assigned to the broader Working Group D. The TCH subgroup feels strongly that the current industry ICA distribution methodology is, by and large, very effective. It allows for reasonable compensation and IP protection to TCH for innovation and advances in efficiency and technology while maintaining accessibility to the OOMRO community to take advantage of these innovations and the latest data. The notion of reasonable, commercially negotiated access and fees for ICA has historically worked successfully. Removal of IP protection for ICA would result in a significant reduction both in content and innovation to the broader aviation community and would work only to hinder progress and efficiency. The TCH subgroup urges the FAA refrain from a drastic shift in the existing paradigm, and instead to formally recognize in guidance, orders, and policy the positions the FAA itself has already espoused: the ability of TCH to protect IP in ICA, the practice of permitting TCH to place reasonable restrictions around the access of ICA to guard that IP, and to charge a reasonable fee for said access, all while ensuring that ICA continue to be made available to the persons required to comply per the regulation.

2. ICA Contain Protected Intellectual Property

The TCH subgroup of Working Group D’s position as to the applicability of IP law to ICA content is simple: ICA content is subject to IP protection, and sharing ICA for FAA regulatory purposes does not automatically void its trade secret status or otherwise affect application of the protection of IP law. As to trade secret status, the information can still be considered a trade secret as long as it is not publicly disclosed and reasonable efforts are made to keep it confidential outside of regulatory requirements, consistent with applicable, factually apposite case law in this area as well as existing FAA guidance. Similarly, applicable copyright law decisions concerning ICA have found that copyright protection is available for ICA.

a. ICA Content is Subject to IP Protection

It has been posited by the OOMRO subgroup of Working Group D that ICA, by virtue of a required disclosure pursuant to § 21.50(b), a DAH/TCH loses the ability to assert intellectual property rights as to ICA content. This is contrary to established FAA guidance on IP considerations in ICA as well as court cases which have considered this question.

First, as a general matter, the FAA has long recognized the proprietary nature of design information. It “follows well-established precedent, and longstanding procedures are in place to protect the sensitive and proprietary business information of a broad range of regulated entities and individuals. See, e.g., 5 U.S.C. § 552(b)(4), 14 CFR 413.9, FAA Order 1270.1.”¹²³ Handling and protecting proprietary and sensitive information is routine within the FAA and care is taken to maintain the secrecy of such information.

More specifically as to ICA-related issues, the FAA has recognized that its policies regarding disclosure of ICA are not intended to limit the DAH’s ability to protect its IP interests in ICA. The FAA directly addressed that question multiple times in response to several DAHs who raised that very concern in response to the 2012 Policy Statement PS-AIR-21.50-01. In response to that Policy Statement, several DAHs submitted comments and concerns that the Policy Statement seemed to be limiting or eliminating the ability of a DAH to protect the IP in its ICA. In multiple responses, the FAA was clear that it did not intend to infringe on IP rights, and that IP was beyond the role of the FAA. A selection of these comments from the FAA are as follows:

- It is not the intent of this policy statement to disallow a DAH to protect intellectual property as long as it does not conflict with the furnish and make available requirements of § 21.50(b). The FAA enforces such rules with the intention to promote aviation safety as its mission. Intellectual property rights are beyond the role of the FAA.¹²⁴
- It is not the intent of this policy statement to infringe upon appropriate copyright or trade secret laws. This policy statement is intended to make FAA personnel and the DAH aware of restrictive language in ICA or restrictive access or use agreements for ICA which do not meet the intent of § 21.50(b).¹²⁵
- This policy does not infringe upon the Fifth Amendment, nor is it intended to disallow a DAH to protect intellectual property. It is also not the intent of this policy statement to infringe upon appropriate copyright or trade secret laws. This policy statement is intended to make FAA personnel and the DAH aware of restrictive language in ICA or restrictive access or use agreements for ICA which do not meet the intent of § 21.50(b).¹²⁶

¹²³ See Federal Aviation Administration, Memorandum: [Impact of Non-Disclosure and Confidentiality Covenants on Agency Investigations](#).

¹²⁴ Federal Aviation Administration, *PS-AIR-21.50-01 Comment Log*, p. 35 (Jan. 30, 2012). The public comment log to this policy statement may be found in the FAA Dynamic Regulatory System found at the following link: <https://drs.faa.gov/browse/excelExternalWindow/757C84AC9BECEC27862579D00054DF95.0002>.

¹²⁵ *Id.* at 36-40.

¹²⁶ *Id.* at 40.

The FAA was explicit in these comments that DAH's do not lose rights to protect their IP simply because it is contained in ICA. Thus, if a DAH is still reasonably making ICA available to all those required to comply, the FAA may not interfere with a DAH's intellectual property rights, nor will FAA prohibit a DAH from enforcing those rights via appropriate contractual arrangements with owners or others to whom the ICA is distributed.

b. Trade Secret Protection is Not Lost by Virtue of § 21.50 Disclosure

The notion that ICA cannot contain trade secrets due to ICA being subject to a mandatory disclosure obligation under § 21.50(b) is contrary to decisions rendered in courts considering that specific question. To begin, two decisions arising out of a dispute between AvidAir Helicopter Supply Inc. and Rolls-Royce over AvidAir's alleged misappropriation of maintenance information published by Rolls-Royce confirm that ICA can contain trade secret information. The dispute culminated in two consolidated suits brought under the Uniform Trade Secrets Acts of Indiana and Missouri. Both suits involved information published by Rolls-Royce about the repair and overhaul of helicopter engines. Rolls-Royce sought damages and injunctive relief for alleged trade secret violations. AvidAir sought a declaration that the information in question was not protected by trade secret law.

In a 2009 decision, the U.S. District Court for the Western District of Missouri confirmed that disclosure pursuant to § 21.50(b) does not conflict with trade secret law:

AvidAir first argues Revision 13 cannot be a trade secret because FAA regulations require it be made available to the public. It points to 14 C.F.R. § 21.50(b), which states that a "holder of a design approval ... shall furnish at least one set of complete Instructions for Continued Airworthiness, to the owner of each type aircraft, aircraft engine or propeller upon its delivery...." AvidAir also relies on Appendix A to Part 33 for the proposition that overhaul instructions must be included in the Instructions for Continued Airworthiness. There are several reasons for rejecting AvidAir's argument....***Even if Rolls-Royce is legally obligated to provide Revision 13 to owners of its helicopters, this does not mean Revision 13 is publicly available. The regulation does not appear to require such disclosure, nor does it forbid Rolls-Royce from imposing restrictions on those who acquire Revision 13. Thus, even if AvidAir's interpretation of the regulations proves correct, this does not mean Revision 13 cannot be a trade secret.***¹²⁷

In a later 2012 appellate decision arising out of the same dispute, the 8th Circuit Court of Appeals explained, and confirmed, that even if some or all of the information is "publicly available," trade

¹²⁷ *AvidAir Helicopter Supply, Inc. v. Rolls-Royce Corp.*, No. 06-0816-CV-W-ODS, 2009 WL 1766722, at *3-4 (W.D. Mo. June 23, 2009) (emphasis added).

secret protection can still be afforded due to the value inherent in compiling the information. The court explained as follows:

The district court found the DOILs¹²⁸ were compilations of publicly available information and new proprietary information. ***Compilations are specifically contemplated in the UTSA definition of a trade secret, and the fact that some or even most of the information was publicly available is not dispositive of the first factor in the UTSA definition. Compilations of non-secret and secret information can be valuable so long as the combination affords a competitive advantage and is not readily ascertainable.*** Compilations are valuable, not because of the quantum of secret information, but because the expenditure of time, effort, and expense involved in its compilation gives a business a competitive advantage. This value is not dependent on how much of the information is otherwise unavailable because “the effort of compiling useful information is, of itself, entitled to protection even if the information is otherwise generally known.”¹²⁹

The court went on to confirm that trade secret law applied to the repair and overhaul information compiled by Rolls Royce, stating that:

The UTSA states that a trade secret derives its value from not being readily ascertainable. **The fact that information can be ultimately discerned by others—whether through independent investigation, accidental discovery, or reverse engineering—does not make it unprotectable.... Instead, the court must look at whether the duplication of the information would require a substantial investment of time, effort, and energy....**The value of Rolls–Royce’s documents is apparent when a shop is required to certify the return to service for an overhauled engine. To certify to the FAA that the overhaul was completed in accordance with an FAA-approved procedure, that shop must have updated technical information for the engine. AvidAir claims that it can obtain FAA approval for a procedure that is based on only publicly available information, and if this is true, AvidAir may be free to do so. This is, however, not what AvidAir did. Instead of obtaining FAA approval based on an independent investigation of changes to the approved procedure, AvidAir simply appropriated the documents it knew were claimed to be trade secrets and then certified that its procedure was in compliance with the updated documents.¹³⁰

¹²⁸ DOIL is an acronym for Distributor Overhaul Information Letter. It is described in the case law as containing the overhaul information for the subject engine and was stated to have included details, processes, techniques, and material specifications for the overhaul procedure. The court explained in its opinion that AvidAir came into possession of the DOILs from sources other than Rolls-Royce.

¹²⁹ *AvidAir Helicopter Supply, Inc. v. Rolls-Royce Corp.*, 663 F.3d 966, 972 (8th Cir. 2011), (emphasis added, internal citations omitted).

¹³⁰ *Id.* at 974 (emphasis added, internal citations omitted).

More recently, the argument that trade secret law and ICA cannot coexist due to the § 21.50(b) disclosure obligation was rejected by the US District Court for the Central District of California. In *HarcoSemco, LLC v. Herber Aircraft Service, Inc.*, the court considered this very question.¹³¹ In that case, the plaintiff, HarcoSemco, was a manufacturer and developer of aerospace components. The defendant, Herber Aircraft Service, was accused, among other things, of misappropriating plaintiff's trade secrets, some of which were contained in plaintiff's CMM. In its ruling denying a summary judgment motion on this argument, the court stated as follows:

Defendant argues that the material in the 2018 CMM cannot be trade secrets because Plaintiff was obligated to disclose the 2018 CMM. **This argument misstates the law. As discussed above, Plaintiff was obligated to disclose ICA only under certain circumstances.** See § III.D.1, *supra*....^[132] **Moreover, the mere fact that ICA must be disclosed to certain parties under certain circumstances does not mean the information cannot also be a trade secret. The relevant inquiry is whether Plaintiff took reasonable measures to maintain the secrecy of the information.** The disclosing party could have met this standard by imposing confidentiality obligations on the receiving party. Here, the 2018 CMM includes a confidentiality legend which indicates Plaintiff made at least some efforts to maintain the secrecy of the information, notwithstanding any disclosure requirements. These facts suggest that Plaintiff did make a reasonable effort to maintain the secrecy of the 2018 CMM.¹³³

These court decisions, read together, fully address and rebut the idea that trade secret law and ICA cannot coexist. The required disclosure of ICA pursuant to § 21.50(b) does not affect what is otherwise protected trade secret information. Moreover, it should be emphasized that § 21.50(b) does not require “public” disclosure, but rather, disclosure only to a very limited, select group of recipients, as recognized in the *HarcoSemco* case. The prevailing view of the courts in which this issue has been litigated, as well as the FAA's own existing guidance, confirm that trade secret law is applicable to ICA content. The FAA should continue to recognize the existence of these important IP rights.

c. Examples of Trade Secrets in ICA

A question was raised during several Working Group D discussions as to what content in ICA could be subject to IP law, and more specifically trade secret law. The TCH subgroup offers the following non-exhaustive list as some examples:

- **Information** relating to the design, manufacture, qualification, repair, support and use of products

¹³¹ No.: 2:23-cv-02717 AB (MAAX), 2025 WL 2109221 (C.D. Calif. May 21, 2025).

¹³² In this section, the court explicitly also recognized that while 21.50(b) requires disclosure, it is only to certain parties that fall within the “any other person” language of the regulation. See *id.* at *11.

¹³³ *Id.* at *13. (emphasis added, internal citations omitted).

- **Information** relating to the size, temperature, and force tolerances for parts, testing processes, cleaning processes, maintenance and repair procedures, and fits and clearances for product and parts
- **Formulas** (e.g., chemical compositions, recipes)
- **Processes** (e.g., manufacturing or production methods, testing procedures)
- **Techniques** (e.g., specialized ways of performing tasks)
- **Designs** (e.g., product designs, blueprints)
- **Patterns** (e.g., unique arrangements or configurations)
- **Technical specifications** (e.g., detailed product requirements)

Additionally, as noted in the AvidAir decisions discussed above, even the mere compilation of such data can constitute a trade secret entitled to protection.

d. ICA Are Subject to Copyright Protection

It has been suggested by the OOMRO subgroup that while a “thin copyright” interest in ICA exists, the “fair use” doctrine in copyright law essentially nullifies the copyright interest in ICA. This ostensibly is based on the *Gulfstream Aerospace Corp. v. Camp Systems International* case from 2006.¹³⁴ This contention is not fully supported by the *Gulfstream* decision.

Gulfstream found that a “thin copyright” exists for DAHs in their manuals and that does not appear to be disputed by the OOMRO subgroup.¹³⁵ However, the suggestion that fair use would apply in most, or all, scenarios for usage of ICA is simply not supported by the case. The fair use doctrine is a highly fact-intensive analysis such that the *Gulfstream* case’s finding of fair use under that particular set of facts largely renders the case as being limited to its own facts. Fair use is a four-factor inquiry, and in fact, the *Gulfstream* court actually found that two of the four factors weighed against a finding of fair use by Camp and as such, the decision is not an overwhelming finding of fair use even under those facts such that any further import or precedential value can be ascribed to *Gulfstream*.

The existing case law as to copyright and ICA simply does not support any FAA action that would work to impede or impair even the “thin” copyright DAH/TCH have in its ICA.

e. Dissolution of Intellectual Property Rights in ICA May Constitute Unlawful Taking of Property

Intellectual property rights serve as the foundation for innovation and to incentive development of technologies, processes, and systems that benefit the entire aviation industry. In addition to being misguided policy, the OOMRO subgroup of Working Group D’s proposed approach to

¹³⁴ 428 F. Supp. 2d 1369 (S.D. Ga. 2006).

¹³⁵ Indeed, a subsequent 2013 decision, *Honeywell International Inc. v. Western Support Group, Inc.*, 947 F. Supp. 2d 1077 (D. Ariz. 2013), confirmed the *Gulfstream* court’s finding of the existence of a copyright interest in maintenance manuals by a DAH.

changing ICA requirements, including mandated disclosure of intellectual property, if enacted as regulation, risks being a regulatory taking contrary to the Constitution.¹³⁶

As the U.S. Supreme Court articulated in *Horne v. Dept. of Agriculture*, the Takings Clause of the U.S. Constitution “protects ‘private property’ without any distinction between different types.”¹³⁷ The Court in *Horne* used a patent case to articulate that “private property” includes intellectual property, and in *Ruckelshaus* the Court further held that a trade secret “can be considered property for the purposes of the Takings Clause of the Fifth Amendment.”¹³⁸ The Court said that compensation is also required for a “regulatory taking.” As defined in *Penn Central Transp. Co. v. New York City*, a regulatory taking is a factual inquiry, requiring consideration of factors particularly relevant here such as “economic impact of the regulation, its interference with reasonable investment-backed expectations, and the character of the government action.”¹³⁹

Contrary to these holdings, the approach advocated by OOMRO subgroup would inappropriately require disclosure of DAH/TCH’s trade secrets and therefore destroy them. First, DAH/TCH relied on reasonable expectations for intellectual property protection prior to the policy change. Second, such reliance would result in serious financial loss for the company. Third, the regulatory change urged by the OOMRO subgroup is not necessary to achieve the Government’s policy objectives of safety – indeed, their proposed regulatory interpretation could make the aviation industry less safe. In sum, per *Ruckelshaus*, by disclosing DAH/TCH’s trade secret, the implementation of regulations urged by the OOMRO subgroup would constitute a taking, for which the U.S. Government must award just compensation.

The proposed FAA policy change is also contrary to U.S. policy overall. Agencies of the U.S. Government routinely criticize other countries for unlawful and mandatory technology disclosure abroad.¹⁴⁰ To do so in our own country would contradict U.S. intellectual property policy as whole, putting U.S. innovation at risk throughout the world.

For the FAA to mandate such disclosures by our own companies within the U.S. would have the same detrimental results for U.S. innovation and the U.S. economy. Enacting policies that require unnecessary disclosure of trade secrets at home while restricting the legitimate management of proprietary technology could undermine the U.S. government’s credibility with trading partners

¹³⁶ [U. S. Const., Amdt. 5](#) (“[N]or shall private property be taken for public use, without just compensation.”).

¹³⁷ [Horne et al. v. Dept. of Agriculture](#), 576 U.S., 133 S. Ct. 2053 (2015), at 5. See also, Adam Mossoff, “Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause,” Boston Univ. L. Rev., Vol. 87:689 (2007) (concluding that intangible intellectual property rights are constitutional private property subject to the Takings Clause).

¹³⁸ [Ruckelshaus v. Monsanto Co.](#), 467 U.S. 986, 1001 (1984).

¹³⁹ [Penn Central Transp. Co. v. New York City](#), 438 U.S. 104, 124 (1978).

¹⁴⁰ Office of the United States Trade Representative. [2018 Special 301 Report](#). Washington, DC: Executive Office of the President, April 2018; U.S.-China Economic and Security Review Commission. [2018 Annual Report to Congress](#). Washington, DC: U.S. Government Publishing Office, November 2018.

– and thus the U.S.’s ability to dismantle problematic policies that threaten U.S. competitiveness abroad. It is critical that FAA set and enforce ICA requirements that are consistent with and supportive of longstanding U.S. intellectual property diplomacy, that enable the continued airworthiness of engines while enabling DAH/TCHs to manage their investments in developing new technology.

f. Conclusion and Proposals

As a matter of policy, guidance, and applicable law, the FAA should continue to recognize the important intellectual property rights in ICA. As such, the TCH subgroup of Working Group D offers the following proposals:

- **The FAA should update its policy and guidance documents to clearly state and recognize that design approval holders and type certificate holders maintain protected intellectual property rights in ICA.**

3. Make Available

a. TCH “Make Available” Position Statement and Summary

The TCH position as to “make available” is that utilization of licensing or access agreements and imposition of costs for access to ICA is consistent with industry standard practice and longstanding interpretation of § 21.50(b). Changes to the requirements of § 21.50(b) are not required or necessary.

It has been proposed by the OOMRO subsection of WG-D that utilization of an access or licensing agreement or imposition of costs in association with furnishing or making ICA available pursuant to § 21.50(b) is not permitted under the regulation. The OEM/DAH subsection does not agree and does not view such a prohibition as being in furtherance of aviation safety.

The following is a summary of the TCH “Make Available” Positions:

- Make available only applies to a specific category/class of users – those “required to comply.”
- Utilization of an access or licensing agreement in the use and distribution of ICA does not violate § 21.50(b). Stated another way, protecting the DAH’s intellectual property in ICA via such agreements does not render the ICA as unavailable in the context of the regulation.
- ICA need not be free to be considered “made available” pursuant to § 21.50(b).
- The positions above reflect the current state of the industry and long-accepted positions of the FAA.
- DAHs need only make prior revisions of ICA available in exceptional circumstances.

b. Existing Make Available Guidance and Legal Interpretations Confirm the TCH Position

A review of existing guidance, orders, and legal interpretations as to the definition of make available confirms that a DAH/TCH can satisfy its regulatory obligation to make ICA available while utilizing reasonable access agreements and with reasonable cost.

- “Our intent for § 21.50(b) is to facilitate owners’ and operators’ ability to manage their own maintenance, and to ensure that those required to accomplish continued airworthiness actions have access to continued airworthiness instructions, in the interests of safety.” The FAA further notes that it does not regulate competition, and the FAA “did not intend to ensure that any person wishing to enter the repair/overhaul business is provided with repair manuals.”¹⁴¹
- A DAH is entitled to “appropriate compensation” for ICA, so long as the fee charged is not “so exorbitant as to effectively make the ICA unavailable.”¹⁴²
- “Appropriate compensation to the DAH for making the ICA available to the maintenance provider would be a matter of negotiation between the parties.”¹⁴³
- The FAA has made clear that a DAH may not flatly refuse to make ICA available based on claims of trade secrets or proprietary data.¹⁴⁴

c. Making Available Does Not Require Free or Unrestricted Access

The OOMRO subgroup of Working Group D, has aligned around a definition of “make available” as described more fully in its position paper, proposing a definition of the word “available.” That paper focuses solely on what is meant by the term “available” rather than “make available.” The paper provides a recitation of case law that selectively adopts a partial dictionary definition of the word “available.” The position paper does not fully hit the mark not just because it is focused only on the meaning of the word “available,” but because it examines the word out of context and in unrelated factual scenarios. This is not necessarily helpful to the Rulemaking Committee in

¹⁴¹ FAA Order 8110.54A, [Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents](#) Chapter 6 Section 4f (Oct. 23, 2010).

¹⁴² FAA Legal Interpretation, Letter from Mark W. Bury, Assistant Chief Counsel FAA AGC, to Mike McPhaul, Chief Inspector, Piedmont Propulsion Systems, [Re: Request for Legal Interpretation Concerning \(1\) Whether a Design Approval Holder \(DAH\) May Restrict the Availability of the Details of Mandatory Inspections and Repairs that are Part of the Instructions for Continued Airworthiness \(ICA\) to Require that those Inspections and Repairs be Performed Only at a DAH-Specified Facility, and \(2\) What Can the FAA Do to Enforce the 14 C.F.R. § 21.50\(b\) Requirement That Design Approval Holders Provide Instructions for Continued Airworthiness \(ICA\) to Persons Required to Comply with Those Instructions](#) (Mar. 31, 2014).

¹⁴³ FAA Legal Interpretation, Letter from Mark W. Bury, Assistant Chief Counsel FAA AGC to D.J. Dawson, Manager, PMA-207, [Re: Request for Legal Interpretation of 14 C.F.R. § 21.50\(b\) Concerning Whether Design Approval Holders \(DAH\) Must Make Complete Instructions for Continued Airworthiness \(ICA\) for an Aircraft or its Propulsion System Available to an Owner Who Operates the Aircraft Only as a Public Use Aircraft When the Aircraft Has Never Been Issued an FAA Standard Airworthiness Certificate](#) (Nov. 5, 2014).

¹⁴⁴ FAA Legal Interpretation. Letter from Rebecca B. MacPherson, Assistant Chief Counsel for Regulations, FAA AGC, to Sarah MacLeod, Executive Director, Aeronautical Repair Station Association, [Re: Request for Legal Interpretation Concerning Availability of Component Maintenance Manuals Referenced in Airworthiness Limitations Sections of Instructions for Continued Airworthiness](#) (Aug. 9, 2012).

determining what is required of a DAH in “making ICA available” to those required to comply with it.

The term of art that Working Group D was tasked to define for the Committee under § 21.50(b) was not merely “available” but rather “make available” – and it is “make available” in the context of § 21.50(b) and accessibility of ICA to those required to comply with it in performing continued airworthiness actions on the product/part at issue. The OOMRO position, summarizing how a few courts have applied partial dictionary definitions of the word “available” to inapplicable sets of facts, is simply not instructive in the context of what “make available” means under § 21.50(b). For example, the line of cases selected cite to a definition of “available” that arbitrarily interjects a time element, namely “present” or ready for “immediate” use,¹⁴⁵ with the clear intent of steering regulatory guidance, policy, and interpretation of § 21.50(b) toward a position requiring that ICA be both free as well as distributed without any legal restriction on the user whatsoever. This position is directly contrary to longstanding FAA policies and interpretations and would upend the current system for distribution of ICA.

“Make available” as a complete term of art is featured several other places in the law, and the associated legal interpretations do not necessarily impose an obligation to make information available at no cost or to otherwise provide unrestricted access. Two such examples are particularly instructive.

First, “make available” is featured as a term of art in 5 U.S.C. § 552, otherwise known as the Freedom of Information Act (FOIA). While FOIA obligations are far broader both in scope and audience than the obligations featured in § 21.50(b), courts interpreting “make available” as utilized in that statute apply and employ concepts such as “reasonable” and “usable” access.¹⁴⁶ It should further be noted that FOIA requests typically require payment of appropriate fees for both search efforts and copying and transmittal costs.¹⁴⁷

Next, “make available” is also widely used and interpreted in the context of civil discovery in litigation. Federal Rules of Civil Procedure 26, 30, and 34 all impose duties and obligations on civil litigants to “make available” information, documents, or witnesses in the discovery process in lawsuits. Case law abounds concerning obligations to make documents and witnesses available in discovery.¹⁴⁸ Stated simply, these cases stand for the proposition that the obligation to make

¹⁴⁵ Even assuming that “available” is to be interpreted rather than the full term of “make available”, and that simply picking a dictionary definition to apply is appropriate, the definition selected transparently reveals the outcome driven nature of the argument. This definition and line of cases in the referenced definition of “available” selected is one of three definitions listed in the dictionary. The second definition for “available” is “accessible; obtainable” – a definition perfectly consistent with how ICA distribution policy is currently interpreted. See [Merriam-Webster Dictionary, “Available.”](#)

¹⁴⁶ See, e.g., *Shurtleff v. United States Env't Prot. Agency*, 991 F. Supp. 2d 1 (D.D.C. 2013).

¹⁴⁷ 5 U.S.C. § 552(a)(4).

¹⁴⁸ See, e.g., *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309 (S.D.N.Y. 2003); *Doe v. District of Columbia*, 231 F.R.D. 27 (D.D.C. 2005); *Covil Corp. by & through Protopoulos v. United States Fid. & Guar. Co.*, 544 F. Supp. 3d 588, 594 (M.D.N.C. 2021).

witnesses or information available is not unrestricted or without limitation – rather, to have complied with an obligation to have “made available” a party must provide “reasonable access” or otherwise have acted reasonably and not merely offered impracticable or vague options or inaccessible or unusable data.

In short, “make available” does not require freedom from restriction or freedom from cost.¹⁴⁹ This is evident not only from the regulatory language, guidance and history outlined above, but also when that term is viewed as a term of art against the backdrop of case law and regulations in other legal contexts utilizing or applying the term “make available.” Reasonable access is a key feature in nearly every interpretation of the phrase “make available.”

d. OOMRO Position on Make Available May Lead to Unintended Consequences

The phrase “make available” appears throughout the aviation regulatory paradigm in a variety of contexts. Utilization of the definition proposed by the OOMRO does not account for how its definition of “make available” for § 21.50(b) may impact how “make available” is interpreted in other regulations. For example, § 145.51(b) references certain equipment that must be “made available” to repair stations as part of the certification process – a provision that clearly contemplates a contractual, for-profit relationship between the repair station and the provider of said equipment. Operators under parts 121 and 135 have multiple obligations to make information or documents available to customers, employees, and to the FAA. The adoption of the OOMRO definition, which runs contrary to the established industry standard of what it means to make something available, has the strong potential to create unintended consequences elsewhere in the regulations.

e. Make Available Only Applies to the DAH’s Latest Revision of the ICA

While DAHs have an obligation to make changes to the Instructions for Continued Airworthiness available to any person required by Chapter 1 to comply with any of those instructions, those who need to comply with them are not *necessarily* obligated to use the DAH’s latest revision of documents containing ICA. The need to comply with earlier revisions of documents containing ICA seems to be driven by maintenance plans that reference a specific ICA document revision. Since FAA has oversight over ODA unit members and can retain a level of involvement for ICA document revisions of a certain nature, operator approved maintenance plans need not be revision specific. Rather, maintenance plans that are based on the DAH’s recommended maintenance plan for the product should refer to a specific *minimum* revision level but allow the applicant to maintain their aircraft using any later revision the DAH makes available.

Most DAHs likely have processes in place to evaluate requests for prior revisions of the documents containing ICA but should not be obligated to provide them. Where requests for prior revisions

¹⁴⁹ See, e.g., *Department of Justice v. Tax Analysts*, 492 U.S. 136 (1989) (the Supreme Court held that FOIA requires agencies to make records available to the public, but fees for copying and searching may apply unless waived); *Basic Inc. v. Levinson*, 485 U.S. 224 (1988) (the Court emphasized the importance of making material information available to investors but did not require that such disclosures be free).

may result from the DAH deleting content that was desirable for the owner, operator, or maintainer, the DAH may be justified in not fulfilling the request. Content may be removed based on in-service experience that suggests the original instructions were not optimized for reliability or safety but do not necessarily result in an unsafe condition warranting an airworthiness directive. So, anyone in proper possession of the earlier revisions would not be prohibited from using those instructions to maintain their aircraft, but the DAH would be justified in not making them available to anyone else.

f. Conclusion and Proposals

The TCH subgroup of Working Group D urges the FAA to maintain status quo as to how it interprets and enforces the “make available” obligation and language in § 21.50(b). As such, the TCH subgroup of Working Group D offers the following proposals:

- **The FAA should update its policy and guidance documents to clearly state that the “make available” obligation does not require free, unrestricted access.**
- **FAA should require approved maintenance plans to specify the minimum revision of DAH ICA rather than a specific revision when they refer to DAH ICA.**

4. Licensing and Cost Considerations

a. TCH Position Statement

The TCH position is that neither the utilization of a licensing or access agreement nor the imposition of costs associated with that access conflict with a DAH’s obligations to furnish or make available pursuant to § 21.50(b). It has been argued by the OOMRO subgroup of Working Group D that any licensing or access agreement utilized by a DAH/TCH for access to ICA is an inappropriate restriction on the obligations to furnish and make available under § 21.50(b) and not regulatorily permissible. It has been further argued that ICA access should be free, or at a minimum, subjected to a regulatory cap or formula for determination of appropriate level of costs. The TCH subgroup of Working Group D disagrees with these contentions as will be discussed below.

b. The FAA has Consistently Reinforced that DAH/TCH Have IP in ICA Which it is Entitled to Protect

The FAA has recognized that its policies regarding disclosure of ICA do not limit the DAH’s ability to protect its IP interests in those ICA. The FAA directly addressed that question multiple times in response to several DAHs who raised that very concern in response to the 2012 Policy Statement PS-AIR-21.50-01. In response to that Policy Statement, several DAHs submitted comments and concerns that the Policy Statement seemed to be limiting or eliminating the ability of a DAH to protect the IP in its ICA. In multiple responses, the FAA was clear that it did not intend to infringe on IP rights, and that IP was beyond the role of the FAA. A selection of these comments from the FAA includes the following:

- It is not the intent of this policy statement to disallow a DAH to protect intellectual property as long as it does not conflict with the furnish and make available requirements of § 21.50(b). The FAA enforces such rules with the intention to promote aviation safety as its mission. Intellectual property rights are beyond the role of the FAA.¹⁵⁰
- It is not the intent of this policy statement to infringe upon appropriate copyright or trade secret laws. This policy statement is intended to make FAA personnel and the DAH aware of restrictive language in ICA or restrictive access or use agreements for ICA which do not meet the intent of § 21.50(b).¹⁵¹
- This policy does not infringe upon the Fifth Amendment, nor is it intended to disallow a DAH to protect intellectual property. It is also not the intent of this policy statement to infringe upon appropriate copyright or trade secret laws. This policy statement is intended to make FAA personnel and the DAH aware of restrictive language in ICA or restrictive access or use agreements for ICA which do not meet the intent of § 21.50(b).¹⁵²

As it pertains to licensing and contract issues, the FAA has stated that it does not have a mandate to regulate commerce and intends to refrain from reviewing commercial contracts between entities, as highlighted in the following examples:

- While it may be true that the FAA has no jurisdiction to be involved in contractual agreements because we do not have a congressional mandate to regulate commerce, it is the FAA's duty and mission to promote safety. As such, we do have jurisdiction in areas where the application of the FAA regulations is being compromised due to the distribution and use of ICA being restricted.¹⁵³
- It is not the intent of this policy statement to have the FAA review contracts to determine the nature and extent of restrictive language.¹⁵⁴

The FAA was explicit in these comments that DAHs do not lose rights to protect their IP simply because it is contained in ICA.

c. Licensing or Access Agreements Do Not Render ICA “Unavailable”

The utilization of a licensing or access agreement concerning access to ICA does not, standing alone, render ICA “unavailable” under § 21.50(b). The TCH subgroup refers to its position statement above on “make available” for additional discussion on this point. ICA access need not be unrestricted, nor without compensation, to meet the “make available” requirement under the regulation.

The notion that an owner should be able to provide the copy of ICA that it was “furnished” with the product it purchased to the maintenance provider of its choosing, and, by extension, giving that

¹⁵⁰ *FAA Public Comment to 2012 Policy Statement*, at 35.

¹⁵¹ *Id.* at 36-40.

¹⁵² *Id.* at 40.

¹⁵³ *Id.* at 8.

¹⁵⁴ *Id.* at 14.

maintenance provider unconditional access to those ICA, is an outdated concept. While this may have been a workable solution in the bygone era of paper manuals, the industry standard has shifted nearly universally into the realm of electronic access to ICA. Electronic access to ICA has numerous benefits to the industry overall, not the least of which is ensuring that owners and maintenance personnel have instant, up-to-date access to the latest maintenance instructions from the DAH. These benefits, however, do come with restrictions on what can be accessed, by whom, and when. Consistent with the “make available” analysis articulated by the TCH subgroup of Working Group D, the placing of reasonable guardrails around this access do not render the ICA unavailable. As will be discussed in more depth in the next section of this position paper, DAHs are obligated to and, indeed, are the only entity that can maintain and enforce the intellectual property rights it holds in ICA. To that end, a DAH may, as part of protecting its IP, restrict sharing of electronic access, even by owners of its products.

Indeed, the FAA Policy Statement PS-AIR-21.50-01 on its face seems to endorse this notion, which, in addition to failing to properly reflect the IP protection considerations as to ICA, has also largely been rendered obsolete by electronic ICA access. While it is certainly true that a DAH/TCH may not flatly refuse to make ICA available based on IP considerations, requiring an owner’s chosen maintenance provider to obtain its own ICA access via an electronic access portal is both reasonable and necessary for a DAH/TCH to be able to properly protect its IP rights. Moreover, interpreting the policy statement to prohibit a DAH from protecting its IP would run contrary to the FAA’s comments regarding the policy statement, which were explicitly clear that IP rights are beyond the role of the FAA and that the policy statement was not intended to infringe upon trade secret or copyright law. The FAA should formally clarify its position to align with these comments.

d. Use of Licensing and Access Agreements by DAH/TCHs is Necessary to Protect IP Rights in ICA

As noted in the quoted FAA statements above, intellectual property rights are beyond the role of the FAA. As such, the FAA cannot (and indeed, lacks the authority to) offensively enforce a DAH’s IP rights on its behalf. That responsibility rests with the holder of those IP rights. A DAH must protect its own IP rights or risk those rights becoming diluted or lost altogether. A licensing or access agreement for ICA is essentially a condition predicate for a DAH being able to enforce its IP. Agreements which limit access and/or distribution of ICA (along with appropriate marking of documents) by the end user create a contractual obligation on behalf of the end user to maintain the confidentiality of those documents. A DAH’s rigor in maintaining the confidentiality of things like trade secrets are a critical element of any action in which the existence of trade secrets is at issue.

Moreover, such agreements create the legal concept of privity of contract with those end users, such that if the agreement is breached, that breach becomes actionable against that end user. Contrast this with the scenario mentioned above in which it has been suggested that an owner should simply be able to provide the ICA furnished to them to any maintenance provider it chooses. Such a scenario prevents the privity of contract with the maintenance provider that would

otherwise exist if that maintenance provider entered into its own agreement with the DAH. Without that privity, the DAH's remedies against that maintenance provider are far more limited if the maintenance provider misappropriates, distributes, or otherwise misuses the ICA. Further, allowing an owner to simply distribute ICA to any entity or provider it wishes essentially renders the confidentiality provisions meaningless, as the ICA could be distributed at will to maintenance entities bound by no such confidentiality restrictions (and no privity of contract for a DAH to be able to enforce said restrictions). To move the industry toward its inevitable end, in which aircraft maintenance documentation and procedures are shifting away from paper altogether and toward all electronic (and potentially, future media such as 3D and augmented reality enhanced) maintenance, a recognition that the manner, and associated restrictions, in which these instructions are distributed within the industry must be formally recognized. Licensing and access agreements are simply a necessity in modern aviation.

It is beyond the role, scope, and authority, of the FAA to review and scrutinize individual contracts for "restrictive agreements." The critical question for the regulator in this arena is whether a DAH is meeting the intent of § 21.50(b), not to question the highly individual and economic question of precisely how a DAH accomplishes its regulatory obligation. Enforcement in this area should be limited and reserved only for the most egregious of situations.

e. Licensing and Access Agreements Benefit the Industry Overall

Use of licensing or access agreements for access to ICA benefits the aviation industry in a couple of important ways. First, as discussed above, these agreements create contractual privity with the users of ICA that protect the IP of DAHs. Without these protections, DAHs are disincentivized to invest time and capital in innovations that increase efficiency and reduce operating costs for their products which benefit the whole industry. Second, these agreements, coupled with electronic access to ICA, allow for a seamless and orderly transfer of information to, and coordination between, the DAH and owner, operator, and maintainer community and ensure that these entities have the most up to date information, including service bulletins and other safety information, for their product.

Were the FAA to adopt a regulatory position that such agreements were prohibited, it would be upending decades of industry practice which has utilized these agreements very successfully for access to and distribution of ICA and their revisions.

f. Charging a Fee for Access to ICA is Permissible

DAHs are entitled to reasonable compensation for ICA, a notion that has been recognized by the FAA in its legal interpretations concerning § 21.50(b). Indeed, as the FAA itself noted, the FAA regulates *safety*, not *commerce*, and lacks authority and the scope to regulate prices. It can no more regulate the price of ICA than it can regulate the price of aircraft, engines, or propellers. The suggestion that ICA should be free, or that the regulation does not allow charges to be imposed, is a non-starter.

While the FAA has indicated that a DAH could violate § 21.50(b) by making ICA “effectively unavailable by charging an exorbitant fee,” such cases should be reserved for the most egregious of situations.¹⁵⁵ It is simply not feasible to regulate the “reasonableness” of price in the vast majority of cases as doing so simply substitutes an arbitrary standard for that of what participants in the marketplace are able to commercially agree upon. The economic considerations as to what constitutes “reasonable” cost are simply too variable for a single standard to be applied, and every failed commercial negotiation could potentially be referred to FAA for it to solve. Absent some clear indication of malicious intent on the part of the DAH, the price of ICA should be left up to market forces for a determination as to what level of compensation is appropriate.

g. Implementation of OOMRO Position of Licensing and Cost is Impractical

Conspicuously absent from the OOMRO position that licensing or access agreements and charging for ICA are both regulatorily prohibited is any proposal for how the FAA should incorporate or implement their position. Accepting the OOMRO position would mean that thousands of such agreements currently in place would essentially be rendered invalid. All of these agreements have been commercially negotiated and agreed upon between the parties to those agreements. There has been no proposal as to what would happen to the agreements currently in place or how this position will be implemented going forward. Indeed, accepting this position would upend the industry as it currently exists and has existed for decades. Assuming for the sake of argument that this position could pass legal muster, it is incumbent upon the OOMRO subgroup as the proponent of this position to explain in detail how this position would be implemented and address all the legal and practical ramifications that would result from the FAA’s adoption of their position.

h. Conclusion and Proposal

- The FAA should change or clarify PS-AIR-21.50-01 and any other guidance or order similar thereto to indicate that requiring an owner’s chosen maintenance provider to obtain ICA directly from the DAH/TCH via an access agreement is an acceptable practice under § 21.50(b).

5. Any Other Person

The definition of “any other person” generated significant consensus as to who is currently included within the class of those required to comply with ICA, as discussed elsewhere in this Report. The OOMRO subgroup of Working Group D has adopted a position expanding the “any other person” to whom the regulatory “make available” obligation runs. The TCH subgroup offers the following positions on the scope of “any other person” category as it pertains to “make available.”

¹⁵⁵ See FAA Legal Interpretation. Letter from Rebecca B. MacPherson, Assistant Chief Counsel for Regulations, FAA AGC, to Sarah MacLeod, Executive Director, Aeronautical Repair Station Association, [Re: Request for Legal Interpretation Concerning Availability of Component Maintenance Manuals Referenced in Airworthiness Limitations Sections of Instructions for Continued Airworthiness](#) (Aug. 9, 2012).

a. The FAA has recognized that not every Part 145 repair station or individual mechanic qualifies as an “any other person”

FAA legal interpretations and Orders, dating back as far as 2003, have recognized the idea that simply holding a part 145 certificate or a part 65 mechanic certificate do not, standing alone, bring an entity or individual within the “any other person” category of § 21.50(b). In particular, the FAA has stated the following:

- The question at issue was whether all properly rated repair stations were included in the class of those persons to whom a DAH must provide ICA. Because § 21.50(b) requires that the instructions be made available to “any other person [other than the owner of the product] required by this chapter to comply with any of the terms of those instructions,” we concluded that merely being a properly rated repair station was not enough. If a properly rated repair station does not have an impending need to comply with the instructions (i.e., ongoing work on the product that requires the instructions), the regulation does not require the DAH to make the ICA available.¹⁵⁶
- The intent of § 21.50(b) is to provide for the development and distribution of the information necessary to maintain products in an airworthy condition. The scope of who ICA is distributed to is limited to owners/operators and those authorized by the FAA to perform maintenance on those products (or components thereof). It is not intended to require that ICA be made available to any person seeking ICA for purposes other than preventive maintenance, maintenance, or alteration, unless that person has a regulatory requirement to comply with the terms of ICA.¹⁵⁷
- The FAA does not regulate competition between repair stations, but rather safety. Our intent for § 21.50(b) is to facilitate owners and operators’ ability to manage their own maintenance, and to ensure that those required to accomplish continued airworthiness actions have access to continued airworthiness instructions, in the interests of safety. We did not intend to ensure that any person wishing to enter the repair/overhaul business is provided with repair manuals.¹⁵⁸
- If the requestor, whether a “properly rated repair station” or any other authorized and otherwise qualified person, is not at the time of the request required to comply with the ICA terms, the FAA likely would not consider it a violation of § 21.50(b) if a DAH

¹⁵⁶ FAA Legal Interpretation, Letter from Mark W. Bury, Assistant Chief Counsel FAA AGC, to Mike McPhaul, Chief Inspector, Piedmont Propulsion Systems, [Re: Request for Legal Interpretation Concerning \(1\) Whether a Design Approval Holder \(DAH\) May Restrict the Availability of the Details of Mandatory Inspections and Repairs that are Part of the Instructions for Continued Airworthiness \(ICA\) to Require that those Inspections and Repairs be Performed Only at a DAH-Specified Facility, and \(2\) What Can the FAA Do to Enforce the 14 C.F.R. § 21.50\(b\) Requirement That Design Approval Holders Provide Instructions for Continued Airworthiness \(ICA\) to Persons Required to Comply with Those Instructions](#) (Mar. 31, 2014).

¹⁵⁷ FAA Policy Statement, PS-AIR-21.50-01, [Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness](#) (Mar. 23, 2012)

¹⁵⁸ FAA Order 8110.54A, [Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents](#) Chapter 6(4)(f) (Oct. 23, 2010).

refused to provide the requested ICA. Along these lines, this opinion is consistent with the final paragraph 3 of our 2003 interpretation letter to Alcor Engine Company, Inc., which stated:

The FAA does not regulate competition between repair stations but rather safety. The FAA's intent for § 21.50(b) was to facilitate owner/operator's ability to manage their own maintenance, and to ensure [sic] that those required to accomplish continued airworthiness actions would have access to continued [sic] airworthiness instructions, in the interest of safety. It was not intended to assure [sic] that any person wishing to enter the repair/overhaul business is provided with repair manuals.¹⁵⁹

For more than 20 years, the interpretation of “any other person” by the FAA itself has been consistent – an “impending need” or some other information showing that the entity or individual is “required to comply” is necessary before a DAH is regulatorily obligated under § 21.50(b) to make ICA available to that entity or individual. Merely holding a repair station or mechanic certificate is insufficient. The FAA has been abundantly clear on how it views this particular issue given its consistent interpretations. The TCH subgroup of Working Group D urges the FAA to leave its interpretation of the scope of “any other person” undisturbed in this regard.

b. PMA applicants are not “required to comply” with ICA and do not fall within the category of “any other person” as used in § 21.50(b)

It has been asserted by the OOMRO subgroup that PMA applicants have a need for the DAH's ICA as an “any other person” to support the approval of their PMA articles. These arguments are misplaced.

The clear language of § 21.50(b) states that an “any other person” is one “required to comply with any of the terms of those instructions.” A PMA applicant does not comply with the DAH's ICA and is therefore plainly and facially not an “any other person.” Rather, the PMA applicant asserts a need for the DAH's ICA in order to show the current ICA is still valid per FAA Order 8110.54A at Chapter 2(5); *see also* FAA Order 8110.42 at Table 1. Where the PMA applicant is proceeding on the basis of a license agreement, access to the DAH's ICA is not likely to be a concern. The issue presents when the PMA applicant applies on the basis of identity without a license agreement. However, there, FAA Order 8110.42D, Section 2-7 provides:

Additionally, a finding of identity typically infers that the existing product ICA(s) remain valid with respect to the PMA unless otherwise noted. In the event this is not the case, the certification branch must be wary of making a finding of identity without

¹⁵⁹ FAA Legal Interpretation. Letter from Rebecca B. MacPherson, Assistant Chief Counsel for Regulations, FAA AGC, to Sarah MacLeod, Executive Director, Aeronautical Repair Station Association, [Re: Request for Legal Interpretation Concerning Availability of Component Maintenance Manuals Referenced in Airworthiness Limitations Sections of Instructions for Continued Airworthiness](#) (Aug. 9, 2012).

sound engineering review and compliance determinations. It is the applicant's responsibility to provide all necessary information and explanation regarding this issue.

It is the PMA applicant's burden to prove that its proposed article is identical. If the PMA applicant can, there should not be a need for the DAH's ICA per the above inference. If there is a question about ICA in this context, it is likely a red herring and the real issue is that the identity cannot be convincingly shown. It is not a proper use of DAH intellectual property to resolve such discrepancies. The PMA applicant's asserted need for the DAH's ICA in an unlicensed application is, at best, a perceived consequence of the regulatory process for PMA approvals. It is the regulatory process for PMA approvals that should be addressed to find a solution - not a contorted reading of § 21.50(b) that forces the DAH to disclose its intellectual property to a potential competitor. For example, 8110.42D and 8110.54A could be revised to require the PMA applicant to provide independent, complete ICA for its proposed article when the basis of certification is anything other than identity, or FAA could make an assessment as to whether the original DAH's ICA requires supplementation.

The TCH subgroup of Working Group D requests that the FAA decline to formally recognize a PMA applicant as an "any other person required to comply" for purposes of § 21.50(b).

6. Furnish

The TCH subgroup of Working Group D largely reiterates the positions and analysis in support of its positions as to "make available" in support of its position as to "furnish" as the areas of disagreement between the TCH and OOMRO overlap. The TCH subgroup offers the following additional points as it pertains to the definition of "furnish":

1. Furnish only applies to the original aeronautical product owner. Licensing agreements and export control laws may prevent them from passing the ICA on to subsequent owners of the product. Refer to the section above on licensing or access agreements for discussion about privity of contract.
2. Utilization of an access or licensing agreement in the use and distribution of ICA does not violate § 21.50(b). Stated another way, protecting the DAH's intellectual property in ICA via such agreements does not render them unfurnished in the context of the regulation.
3. ICA need not be free to be considered "furnished" pursuant to § 21.50(b).
4. Furnish is a one-time, proactive measure taken by DAHs specifically when the aeronautical product is first delivered, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later. Engine, propeller, and appliance DAHs and manufacturers may furnish their respective ICA to original owners through aircraft DAHs. If not physically delivered with the aircraft ICA may be furnished by providing the original owner with instructions for electronic access to them.

5. FAA Order 8110.54A, Ch.6, (2)(a) requires DAHs to provide a paper copy of ICA upon request; however, DAH position is that this requirement is antiquated and ought to be removed from the Order.

Proposals:

- **The FAA should eliminate the language in FAA Order 8110.54A, Ch.6, (2)(a) requiring a DAH to provide a paper copy of ICA upon request.**
- **The FAA should update its policy and guidance documents to clearly state that the “furnish” obligation does not require free, unrestricted access.**
- **The FAA revise FAA Order 8110.54A, Ch.6, (2)(b) to say “whichever occurs *later*” instead of “whichever occurs *first*” to be consistent with the regulation.**

B. OOMRO Subgroup Position Paper

The following position paper written by a group of ARC participants representing the OOMRO stakeholder subgroup is included to present a full picture of this group's thought processes and key concerns in their own words, as well as further background on each of the areas discussed. It is presented exactly as written and does not represent the position of the full ARC.

Scope of this Discussion Paper

This discussion paper responds to certain tasks assigned to the ICA ARC Working Group D, specifically:

Propose how to protect intellectual property while achieving safety objectives: Identify what intellectual property factors exist that may affect the content of ICA and its availability to product owners and maintenance providers. Describe how these factors can be addressed while preserving the purpose of ICA.

- Propose definitions and guidelines for the terms “furnish,” “make available,” and “any other person” as used in § 21.50 that are based on the safety intent for ICA.
- Examine cost as an obstacle to the availability of ICA and propose how the FAA must address and regulate this issue appropriately.

This discussion paper begins with an examination of intellectual property as it relates to ICA, to establish the extent to which intellectual property law may inhibit the availability of ICA. The conclusion is that the structure of the FAA's regulations as well as existing case law suggest that the intellectual property laws are no bar to enforcement of the FAA's regulations related to ICA.

This discussion paper is limited in the scope of its investigation, and does not address a variety of important issues that are outside of its scope, but are addressed by other Working Groups within the ARC; for example:

- This discussion paper does not examine which design approval holders are required to create and/or make available, ICA: and therefore it remains focused solely on ICA as that term may elsewhere be defined in the larger ARC Report;
- This discussion paper does not distinguish what documents are – and what documents are not – ICA.

1. Executive Summary

The FAA's regulations include requirements for certain design approval holders to produce instructions for continued airworthiness (“ICA”), and they include corollary requirements to furnish the ICA and to make available the ICA. Federal publications clarify that a design approval holder's compliance with the “make available” provision of the regulations is a condition for issue and retention of the applicable design approval.

Two sets of intellectual property laws were identified for analysis and comparison to the “make available” regulation: copyright law and trade secret law. In each case, the question was whether either body of intellectual property law would justify a design approval holder’s refusal to comply with the “furnish” or “make available” clauses of § 21.50(b).

Whether a particular ICA is subject to copyright laws is a fact-dependent analysis (some ICA may not be copyrightable). If we assume that a particular ICA is subject to protection under the Copyright Act, then a violation of the exclusive rights of the copyright owner that is consistent with the FAA’s intent (e.g., related to a use of the ICA where compliance is required under Chapter I) is likely to be permitted under the fair use doctrine. In addition, the federal government has clearly stated that the design approval holder must make the ICA available as a condition for obtaining and retaining design approvals. This means that the FAA may rescind or suspend a design approval when the owner fails to comply with the “furnish” or “make available” requirements.

Because the ICA are required to be made available (to those parties described in § 21.50(b)), they are not allowed to be kept secret from those parties who are entitled to the benefit of the “make available” clause. As to those persons, ICA are not trade secrets and should therefore not be protected under trade secret laws.

For these reasons, strict enforcement of § 21.50(b) – and required distribution of ICA to those persons covered under the rule – is consistent with intellectual property laws.

In addition, ICA regulations were intended to require the creation and distribution of ICA in order to support continuous airworthiness. For many decades, the FAA has taken the position that ICA are necessary for aviation safety. No arguments have been offered to counter this position. If ICA are not made available to the parties to whom they are intended to be distributed, and who need them for safety reasons, then this would undermine aviation safety.

2. Intellectual Property Discussion

Design Approval Holders are Required to Produce ICA

Certain design approval holders are required to produce ICA.¹⁶⁰

FAA regulations require that ICA be created and provided to the FAA as a condition of application for a type certificate.¹⁶¹ They also require that the design approval holder must

¹⁶⁰ *E.g.*, 14 CFR 23.1529, 25.1529, 27.1529, 29.1529, 31.82, 33.4, 35.4; *cf.* 21.50(b).

¹⁶¹ [14 CFR 21.21\(b\)](#) (requiring the aircraft to meet all applicable airworthiness standards); *see also* [14 CFR 23.1529](#), [25.1529](#), [27.1529](#), [29.1529](#), [31.82](#), [33.4](#), [35.4](#) (each of these regulations is an airworthiness standard requiring the design approval applicant to create ICA); *cf.* 14 CFR 23.1(a), [25.1\(a\)](#), [27.1\(a\)](#), [29.1\(a\)](#), [31.1\(a\)](#), [33.1\(a\)](#), [35.1\(a\)](#) (each describing the regulations in the applicable part as “airworthiness standards”).

furnish and make available the ICA to certain parties (as designated by the regulations) after the ICA have been created.¹⁶²

The FAA Acknowledges that ICA May Contain Alleged Proprietary Data, But States that “Make Available” is a Condition of Retaining the Design Approval

The FAA has acknowledged that ICA may contain data that the design approval holder claims to be proprietary, and the FAA has expressed that this claim does not relieve the design approval holder of its obligation to make them available:

“For many years, the FAA has required DAHs to disclose to affected persons information they might otherwise consider proprietary. For example, since 1981, DAHs have been required to provide Instructions for Continued Airworthiness, including DT data, which DAHs may have considered proprietary. However, because we have determined that this information is essential to maintaining the airplanes in an airworthy condition, we have required DAHs to make it available as a condition for obtaining and retaining their certificates.”¹⁶³

Thus, the FAA has established for many years that the inclusion of proprietary data does not relieve the design approval holder of its obligation to “make available” the ICA, because the make available clause represents a condition imposed on the design approval holder in order to obtain and retain their design approval.

The FAA issued guidance in 2012 to interpret the provisions of § 21.50(b). That guidance clarified that ICA needed to be made available and that restrictions (including apparent restrictions) on such availability – such as restrictive legends – were not acceptable.¹⁶⁴

Acceptability in this context is more than a mere colloquial admonition – ICA are required to be acceptable to the Administrator¹⁶⁵ so acceptability rises to a regulatory requirement.

More recent FAA guidance has openly suggested that the FAA “make available” requirements under § 21.50(b) trumps proprietary data concerns, because compliance with § 21.50(b) is a condition imposed on design approval holders who wish to obtain and retain FAA design approval:

“Proprietary or confidential information does not refer to other data to which the [maintenance provider] is entitled, such as instructions for continued airworthiness (ICA) under 14 CFR part 21, § 21.50(b), and in accordance with FAA Policy Statement PS-AIR-21.50-01, Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for

¹⁶² 14 CFR 21.50(b). For a discussion of to whom the ICA must be made available, see FAA Order 8110.54A, [Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents](#) (Oct. 23, 2010).

¹⁶³ [Damage Tolerance Data for Repairs and Alterations Final Rule](#), 72 FR 70486, 70497 (Dec. 12, 2007).

¹⁶⁴ FAA Policy Statement, PS-AIR-21.50-01, [Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness](#) (Mar. 23, 2012) (interpreting 14 CFR 21.50(b) and criticizing limits on the distribution of ICA to maintenance providers as “unacceptable”).

¹⁶⁵ *E.g.*, [14 CFR 23.1529](#), [25.1529](#), [25.1729](#), [27.1529](#), [29.1529](#), [31.82](#), [33.4](#), and [35.4](#) (each regulation requiring the creation of ICA and requiring the ICA to be “acceptable to the Administrator”).

Continued Airworthiness. Such data that is required to be made available under the regulations may not be restricted by design approval holders (DAH) with respect to an air carrier’s approved maintenance manuals, through restrictive language in the ICA, or through restrictive access or use agreements.”¹⁶⁶

This text shows that the design approval applicant must comply with the “make available” requirements as a condition of retaining the design approval. A design approval holder that chooses non-compliance with this regulation, does so at the peril of a loss of the design approval that is conditioned on compliance.

When read in conjunction with the FAA’s 2012 guidance,¹⁶⁷ this clarifies the intent that ICA need to be made available by design approval holders, that inhibitions on such availability are unacceptable, and that when ICA are not made available, a permissible remedy is for operators to distribute them to their maintenance providers. These FAA policy documents uniformly pronounce that design approval holders are not allowed to restrict availability of ICA to those required by the regulations to comply with the ICA.

By requiring availability, the FAA ensures that the continuous airworthiness instructions that are required by regulation to be created, are available to the persons who need them in order to support, manage, and maintain airworthiness in the aviation system.

ICA May or May Not be Subject to Copyright

Copyright Law Protects Expression of an Idea But Not the Idea Itself

Unlike patents, copyrights protect the expression of an idea – a copyright does not protect the idea itself.¹⁶⁸ This is an important distinction because the protected element under copyright law is the creative aspect of the expression of the ideas.

An apparent potential for conflict arises because ICA may be protected by copyright. Normally, copyright law affords the holder the right to distribute the work that is subject to the copyright.¹⁶⁹ This is typically interpreted to include the right to control initial distribution of the work, although the first sale doctrine limits the right to control subsequent distribution.¹⁷⁰ We are thus faced with the initial question of whether an ICA may be protected under the copyright law. The touchstone of this analysis is whether the ICA represents a creative expression (as opposed

¹⁶⁶ FAA Advisory Circular 120-106A, [Scope and Recommended Content for a Contractual Agreement Between an Air Carrier and a Maintenance Provider](#) (Jan. 14, 2016).

¹⁶⁷ FAA Policy Statement PS-AIR-21.50-01, [Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness](#) (Mar. 23, 2012) (interpreting Order 8110.54A by explaining that “a DAH may not inhibit an owner/operator from distributing ICA to current or potential future maintenance providers” and identifying practices that inhibit distribution of ICA to properly-rated maintenance providers as “unacceptable”).

¹⁶⁸ [17 U.S.C. § 102\(b\)](#).

¹⁶⁹ [17 U.S.C. § 106\(3\)](#).

¹⁷⁰ *E.g., Kirtsaeng v. John Wiley & Sons, Inc.*, 568 U.S. 519, 580-81 (2013); *Bobbs-Merrill Co. v. Strauss*, 210 U.S. 339, 350 (1908).

to an idea, procedure, process, system, method of operation, concept, principle, or discovery, which are each excluded from copyright protection).¹⁷¹

Copyright law is typically interpreted in the context of the Constitutional authorization for the Copyright Act, which explains that the purpose of Copyright is to “promote the Progress of ... useful Arts, by securing for limited Times to Authors ... the exclusive Right to their respective Writings.”¹⁷² Thus, courts have at times limited the scope of the Copyright Act when application of a copyright theory would be contrary to this stated Constitutional purpose.

The corollary to this is that “the concepts underlying an expression, however ingenious, may be copied freely” without limit under the Copyright Act.¹⁷³ Even when the expression is original, it “goes unprotected insofar as it is ‘necessary’ to something unprotectible like an idea or a method or process.”¹⁷⁴

Typically, ICA created in accordance with the FAA’s regulations are required to contain procedures, systems, and methods of operation.¹⁷⁵ The FAA regulations require these facts to be published in the manual. “Procedures,” “systems,” and “methods of operations” are all specifically not copyrightable under 17 U.S.C. § 102(b)—regardless of how they are expressed.¹⁷⁶ In *Gulfstream*, the court opined that the natural consequence of copyright protection for such manuals could be contrary to the Constitutional language authorizing copyrights: “It does not take an economic visionary to see that granting manufacturers copyrights in their federally-mandated maintenance manuals would create service monopolies for those manufacturers, thus decreasing service-center choices (and potentially safety) for consumers in the aircraft industry and other industries.”¹⁷⁷

Similarly, the courts have found that automotive catalogs are not subject to copyright protection because they lack the originality required for copyright protection.¹⁷⁸ In one case, the catalog producer claimed that the catalog was a “creative and original compilation of data.”¹⁷⁹

¹⁷¹ [17 U.S.C. § 102\(b\)](#) (“In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work”).

¹⁷² [U.S. Constitution, Art. I, § 8.](#)

¹⁷³ [Walker & Zanger, Inc. v. Paragon Industries, Inc.](#), 549 F. Supp. 2d 1168, 1184 (ND CA 2007).

¹⁷⁴ See *infra* the discussion about the Merger Doctrine, Section VIII.B.2.

¹⁷⁵ [Gulfstream Aero. Corp. v. Camp Sys. Int’l](#), 428 F. Supp. 2d 1369, 1375 (S.D. Ga. 2006); see e.g., 14 CFR 23 Appendix G.

¹⁷⁶ [17 U.S.C. § 102\(b\)](#). [Gulfstream Aero. Corp. v. Camp Sys. Int’l](#), 428 F. Supp. 2d 1369, 1376 (S.D. Ga. 2006); see also [Honeywell Int’l, Inc. v. W. Support Grp., Inc.](#), 947 F. Supp.2d 1077, 1084-86 (D. Ariz. 2013) (finding that whether aircraft maintenance manuals are original works subject to potential copyright is a genuinely disputed matter of fact, because the presence of photographs and diagrams could represent creative expression).

¹⁷⁷ *Id.* at 1380.

¹⁷⁸ [ATC Distribution Group, Inc., v. Whatever It Takes Transmissions & Parts, Inc.](#), 402 F.3d 700 (6th Cir. 2005).

¹⁷⁹ *Id.* at 706.

The ATC court distinguished original and creative expression of an idea (which can be copyrighted) from original and creative ideas themselves (which are explicitly excluded from copyright protection, because the underlying ideas cannot be copyrighted).¹⁸⁰

In another catalog case, the court found a “minimal degree of creativity” where the description included creative claims.¹⁸¹ In that case, the creative description offered subjective, narrative, claims about the units in the catalog which went beyond a straightforward description.

ICA often have drawings to illustrate features of the ICA. Drawings are not always subject to copyright protection. For example, a case found that wire mesh drawings of cars were not subject to protection.¹⁸² In that case considerable effort was undertaken to digitize images of the cars and to fine tune the drawings based on these images.¹⁸³ Nonetheless, the court explained that the wire mesh drawings represented ideas or facts in the world, and therefore “authors are entitled to copyright protection only for the ‘incremental contribution,’ [citation omitted] represented by their interpretation or expression of the objects of their attention.”¹⁸⁴ Thus, where an illustration is merely a good copy of a physical thing, it does not merit copyright protection. The court concludes that unadorned images of physical things cannot be copyrighted – it is only the aspect that is added by the artist that may be copyrighted.¹⁸⁵ Thus, in many cases images in an ICA – which are meant to illustrate how to do a task – may not have sufficient creativity to be subject to copyright.

Where such images may be subject to copyright, the courts have called this a “thin copyright” with only limited protection.¹⁸⁶

Merger Doctrine

The statutory prohibition on using copyright to protect ideas has been expressed through the “merger doctrine.”¹⁸⁷

Under copyright law, only expression - and not the underlying idea - can be protected. Under the merger doctrine, when there is only one reasonable way to express an idea, the idea and its

¹⁸⁰ *Id.* at 707, *see also* 17 U.S.C. § 102(b)(explaining that copyright does not protect “any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work”); [Mazer v. Stein, 347 U.S. 201, 217 \(1954\).](#)

¹⁸¹ [Decker Inc. v. G & N Equipment Co.](#), 438 F. Supp.2d 734, 742 (E.D. Mich. 2006) (describing the article in the catalog as “The most cost effective and vandal proof design offered. Braced both at handrail and floor. It is engineered for long lasting durability. Anti-grip headrail deters vandalism”). The court felt that whether this was a matter of fact that could be disputed and therefore refused to dismiss on a motion for summary judgment. *Id.* at 743

¹⁸² [Meshwerks, Inc. v. Toyota Motor Sales U.S.A., Inc.](#), 528 F.3d 1258 (10th Cir. 2008).

¹⁸³ *Id.* at 1260-61.

¹⁸⁴ *Id.* at 1264.

¹⁸⁵ *Id.* at 1266.

¹⁸⁶ *Id.* at 1265; *see Gulfstream Aero. Corp. v. Camp Sys. Int’l*, 428 F. Supp. 2d 1369, 1377-78 (S.D. Ga. 2006).

¹⁸⁷ [Google, LLC v. Oracle America](#), 209 L.Ed.2d 311, 141 S. Ct. 1183, 1214 (2021).

expression are inseparable, and copyright law will not protect them.¹⁸⁸ This doctrine exists to prevent the copyright act from inappropriately protecting ideas, rather than expression.¹⁸⁹

There are two policy reasons for this protection. One is to grant the copyright owner “a right from which he can reap financial benefit,” but the courts have been clear that the “more fundamental purpose of the protection [is to] promote the progress of science and the useful arts.”¹⁹⁰ This “more important” policy reason comes from the Constitutional authority that authorizes the Copyright Act.¹⁹¹ The Supreme Court has stressed that reward to the owner is a “secondary consideration” under the Copyright Act.¹⁹²

The Copyright Act specifically states that the copyright-holder’s rights are limited by and subject to sections 107-122 of the Act.¹⁹³ Section 107 of the Act establishes the “fair use” doctrine, under which certain third-party uses of a copyrighted work are permitted.

The merger doctrine is especially notable when the work describes a process. Courts have stated that an author’s description of an otherwise-uncopyrightable process could be protectable IF it incorporates some originality.¹⁹⁴

Whether an ICA incorporates originality in a way that is not subject to the merger doctrine is a matter that is not settled; however, the creativity of ICA is limited by industry standards that dictate how they are laid out, which means that there may only be one reasonable way to express the ideas in an ICA.

The contents of ICA are described in the appendices to the FAA’s regulations, so there is some regulatory requirement dictating their content. The way that ICA are laid out is typically dictated by industry standards, such as ATA Specification 100 for transport category aircraft and GAMA Specification 2 for general aviation aircraft. Each of these specifications provide detailed information about how to lay out ICA, and each is commonly the basis for ICA layout. The FAA has republished the layout mechanisms for ICA in its own JASC guidance,¹⁹⁵ although that guidance does not include as much detail as the industry standards because the JASC guidance is meant to be used in association with incident reporting.

¹⁸⁸ *Nola Spice Designs v. Haydel Enters.*, 783 F.3d 527, 549-550 (5th Cir. 2015).

¹⁸⁹ *E.g., Ets-Hotkin v. Skyy Spirits*, 225 F.3d 1068, 1082 (9th Cir. 2000).

¹⁹⁰ *Williams and Wilkins Co. v. U.S.*, 487 F.2d 1345, 1352 (U.S. Ct. Claims 1973).

¹⁹¹ *U.S. Constitution, Art. I, § 8* (granting to Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”)

¹⁹² *Mazer v. Stein*, 347 U.S. 201, 219 (1954) (relying on *U.S. v. Paramount Pictures*, 334 U.S. 131, 158 (1948)).

Each of these two cases enjoined a copyright holder from using their distribution rights to create a tying relationship in violation of U.S. antitrust law.

¹⁹³ *17 U.S.C. § 106*.

¹⁹⁴ *Gates Rubber Co. v. Bando Chemical Industries*, 9 F.3d 823, 837 (10th Cir. 1993).

¹⁹⁵ *Federal Aviation Administration Joint Aircraft System/Component Code Table And Definitions* (2008) (recognizing in the preface that the JASC guidance is based on ATA Spec 100).

Because the way that ICA are typically laid out is dictated by industry standards, the amount of creativity that can be claimed in such a layout may be limited.

Copyright Applicability Conclusion

Because the purpose of copyright is to incentivize authors to make creative works,¹⁹⁶ and the FAA's regulations mandate the creation of ICA, there may be no policy reason for applying copyright to ICA. This is important because the courts have suggested that where a work falls outside of the scope of the intent of the Constitution, it may be unprotected by the Constitutional authorization for copyrights and thus may be outside of the Congressional authority to regulate.¹⁹⁷ The actual decision about whether a particular work is subject to copyright will likely be fact-dependent. For the remainder of this discussion, we shall assume that ICA are subject to copyright (even if it is a thin one), with the understanding that this assumption is meant to facilitate the following discussion but may not be correct in all cases.

3. Exceptions To Copyright Protection

The Fair Use Exception

The Fair Use Doctrine permits unlicensed use of copyrighted material in certain circumstances.¹⁹⁸ This doctrine is meant to balance the need to provide authors with sufficient incentives to create creative works against the public's interest in the dissemination of information.¹⁹⁹

Courts assess whether a particular use is “fair use” using a multifactor balancing test that examines and compares the purpose and character of the use; the nature of the copyrighted work; the amount and substantiality of the portion used; and the economic impact of the use on the market for the original work.²⁰⁰

Case after case has held that the most important factor of this balancing test is whether the alleged infringer's use affects the potential market for the original copyrighted work.²⁰¹

Where ICA are protected by a valid copyright, the courts have explicitly concluded that the Fair Use Doctrine permits copying for certain purposes, including aviation maintenance.²⁰² One reason for this is because once an idea or method is set down on paper, the copyright laws protect

¹⁹⁶ *Hustler Magazine v. Moral Majority*, 796 F.2d 1148, 1151 (9th Cir. 1986).

¹⁹⁷ Cf. *Mazer v. Stein*, 347 U.S. 201, 219 (1954) (addressing the relationship between copyright and the limits imposed on its application by the antitrust laws).

¹⁹⁸ 17 U.S.C. § 107.

¹⁹⁹ *Hustler Magazine v. Moral Majority*, 796 F.2d 1148, 1151 (9th Cir. 1986).

²⁰⁰ 17 U.S.C. § 107 (1)-(4).

²⁰¹ E.g., *Mulcahy v. Cheetah Learning LLC*, 386 F.3d 849, 854 (8th Cir. 2004) (citing *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 566 (1985)).

²⁰² See *Gulfstream Aero. Corp. v. Camp Sys. Int'l*, 428 F. Supp. 2d 1369, 1377-78 (S.D. Ga. 2006).

the text used to express the idea or method but they do not confer any exclusive rights with respect to the use of those ideas or methods.²⁰³

In the court case concerning ICA, the court found that use of an ICA to create work cards did not affect the market for the ICA.²⁰⁴ The court clarified that the impact on the manufacturer's own maintenance tracking service is not considered in the analysis, because it is a separate service rather than a derivative work.²⁰⁵ It ruled that use of ICA to create work cards (that would be sold to others) was a fair use.

In another case, a musician hired an artist to develop art for the CD case. That artist reproduced the same art as a sample of her work (meant to attract additional clients). The musician sued for copyright infringement. The court held that even if the musician held the copyright, the reproduction of the art did not impact the musician's market for the thing that the musician was selling (the music), so it was a fair use. It was important that the court distinguished the markets reflected by each party. The fact that the primary thing sold was the music, and the CD case art was ancillary to the music helped the court to find that the reproduction of the art did not impact the market for the music CD.²⁰⁶

Courts have also affirmed that the "scope of fair use is greater when 'informational' as opposed to more 'creative' works are involved."²⁰⁷

Copyright Misuse

The copyright laws often protect an author's ability to profit from the sale of the published work, but they do not protect the author's ability to profit from sale of another related product (like the products or articles that may be maintained under those instructions).

In recent cases, courts have explained that an attempt to use a copyright to secure a competitive advantage in the market for a good other than the copyrighted work is considered to be copyright misuse.²⁰⁸ Anti-competitive licensing agreements may reflect "copyright misuse."²⁰⁹ Copyright

²⁰³ *Santilli v. Cardone*, 88 U.S.P.Q.2D (BNA) 1685, 2008 U.S. Dist. LEXIS 88668 at *8 (M.D.FL. 2008) ("The Copyright Act contains no prohibition against the use of another's ideas"); *Boyle v. United States*, 44 Fed. Cl. 60, 63 (1999) ("a copyright does not preclude others from using ideas found in a copyrighted work").

²⁰⁴ See *Gulfstream Aero. Corp. v. Camp Sys. Int'l*, 428 F. Supp. 2d 1369, 1379 (S.D. Ga. 2006).

²⁰⁵ *Id.* at 1379.

²⁰⁶ *Fleming v. Miles*, 181 F.Supp.2d 1143, 1152-53 (D.C. OR 2001).

²⁰⁷ *Hustler Magazine v. Moral Majority*, 796 F.2d 1148, 1151 (9th Cir. 1986) (relying on *Marcus v. Rowley*, 695 F.2d 1171, 1176 (9th Cir. 1983); *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 563 (1985) ("The law generally recognizes a greater need to disseminate factual works than works of fiction or fantasy")).

²⁰⁸ *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 979 (4th Cir. 1990) (finding copyright misuse where a software licensing agreement attempted to use a software copyright to control competition in an area outside the scope of the copyright); see *Vernor v. Autodesk*, 621 F.3d 1102, 1115-16 (9th Cir. 2010) (explaining that copyright misuse is an equitable defense to copyright infringement).

²⁰⁹ *Id.* (explaining the rationale for copyright misuse and finding copyright misuse where a software licensing agreement attempted to use a software copyright to control competition in an area outside the scope of the copyright); see *Vernor v. Autodesk*, 621 F.3d 1102, 1115-16 (9th Cir. 2010) (explaining that copyright misuse is an

misuse may reflect a defense to claims of breach of licensing agreement related to a license for a copyrightable work.²¹⁰ Thus, using the copyright to secure a competitive advantage that is not directly related to sales of the copyrighted work itself may be copyright misuse.

The FAA's policy against misuse of ICA for competitive gain in contravention of safety policy is consistent with the decisions suggesting copyright misuse in similar situations.

4. When the Law Requires Disclosure

Government May Often Regulate Disclosure of Copyrighted Material

States are permitted to regulate market practices dealing with copyrighted subject matter.

For example, the Supreme Court has made it clear that the existence of a copyright does not permit its owner to contract concerning it in ways that suppress competition in violation of federal antitrust laws.²¹¹

A copyright represents some measure of market power, but the owner of the copyright may not use that market power to engage in a per se illegal tying arrangement,²¹² price fixing,²¹³ or other fraudulent or deceptive practices.²¹⁴

The FAA is Not Unique – Many Federal Agencies Have Information Disclosure Regulations

Many other agencies require that instructions be provided with products within the agency's jurisdiction. This is typically considered to be an obligation as a requirement to be able to sell or otherwise provide the product in question. It is typically not considered to be something for which an additional charge is permitted.

Some examples of agencies that require instructions to be produced and made available with a product include:

- The Department of Energy requires hot water system maintenance instructions to be provided with a new home when the hot water system was installed by manufacturer.²¹⁵

equitable defense to copyright infringement and remanding for review of the copyright misuse defense in the context of a claim of licensing agreement breach).

²¹⁰ *Id.*

²¹¹ *Interstate Circuit v. United States*, 306 U.S. 208, 230 (1939).

²¹² *See, e. g., United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 156-57, 68 S. Ct. 915, 928-29, 92 L. Ed. 1260 (1948).

²¹³ *See, e. g., Watson v. Buck*, 313 U.S. 387, 404-05 (1941) (overruled on other grounds in *Becker v. Thompson*, 459 F.2d 919, 923 (5th Cir. 1972)).

²¹⁴ *Cf. Mariniello v. Shell Oil Co.*, 511 F.2d 853 (3rd Cir. 1975); *Hearing Aid Ass'n of Kentucky, Inc. v. Bullock*, 413 F. Supp. 1032 (E.D. Ky. 1976).

²¹⁵ [10 CFR 460.203\(a\)](#).

- The Consumer Products Safety Commission requires coal and wood burning appliances manufacturers to provide a manual (including installation, use and maintenance instructions).²¹⁶
- The Consumer Products Safety Commission requires residential garage door manufacturers to provide an instruction manual with complete instructions for installation, operation, and maintenance of the garage doors.²¹⁷
- The Mine Safety and Health Administration (MSHA) regulates Continuous Personal Dust Monitors (CPDM); MSHA requires CPDM manufacturers to provide (inter alia) instructions for inspecting, maintenance, and calibration with each device.²¹⁸
- The Coast Guard requires manufacturers to make maintenance instructions available to purchasers of winches,²¹⁹ inflatable life rafts,²²⁰ and the release mechanisms for lifeboats and rescue boats.²²¹
- The Federal Highway Administration requires seat belt assembly/retractor maintenance instructions to be accompanied by written instructions for use, inspection, and maintenance.²²²

In each case, it is clear that the manuals are to be provided without any additional compensation.

Disclosure Laws Sometimes Address Intellectual Property But They Nonetheless Require Disclosure

When a document is required by law to be made available, and the same document may potentially contain intellectual property, the remedy for that potential issue is often to remove the protected intellectual property from the publication. Some state laws allow certain intellectual property to be removed from a document (that must be made available) but it is normal for the document to nonetheless be made available on a mandatory basis without regard to the inclusion of intellectual property within the document.

An example arises in safety data sheets, which are typically required to be created by chemical manufacturers, and typically required to be made available. There are both state laws and federal laws that provide parallel requirements. Several state laws specifically authorize the redaction from safety data sheets of chemical formulas that are intellectual property.

For example, the California hazard communication law requires hazards to be communicated using a “hazard communication program, labels and other forms of warning, safety data sheets,

²¹⁶ [16 CFR 1406.4\(b\)](#).

²¹⁷ [16 CFR 1211.16\(a\)](#).

²¹⁸ [30 CFR 74.10\(a\)\(2\)](#).

²¹⁹ [46 CFR 160.115-21](#).

²²⁰ [46 CFR 160.151-61](#).

²²¹ [46 CFR 160.133-21](#).

²²² [49 CFR 571.209, S4.1\(l\)](#).

and information and training.”²²³ In preparing this information, “[t]he manufacturer, importer or employer may withhold the specific chemical identity of a hazardous chemical, or the exact percentage (concentration) of the substance in a mixture, from the safety data sheet, provided that ... [t]he claim that the information withheld is a trade secret can be supported.”²²⁴

This approach, in which state law permits redaction of certain trade secrets from safety data sheets under specific circumstances (but requires the safety data sheets to be made available) is a normal approach for protecting certain trade secrets in documents otherwise required by law to be made available.²²⁵ There are other state law constructs that allow redaction of trade secrets from required reports, but still mandate the provision of the reports.²²⁶ In all of these cases, the owner of intellectual property is not permitted to diverge from the legal requirements to make the documents available.

In another line of cases, federal courts in New York have addressed whether the disclosure requirements of New York law clash with federal copyright laws.²²⁷ The plaintiffs in that case complained that a requirement to disclose their standardized tests (which were copyrighted material) was in conflict with their rights under the Copyright Act, and thus they claimed that the federal law would pre-empt the state law disclosure requirement. The court agreed in part and disagreed in part.

The court agreed that the plaintiffs had rights under the Copyright Act because the development of test questions was a “creative, imaginative, and original” process,²²⁸ but the court also expressed that if the defendants could claim a fair use, then the disclosure requirements were consistent with (not in conflict with) the Copyright Act and could be enforced. The trial court concluded that the state law disclosure requirement probably did not represent a fair use (this was a preliminary injunction decision, so the plaintiff merely needed to show a likelihood of success on the merits).²²⁹ But this was not the end of the cases. The trial court injunction decision was reversed on appeal.

The court of appeals revisited the fair use discussion, with particular emphasis on the fourth (economic) factor of fair use. It explained that this fourth factor “requires appraisal of whether ‘some meaningful likelihood of future harm [to the market for or value of the copyrighted work]

²²³ 8 CCR § 5194(b)(1) [Hazard Communication](#) (California Code of Regulations (2024 Edition)).

²²⁴ 8 CCR § 5194(i)(1)(A) [Hazard Communication](#) (California Code of Regulations (2024 Edition)).

²²⁵ See, e.g., Wash. Admin. Code Sec. 296-901-14018 [Trade Secrets](#) (Washington Administrative Code (2024 Edition)) (permitting withholding of specific chemical identity from a safety data sheet “provided that ... [t]he claim that the information withheld is a trade secret can be supported”).

²²⁶ See, e.g., OR Admin. Rule 845-025-3290 [Processors Recordkeeping](#) (Oregon Administrative Rules (2024 Edition)) (requiring marijuana processors to file records of the amount processed, but permitting bona fide trade secrets to be marked as such).

²²⁷ [College Entrance Examination Board v. Pataki](#), 889 F. Supp. 554, 563 (N.D. NY 1995).

²²⁸ *Id.* at 569.

²²⁹ *Id.* at 571-575 (suggesting that required disclosure would diminish the value of the test questions because it would inhibit them from being reused).

exists.”²³⁰ The Court of Appeals explained that “where a claim of fair use is made, a balance must sometimes be struck between the benefit the public will derive if the use is permitted and the personal gain the copyright owner will receive if the use is denied.”²³¹

The FAA and Other Sources Clarify that DAHs Agree to Make ICA Available in Exchange for the Benefits of a Design Approval

The FAA has clearly stated that the FAA believes that a design approval holder has agreed to obligation to make ICA available under § 21.50 as a condition of obtaining, and retaining, the design approval.²³²

The social contract theory assumes that people may surrender certain freedoms in exchange for certain benefits of society. Social contract theory is an important element of Constitutional interpretation.²³³ This theory is manifest under U.S. law in the cases the uphold the notion of gaining benefits from the government in exchange for surrendering certain rights.

The social contract idea has been implemented in cases in which the government requires the surrender of certain rights in exchange for obtaining certain benefits from the government. These benefits can be communal benefits, such as where the government imposes restrictions for the good of all people.²³⁴ It can also be a situation where a specific party accepts limitations in exchange for other government privileges.

The Supreme Court has recognized that even first amendment speech rights can be curtailed under content-neutral reasonable time, place, and manner restrictions.²³⁵ Thus, non-constitutional rights, like the rights granted under the Copyright Act or trade secret law, may be curtailed in accordance with important governmental objectives (like aviation safety).

In an example of the balance of government interests against intellectual property rights, the state of Ohio compelled motion picture owners to provide a “trade screening” as a condition of subsequent distribution of the film in Ohio.²³⁶ Film distributors complained that this compelled disclosure violated their rights under the Copyright Act. The court found that this compelled disclosure did not violate the Copyright Act because it was a condition to market entry established by the regulatory authority, and the distributor of the film could choose not to enter

²³⁰ *Association of American Medical Colleges v. Cuomo*, 928 F.2d 519, 525 (2d Cir. 1991) (relying on *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 451 (1984)).

²³¹ *Id.* at 526 (relying on *MCA, Inc. v. Wilson*, 677 F.2d 180, 183 (2d Cir.1981)).

²³² *Final Rule: Damage Tolerance Data for Repairs and Alterations*, 72 FR 70486, 70497 (Dec. 12, 2007) (stating that the obligation to provide ICA has been a condition of design approvals since 1981).

²³³ *E.g.*, *United States v. Gutierrez-Casada*, 553 F. Supp. 2d 1259, 1264 (D.C. KS 2008) (“our constitutional theory is premised in large measure on the conception that our Constitution is a ‘social contract’”) (*citing United States v. Verdugo-Urquidez*, 856 F.2d 1214, 1231-33 (9th Cir. 1988) (*reversed on other grounds*)).

²³⁴ *Sarasota County Anglers Club, Inc. v. Burns*, 193 So. 2d 691, 693 (D.C. App. Fla. 1967) (explaining that public interest demands limitations on right to access public land to permit economic development).

²³⁵ *E.g.*, *United States v. Grace*, 461 U.S. 171, 177 (1983).

²³⁶ *Allied Artists Pictures Corp. v. Rhodes*, 496 F. Supp. 408 (S.D. Ohio 1980).

the Ohio market.²³⁷ The film distributor was compelled to make the required disclosure as a condition of access to the Ohio market. This is very much analogous to the FAA's regulatory requirements to create and make available ICA, as a condition of obtaining and retaining a design approval.

The courts have also found that, while conflict between state law and the Copyright is more common, the same analysis may be used to examine a federal law impingement on the Copyright Act.²³⁸

Comparing these cases to the FAA's requirement that ICA be created and made available, it seems to follow that the FAA may impose obligations as a condition of obtaining a design approval, such as a type certificate.²³⁹ The design approval applicant has the option to not enter the U.S. market under the FAA approval, in which case the regulatory obligations would not apply. The FAA has created such a structure in which compliance with the applicable regulations is a condition for obtaining and retaining the FAA design approval. The fact that the FAA imposed a starting date limit for § 21.50(b),²⁴⁰ which became effective after the effective date of the rule, shows that the FAA was seeking to ensure that design approval applicants had proper notice that they would be subject to the "make available" obligations of the regulations, as a condition of their obtaining a type certificate or supplemental type certificate.

Case law has held that the fourth fair use factor can be impacted if the copying would impact the likelihood of authors creating such works.²⁴¹ This is based on a recognition that a purpose of the statute was to "[t]o promote the Progress of Science and useful Arts."²⁴² That "reason" for copyright protection is not necessary for ICA, because (1) ICA are compulsory for type certificate applicants, and therefore a lack of copyright protection would not discourage type certificate applicants from developing compliant ICA and (2) there is no example of an ICA that

²³⁷ *Id.* at 447.

²³⁸ *Int'l Swaps and Derivatives Ass'n v. Socratek*, 712 F. Supp. 2d 96, 101 (S.D. NY 2010). This case involved federal disclosure requirements under the Exchange Act. That Act required the disclosure of certain agreements, including agreement based on a trade association form. Socratek took those agreements and sold a form agreement that was a derivative of that trade association form. The court found that the law was too ambiguous to allow a preliminary injunction, nor to allow a motion to dismiss.

²³⁹ This is the FAA's underlying philosophy. See *Final Rule: Damage Tolerance Data for Repairs and Alterations*, 72 FR 70486, 70497 (Dec. 12, 2007) (explaining that complying with 14 CFR 21.50(b) is a condition of obtaining and retaining a design approval certificate from the FAA, even if the DAH considers the data to be proprietary).

²⁴⁰ 14 CFR 21.50(b) explicitly applies to a "type certificate or supplemental type certificate for an aircraft, aircraft engine, or propeller for which application was made after January 28, 1981." This date was three months after the effective date of the rule, to give the future applicants notice of the new regulatory obligation to make ICA available. *Airworthiness Review Program*, 45 FR 60154, 60170 (Sept 11, 1980) (compare the effective date of October 14, 1980 to the reference application date of January 28, 1981).

²⁴¹ *E.g., Society of the Holy Transfiguration Monastery, Inc., v. Archbishop Gregory*, 689 F.3d 29, 64 (1st Cir. 2012) (explaining that allowing the copying of Monastery's work might discourage other monasteries from creating their own work, and this substituted for the direct value of the fourth factor in the fair use analysis).

²⁴² U.S. Constitution, Art. I, § 8.

has been created solely for artistic purposes, in the absence of a relation to an aviation article or product.

The FAA is empowered to issue type certificates when the Administrator finds (*inter alia*) that the product meets the applicable regulations.²⁴³ The FAA is also empowered to issue those regulations.²⁴⁴ Likewise, the FAA is authorized by Congress to issue regulations related to inspection, servicing, and overhauling of products and appliances.²⁴⁵

It is within this context that the FAA issued the rules for creating and making available instructions for continued airworthiness (ICA).²⁴⁶ They created rules that mandated the creation of ICA by design approval applicants like type certificate applicants and they also created a corollary obligation to make those ICA available to certain parties.²⁴⁷

The FAA explained that recommended maintenance procedures were often inadequate.²⁴⁸ The purpose of this rule was to establish minimum standards for such instructions, and to ensure that they be made “available to the owner upon delivery of the aircraft and to any other person required to comply with any of the terms of those instructions.”²⁴⁹

Section 21.50(b) imposed an obligation on availability of ICA that is (at least) a condition of the type certificate. Notably, the language of § 21.50(b) applies to type certificates for which application was made after October 14, 1981. This is the date that was one year after the effective date of the rule. This date was chosen to afford the public an opportunity to make their applications to the FAA with adequate notice that the ICA availability conditions were a requirement under the regulations.²⁵⁰ Therefore, all subsequent type certification applications were made with the constructive knowledge that the “make available” clause of § 21.50(b) applies to that type certificate application.

FAA Policy, and Its Relationship to Fair Use

When a government action is compared to the Copyright Act, Courts will examine (1) does the practice in question harm the plaintiff’s ability to profit from the copyrighted work, (2) is there a potential risk or harm to important government interests if the court finds that the proposed action is an infringement (not a fair use)?²⁵¹ This is the *Williams and Wilkins* standard.

²⁴³ [49 U.S.C. § 44704\(a\)\(1\).](#)

²⁴⁴ [49 U.S.C. § 44701\(a\).](#)

²⁴⁵ [49 U.S.C. § 44701\(a\)\(2\).](#)

²⁴⁶ [Airworthiness Review Program](#), 45 F.R. 60154, 60156 (Sept. 11, 1980).

²⁴⁷ [Airworthiness Review Program](#), 45 F.R. 60154 (Sept. 11, 1980).

²⁴⁸ *Id.* at 60157; *see also* footnote 93 of this document.

²⁴⁹ *Id.* at 60157; *see also* 14 CFR 21.50(b).

²⁵⁰ One of the reasons for the rule that requires availability of ICA is because of an FAA finding that “the FAA has found that the recommended maintenance procedures made available under current regulations are frequently inadequate in scope and content, and often do not provide a sound basis for the operator/owner to maintain the airworthiness of the aircraft.” [Airworthiness Review Program](#), 45 F.R. 60154, 60157 (Sept. 11, 1980).

²⁵¹ *E.g., Williams and Wilkins Co. v. U.S.*, 487 F.2d 1345, 1354 (U.S. Ct. Claims 1973).

The FAA imposes an obligation on the type certificate applicants to create ICA.²⁵²

The FAA imposes an obligation on the creators of ICA to furnish those ICA upon delivery of the product²⁵³ and to have a mechanism for distributing subsequent changes to ICA.²⁵⁴ The publishers of ICA also have a continuing obligation to make available the ICA to “any other person required by [14 CFR Chapter I] to comply with any of the terms of those instructions.” The FAA has published guidance explaining who is required to comply with ICA and is thus entitled to their availability.²⁵⁵

The FAA has retained the power to influence the mechanisms for distribution of ICA, by insisting that such mechanisms must be submitted to the FAA, thus providing a mechanism for the FAA to assess the acceptability of the distribution mechanisms.²⁵⁶

In 2012, FAA published a Policy that interprets and clarifies FAA Order 8110.54A.²⁵⁷ The policy was titled: “*Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness*.” That Policy provides guidance for what will be considered acceptable and what will be considered unacceptable when the ICA distribution mechanism is submitted to the FAA.²⁵⁸ Prior to publication of the policy, the policy was published in the Federal Register for comment²⁵⁹ in accordance with Administrative Procedure Act norms for creating an enforceable standard.

The policy clarifies that (1) ICA are required to be made available to maintenance providers, (2) design approval holders must make them available to properly rated repair stations, and (3) the operator may share ICA with its prospective maintenance providers if they are not made available by the design approval holder (including in cases where the repair station is not yet rated for the function, but desires to perform the maintenance function covered in the ICA for the operator).²⁶⁰

²⁵² E.g., [14 CFR 23.1529](#), [25.1529](#), [25.1729](#), [27.1529](#), [29.1529](#), [31.82](#), [33.4](#), and [35.4](#).

²⁵³ [14 CFR 21.50\(b\)](#).

²⁵⁴ See, e.g., [14 CFR Part 25 Appx. H, H25.1\(c\)](#) (“The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the airplane will be distributed”); see also [14 CFR 21.50\(b\)](#) (“In addition, changes to the Instructions for Continued Airworthiness shall be made available to any person required by this chapter to comply with any of those instructions”).

²⁵⁵ [Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents](#), FAA Order 8110.54A (2010).

²⁵⁶ *Id.*

²⁵⁷ [Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness](#), FAA Policy Statement PS-AIR-21.50-01 (Mar. 23, 2012).

²⁵⁸ *Id.*

²⁵⁹ [Policy Statement: Inappropriate Design Approval Holder \(DAH\) Restrictions on the Use and Availability of Instructions for Continued Airworthiness \(ICA\)](#), 76 F.R. 61999 (Oct. 6, 2011). It is worth noting that 100% of the comments filed in this docket – including those of two type certificate holders – supported publication of this policy statement.

²⁶⁰ *Id.*

The FAA Policy addresses past impediments to reasonable distribution of ICA by making it clear that the publishers of such ICA may not impose conditions on the distribution of those ICA that contradict FAA approvals or undermine aviation safety:

“... the FAA will not accept restrictive statements or terms in ICA documents, or restrictive access or use agreements that limit the appropriate availability or use of the ICA ... While not exhaustive, the FAA finds the following practices of using restrictive language in the ICA or through restrictive access or use agreements **unacceptable** under the provisions of § 21.50(b) and related ICA airworthiness requirements:

- 1) Requiring the owner/operator to only install DAH-produced or authorized replacement parts, articles, appliances, or materials.
- 2) Requiring that alterations or repairs must be provided or otherwise authorized by the DAH.
- 3) Requiring the use of only maintenance providers or other persons authorized by the DAH to implement the ICA.
- 4) Establishing, or attempting to establish, any restriction on the owner/operator to disclose or provide the ICA to persons authorized by the FAA to implement the ICA.”²⁶¹

By publishing this policy, the FAA established that availability of ICA was an important FAA goal, and it also established that the FAA found efforts to circumvent that availability to be unacceptable practices. Thus, going back to the *Williams and Wilkins* standard, efforts to circumvent the make-available standard appear to reflect a potential risk or harm to important government interests. This means that the courts will tend to rule that actions enabling the FAA “make available” regulation and policy will likely be considered fair use.

FAA “Make Available” Provisions Are Constitutional

One might suggest that the ICA requirements violate first amendment limits, or that the FAA has engaged in a “taking” by requiring manufacturers to “make available” their ICA available. The Ninth Circuit recently addressed both of these issues in *PHRMA v. Stolfi*.²⁶²

In *Stolfi*, the court found that government-compelled information about the factors that went into drug pricing was commercial speech.²⁶³ ICA under the same analysis would be deemed commercial speech for analogous reasons.²⁶⁴ The court concluded that where there was a reasonable fit between the government interest (in the case of ICA: continued aviation safety)

²⁶¹ *Id.*

²⁶² *Pharmaceutical Research and Manufacturers of America v. Stolfi*, 153 F.4th 795 (9th Cir. 2025) (establishing a framework for examining government-compelled disclosures, and holding that where the government has a substantial interest in the disclosure and the disclosure advances these interests, the required disclosure will survive a first amendment analysis as well as a takings analysis).

²⁶³ *Id.* at 819-826.

²⁶⁴ *Id.* at 828 (concluding that a reasonable fit between the means and end of the regulatory scheme was sufficient to survive constitutional scrutiny).

and the means for meeting that government interest (in the case of ICA regulations: a requirement to produce and disseminate continued aviation safety instruction), the reasonable fit resulted in a permissible requirement that did not violate the First Amendment.

The *Stolfi* court also addressed whether the disclosure requirement was a taking. Because the government is not taking possession of the information, it is not a *per se* taking, but rather would be subject to the flexible test developed in the Supreme Court's *Penn Central* case.²⁶⁵ Under that test, courts generally consider three factors: (1) the regulation's interference with reasonable investment-backed expectations, (2) the economic impact of the regulation, and (3) the character of the government action.²⁶⁶ In the case of ICA, because the FAA separates the certificates for design approval and for maintenance, a design approval holder cannot claim a reasonable expectation that it will be permitted to monopolize or control the maintenance market. The direct economic impact of the "make available" clause is that ICA, which are already required to be produced, must be made available to those who need access in order to manage aviation safety, and the government requirement is limited only to those elements required by the ICA appendices. This, under the *Penn Central* test, the ICA regulations do not appear to be a taking.

The remedy for a taking is just compensation. Even if ICA regulations were deemed to be a taking, the disclosure described in § 21.50(b) is a condition of receiving and holding an FAA design approval. The FAA design approval is the just compensation. Because the holder received a design approval in exchange for (*inter alia*) making the ICA available, compensation has been provided to the holder (if the holder disagreed that the compensation was just, then the holder could return the design approval to the FAA and would no longer be subject to the conditions imposed on a design approval holder).

Proposals (Copyright)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum explaining that to the extent that ICA may be subject to copyright protection, ICA are subject to the Fair Use Doctrine when they are used consistent with the FAA's safety mission, including in situations where the FAA requires compliance as described in § 21.50(b). The policy memo should highlight that the reason for this determination is because the FAA regulates production and availability of ICA for aviation safety reasons (i.e., they are essential for continuous airworthiness), consistent with the FAA's aviation safety mandate. This is limited to reproduction, preparation of derivative works, and/or distribution, for the purpose of compliance (including a showing of compliance) under Chapter I of Title 14.

The OOMRO subgroup of Working Group D proposes that the FAA incorporate this explanation into the next revision of FAA Order 8110.54.

²⁶⁵ *Id.* at 833 (relying on *Cedar Point Nursery v. Hassid*, 594 U.S. 139, 147-49 (2021), which relied on the *Penn Central* test); see also *Penn Central Transp. Co. v. New York City*, 438 U. S. 104, 124 (1978).

²⁶⁶ *Id.* at 834.

The regulations and case law are sufficient to support policy language finding that a use consistent with the “furnish/make available” scope in § 21.50(b) is a fair use. Nonetheless, consistent with the direction of the charter, the OOMRO subgroup has developed proposed regulatory language to provide better clarity around this issue. The OOMRO subgroup of Working Group D proposes that the FAA amend § 21.50 to clarify that that ICA are subject to the Fair Use Doctrine when they are used consistent with the FAA’s safety mission, including in situations where the FAA requires compliance as described in § 21.50(b). If we redesignate current § 21.50(c) as § 21.50(d), then the amendment to the regulation may read as follows:

*(c) When Instructions for Continued Airworthiness are used for compliance with the regulations under this chapter, the FAA finds that the safety purpose and safety character of such use, the regulated nature of the Instructions for Continued Airworthiness, and the effect on the market for such Instructions for Continued Airworthiness, renders such use to be a fair use under the Copyright Act.*²⁶⁷

5. ICA Are Not Trade Secrets

Some people may claim that ICA can be protected from disclosure as trade secrets. They cannot be protected from disclosure (to the § 21.50(b) “make available” parties) by reference to the trade secret laws. “Materials are not trade secrets just because an owner says they are; there must be some minimally plausible factual explanation for why trade secret protection applies.”²⁶⁸

Definition of “Trade Secret”

The definition of trade secret consists of three elements: (1) information, (2) that is valuable because it is unknown to others, and (3) where the owner has used reasonable methods to maintain the secrecy.²⁶⁹ These three elements are drawn from the federal trade secret law (the Defend Trade Secrets Act²⁷⁰ or DTSA). State laws tend to follow the Uniform Trade Secrets Act, which is analogous to the DTSA and thus state law trade secret claims are often adjudicated as parallel to federal law claims.²⁷¹

²⁶⁷ For convenience, this fair-use-specific language is used as a baseline regulatory proposal for a proposed regulation in the trade secret proposal, found later in this position paper.

²⁶⁸ [*Genasys, Inc. v. Vector Acoustics, LLC*](#), 638 F. Supp.3d 1135, 1151 (S.D. Ca. 2022) (relying on *Synopsys, Inc. v. ATopTech, Inc.*, No. 13-02965, 2013 WL 5770542, at *6 (N.D. Cal. Oct. 24, 2013)).

²⁶⁹ [18 U.S.C. § 1839\(3\)](#); see [*Inteliclear, LLC v. ETC Global Holdings, Inc.*](#), 978 F.3d 653, 657 (9th Cir. 2020).

²⁷⁰ Codified at 18 U.S.C. § 1831 et seq.

²⁷¹ *E.g.*, [*Inteliclear, LLC v. ETC Glob. Holdings, Inc.*](#), 978 F.3d 653, 657 (9th Cir. 2020) (explaining that Courts have analyzed DTSA and state law trade secret claims together “because the elements are substantially similar”); *Alta Devices, Inc. v. LG Elecs., Inc.*, 343 F.Supp.3d 868, 877 (N.D. Cal. 2018) (explaining that “[t]he elements of misappropriation under the DTSA are similar to those under the CUTSA, except that the DTSA applies only to misappropriations that occur or continue to occur on or after its date of enactment on May 11, 2016”). For purposes of this report, we will focus on the DTSA to avoid having to address whether state trade secret law is preempted by the law and regulations of the FAA.

Courts tend to look to the Restatement (First) of Torts, Section 757, and the comments thereto, in resolving disputes involving trade secrets.²⁷² The Restatement states clearly and succinctly, “[t]he subject matter of a trade secret must be secret.”²⁷³

ICA Are Not Secrets So They Cannot Be Trade Secrets

Because of the requirement for secrecy as a component of trade secret claims, information that is generally known by the members of a relevant industry is typically not a protectable trade secret.²⁷⁴ Information that can be discovered by fair and honest means is not a trade secret.²⁷⁵ In the context of ICA disclosed pursuant to § 21.50(b), learning information because you are entitled to a copy of that information means that you have discovered that information through fair and honest means. This is in addition to the often-stated legal provision that disclosure of information to a person who has no obligation to maintain secrecy, extinguishes any trade secrets associated with that information²⁷⁶ (and there is no ongoing secrecy requirement under § 21.50(b)).

Also, no one can take information that has been typically made available, and then retroactively declare it to be a trade secret.²⁷⁷ This is important because many modern ICA make use of text that was previously published in older ICA editions or in the ICA of other products produced by the same design approval holder (or, in some cases, using information published by other design approval holders).

The essence of a trade secret is the plaintiff's possession of information of a type that can, at the possessor's option, be made known to others, or withheld from them, i.e., kept secret.²⁷⁸ The plain language of the rule shows that a design approval holder that is subject to the obligations of § 21.50(b) does not have the discretion to withhold ICA that are covered under that rule. This helps to demonstrate that the trade secret laws cannot be used to prevent ICA from being disclosed pursuant to the requirements of that rule.

²⁷² [*Chicago Lock Co. v. Fanberg*](#), 676 F.2d 400, 404 (9th Cir. 1982).

²⁷³ [Restatement \(First\) of Torts](#) § 757 (Comment b).

²⁷⁴ [*American Paper & Packaging Products, Inc. v. Kirgan*](#), 183 Cal.App.3d 1318, 1326, 228 Cal. Rptr. 713, 718 (1986).

²⁷⁵ [*Chicago Lock Co. v. Fanberg*](#), 676 F.2d 400, 404 (9th Cir. 1982).

²⁷⁶ [*Sysco Mach. Corp. v. DCS USA Corp.*](#), 143 F.4th 222, 229 (4th Cir. 2025) (“A trade secret is ‘extinguished’ when it is disclosed ‘to others who are under no obligation to protect the confidentiality of the information’”), relying on *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002 (1984) and *DTM Research, L.L.C. v. AT&T Corp.*, 245 F.3d 327, 332 (4th Cir. 2001).

²⁷⁷ *Foster-Miller, Inc. v. Babcock & Wilcox Canada*, 210 F.3d 1, 10 (1st Cir. 2000). (“Information that is ... readily known or knowable to the interest of the public cannot ... be made confidential simply by slapping it with a restrictive label”).

²⁷⁸ [*Silvaco Data Systems v. Intel Corp.*](#), 109 Cal. Rptr. 3d 27, 38, 184 Cal. App. 4th 210, 220 (2010).

It is also worth noting that as a matter of legal practice, courts require that trade secrets be described with particularity²⁷⁹ – one cannot point to an entire manual and claim that the entire manual is a trade secret.²⁸⁰

In addition to the fact that ICA are not allowed to be kept secret from the “required to comply” parties described in § 21.50(b), information can only be a trade secret when “the owner thereof has taken reasonable measures to keep such information secret.”²⁸¹ The FAA has expressly stated that restricting the dissemination of ICA is unacceptable (and is thus unreasonable).²⁸² This is consistent with the approach taken with other disclosure laws, where the inclusion of trade secrets in a document that was required to be disclosed, did not operate to invalidate the underlying law, and the underlying law continued to mandate disclosure.²⁸³

Because the ICA cannot be secrets as to the “required to comply” parties, and because it would not be reasonable for a design approval holder to restrict access to the ICA as “secret” in violation of 14 CFR § 21.50(b), ICA cannot be protected from disclosure by trade secret law.

Rebutting the Idea That ICA Are Trade Secrets as to the “Make Available” Class

The design approval position paper on ICA-and-IP relies on an appealed trial court decision and a non-dispositive trial court order to support its position concerning trade secrets. Relying on such orders rather than on the final case dispositions is an unusual practice. Typically, courts rely on the final dispositions of matters in published case law as precedent, and they have discouraged reliance on unpublished decisions, especially where the unpublished decision contradicts published case law (before the 2007 change to FRAP 32.1, many courts had rules prohibiting citation to unpublished decisions). In our case, though, the two unpublished decisions

²⁷⁹ *E.g.*, [Sysco Machinery Corp. v. DCS USA Corp.](#), 143 F.4th 222, 228 (4th Cir. 2025) (the plaintiff must identify trade secrets with sufficient particularity - sufficient to enables the defendant and the court to delineate the trade secrets from other material); [IMAX Corp. v. Cinema Technologies, Inc.](#), 152 F.3d 1161, 1164-1165 (9th Cir. 1998) (quoting *Universal Analytics v. MacNeal-Schwendler Corp.*, 707 F. Supp. 1170, 1177 (C.D. Cal. 1989) (requiring the plaintiff to “describe the subject matter of the trade secret with sufficient particularity to separate it from matters of general knowledge in the trade or of special knowledge of those persons . . . skilled in the trade.”); *cf.* [Electro-Craft Corp. v. Controlled Motion, Inc.](#), 332 N.W.2d 890, 898 (Minn. 1983) (explaining that it is the plaintiff’s burden to establish that legally protectable trade secrets exist).

²⁸⁰ [Sysco Machinery Corp. v. DCS USA Corp.](#), 143 F.4th 222, 229 (4th Cir. 2025) (explaining that these sort of broad, sweeping claims of trade secrets must fail; also explaining that such broad claims make it impossible to distinguish the claimed trade secrets from other material that cannot be a trade secret, like publicly known information).

²⁸¹ [18 U.S.C. § 1839\(3\)\(A\), \(B\)](#); see also [Mattel, Inc. v. MGA Entm’t, Inc.](#), 782 F. Supp. 2d 911, 959 (C.D. Cal. 2011) (quoting Cal. Civ. Code § 3426.1).

²⁸² [Policy Statement: Inappropriate Design Approval Holder \(DAH\) Restrictions on the Use and Availability of Instructions for Continued Airworthiness \(ICA\)](#), PS-AIR-21.50-01 (FAA March 23, 2012) (stating “the FAA will not accept restrictive statements or terms in ICA documents” and “it is not acceptable for a DAH to limit the distribution of ICA through restrictive access or use agreements, or by adding restrictive language that would control the use of ICA by an owner/operator with respect to the maintenance of its product”).

²⁸³ See *supra* footnotes 224-232 and accompanying text (discussion of other disclosure laws and how the issue of trade secrets in the documents-required-to-be-disclosed is handled).

that form the basis of the design approval position paper on ICA-and-IP are both limited to non-ICA cases, so they are inapplicable to an ICA discussion.

The design approval position paper on ICA-and-IP relies on the *AvidAir* case for the proposition that instructions can be trade secrets. The *AvidAir* trial court specifically held that *AvidAir* failed to establish that the DOILs (the instructions) at issue were ICA.²⁸⁴ As a consequence, that case did not examine whether the instructions were subject to § 21.50(b), nor whether § 21.50(b) affected the secrecy claims related to the instructions. *AvidAir* is therefore not applicable to a discussion of whether § 21.50(b) has an effect on the trade secrets status of ICA.

Similarly, the design approval position paper on ICA-and-IP relies on the *HarcoSemco* case to support its argument, but the text that it relies on specifically finds that the instructions were not proven to be ICA (“it is not clear that the 2018 CMM is ICA”). It is also worth noting that (1) that case went to trial, (2) the defendant in that case (who claimed that instructions were not trade secrets because they were ICA) moved for a directed verdict during trial for a declaration that the instructions were not trade secrets because they were ICA, and (3) the plaintiff called for a recess and accepted an outstanding settlement offer rather than allowing the court to rule on that motion for a directed verdict.

The design approval position paper is relying on non-final dispositions rather than precedential case law to support its claims. This is because precedential case law does not support its position. Further, the two matters on which it relied made decisions based on the finding that the instruction in each case were not proven to be ICA. The ICA ARC is not making recommendations on the treatment of non-ICA. By focusing on non-ICA orders and concluding that ICA are trade secrets, the design approval holder position paper on ICA-and-IP has mixed apples and oranges in an effort to confuse the issue before the FAA.

Proposals (Trade Secrets)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum explaining that, because design approval holders are required to furnish and make available ICA to certain target parties as a condition of holding the design approval, the ICA cannot be trade secrets with respect to those certain target parties.

The OOMRO subgroup of Working Group D proposes that the FAA incorporate the explanation that ICA are not trade secrets with respect to certain parties (the “furnish” and “make available” parties) into the next revision of FAA Order 8110.54.

²⁸⁴ *Order and Opinion Overruling the Parties Objections, Adopting the Magistrate Judge’s Report and Recommendation, Granting Rolls-Royce Corporation’s Motion For Partial Summary Judgment, and Granting In Part and Denying In Part AvidAir Helicopter Supply, Inc.’s Motion For Partial Summary Judgment*, Case No. 06-08160CV-W-ODS (W.D. Mo. June 23, 2009) (“AvidAir has not demonstrated Revision 13 must be included in the Instructions for Continued Airworthiness”).

Although the current language of the FAA's regulations is sufficient to show that ICA cannot be trade secrets vis-à-vis the parties who are entitled to "furnish" and "make available" privileges, the OOMRO subgroup of Working Group D nonetheless recognizes that the charter sought additional resolution with respect to trade secret issues. Therefore, the OOMRO subgroup of Working Group D proposes that the FAA amend § 21.50 to clarify that that ICA cannot be secrets relative to the persons to whom they are required to be furnished or made available, including in situations where the FAA requires compliance as described in § 21.50(b). If we redesignate current § 21.50(c) as § 21.50(d), and use the proposed language from the copyright section (earlier in this position paper) as a baseline (to which the trade secret language would be added), then the amendment to the regulation may read as follows:

*(c) When Instructions for Continued Airworthiness are used for compliance with the regulations under this chapter, the FAA finds that the safety purpose and safety character of such use, the regulated nature of the Instructions for Continued Airworthiness, and the effect on the market for such Instructions for Continued Airworthiness, renders such use to be a fair use under the Copyright Act. Because creation of the Instructions for Continued Airworthiness is required as a condition of obtaining design approval, and compliance with this section is required as a condition of holding design approval, the Instructions for Continued Airworthiness may not be secret with respect to the parties to whom they are required to be furnished and/or made available, and they may not be withheld from parties subject to the furnish and/or make available provisions of this section.*²⁸⁵

6. Charges for ICA

FAA Policy Has Examined and Rejected the Idea of Charging for ICA

At various times, the FAA has stated that it does not intend to interfere with commercial relationships. This is not the same as the FAA agreeing to permit, manage, or supervise costs or charges for ICA.

In a 2006 proposed damage tolerance rule, the FAA floated the idea that compensation to a design approval holder for the development of damage tolerance data might be an option;²⁸⁶ however, in the final rule associated with this issue, the FAA explicitly recognized that it was assigning the cost of developing damage tolerance data to the design approval holders.²⁸⁷

²⁸⁵ For convenience and economy, the trade-secret-specific language has been added to the fair-use-specific regulatory proposal language that was proposed earlier in this position paper.

²⁸⁶ [*NPRM: Damage Tolerance Data for Repairs and Alterations*](#), 71 FR 20574, 20583 (April 21, 2006) (suggesting that design approval holder might be allowed to seek compensation for developing damage tolerance documents).

²⁸⁷ [*Damage Tolerance Data for Repairs and Alterations*](#), 72 FR 70486, 70488 (December 12, 2007) (recognizing that this final rule transferred the responsibility for developing damage tolerance-based data to the design approval holder).

The FAA has made it clear in more recent guidance that it intends the ICA to be made available to maintenance providers, and that proprietary data concerns have been considered and rejected as a bar to the “make available” obligation:

“Proprietary or confidential information does not refer to other data to which the maintenance provider is entitled, such as instructions for continued airworthiness (ICA) under § 21.50(b). Such data made available under the regulations may not be restricted by design approval holders (DAH), with respect to a CH’s maintenance manual, through restrictive language in the ICA or through restrictive access or use agreements.”²⁸⁸

In the 2016 version of the guidance, the FAA clearly states that ICA are NOT “proprietary or other confidential information” and explains that the ICA are outside of the scope of data that may be considered proprietary by the design approval holder.²⁸⁹

FAA Plain Language Does Not Allow for Charges

Where there is a clear obligation to perform an action under the law, a party subject to that law typically may not refuse to comply. In particular, where all of the legal conditions for mandating compliance have been met, the party that is subject to the law may not refuse to comply unless additional conditions are met. This would be tantamount to the private party being able to add conditions to the regulation, which is typically the sole province of the government body that issued the law or regulation.

The obligation to provide manuals may be analogized to a discovery order. In the context of discovery orders, the courts have contrasted a good faith inability to comply with a decree, with a refusal to do so. A good faith inability to comply with an order to produce documents is a defense, but a refusal to follow a court order and produce the same documents represents contempt.²⁹⁰

Similarly, a company may not refuse to comply with a clear regulation. There will be conditions where a design approval holder has a clear obligation to provide ICA to a second party, and the second party has a clear entitlement to those ICA.²⁹¹ The FAA has published guidance on which parties are entitled to availability of such ICA. Where the second party clearly meets the

²⁸⁸ [*Scope and Recommended Content for a Contractual Agreement Between an Air Carrier and a Maintenance Provider*, AC 120-106B](#), ¶ 8.1 Note (June 18, 2024). An expanded version of this in the prior “A” revision from 2016 also explicitly referenced the 2012 Policy Memo. [*Scope and Recommended Content for a Contractual Agreement Between an Air Carrier and a Maintenance Provider*, AC 120-106A](#) ¶ 5(b)(4) Note (Jan. 14, 2016).

²⁸⁹ [*Scope and Recommended Content for a Contractual Agreement Between an Air Carrier and a Maintenance Provider*, AC 120-106A](#) ¶ 5(b)(4) Note (Jan. 14, 2016) (explaining that ICA are NOT considered to be proprietary or confidential, that ICA are required to be made available, and that ICA may not be restricted through restrictive language in the ICA, or through restrictive access or use agreements).

²⁹⁰ [*United States v. Joyce*](#), 498 F.2d 592, 596 (7th Cir. 1974).

²⁹¹ See [*Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*](#), FAA Order 8110.54A (2010).

conditions established by the regulation to enjoy availability of the ICA, the design approval holder's obligation to make available is clear.

In order to add conditions to the obligation found in § 21.50(b), it would be necessary to add them through a change in the regulations. Such changes are promulgated through the processes found in the Administrative Procedure Act.²⁹² An attempt to change the standards of a legal obligation, by a party that does not have authority to make such changes is null and void.²⁹³ In order to add qualifications for a privilege, the party making the change must have the power to make the change.²⁹⁴ A design approval holder does not enjoy a unilateral authority to alter the conditions associated with a regulation like § 21.50(b). Put another way, the design approval holder may not refuse to comply with the clear regulatory obligation § 21.50(b) pending an additional action that is not in the regulation, when the compliance elements of the regulation have already been met.

Imagine a hypothetical situation in which a design approval holder refuses to make complete ICA available until additional conditions are met - conditions that are not part of the regulation. These conditions might include signing a licensing agreement, agreeing to surrender certain rights, agreeing to anti-competitive limits on business, agreeing to pay certain fees, agreeing to circumvent normal regulatory standards for recordkeeping, and even agreeing to surrender the regulatory right to obtain the ICA in certain future conditions.

The FAA clarified its position on this when they published a policy statement interpreting § 21.50(b) and FAA Order 8110.54A, that was entitled *Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness*.²⁹⁵ This guidance is more fully-described, above.²⁹⁶ In summary, it clarifies that the additional conditions listed above are unacceptable as impediments to the availability of the ICA.

Courts have averred that “[a] party’s position is not substantially justified if there is no legal support for it, if the party concedes the validity of his opponent’s position after causing everyone time and money, or, worse, defies an unequivocally clear obligation.”²⁹⁷ In our case, there is an unequivocally clear obligation that some design approval holders must provide ICA to some second parties (the “furnish” and “make available” parties of § 21.50(b)). Where an unequivocally clear obligation is being defied by a design approval holder, the design approval

²⁹² 5 U.S.C. § 553.

²⁹³ See *United States Term Limits v. Thornton*, 514 U.S. 779, 800 (1995) (explaining that a state cannot unilaterally change qualifications found in the Constitution because it does not have that power).

²⁹⁴ *Id.* at 802.

²⁹⁵ *Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness*, FAA Policy Statement PS-AIR-21.50-01 (Mar. 23, 2012).

²⁹⁶ See footnotes 245-249 and accompanying text (explaining the FAA policy statement on availability of ICA).

²⁹⁷ *Cobell v. Norton*, 213 F.R.D. 48, 61 (D.D.C. 2003).

holder's failure to comply with that obligation could be judged as reckless (the courts have discussed this in the context of refusals to meet a party's obligation to provide discovery).²⁹⁸

A refusal to comply cannot be justified by a desire to impose additional conditions that are not part of the regulation.

In the area of contract law, it is well-established that promising to comply with a pre-existing legal or statutory duty is not valid consideration for a new contract. The pre-existing duty rule clearly states that agreeing to do what one is legally obligated to do (such as providing ICA pursuant to § 21.50(b)) is not valid consideration.²⁹⁹ This means that if the first party promises to comply with a regulation like § 21.50(b), in return for the second party's promise to pay money or incur another obligation in return for that compliance, then the promise to pay money or incur another obligation in return for that compliance may be unenforceable for lack of consideration.

Comparison to Other Regulatory Regimes: FOIA

Members of the Working Group suggested that the Freedom of Information Act (FOIA) represents a reasonable analogy for charges for information that are made available. FOIA permits the government to charge certain costs to the information-seeker. It authorizes these charges at the statutory level.³⁰⁰

FOIA specifically uses the phrase "make available,"³⁰¹ like § 21.50(b). FOIA requires government agencies to make certain information freely available for public inspection.³⁰² This includes things like regulations and dockets that are part of the normal course of business for government.³⁰³ The freely available information is not subject to any charges.³⁰⁴

When a government agency is asked to search for any other records (those that are not part of the set of freely-available records), those records-subject-to-search are made available on a fee

²⁹⁸ E.g., *St. Clair v. Cadles of Grassy Meadows II, L.L.C.*, 550 B.R. 655, 673 (E.D.N.Y. 2016) (in the context of discovery, obstructive conduct, alone, justifies an inference of reckless disregard for the party's clear obligations to comply).

²⁹⁹ See, e.g., *Rosstdeutsher v. Viacom, Inc.*, 768 A.2d 8, 21 (Del. 2001) ("The pre-existing duty rule holds that a promise to do what one is legally obligated to do . . . is not valid consideration."); *Id.* at n.39 ("We note that the pre-existing legal duty rule applies in (at least) two distinct scenarios. The first, relevant to this case, concerns a pre-existing legal duty to *conform to the law.*") (emphasis added); *Shine v. Light Sources, Inc.*, 2004 Conn. Super. LEXIS 1385, 16 (Conn. Super. Ct. 2004) ("before a promise can be said to be supported by consideration . . . [t]he promisee must suffer legal detriment; that is, do or promise to do *what he is not legally obligated to do*; or refrain from doing or promise to refrain from doing what he is legally privileged to do.") (emphasis added); *Rosati Masonry Co. v. Jonna Constr. Co.*, 1998 Mich. App. LEXIS 2418, 4 (Mich. Ct. App. 1998); ("There is also a pre-existing duty rule based on a statutory duty to perform some obligation. Where one promises to undertake an obligation that he already had a statutory duty to perform, the promise is not supported by adequate consideration."); see also 2 Corbin on Contracts § 7.11 at 392; 3 Williston on Contracts § 7.41 at 670-71.

³⁰⁰ 5 U.S.C. § 552.

³⁰¹ 5 U.S.C. § 552(a).

³⁰² 5 U.S.C. § 552(a)(1), (2).

³⁰³ *Id.*

³⁰⁴ 5 U.S.C. § 552(a)(3)(A) (distinguishing the subsection 1 and subsection 2 categories from the categories for which a fee may be charged).

basis.³⁰⁵ Agencies are required to post those fees, and the fees are required to be limited to “reasonable standard charges,” solely related to search time, duplication of records, and review.³⁰⁶ The fees that can be charged are also limited based on the intended use of the records: for example, the government can charge for search time when the records are sought for commercial reasons, but if the records are sought for non-commercial use then the government may only charge fees for duplication (and not for search time).³⁰⁷ In this way, the fees are kept reasonable and scaled based on intended use.

Unlike FOIA, the FAA has no statutory basis for charging for ICA.

Charges Under a Fair Use Analysis

If we endorse the idea that providing ICA under § 21.50(b) falls into the category of fair use, then this influences the related question of the extent to which a design approval holder may charge for the provision of such ICA under that regulation.

Fair use represents an exception to the copyright rules. Because it is an exception, in the narrow context of the activity protected under the fair use doctrine, the copyright may not be enforced. The courts have explained that in the context of an invalid copyright, the enforcement of that invalid copyright may be an antitrust violation.³⁰⁸ Fair use is a defense, so it is unlikely that a fair use situation would lead to antitrust claims, except where there was a history that made the fair use defense obvious. Nonetheless, it would appear to be inappropriate to attempt to license a copyright when the fair use doctrine permits free use of the same text. Thus, there is no intellectual property that is being licensed or otherwise made available in a fair use context, and the ICA creator may not have a property-law basis for charging for copies.

In some cases, the ICA are currently not made available for any price to otherwise qualified recipients who are entitled to the ICA under FAA regulations and policies. Where a copyrighted work is not made available for any price, or has only been made available on a very limited basis, this has been held to suggest that copying does not affect the potential market for the copyrighted work, and therefore the fourth factor of the fair use analysis (effect on the market) suggests that copying of the work is likely to reflect a fair use.

Charges Under the Delegation Doctrine

Under the delegation doctrine, Congress is limited in what it is permitted to delegate to the executive branch; it may delegate the execution of a law, but not the actual making of the law.³⁰⁹ Congress has delegated to the FAA the authority to issue regulations meant to implement the

³⁰⁵ 5 U.S.C. § 552(a)(4) (authorizing fees for search, duplication, and review of government records).

³⁰⁶ 5 U.S.C. § 552(a)(4)(A)(ii).

³⁰⁷ 5 U.S.C. § 552(a)(4)(A)(ii)(I), (II).

³⁰⁸ E.g., *Michael Anthony Jewelers, Inc. v. Peacock Jewelry, Inc.*, 795 F. Supp. 639, 647-48 (refusing to dismiss an antitrust claim, where the defendant had tried to enforce invalid copyrights, on the grounds that an attempt to enforce an invalid copyright may be anticompetitive; extending the *Walker Process* patent reasoning to copyrights).

³⁰⁹ *Loving v. United States*, 517 U.S. 748, 758-59 (1996) (quoting *Field v. Clark*, 143 U. S. 649, 693-694 (1892)).

legislative structure established by Congress.³¹⁰ This is accomplished in the FAA's regulations. In order to clarify the FAA's ability to sub-delegate certain authority to the private sector, Congress has identified private functions that must be licensed by FAA,³¹¹ and has distinguished them from FAA governmental functions that may be subdelegated to the private sector.³¹² Congress has specifically allowed the FAA to delegate "a matter related to (A) the examination, testing, and inspection necessary to issue a certificate under this chapter; and (B) issuing the certificate." There is no authority under the statutes authorizing the FAA to sub-delegate the rulemaking authority (as authorized by Congress) to any other party.

The standards of § 21.50(b) clearly establish an obligation for certain design approval holders to make ICA available. The regulation specifies to whom such ICA must be made available: namely those required to comply with the ICA under the regulations.³¹³ The FAA has clarified the categories of persons who are required to comply with the ICA,³¹⁴ and are thus entitled to the availability of the regulations. The regulation does not offer any exception, such that the design approval holder may ignore this duty if the "make available target" does not meet any additional standards outside the regulatory standard. Once the conditions of the regulation are met, the obligations under the regulation are confirmed. If the FAA were to allow design approval holders to refuse to comply with the regulation until an additional condition (not in the regulation) was met, then this would be a *de facto* delegation of regulatory authority to the design approval holder, because it would be a *de facto* additional condition imposed upon the design approval holder's obligation to comply with the regulation. Because no such sub-delegation of rulemaking is allowed, a design approval holder may not refuse to "make available" ICA to a qualified person for any reason outside of the elements established in the regulation.

Other Options for Charges: Other Items

While the current language does not allow a design approval holder to shirk its "make available" obligations on the basis of a "failure to pay," there are at least two options under which a design approval holder might be permitted to charge for the ICA (or ICA-adjacent items).

First, a design approval holder is free to charge for things that are not the ICA, and that do not have to be made available, as long as the ICA can be obtained as a stand-alone item (separate from the charges). For example, a design approval holder might offer two different products: (1) the ICA, alone, which are made available without an interfering charge, and (2) the ICA with something else that does not have to be made available and for which a charge may be exacted,

³¹⁰ *E.g.*, [49 U.S.C. § 44701\(a\)](#) (empowering the Administrator of the FAA to issue regulations in the interest of safety).

³¹¹ *E.g.*, [49 U.S.C. § 44702-44708](#) (providing for the issue of certificates by the FAA).

³¹² [49 U.S.C. § 44702\(d\)](#).

³¹³ [14 CFR 21.50\(b\)](#) (explaining that "the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions")

³¹⁴ [Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents](#), FAA Order 8110.54A chap. 6 ¶ 4 (2010).

such as the right to use the design approval holder's trademark (as an "authorized" maintenance facility). Another alternative might be to offer a plain-vanilla ICA (for no charge), and a fee-based ICA with extra search features. Another idea would be for the design approval holder to raise the price of the product or article to reflect the uncharged price of the ICA.

Other Options for Charges: EPA Model

Second, if the FAA wanted to alter the regulations to permit charges, then the Environmental Protection Agency (EPA) has established a model that could be emulated.

The EPA model is authorized under the Clean Air Act, so if the FAA finds this to be an attractive model, then a comparable FAA program might require new statutory authority. For the EPA program, the Clean Air Act states that the Administrator shall require manufacturers to "provide promptly to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, and the Administrator for use by any such persons, with any and all information needed to make use of the emission control diagnostics system prescribed under this subsection and such other information including instructions for making emission related diagnosis and repairs."³¹⁵ This has been read to authorize the entire instructions program found in the EPA regulations.

Their model was created for instructions related to engine maintenance instructions as they relate to engine emissions.³¹⁶ The manufacturer is required to produce those maintenance instructions and then furnish them to motor vehicle purchasers.³¹⁷ They are also required to be furnished to any person engaged in the repairing or servicing of such heavy-duty engines.³¹⁸ The regulation clarifies that if service information is provided "by the manufacturer to franchised dealers, authorized service networks, or other persons engaged in the repair, diagnosing, or servicing of heavy-duty engines," then the manufacturer has a duty to make that same information available to all repair/service providers.³¹⁹

It requires those manuals to be furnished to motor vehicle purchasers. The manuals provisions include requirements for:

- Reasonable scheduled maintenance;³²⁰
- Rebuild instructions;³²¹
- Maintenance needed after the end of the useful life of the engine for critical emissions-related components;³²²

³¹⁵ [42 U.S.C. § 7521\(m\)\(5\).](#)

³¹⁶ [40 CFR Part 86 Subpart A.](#)

³¹⁷ [40 CFR 86.010-38\(a\).](#)

³¹⁸ [40 CFR 86.010-38\(j\)\(3\)\(i\).](#)

³¹⁹ *Id.*

³²⁰ [40 CFR 86.004-25\(b\), 86.010-38\(b\).](#)

³²¹ [40 CFR 86.010-38\(h\)\(2\).](#)

³²² [40 CFR 86.010-38\(h\)\(1\).](#)

- Emission control diagnostic service information for light-duty engines;³²³
- Emission control diagnostic service information for heavy-duty engines.³²⁴

An interesting thing about this requirement is that EPA specifically authorizes the manufacturer to furnish the manual for a fee, but EPA has careful limits on the charges that can be levied for the manuals in order to make sure that the goals of this manual regime can be achieved. Some of the key requirements include:

- The manuals must be complete – with all schedule maintenance included.³²⁵
- The scheduled maintenance must be limited to the maintenance needed, with the burden falling on the OEM to demonstrate, subject to the approval of the Administrator, that such maintenance is reasonable and technologically necessary to assure proper functioning.³²⁶
- The information must be made available to everyone.³²⁷
- The manuals (or an index of the manuals) must be accessible online.³²⁸
- The online subscriptions must be available in short-term, medium-term, and long-term options.³²⁹
- When a price is charged, it must be fair and reasonable, and there is a list of factors that are considered in such an assessment.³³⁰
- One of those factors explains that the price should be based on “[t]he cost to the manufacturer for preparing and distributing the information, excluding any research and development costs” for the underlying product.³³¹
- If the price is not fair and reasonable, then it is explicitly considered unavailable as a matter of law, and is a violation of the regulations.³³²
- The EPA must approve the fee before it can be charged.³³³

³²³ [40 CFR 86.010-38\(g\)](#).

³²⁴ [40 CFR 86.010-38\(j\)](#).

³²⁵ *E.g.*, [40 CFR 86.010-38\(b\)](#), [86.010-38\(g\)\(5\)](#).

³²⁶ *E.g.*, [40 CFR 86.010-38\(c\)](#), [\(d\)](#).

³²⁷ [42 U.S.C. § 7521\(m\)\(5\)](#) (“No such information may be withheld under section 7542(c) of this title if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines”).

³²⁸ *E.g.*, [40 CFR 86.010-38\(g\)\(3\)](#).

³²⁹ *E.g.*, [40 CFR 86.010-38\(g\)\(3\)\(iv\)](#).

³³⁰ *E.g.*, [40 CFR 86.010-38\(g\)\(8\)\(i\)](#).

³³¹ *E.g.*, [40 CFR 86.010-38\(g\)\(8\)\(i\)\(B\)](#).

³³² *E.g.*, [40 CFR 86.010-38\(g\)\(9\)](#).

³³³ *E.g.*, [40 CFR 86.010-38\(g\)\(8\)\(ii\)](#).

- When a price is charged, the OEM bears the burden to justify the charge.³³⁴
- The charge must be directly related to the cost of production of the manual (not the cost of the vehicle).
- The price must be the same for all partners (the OEM cannot have one price for authorized dealers and another price for non-authorized parties).
- The OEM must make all of its manuals accessible (an OEM may not impose limits, including prohibition on limits by make or model).³³⁵

While this appears to be an effective program for regulating manuals to make sure that they are produced and made fairly available, it requires a commitment to active management by the EPA. A downside to the FAA implementing such a program would be the FAA would need to commit resources to managing such a program. Enforcing the FAA’s current regulatory language³³⁶ would require less of a commitment to oversight because (1) the current FAA rule does not permit charges, so there is no need for the FAA to assess and regulate the amount charged (because any charge for ICA subject to § 21.50(b), under the current rule, is an impediment to the “make available” obligation).

Costs or Charges Conclusion

The FAA’s regulation at § 21.50(b) establishes conditions for making the ICA available, and establishes an obligation to make them available when the conditions have been met. There is no clause in § 21.50(b) that permits payment of charges or fees as a condition. There is no clause in § 21.50(b) that permits the design approval holder to impose a licensing agreement as a condition. There is no clause that permits the design approval holder to impose any other conditions aside from those already in the regulation – neither reasonable conditions nor unreasonable conditions – on its obligation to make ICA available to persons “required to comply.”

Proposal (Costs or Charges)

Because the issue of costs for ICA continues to arise, and the costs for ICA continue to be an impediment to availability of ICA, we propose that the FAA issue a policy memorandum that simply explains:

If a design approval holder is required to make ICA available under § 21.50(b), and that design approval holder imposes a cost, licensing obligation, or other condition on an otherwise-qualified person (meaning someone entitled to the “make available” condition under 14 CFR § 21.50(b)), then the ICA has not been “made available” to that person because the cost,

³³⁴ E.g., [40 CFR 86.010-38\(g\)\(8\)\(ii\)\(A\)](#).

³³⁵ E.g., [40 CFR 86.010-38\(h\)\(4\)\(iv\)](#).

³³⁶ [14 CFR 21.50\(b\)](#).

licensing obligation, or other condition is not an authorized condition for availability under the regulation. This statement does not prevent the design approval holder from refusing to make ICA available to persons who are not required to comply with the instructions pursuant to the text of 14 CFR § 21.50(b). Findings of compliance that the FAA requires to be made constitute a requirement to comply.

This information should also be incorporated in the next revision of FAA Order 8110.54.

While the plain language of the FAA's regulations is sufficient to show that additional costs and charges are not permitted conditions on the design approval holder's compliance obligations, the OOMRO subgroup of Working Group D recognizes that the charter sought additional resolution with respect to cost and charges issues. Therefore, the OOMRO subgroup of Working Group D also proposes that the FAA amend § 21.50 to clarify that ICA are not made available if the design approval holder imposes additional conditions on availability other than the conditions described in § 21.50(b). If we redesignate current § 21.50(c) as § 21.50(d), and use the proposed language from the trade secret section (earlier in this position paper) as a baseline (to which the costs language would be added), then the amendment to the regulation may read as follows:

(c) When Instructions for Continued Airworthiness are used for compliance with the regulations under this chapter, the FAA has found that the purpose and character of such use, the nature of the Instructions for Continued Airworthiness, and the effect on the market for such Instructions for Continued Airworthiness, renders such use to be a fair use under the Copyright Act. Because creation of the Instructions for Continued Airworthiness is required as a condition of obtaining design approval, and compliance with this section is required as a condition of holding design approval, the Instructions for Continued Airworthiness may not be secret with respect to the parties to whom they are required to be furnished and/or made available, and they may not be withheld from parties subject to the furnish and/or make available provisions of this section. If the design approval holder imposes a cost, licensing obligation, or other condition on any other person required by this chapter to comply with any of the terms of those instructions, then the instructions have not been “made available” to that person.³³⁷

7. Proposed Definition for “Furnish”

“Furnish” Discussion

The full working group previously agreed to the following definition of the term “furnish,” as it is used in § 21.50(b):

In the context of § 21.50(b) “furnish” means the design approval holder must provide, for no additional cost or obligation, the complete set of then-current ICA, in a persistent format.

³³⁷ For convenience and economy, the costs-specific language has been added to the trade-secret-specific regulatory proposal language that was proposed earlier in this report.

The purpose of the “furnish” rule is to ensure that the product owner has the instructions necessary to maintain the airworthiness of the product. The working group agreed that “furnish” is a proactive action in which the design approval holder provides to the first owner. This proactive approach is reasonable because the design approval holder knows the person to whom the initial sale is made. This may be contrasted with the “make available” obligation, which is a reactive requirement because the design approval holder may not know to whom the ICA must be made available until the target identifies himself or herself.

There was some debate between the OOMRO and DAH subgroups about persistence. The persistent format was judged to be important because if the design approval holder provides to the owner a temporary license to access the ICA, and that license subsequently expires, then the design approval holder violates the “make available” provisions as they apply to that owner.³³⁸ Also, such expiration would inhibit the owner’s ability to maintain airworthiness, and maintaining airworthiness is the ultimate purpose for this rule.

Discussion of Usage in the Context of a Proposal

The term “furnish” is used throughout the FAA regulations and it is used in various contexts. In order to limit the applicability of this definition, we propose that it apply only to part 21.

The term “furnish” is currently used in the following Part 21 regulations: § 21.5,³³⁹ § 21.24,³⁴⁰ § 21.50, and § 21.500.³⁴¹ The use of “furnish” in the other three regulations would not be adversely affected by adoption of a definition of “furnish.”

Proposal (“Furnish”)

Where the FAA has used the term “furnish” in the airworthiness standards, it is clear that the FAA intends the information to be provided with the product, and not be withheld. For example, the flight manual must be furnished with each transport category aircraft.³⁴²

Despite this clarity, the charter asked for definition proposals. For this reason, the OOMRO subgroup of Working Group D proposes that the FAA consider new regulatory language to

³³⁸ The operator has a continuing obligation to maintain airworthiness (14 CFR 91.7(a)), which establishes a need to comply with the ICA. This need to comply puts operators into the “make available” category of 14 CFR 21.50(b).

³³⁹ Title 14 CFR 21.5 explains that the flight manual must include any information required to be furnished under the applicable regulations.

³⁴⁰ Title 14 CFR 21.24 explains that the primary type certificate applicant must submit to the FAA the flight manual and any other information required to be furnished (obviously, this includes the information required to be furnished by § 21.50(b)).

³⁴¹ Title 14 CFR 21.500 explains that a foreign-produced engine or propeller may be acceptable under the FAA regulations if (inter alia) the type certificate holder furnishes an export airworthiness approval that meets the terms of the applicable bilateral agreement. There is clearly no intent in this regulation that any person needs to pay the type certificate holder for furnishing the export airworthiness approval; instead, the “furnish” obligation is a prerequisite to an FAA acceptance.

³⁴² [14 CFR 25.1581\(a\)](#).

clarify the definition of “furnish.” The OOMRO subgroup of Working Group D proposes that § 21.1(b) be amended to include the following definition:³⁴³

Furnish means to provide, for no additional cost or obligation, an item. When used in the context of furnishing instructions, the furnished instructions must be complete, and must be provided in a persistent format (meaning that the furnished copy can be stored and referenced in the future).

The OOMRO subgroup of Working Group D proposes that the FAA publish the above definition of “furnish” in a policy memo that would be later incorporated in a future revision of FAA Order 8110.54A.

The OOMRO subgroup of Working Group D proposes that the FAA publish the above definition of “furnish” in a future revision of FAA Order 8110.54A.

The OOMRO subgroup of the Working Group D proposes that the FAA publish the above definition of “furnish” in § 21.1(b), which lists definitions that apply exclusively to Part 21.

8. Proposed Definition for “Make Available”

The working group disagreed on the scope of the “make available” provision. For that reason, the two sides of this discussion are provided to allow the FAA to review the issues to be considered and to make decisions based on the available arguments.

“Make Available” Issue

The word “available” is used in § 21.50(b). Under that regulation, ICA must be made available to a class of intended beneficiaries. What does it mean to make ICA “available?”

“Make Available” Summary

Under U.S. case law, and other precedent, “available” means present or ready for immediate use, and restrictions inhibiting access to ICA means they are not yet “available.”

Based on existing U.S. case law, “available” means present or ready for immediate use. In the context of ICA and § 21.50(b), it appears that ICA are not made “available” to an intended beneficiary until the design approval holder makes them present or ready for immediate use by the intended beneficiary. Thus, any impediment imposed by the design approval holder (except for impediments specifically authorized by the regulation) would prevent the ICA from being “available” to the intended beneficiary. For example, if the intended beneficiary was required to sign an agreement, pay a fee, or promise not to compete with the design approval holder in advance of getting access to the ICA, these would each be impediments that would prevent those ICA from being “made available” to the intended beneficiary.

³⁴³ This proposed definition is consistent with the other uses of the term “furnish” in Part 21. It is slightly modified from the full working group proposal to better fit into the regulatory structure.

“Make Available” Discussion

Plain Language of “Availability”

As a matter of plain language, an ICA is not available until it is actually immediately available to the recipient. If any condition is interposed between the recipient and the ICA, then the ICA is not yet available to the recipient, until that condition is met. Section 21.50 does not impose any constraints on availability except that the ICA only need to be made available to those “required by [14 CFR Chapter I] to comply with any of the terms of those instructions.”³⁴⁴ The regulation does not permit non-compliance with the “make available” standard under any circumstances.

This plain language interpretation is also consistent with the interpretation of the term “available” issued by numerous United States courts (including the United States Supreme Court).

U.S. Case Law on “Available”

In summary, United States case law suggests that when analyzing whether a thing is available, the thing is not yet available until it is *present or ready for immediate use* by the person to whom it must be made available. Case law has recognized that where the statute or regulations make specific allowance for charges, then the thing may be available in advance of the payment of the charges, but in the absence of regulatory or statutory authority permitting fees to be charged, the imposition of charges would mean that the thing is not yet “available” because the charge would inhibit the thing from being present or ready for immediate use.

Supreme Court Interprets “Available” to Mean Present or Ready for Immediate Use

In *Ross v. Blake*, the Supreme Court examine the term “available” in the context of available remedies for a prisoner.³⁴⁵ The Court adopted the common interpretation of this word “available” as meaning that which is “present or ready for immediate use.”³⁴⁶

- The Court explained that an administrative remedy that operates as a simple dead-end is not “available.”³⁴⁷
- The Court also explained that if an ordinary person could not navigate the remedy, then it is not “available.”³⁴⁸

³⁴⁴ [14 CFR 21.50\(b\)](#).

³⁴⁵ *Ross v. Blake*, 578 U.S. 632, 635-36(2016) (explaining that a prisoner need not exhaust administrative remedies that are not “available” in an effort to provide context for the Court’s inquiry).

³⁴⁶ *Id.* at 642.

³⁴⁷ *Id.* at 642 (relying on *Booth v. Churner*, 532 U.S. 731, 738 (2001)).

³⁴⁸ *Id.* at 643-44 (explaining that where the rules are so confusing that no reasonable prisoner could navigate them, then the related process is not an “available” remedy).

- The Court also explained that where a person is thwarted from pursuing a remedy through “machination, misrepresentation or intimidation,” then it is not “available.”³⁴⁹
- While the context of *Ross* might be different from that of § 21.50(b), the availability rules that *Ross* confirms seem appropriate for application to the “make available” phrase in § 21.50(b). The FAA issued a policy statement in 2012³⁵⁰ that declared that design approval holder efforts to inhibit sharing of ICA with the class of intended beneficiaries were “unacceptable” and this seems entirely consistent with the *Ross* decision, in which procedures that inhibited availability of remedies were deemed to render the remedies unavailable.
- The effect of the *Ross* decision was to explain that the policies and standards that made the remedies unavailable were illegal, because they inhibited the legal requirement to make the remedies “available.”

Other Courts Agree That Information Is Not “Available” to a Beneficiary Until it is Present or Ready for Immediate Use by the Beneficiary

- Other courts have consistently agreed that information is not “available” until it can be accessed by the intended beneficiary.
- In *Nichols*, the Missouri Court of Appeals came to a conclusion that was consistent with the *Ross* decision: that “available” means “present and ready for immediate use.”³⁵¹ In that case, a trial judge was required to use “available” information when setting bond. The Court of Appeals held that information that was not present and ready for immediate use was not available, and thus the trial judge did not have to seek out, nor rely on, additional information that was not “available” at the time of the bond hearing.³⁵² Information that was not in front of the judge at the time of the hearing was **not** “available” to the judge.
- The *Nichols* decision suggests that ICA will **not** be “available” if they are only theoretically accessible to the intended beneficiaries: information will only be “available” once the information can actually and directly be accessed by the intended beneficiary.
- The *Nichols* application of the term “available” is consistent with the use in other courts; for example, in *Catanzarite*, the Indiana Court of Appeals explained that available funds were limited to “money present or ready for immediate use by the insured, not amounts

³⁴⁹ *Id.* at 644 (where a skillful system is devised to “trip up” a prisoner from using it, then it is not really an available remedy).

³⁵⁰ [*Policy Statement: Inappropriate Design Approval Holder \(DAH\) Restrictions on the Use and Availability of Instructions for Continued Airworthiness \(ICA\)*](#), PS-AIR-21.50-01 (FAA March 23, 2012).

³⁵¹ *Nichols v. McCarthy*, 638 S.W.3d 902 (Mo. Ct. App. 2022).

³⁵² *Id.* at 910-11.

potentially accessible.”³⁵³ Thus, something that is potentially accessible in the future, but that is not presently accessible, is not “available.”

- In *Boles*, the North Carolina Court of Appeals examined the word “available” in a different context, but came to very similar conclusions about its meaning.³⁵⁴ In that case, a town constructed sewer lines and was authorized under the statutory scheme to charge for availability of those utilities. The plaintiffs in that case sued on the claim that the utilities were not available to their undeveloped properties, and they therefore did not have to pay for availability. This was a case where the statutory scheme specifically authorized charges upon availability, so whether the sewer lines were available helped to define whether the sewer authority could charge for them.
- The court in that case explained that “‘Available’ means ‘present or ready for immediate use.’”³⁵⁵ In the case of the undeveloped properties, they had to go through a complex process in order to benefit from the sewer system (including permitting), and as a consequence, the sewer was not present or ready for immediate use, and would not be “available” until the plaintiffs had gone through the complex process to make the sewer service available.³⁵⁶ Prior to the completion of the steps that made the utility services present or ready for immediate use, the services were not “available.”

Applying the *Ross* and *Boles* rulings on the term “available” to § 21.50(b), it seems clear that ICA are “made available” when they are present and ready for use by the intended beneficiary. If the intended beneficiary has to undertake additional steps, then the ICA are not yet “available.” The regulation makes it clear that the class of persons who is entitled to the ICA is limited.³⁵⁷ Thus ICA do not need to be made available to all persons; but for the class of persons to whom such instructions need to be made available, the ICA are not made “available” until they are present and ready for use by such intended beneficiaries.

Some persons have suggested that ICA may be withheld until the intended beneficiary provides some additional consideration or compensation.³⁵⁸ This has included allowing the design

³⁵³ *Catanzarite v. Safeco Ins. Co. of Indiana*, 144 N.E.3d 778, 786 (IN Ct. App. 2020) *relying on* *Corr v. American Family Ins.*, 767 N.E.2d 535, 540 (2002). *Accord* *State Farm Mutual Automobile Ins. Co. v. Sellers*, 854 F.Supp.2d 609, 622 (N.D. IN 2012) (explaining that “‘Available’ ordinarily means ‘present or ready for immediate use.’ Thus, ‘available for payment to the insured,’ when describing coverage limits, is money present or ready for immediate use by the insured, not amounts potentially accessible.”).

³⁵⁴ *Boles v. Town of Oak Island*, 830 S.E.2d 878, 266 N.C. App. 142 (NC Ct. App. 2019).

³⁵⁵ *Id.* at 830 S.E.2d 881, 266 N.C. App. 146.

³⁵⁶ *Id.* at 830 S.E.2d 881, 266 N.C. App. 146-47.

³⁵⁷ [14 CFR 21.50\(b\)](#) (“the holder of a design approval must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions”).

³⁵⁸ Suggested considerations have included licensing agreements, licensing fees, and promises concerning protection of the ICA. In each case, these are considerations that are not authorized as conditions for availability under 14 CFR 21.50(b). The only conditions authorized under that regulation are that the make-available benefit is limited only to persons who are required by 14 CFR Chapter I to comply with any of the terms of the instructions. Because this one

approval holder to extract contractual promises and limits from the intended beneficiary. This seems analogous to the *Ricks* case, which forms part of the basis for the *Boles* decision.³⁵⁹

In the *Ricks* case, the court explained that the utility was authorized to charge to furnish a service, and that making sewers available was therefore subject to a charge under the statutes affecting utility rates. The case assumes that sewer service is available when it is ready for hook-up, and when the sole decision on acceptance rests with the intended beneficiary.³⁶⁰ In that case, the question was the amount of the acceptable charge, which was based on interpretation of the laws and regulations that explicitly authorized charges for the sewer services.

When applying *Boles* and *Ricks* to ICA, there is no FAA regulatory scheme authorizing charges for ICA. Thus, charges are not a condition that affects the “availability” analysis, except to the extent they may prevent “availability.” Impediments to access, including anything that inhibits the ICA from being present and ready for use by the intended beneficiary, seems to make the ICA unavailable.

Aviation Safety Requires Availability of ICA

The FAA’s regulation at § 21.50(b) requires that ICA be made available to certain parties. For many years, the FAA has required design approval applicants to produce ICA,³⁶¹ and has likewise required design approval holders to make those ICA available to certain parties.³⁶²

The justification for the 1980 airworthiness standards that specified what must go into ICA was that:

“[T]he FAA has found that the recommended maintenance practices made available under current regulations are frequently inadequate in scope and content, and often do not provide a sound basis for the operator/owner to maintain the airworthiness of the aircraft.”³⁶³

The FAA explained that making available ICA that meet the new content standards was an important part of this remedy.³⁶⁴ The final rule provides no additional conditions for availability, except those on the face of § 21.50(b). The proposed rule had suggested that the ICA and their

condition is explicitly stated, and no other conditions are explicitly stated, it would be wrong to permit non-compliance by the design approval holder based on additional unstated conditions.

³⁵⁹ *Ricks v. Town of Selma*, 99 N.C. App. 82, 392 S.E.2d 437 (1990), *affirmed* 328 N.C. 567, 402 S.E.2d 400 (1991) (the NC Supreme Court held that discretionary review had been improvidently allowed),

³⁶⁰ *Id.* at 99 N.C. App. 84, 392 S.E.2d 438-39.

³⁶¹ *E.g.*, [14 CFR 23.1529](#), [25.1529](#), [25.1729](#), [27.1529](#), [29.1529](#), [31.82](#), [33.4](#), and [35.4](#) (each, an airworthiness standard requiring the design approval applicant to produce ICA in accordance with FAA standards and to ensure that the ICA are acceptable to the FAA).

³⁶² *E.g.*, 14 CFR 21.50(b).

³⁶³ [Airworthiness Review Program](#); Amendment No. 8A: Aircraft, Engine, and Propeller Airworthiness, and Procedural Amendments, 45 F.R. 60154, 60157 (Sept. 11, 1980) (responding to a comment that pointed out that ICA are already required to be made available to owners and operators).

³⁶⁴ *Id.* at 60157.

changes would be made available “upon request.”³⁶⁵ This condition was removed from the final rule. It appears from this action that the FAA intentionally removed conditions from the “make available” standard (other than those explicitly stated in the rule).

This sort of broad availability serves a number of safety-related interests:

- Making ICA generally available encourages uniformity in the maintenance provided, which helps to ensure that maintenance practices can be standardized, which helps to mitigate the potential for introduction of unnecessary complexities in the maintenance cycle.³⁶⁶
- Making ICA available to third party maintenance providers permits competition which allows for greater volume of maintenance availability, ensuring that maintenance is available to owners and operators.
- Great competition and availability of maintenance providers also mitigates supply chain limitations, by ensuring that maintenance is available to owners and operators.
- FAA has recognized the important safety value of availability in both FAA orders³⁶⁷ and FAA policy statements³⁶⁸ and has consistently stated that ICA must be made available.
- Parts may be held by distributors; thus parts are not always being handed from an air carrier directly to the MRO, so MROs need an independent avenue to obtain the ICA.

The FAA has stated that the intent of the “make available” provision is to ensure that properly-rated maintenance providers have access to ICA, “in the interests of safety.”³⁶⁹ There is no interest of safety supported by the proposal that design approval holders may refuse to provide ICA to independent repair stations who have been properly rated by the FAA.

Existing FAA Policy Guidance Suggests that Design Approval Holders May Not Impose Additional (Non-Regulatory) Conditions on the ICA “Make Available” Requirement

The FAA has issued a number of policy documents consistent with the position of this position paper. For example, in 2012, the FAA issued a policy statement entitled *Inappropriate Design*

³⁶⁵ *Id.* at 60157.

³⁶⁶ This is consistent with the FAA requirement that an alteration not in the product specifications and not performed according to accepted practices or elementary operations is a major alteration (14 CFR 1.1), and the data for a major alteration must be approved by the FAA (14 CFR 145.201(c)(2)).

³⁶⁷ [*Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*](#), FAA Order 8110.54A, Chap. 6, ¶ 4 (Oct. 23, 2010).

³⁶⁸ [*Policy Statement: Inappropriate Design Approval Holder \(DAH\) Restrictions on the Use and Availability of Instructions for Continued Airworthiness \(ICA\)*](#), PS-AIR-21.50-01 (FAA March 23, 2012).

³⁶⁹ [*Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*](#), FAA Order 8110.54A, Chap. 6, ¶ 4(f) (Oct. 23, 2010) (“Our intent for 14 CFR § 21.50(b) is to ... ensure that those required to accomplish continued airworthiness actions have access to continued airworthiness instructions, in the interests of safety”).

*Approval Holder (DAH) Restrictions on the Use and Availability of Instructions for Continued Airworthiness (ICA).*³⁷⁰ That policy statement explained that inhibiting the distribution of ICA was inappropriate. It specifically called out common inhibitions, like restrictive licenses, as unacceptable behavior. In each case, the inhibitions that were described as “unacceptable” were inhibitions that caused the ICA to be “unavailable as the courts have described that term.

Managing Additional Conditions on “Make Available” Would Create an Unnecessary Burden for the FAA, and Would be Ultra Vires to the FAA’s Statutory Powers

It has been proposed that the FAA should permit additional conditions on the “make available” standard, such as allowing design approval holders to refuse to make ICA available based on conditions to be chosen by the design approval holders.

The current FAA regulation does not include any additional conditions on the design approval holder’s “make available” obligations.³⁷¹ So allowing design approval holders to create additional conditions would require that the FAA either (a) permit design approval holders to decide on their own when they would comply with § 21.50(b) and then they would refuse to comply or (b) create a mechanism for managing the additional conditions that may be imposed.

Allowing design approval holders to *sua sponte* create conditions under which they can refuse to comply with the “make available” standard in the regulation would be tantamount to allowing manufacturers to change the requirements of the regulations. The courts have made it very clear that while Congress can delegate some rulemaking activities to federal agencies, those agencies may not delegate those rulemaking functions to the private sector.³⁷² Thus, the FAA may not allow design approval holders to add new conditions to § 21.50(b) that do not exist on the face of that regulation.

The FAA does not have any statutory provision authorizing it to create a mechanism for managing additional conditions on when ICA must be made available. There is no current safety justification for imposing additional conditions beyond those which appear on the face of the

³⁷⁰ [*Policy Statement: Inappropriate Design Approval Holder \(DAH\) Restrictions on the Use and Availability of Instructions for Continued Airworthiness \(ICA\)*](#), PS-AIR-21.50-01 (FAA March 23, 2012).

³⁷¹ See 14 CFR 21.50(b). For example, the regulation does not explicitly permit a design approval holder to refuse to make ICA available if the proposed beneficiary has failed to pay a fee to the design approval holder. The regulation does not explicitly permit a design approval holder to refuse to make ICA available if the proposed beneficiary has failed to agree to additional conditions or limits on how the proposed beneficiary may use the ICA. The regulation does not explicitly permit a design approval holder to refuse to make ICA available if the proposed beneficiary has refused to accept limits on how it may provide maintenance or to whom it may provide maintenance.

³⁷² [*Dep’t of Transp. v. Ass’n of Am. Railroads*](#), 575 U.S. 43, 62 (2015) (J. Alito concurring) (“When it comes to private entities, however, there is not even a fig leaf of constitutional justification” permitting delegation of rulemaking to the private party); See [*State v. Rettig*](#), 987 F.3d 518, 531 (5th Cir. 2021) (“A federal agency may not ‘abdicate its statutory duties’ by delegating them to a private entity”); [*Consumers’ Research, Cause Based Commerce, Inc. v. Fed. Comm’n’s Comm’n*](#), 88 F.4th 917, 935 (11th Cir. 2023) (explaining that private parties may not be tasked with exercising governmental power because the “so-called ‘private nondelegation doctrine’ flows logically from the three Vesting Clauses”).

regulation, so there is no current safety basis for creating a new regulatory regime for managing such conditions.

Creating a mechanism by which the FAA would have to manage proposed conditions would impose additional burdens on the FAA that are not justified by any safety argument, so it would not make sense to do this.

The Term “Make Available” Is Used Throughout the FAA Regulations and It Clearly Means that the Availability Is Without Cost or Other Impediment

The term “make available” is used throughout the FAA’s regulations. It is often used in the context of making data available to the FAA. This is commonly interpreted to mean that the data must be provided to the FAA upon demand, without withholding due to intellectual property claims, and without charging the FAA for the availability.

For example, a person submits a declaration of compliance is typically required to retain the supporting documentation³⁷³ and then to subsequently make it available to the FAA upon request.³⁷⁴ It would be absurd to believe that the declarant could refuse to make this information available to the FAA upon request, or that the declarant could charge a fee to the FAA for the availability.

Similarly, the FAA’s airworthiness limitations require certain information to be made available under circumstances where FAA policy could not reasonably allow that information to be withheld for commercial reasons. For example, the operating limitations and other information necessary for safe operation must be established,³⁷⁵ and they must be made available to the crewmembers.³⁷⁶

Proposal (“Make Available”)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum that would ultimately be incorporated in a future revision of FAA Order 8110.54A. The policy memorandum should explain the meaning of the term “available,” consistent with the FAA’s interpretation of the term.

The OOMRO subgroup of Working Group D proposes that the discussion element of this position be used as the basis for such a memo, particularly highlighting that: (1) a design approval holder who is subject to the requirements of § 21.50(b) may not refuse to make its ICA available to those persons required by Chapter I to comply with any of the terms of those

³⁷³ E.g., [14 CFR 107.165\(a\)\(2\)](#).

³⁷⁴ E.g., [14 CFR 5.7\(d\)](#) (SMS program information); [107.165\(a\)](#) (unmanned aircraft compliance with Category 2 or Category 3 operations requirements); [119.59](#) (operating certificate and operating specifications).

³⁷⁵ [14 CFR 25.1501\(a\)](#); see also [14 CFR 25.1503-25.1533](#) (airworthiness standards potentially requiring operating limitations).

³⁷⁶ [14 CFR 25.1501\(b\)](#) (this information may be made available through markings, although the flight [[14 CFR 25.1581-25.1587](#)] is included within the scope of this “make available” rule).

instructions; (2) a design approval holder who is subject to the requirements of § 21.50(b) may not impose additional conditions on ICA availability on those persons required by Chapter I to comply with any of the terms of those instructions; and (3) if the design approval holder refuses to make ICA available without the beneficiary meeting an additional condition that is not required by the regulations, such as signing an agreement, paying a fee or being approved by the design approval holder, then the design approval holder has not made the ICA available to that beneficiary.

While the policy language, above, is supported by the current regulatory language and case law, the charter also asked for definition proposals. For this reason, the OOMRO subgroup of Working Group D also proposes that the FAA consider new regulatory language to clarify the definition of “make available.” The OOMRO subgroup of Working Group D proposes that § 21.1(b) be amended to include the following definition:

Make Available when referencing a thing that must be made available to a person, means that the thing that is made available is present and ready for use by that person, with no additional conditions or requirements for that person to access the thing that is made available (except for those conditions or requirements stated in the regulation).

9. Proposed Definition for “Any Other Person”

Executive Summary: “Any Other Person”: PMA Applicants and PMA Holders

The phrase “any other person required by this chapter to comply with any of the terms of those instructions” is used in § 21.50(b) to describe the class of persons to whom the ICA must be made available.

Working Group D agreed that certain persons are known to fall within the scope of the “any other person” clause, because they are known to have ICA compliance obligations under Title 14, Chapter I of the regulations. The Working Group debated whether PMA applicants and PMA holders are required to comply with any of the terms of the ICA.

Because the regulations (and the supporting FAA guidance) require PMA applicants and PMA holders to make compliance findings with respect to pre-existing ICA, the OOMRO subgroup of Working Group D concluded that PMA applicants and holders are among the class of persons required to comply. If the FAA decides that, as a matter of policy, PMA applicants and PMA holders should not be considered among that class, then the FAA should change the regulations to remove those regulatory obligations from PMA applicants and PMA holders.

“Any Other Person” Issue: PMA Applicants

ICA are required to be made available “to any other person required by [14 CFR Chapter 1] to comply with any of the terms of those instructions.”³⁷⁷ An FAA staff member advising the ARC

³⁷⁷ [14 CFR 21.50\(b\)](#).

pointed out that compliance involves actions and programs designed to ensure that laws and regulations are followed.

The working group recognized that there is clear existing FAA guidance identifying certain parties (like part 145 repair stations and part 65 mechanics) as those who are required to comply with the instructions for continued airworthiness.³⁷⁸ FAA guidance also recognizes that there may be other classes of person to whom the ICA must be made available.³⁷⁹

The OOMRO subgroup of Working Group D proposed that FAA guidance be amended to reflect the proposition that PMA applicants are among the class of persons required to comply with the instructions for continued airworthiness.

“Any Other Person” Summary: PMA Applicants

PMA applicants are required by the regulations to comply with Instructions for Continued Airworthiness.

The FAA regulations require a PMA application to apply in a form and manner as directed by the FAA.³⁸⁰ FAA guidance makes it clear that PMA applicants must evaluate existing ICA, and assess the continued applicability of that ICA, in their PMA applications.³⁸¹ This reflects the FAA’s intent that all manufacturers, including PMA applicants, actively ensure the continued safe operation and maintenance of their products through adequate access to correct ICA. This intent is implemented through a required assessment of compliance.

The Federal Aviation Administration’s (FAA) regulatory framework places significant responsibility on design approval holders (DAHs) and applicants for Parts Manufacturer Approval (PMA) to ensure the continued airworthiness of aircraft, aircraft engines, propellers (collectively referred to as products), and their components. A central question in this framework is who is required to comply with Instructions for Continued Airworthiness (ICA) requirements and how these requirements apply to PMA applicants. This section explains that PMA applicants are “required to comply with ICA requirements,” because (1) the FAA’s regulations require applicants to demonstrate compliance with applicable airworthiness standards found in Chapter I, Subchapter C and (2) that demonstration requires assessment of the existing ICA and compliance of the applicant’s design to those existing ICA. As the applicants are required to comply, they are included in the group to whom DAHs are required to make ICA available.

“Any Other Person” Discussion: PMA Applicants

³⁷⁸ *E.g., Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, FAA Order 8110.54A, Chap. 6, ¶ 4(a-c) (Oct. 23, 2010).

³⁷⁹ *Id.* at Chap. 6, ¶ 4(d).

³⁸⁰ [14 CFR 21.303\(a\)](#).

³⁸¹ *E.g., Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, [FAA Order 8110.54A](#), Chapter 2, Sec. 4(a) (requiring PMA applicants to assess existing ICA).

Regulatory Foundation: § 21.50(b) and the Scope of ICA

Section 21.50(b) mandates that DAHs “furnish ICA per the applicable airworthiness regulations to the product owners” and make those instructions available to “any other person required to comply with any of the terms of those instructions” under the referenced chapter. The referenced chapter is Chapter I, which contains the foundational airworthiness requirements for aircraft, aircraft engines, propellers, and their components. The question thus becomes: who is required to comply with ICA under Chapter I?

Chapter I, Subchapter C, contains the airworthiness requirements applicable to aircraft, aircraft engines, propellers, and their components, including instructions found in parts 23, 25, 27, 29, 31, 33, and 35.³⁸² These requirements are not limited to type certificate holders or original equipment manufacturers but extend to any person whose design or manufacturing activity must meet these standards—a group that includes PMA applicants.

PMA Applicants and Airworthiness Compliance

PMA applicants must demonstrate that their articles meet the applicable airworthiness requirements. Section 21.303 sets out that PMA applicants must provide, among other things, test reports and computations necessary to show that the design of the article meets the airworthiness requirements of the subchapter by showing the ICA for the original article is valid for the replacement article. This regulatory language makes clear that PMA applicants are directly responsible for ensuring their products comply with the airworthiness standards found in Chapter I, Subchapter C.

Advisory Circular (AC) 21-51 further clarifies that applicants for PMA must show compliance with ICA, and while the rule does not explicitly state the “means” of compliance, substantiating data and a statement of compliance must be provided to the FAA prior to issuance of the PMA. This means that PMA applicants must, as part of their application, demonstrate that their design meets the relevant airworthiness standards, which inherently includes any requirements set out in Instructions for Continued Airworthiness.

ICA as a Requirement for Continued Airworthiness

The FAA’s guidance on ICA, as detailed in FAA Order 8110.54A, emphasizes that ICA is essential for maintaining the continued airworthiness of the product. DAHs must ensure that ICA are acceptable to the Administrator and that there is enough information in the ICA to maintain the product’s airworthiness. Importantly, DAHs must make these instructions available not only to product owners but also to “any other person required to comply with any of the terms of those instructions” under Chapter I.

³⁸² [14 CFR 23.1529](#), [25.1529](#), [25.1729](#), [27.1529](#), [29.1529](#), [31.82](#), [33.4](#), and [35.4](#).

Those applying for design approval – including PMA applicants – are specifically required to first assess existing ICA before determining whether it remains adequate or requires necessary changes as Supplemental Instructions for Continued Airworthiness (Supplemental ICA).³⁸³ Furthermore, the order specifically instructs that a DAH may not prohibit the application of its ICA to subsequent design approvals if the FAA has determined that the existing ICA is acceptable;³⁸⁴ FAA guidance specifies that the requirement for a PMA applicant to assess ICA falls within the scope of § 21.50(b), which clarifies that PMA applicants are within the “make available” class.³⁸⁵

Order 8110.54A is not the only source of this guidance. FAA Order 8110.42 provides explicit guidance on the role of ICA in the PMA process. It requires the applicant to submit a statement concerning the applicability of existing ICA to the applicant’s article.³⁸⁶ If the ICA for the original article is valid for the replacement article, a showing of this applicability must be made a part of the PMA application regarding ICA submissions (and the FAA is required to assess this determination).³⁸⁷ This means that PMA applicants must not only demonstrate technical compliance with airworthiness standards but also address the continued airworthiness of the product through the provision or validation of ICA. This would require review of ICA already existing before determining if supplemental ICA is necessary.

Moreover, FAA Order 8110.42 requires PMA applicants to provide a plan for continued operational safety, which includes ensuring that ICA are available and applicable to the PMA part or product, as necessary. This requirement underscores the FAA’s expectation that PMA applicants take an active role in ensuring the continued airworthiness of their products, which includes compliance with existing ICA.

The § 21.50(b) “make available” language is intentionally broad, and applies to anyone required under Chapter I to comply with the ICA.³⁸⁸ It should be interpreted to include any person whose design or manufacturing activity is subject to the airworthiness requirements of Chapter I, Subchapter C, when that applicant has an obligation to make a compliance finding relative to the ICA. Because (1) PMA applicants must demonstrate compliance with the airworthiness requirements,³⁸⁹ (2) the airworthiness requirements include a requirement to create ICA,³⁹⁰ and (3) the FAA’s guidance explains that this includes an obligation to assess whether the existing

³⁸³ *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, [FAA Order 8110.54A](#), Chapter 2, Sec. 4(a) (requiring applicants to assess existing ICA).

³⁸⁴ *Id.* at Chapter 2, Sec. 4(c) (“A DAH may not prohibit the application of its ICA to subsequent design approvals if the FAA has determined that existing ICA is acceptable”).

³⁸⁵ *Id.* at Chapter 2, Sec. 4(c) (“The methods above [requiring PMA applicants to assess existing ICA] comply with both the development and distribution requirements of 14 CFR § 21.50(b)”).

³⁸⁶ FAA Order 8110.42D, [Part Manufacturer Approval Procedures](#), Chg 2, Chapter 1, Table 1 (2023).

³⁸⁷ *Id.* at Chapter 2, Sec. 2-8(e).

³⁸⁸ [14 CFR 21.50\(b\)](#).

³⁸⁹ [14 CFR 21.303\(b\)\(1\)](#).

³⁹⁰ *E.g.*, [14 CFR 23.1529](#), [25.1529](#), [25.1729](#), [27.1529](#), [29.1529](#), [31.82](#), [33.4](#), and [35.4](#) (airworthiness standards requiring production of ICA).

ICA are sufficient,³⁹¹ it follows that PMA applicants fall within the group of entities that must make a compliance finding related to the ICA, and thus they are within the class of entities to whom DAHs are required to make ICA available. There is no practical distinction between the requirement to demonstrate compliance with ICA and any other means of required compliance by other entities required to comply.

The requirement for PMA applicants to certify that all applicable requirements — including airworthiness requirements — have been complied with is not merely procedural; it is substantive. Compliance with airworthiness standards necessarily includes ensuring that the product can be maintained in an airworthy condition throughout its service life, which is the purpose of ICA.³⁹² The PMA holder has an ongoing compliance obligation to assess whether ICA changes are necessary.³⁹³ As a matter of practical implementation, if the PMA holder did not have access to the changes in the ICA that apply to both the PMA article and the original article it replaces, then the PMA holder would be unable to meet its ongoing obligations related to potential changes in ICA.³⁹⁴

The Broader Regulatory Context Surrounding the Requirements

The FAA's regulatory framework is designed to ensure that all parties involved in the design, manufacture, and maintenance of aircraft and their components are held to the same high standards of safety. This includes ensuring that ICA are available and applicable to all relevant parties, including PMA applicants. The language of § 21.50(b) is intended to ensure that no party is left without the necessary information to maintain the airworthiness of the product, regardless of whether they are the original manufacturer or a subsequent design approval holder.

This approach is reinforced by FAA Order 8110.54A, which states that a DAH may not prohibit the application of its ICA to subsequent design approvals if the FAA has determined that existing ICA is acceptable. This ensures that PMA applicants can rely on existing ICA, provided they demonstrate that those instructions are applicable to their product.

Supporting Arguments and Counterpoints

Some may argue that ICA are primarily the responsibility of the original DAH and that PMA applicants are only required to show that their design is identical to the original or meets the applicable airworthiness standards; however, this interpretation is not supported by the broader regulatory context. The FAA's guidance makes clear that PMA applicants and holders have a

³⁹¹ *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, [FAA Order 8110.54A](#), Chapter 2, Sec. 4(a) (2010).

³⁹² This is a continuing obligation for the PMA holder. See [14 CFR 21.137\(m\)\(2\)](#) (requiring the PMA holder to have an in-service feedback mechanism that includes a process for determining if ICA changes are necessary).

³⁹³ *Id.*

³⁹⁴ *Id.* The original ICA could change in a way that invalidates the PMA holder's determination that the ICA had applied to its article at the time of application. Without access, the PMA holder would be unaware of the change, and would not be in a position to meet its obligations under 14 CFR 21.137(m)(2).

continued airworthiness responsibility that requires assessment of existing ICA, and a determination of compliance with respect to those ICA.³⁹⁵ This compliance finding cannot be accomplished without access to those ICA.

A question arises regarding a PMA applicant's responsibility to furnish their own ICA if the original ICA does not apply. This, however, does not undermine the notion that prior DAH ICA is required by the regulations – this makes sense from a safety perspective because there is significant safety value in knowing that the TCH ICA remains the default for replacement parts. This lessens the confusion of applicability and provides a safety benefit to ensure the PMA design does not confuse safety issues.³⁹⁶ Ultimately, PMA applicants would be able to confirm the applicability of the original ICA. Furthermore, the requirement for PMA applicants to provide a plan for continued operational safety and to demonstrate that existing ICA are applicable to their product underscores the FAA's expectation that PMA applicants take an active role in ensuring continued airworthiness. This is consistent with the FAA's overarching goal of maintaining the highest possible standards of safety in the aviation industry.

“Any Other Person” Conclusion: PMA Applicants

In summary, PMA applicants are required to comply with ICA because they must demonstrate compliance with the airworthiness standards found in Chapter I, Subchapter C. The regulatory language, FAA guidance, and industry practice all support the conclusion that PMA applicants are included in the group of persons to whom DAHs must make ICA available.

Compliance with airworthiness requirements is not limited to technical design but extends to ensuring the continued airworthiness of the product throughout its service life, which is the fundamental purpose of ICA. Therefore, PMA applicants are not only required to have access to ICA but must also ensure that, when applicable, their products are compatible with and supported by those instructions.

Proposal (“Any Other Person”)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum that would ultimately be incorporated in a future revision of FAA Order 8110.54A, Chapter 6. The policy memorandum should explain that the term “any other person” in § 21.50(b) includes applicants and holders of PMA when those persons are required to demonstrate compliance to the ICA in question. This would include (but not necessarily be limited to):

- each PMA applicant who is required by § 21.303(a)(5) to certify compliance to the airworthiness requirements of chapter I;

³⁹⁵ See footnotes 323-339 and accompanying text.

³⁹⁶ *Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents*, [FAA Order 8110.54A](#), Chapter 2, Sec. 4(c) (2010) (“The documentation burden on maintainers, and owner and operators, in maintaining their products is minimized when existing ICA is utilized to the maximum extent possible.”)

- each PMA holder who has an obligation under § 21.137(m) to have an in-service feedback mechanism that includes a process for determining if ICA changes are necessary; and
- each PMA applicant who is required by any other FAA regulations in Chapter I to show or certify compliance to the airworthiness requirements of that chapter.

The proposed policy memorandum should explain that compliance can be accomplished by obtaining the ICA for the original equipment, reviewing those ICA, identifying if changes to those ICA are necessary, and supplementing the ICA if changes are identified as necessary.

The proposed policy memorandum should suggest that a future revision of FAA Order 8110.54A, Chapter 6, Section 4 be amended to include conditions 5 and 6 that read as follows:

Condition 5 - The requester, a PMA applicant under Part 21 Subpart K, is required by 14 CFR § 21.303(a)(5) to certify compliance to the airworthiness requirements of chapter I and those airworthiness requirements include a requirement for ICA.

Condition 6 - The requester, a PMA holder under Part 21 Subpart K, is required by 14 CFR § 21.137(m) to have an in-service feedback mechanism that includes a process for determining if ICA changes are necessary.

The proposed policy memorandum should suggest that a future revision of FAA Order 8110.54A, Chapter 6 references to condition 3 or condition 4 should be amended to include conditions 5-6, as well.

Summary of the Proposals

For the convenience of the reader, the proposals from the text of this report are reproduced in this section.

Proposals (Copyright)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum explaining that to the extent that ICA may be subject to copyright protection, ICA are subject to the Fair Use Doctrine when they are used consistent with the FAA's safety mission, including in situations where the FAA requires compliance as described in § 21.50(b). The policy memo should highlight that the reason for this determination is because the FAA regulates production and availability of ICA for aviation safety reasons (i.e., they are essential for continuous airworthiness), consistent with the FAA's aviation safety mandate. This is limited to reproduction, preparation of derivative works, and/or distribution, for the purpose of compliance (including a showing of compliance) under Chapter I of Title 14.

The OOMRO subgroup of Working Group D proposes that the FAA incorporate this explanation into the next revision of FAA Order 8110.54.

The regulations and case law are sufficient to support policy language finding that a use consistent with the “furnish/make available” scope in § 21.50(b) is a fair use. Nonetheless, consistent with the direction of the charter, the OOMRO subgroup has developed proposed regulatory language to provide better clarity around this issue. The OOMRO subgroup of Working Group D recommends that the FAA amend § 21.50 to clarify that that ICA are subject to the Fair Use Doctrine when they are used consistent with the FAA’s safety mission, including in situations where the FAA requires compliance as described in § 21.50(b). If we redesignate current § 21.50(c) as § 21.50(d), then the amendment to the regulation may read as follows:

(c) When Instructions for Continued Airworthiness are used for compliance with the regulations under this chapter, the FAA finds that the safety purpose and safety character of such use, the regulated nature of the Instructions for Continued Airworthiness, and the effect on the market for such Instructions for Continued Airworthiness, renders such use to be a fair use under the Copyright Act.

Proposals (Trade Secrets)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum explaining that, because design approval holders are required to furnish and make available ICA to certain target parties as a condition of holding the design approval, the ICA cannot be trade secrets with respect to those certain target parties.

The OOMRO subgroup of Working Group D proposes that the FAA incorporate the explanation that ICA are not trade secrets with respect to certain parties (the “furnish” and “make available” parties) into the next revision of FAA Order 8110.54.

Although the current language of the FAA’s regulations is sufficient to show that ICA cannot be trade secrets vis-à-vis the parties who are entitled to “furnish” and “make available” privileges, the OOMRO subgroup of Working Group D nonetheless recognizes that the charter sought additional resolution with respect to trade secret issues. Therefore, the OOMRO subgroup of Working Group D recommends that the FAA amend § 21.50 to clarify that that ICA cannot be secrets relative to the persons to whom they are required to be furnished or made available, including in situations where the FAA requires compliance as described in § 21.50(b). If we redesignate current § 21.50(c) as § 21.50(d), and use the proposed language from the copyright section (earlier in this position paper) as a baseline (to which the trade secret language would be added), then the amendment to the regulation may read as follows:

(c) When Instructions for Continued Airworthiness are used for compliance with the regulations under this chapter, the FAA finds that the safety purpose and safety character of such use, the

regulated nature of the Instructions for Continued Airworthiness, and the effect on the market for such Instructions for Continued Airworthiness, renders such use to be a fair use under the Copyright Act. Because creation of the Instructions for Continued Airworthiness is required as a condition of obtaining design approval, and compliance with this section is required as a condition of holding design approval, the Instructions for Continued Airworthiness may not be secret with respect to the parties to whom they are required to be furnished and/or made available, and they may not be withheld from parties subject to the furnish and/or make available provisions of this section.

Proposal (Costs or Charges)

Because the issue of costs for ICA continues to arise, and the costs for ICA continue to be an impediment to availability of ICA, we propose that the FAA issue a policy memorandum that simply explains:

If a design approval holder is required to make ICA available under § 21.50(b), and that design approval holder imposes a cost, licensing obligation, or other condition on an otherwise-qualified person (meaning someone entitled to the “make available” condition under § 21.50(b)), then the ICA has not been “made available” to that person because the cost, licensing obligation, or other condition is not an authorized condition for availability under the regulation. This statement does not prevent the design approval holder from refusing to make ICA available to persons who are not required to comply with the instructions pursuant to the text of § 21.50(b). Findings of compliance that the FAA requires to be made constitute a requirement to comply.

This information should also be incorporated in the next revision of FAA Order 8110.54.

While the plain language of the FAA’s regulations is sufficient to show that additional costs and charges are not permitted conditions on the design approval holder’s compliance obligations, the OOMRO subgroup of Working Group D recognizes that the charter sought additional resolution with respect to cost and charges issues. Therefore, the OOMRO subgroup of Working Group D also recommends that the FAA amend § 21.50 to clarify that that ICA are not made available if the design approval holder imposes additional conditions on availability other than the conditions described in § 21.50(b). If we redesignate current § 21.50(c) as § 21.50(d), and use the recommended language from the trade secret section (earlier in this report) as a baseline (to which the costs language would be added), then the amendment to the regulation may read as follows:

(c) When Instructions for Continued Airworthiness are used for compliance with the regulations under this chapter, the FAA has found that the purpose and character of such use, the nature of the Instructions for Continued Airworthiness, and the effect on the market for such Instructions for Continued Airworthiness, renders such use to be a fair use under the Copyright Act. Because

creation of the Instructions for Continued Airworthiness is required as a condition of obtaining design approval, and compliance with this section is required as a condition of holding design approval, the Instructions for Continued Airworthiness may not be secret with respect to the parties to whom they are required to be furnished and/or made available, and they may not be withheld from parties subject to the furnish and/or make available provisions of this section. If the design approval holder imposes a cost, licensing obligation, or other condition on any other person required by this chapter to comply with any of the terms of those instructions, then the instructions have not been “made available” to that person.

Proposal (“Furnish”)

Where the FAA has used the term “furnish” in the airworthiness standards, it is clear that the FAA intends the information to be provided with the product, and not be withheld. For example, the flight manual must be furnished with each transport category aircraft.

Despite this clarity, the charter asked for definition proposals. For this reason, the OOMRO subgroup of Working Group D recommends that the FAA consider new regulatory language to clarify the definition of “furnish.” The OOMRO subgroup of Working Group D proposes that 14 CFR § 21.1(b) be amended to include the following definition:

Furnish means to provide, for no additional cost or obligation, an item. When used in the context of furnishing instructions, the furnished instructions must be complete, and must be provided in a persistent format (meaning that the furnished copy can be stored and referenced in the future).

The OOMRO subgroup of the Working Group D proposes that the FAA publish the above definition of “furnish” in a policy memo that would be later incorporated in a future revision of FAA Order 8110.54A.

The OOMRO subgroup of the Working Group D proposes that the FAA publish the above definition of “furnish” in a future revision of FAA Order 8110.54A.

The OOMRO subgroup of the Working Group D proposes that the FAA publish the above definition of “furnish” in § 21.1(b), which lists definitions that apply exclusively to Part 21.

Proposal (“Make Available”)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum that would ultimately be incorporated in a future revision of FAA Order 8110.54A. The policy memorandum should explain the meaning of the term “available,” consistent with the FAA’s interpretation of the term.

The OOMRO subgroup of Working Group D proposes that the discussion element of this position be used as the basis for such a memo, particularly highlighting that: (1) a design approval holder who is subject to the requirements of § 21.50(b) may not refuse to make its ICA available to those persons required by Chapter I to comply with any of the terms of those instructions; (2) a design approval holder who is subject to the requirements of § 21.50(b) may not impose additional conditions on ICA availability on those persons required by Chapter I to comply with any of the terms of those instructions; and (3) if the design approval holder refuses to make ICA available without the beneficiary meeting an additional condition that is not required by the regulations, such as signing an agreement, paying a fee or being approved by the design approval holder, then the design approval holder has not made the ICA available to that beneficiary.

While the policy language, above, is supported by the current regulatory language and case law, the charter also asked for definition proposals. For this reason, the OOMRO subgroup of Working Group D also proposes that the FAA consider new regulatory language to clarify the definition of “make available.” The OOMRO subgroup of Working Group D proposes that § 21.1(b) be amended to include the following definition:

***Make Available** when referencing a thing that must be made available to a person, means that the thing that is made available is present and ready for use by that person, with no additional conditions or requirements for that person to access the thing that is made available (except for those conditions or requirements stated in the regulation).*

Proposal (“Any Other Person”)

The OOMRO subgroup of Working Group D proposes that the FAA issue a policy memorandum that would ultimately be incorporated in a future revision of FAA Order 8110.54A, Chapter 6. The policy memorandum should explain that the term “any other person” in § 21.50(b) includes applicants and holders of PMA when those persons are required to demonstrate compliance to the ICA in question. This would include (but not necessarily be limited to):

- each PMA applicant who is required by 14 CFR 21.303(a)(5) to certify compliance to the airworthiness requirements of chapter I;
- each PMA holder who has an obligation under 14 CFR 21.137(m) to have an in-service feedback mechanism that includes a process for determining if ICA changes are necessary; and,
- each PMA applicant who is required by any other FAA regulations in Chapter I to show or certify compliance to the airworthiness requirements of that chapter.

The proposed policy memorandum should explain that compliance can be accomplished by obtaining the ICA for the original equipment, reviewing those ICA, identifying if changes to those ICA are necessary, and supplementing the ICA if changes are identified as necessary.

The proposed policy memorandum should suggest that a future revision of FAA Order 8110.54A, Chapter 6, section 4 be amended to include conditions 5 and 6 that read as follows:

Condition 5 - The requester, a PMA applicant under Part 21, Subpart K, is required by 14 CFR § 21.303(a)(5) to certify compliance to the airworthiness requirements of chapter I and those airworthiness requirements include a requirement for ICA.

Condition 6 - The requester, a PMA holder under Part 21, Subpart K, is required by 14 CFR § 21.137(m) to have an in-service feedback mechanism that includes a process for determining if ICA changes are necessary.

The proposed policy memorandum should suggest that a future revision of FAA Order 8110.54A, Chapter 6 references to condition 3 or condition 4 should be amended to include conditions 5-6, as well.

IX. Stakeholder Comments

As indicated throughout this ICA ARC report, industry stakeholders generally split into two distinct positions on many core ICA topics. In order to provide the FAA with a more complete picture of each stakeholder subgroup's positions, the ARC Co-Chairs provided each group the opportunity to add freeform comments to this report at the conclusion of the ARC's report-writing process.

A. TCH Comments

This section contains the TCH Group's closing comments with respect to the discussions and deliberations of the ICA ARC and the consensus recommendations and non-consensus proposals and positions reflected in this report. It is not the intent of the TCH Group to use this section to re-state positions taken in support of non-consensus proposals or with respect to any of the core disagreements reflected elsewhere in the report.

To that end, the TCH Group refers the FAA to prior sections in this report for a more fulsome discussion of its positions and citations supporting its positions. This section is intended primarily to address the issues raised by the industry co-chair in his comments in Section X: the focus on economic considerations as driving certain party positions, the content and scope of ICA, ICA availability/distribution, and FAA oversight and enforcement. This section also provides final reflections on the ARC's accomplishments and conveys the TCH Group's disappointment that the ARC could not achieve more.

The OOMRO Group urges the FAA to significantly overhaul ICA content and distribution requirements – a system proven to support aviation safety – to improve the competitive market position of independent MRO providers

ICA are the instructions needed to maintain continued airworthiness of an aircraft, aircraft engine, or propeller. A Design Approval Holder's (DAH) obligation to make ICA available is satisfied when a DAH provides access to ICA it created, on reasonable terms, to those required to comply with the ICA. A DAH is not required to disclose information extraneous to safety, continued airworthiness, or the certification basis of the product – such information is not ICA. That simple approach aligns with FAA and other leading states of design regulations, guidance and interpretations, and the law governing the right of a DAH to protect its intellectual property (IP), including IP contained in ICA.

This approach to ICA is well settled and effective. For decades, DAHs have been furnishing and making ICA available with reasonable licensing terms limiting use of ICA to its intended purpose and limiting the unfettered re-distribution of ICA to third parties. Through this method of distribution, ICA is made available to all who are required to comply with it. This ARC was convened over two years ago, and in all that time there have been no examples raised of any safety or continued airworthiness issues allegedly caused by a refusal to make ICA available or

by some deficiency in ICA content. In short, the system works. And where individual regulated entities fail to follow the rules, the system provides for the FAA's enforcement of those rules.

As noted by the appointed industry co-chair in his comments in Section X of this report, we have “the safest airspace system in the world. *** This safety record reflects decades of coordinated effort among federal agencies, airlines, aircraft owners, manufacturers, maintainers, airports, and aviation professionals who treat safety as the system's defining priority.” This “coordinated effort” to produce the “safest airspace system in the world” is governed by FAA regulations, including those at issue in this ARC. It is undisputed that owners and operators have been maintaining their products in a safe and airworthy condition under these existing rules. Given that, what is motivating the OOMRO group's desire to overhaul these well settled and effective rules, and in the process deprive DAHs of their legal right to protect their IP and force DAHs to fully disclose maintenance instructions and repairs, even those that are not essential to continued airworthiness, with no limitation on further distribution? The answer is found in the OOMRO Group positions in this Report and in the industry co-chair comments and their focus on the economics of our industry.³⁹⁷

The OOMRO Group, in its position papers in Sections VII.B and VIII.B of this Report, urges the FAA to (1) require DAHs to include in ICA maintenance and repair information not necessary for the continued airworthiness of the product, and (2) prohibit DAHs from seeking to prevent improper use and unfettered redistribution of such ICA (including non-ICA instructions and repairs that they would require to be available as part of ICA). These extreme positions, contrary to longstanding FAA guidance and to the legal rights of DAHs, are transparently motivated by a desire to gain access to and use without restriction the DAHs' IP to improve the competitive position of MROs. The OOMRO Group's continued focus on commercial interests made it impossible for the ARC to even adopt an agreed definition of ICA. The industry co-chair even devotes an entire section of his comments to “safety versus economics,” noting that “economic incentives” are the motivating factor behind industry stakeholders' interpretation of the FAA's regulations.

From the TCH Group perspective, nothing could be further from the truth. The TCH Group members understand – and in fact hold sacred – their obligation to ensure operators have the information needed to maintain continued airworthiness of the aviation products they design. We understand that aviation safety is paramount and comes before any other consideration, including

³⁹⁷ The industry co-chair claims the “economic importance of the [National Airspace System]” was a central theme of ICA ARC deliberations, often opposing the other central theme of safety. The TCH Group disagrees with this characterization of the ARC deliberations. In fact, the TCH Group sought to maintain focus of the ARC's deliberations solely on safety and the critical role of ICA to continued airworthiness of aviation products. It was the OOMRO Group, and now the industry co-chair, who introduced economics and commercial competition to the deliberations through their arguments that the regulations should be interpreted to require DAHs to fully disclose repairs and all maintenance instructions without any reasonable limitations on their use or further distribution to third parties, thereby depriving DAHs of their IP rights.

competition and our economic interests.³⁹⁸ It is the OOMRO Group members who introduced “market forces” into the ARC discussions, because they want the FAA to help them compete by giving them free and unfettered access to DAHs’ IP. Rather than focus on safety and how the existing framework has been proven to support continued airworthiness, they would have the FAA upend this framework due to the economic interests of the OOMRO group – requiring DAHs to essentially publicly disclose all maintenance and repair data, regardless of whether it is ICA, to anyone who wants it for any use whatsoever, without restriction.

Should the FAA go down this path, that would create significant disharmony with the ICA rules of EASA and other leading states of design. Also, it would effectively be taking the property of DAHs to enhance the competitive position of independent MROs while at the same time disincentivizing DAH investments in innovation in cases where they cannot protect their property from improper use by their competitors. Commercial interests are outside of the FAA’s mandate. The TCH Group encourages the FAA to continue its focus on its core mission of aviation safety, maintaining this effective ICA framework while implementing the commonsense enhancements embodied in the ARC’s consensus recommendations.

The content and scope of ICA is tied by the regulations to the product certification basis

ICA are the maintenance instructions and information established by the DAH, in accordance with the applicable certification basis or airworthiness standard, that are necessary to maintain the aircraft, aircraft engine, or propeller in an airworthy condition. This flows from Part 21 and the product airworthiness standards. Section 21.50(b) establishes the duty to prepare, furnish, and make ICA available. Critically, it ties the content of ICA to the product-specific airworthiness standards by incorporating, *inter alia*, §§ 23.1529, 25.1529, 25.1729, 27.1529, 29.1529, 31.82, 33.4, 35.4, or part 26 of Chapter I Subchapter C, or the applicable airworthiness criteria for special classes of aircraft defined in § 21.17(b). These interlocking provisions define ICA by safety necessity and certification relevance. Read together, these provisions confirm that ICA content is what is necessary to preserve conformity to the approved type design and to maintain the product in a condition for safe operation over time. The rules do not transform every item of maintenance information or every repair a DAH may create into mandatory ICA for the product.

The OOMRO group urges a sweeping interpretation of ICA in which virtually all maintenance and technical publications produced by a DAH are deemed ICA, often without regard to whether those materials are necessary to maintain airworthiness or are tied to the product’s certification basis. They equate what operators want for convenience with what the regulations require. The industry co-chair doubles down on this interpretation in his comments, where he notes that the TCH Group believes “the obligation is to make ICA available, but there is no obligation to provide the instruction(s) that the *user would prefer to receive*.” The TCH Group wholeheartedly

³⁹⁸ In fact, several TCHs routinely work together for the sole purpose of enhancing aviation safety. For example, the Rotor Integrity Steering Committee (RISC) has positively impacted safety in the industry for decades, leading to enhanced industry manufacturing and inspection processes.

agrees. There is nothing in the FAA regulations – or any other certification requirement – that dictates ICA content should be based upon the operator’s or recipient’s preferences. Based on their assertions elsewhere in this report, the OOMRO Group would prefer to receive all maintenance instructions and repairs for each and every article, component, and sub-component that together comprise a product, regardless of whether such instructions or repairs are necessary for maintaining the product in an airworthy condition. But this is contrary to the regulations. The regulations require that the DAH makes the determination as to what instructions are needed for continued airworthiness of the product. The regulations also dictate the operators’ obligations to develop maintenance programs which may include ICA but also may include other maintenance instructions – and the operators then have responsibility for maintaining their products in an airworthy condition. The OOMRO Group’s interpretation disregards the text, structure, and purpose of the regulations and guidance.

In the industry co-chair’s comments, he uses as an example a leaking “sight glass” in an in-line generator where the DAH’s ICA instructs the user to replace the generator when this condition is encountered. Without reference to any regulation or guidance material, the co-chair takes the position that the DAH must provide instructions to replace the leaking sight glass seal, which may require a procedure to disassemble the sight glass and other portions of the in-line generator so the seal may be removed and replaced. However, in this example, we know nothing about the in-line generator design or whether it is even possible to disassemble the generator and sight glass, replace the seal, and reassemble it and return it to service in an airworthy condition. Perhaps there is some design feature in this generator component that would prevent it from being disassembled to that extent or prevent it from being properly reassembled after the sight glass or seal are removed from the component. But even setting all that aside, the industry co-chair in this scenario is not pointing out an issue that impacts safety or continued airworthiness. It is beyond dispute that the ICA instruction to replace the generator component maintains continued airworthiness of the aircraft. So, the industry co-chair’s example boils down to a commercial or economic problem that should be addressed commercially by the parties to a commercial transaction, not an airworthiness problem to be addressed by the FAA.

Part 21 does not define ICA in the abstract. It channels ICA content through product standards, which are themselves safety-based and certification-linked. Reading “complete” ICA in §21.50(b) to sweep in all maintenance information and repairs, or to require instructions to repair every single component or sub-component contained in a product ignores the cross-references that confine ICA to the relevant product airworthiness standards.

The regulations require DAHs to “furnish” and “make available” ICA to owners and any other person required to comply with ICA – they do not require the FAA to infringe on the rights of DAHs by allowing initial recipients of ICA to redistribute it to anyone they want to without restriction

DAHs satisfy their obligation to furnish ICA or make ICA available when they provide access to ICA to those required to comply with it, on reasonable terms, including through licensing arrangements that protect proprietary material. Nothing in § 21.50(b) requires free access or unrestricted re-distribution of ICA.

Section 21.50(b) creates two linked duties: a one-time duty to “furnish” a set of “complete” ICA to the owner, and a continuing duty to “make those instructions available” to “any other person required by this chapter to comply with the terms of those instructions.” The phrase “required by this chapter” has concrete meaning in the maintenance and operations rules that impose compliance duties on owners, air carriers, commercial operators, and authorized repair stations. FAA Order 8110.54A speaks to ICA availability in a manner consistent with § 21.50(b)’s focus on regulatory need and safety compliance.

FAA legal interpretations resolving access disputes further limit “make available” to those with an impending need, often emphasizing the repair station’s ratings, the existence of ongoing work, and the necessity of the data to accomplish the work. For example, the FAA’s 2014 Piedmont Propulsion Systems interpretation (discussed in Section VII.A) addresses, among other issues, who falls within the “persons required to comply.” In that case, to be “required to comply” the repair station had to be both currently rated to do the work and have a contract or work order to perform maintenance that requires the ICA.

The OOMRO Group would have the FAA reverse this longstanding guidance (and multilateral practice), which allows a DAH to maintain control preventing improper distribution of ICA to third parties without an impending need for it. Instead, the OOMRO Group’s interpretation of the regulations would allow an owner or operator to have zero restrictions on their ability to give the DAH’s ICA to anyone they wish to have it, regardless of whether the third person is required to comply with the ICA, and with zero restriction on how that third person then uses the information contained in the ICA. Contrary to the OOMRO position, reasonable access controls do not thwart compliance with §21.50(b).³⁹⁹

“Any other person required by this chapter to comply” has meaning that the OOMRO Group position would render meaningless. Their interpretation would turn “make available” into a general public-access mandate – depriving the DAH of any control over who receives their ICA and how their ICA is used. For example, there would be nothing to prevent misuse of ICA by a

³⁹⁹ The industry co-chair says that “DAHs may decline to establish commercial relationships with third party service providers, and even when the DAH offers an ICA licensing agreement, it is often a lengthy and costly process, which further hinders ICA access.” The regulations require a DAH to make ICA available to anyone required to comply – the chairman’s argument that a DAH may decline to do so is wrong. As the FAA has long recognized, a DAH may make ICA available in a way that also protects its IP rights. Similarly, it is well established that there can be a cost associated with ICA – as long as cost does not effectively make ICA unavailable. If a DAH declines to make ICA available, or charges such an exorbitant amount that it is constructively unavailable, then the FAA can step in and enforce the rules.

competitor to help reverse engineer a DAH's products – and nothing to prevent an operator from providing the ICA to a DAH's competitor for this very purpose.

There is no reason for the FAA to reverse decades of consistent guidance on the distribution of ICA that would inevitably cause collateral conflicts with intellectual property law and potentially trigger claims of unlawful government taking of property. Any reading of § 21.50(b) must accommodate reasonable controls consistent with IP rights, rather than presume unfettered redistribution is acceptable. The TCH approach—ensuring that those legally required to comply can obtain ICA on reasonable terms while protecting proprietary information—strikes that required balance.

Rather than completely overhaul a regulatory system that works and supports safety and continued airworthiness – a move that would result in chaos and would chill DAH innovation – the FAA can use enforcement to ensure DAHs comply with their ICA obligations

The FAA's existing investigative and enforcement tools are fully capable of resolving the OOMRO Group's complaints about ICA content or availability. If a DAH is not making ICA available to someone entitled to it under the regulations, part 13 establishes comprehensive investigative and enforcement procedures, including administrative and legal enforcement actions and civil penalties, to address such non-compliance. Within this structure, the agency can and does address specific disputes about whether a DAH's ICA content is acceptable or whether a DAH is not making ICA available to someone required to comply with it.

The targeted nature of the enforcement program is a feature, not a bug: they deliver case-by-case calibration keyed to safety outcomes and the specific regulatory duties at stake. There is no need to make wholesale changes to how ICA is created and distributed. The system works. Instead, the FAA should focus on the few bad actors who do not comply with the requirements.

The FAA should adopt the Consensus Recommendations

The TCH Group has fundamental disagreements with the OOMRO Group and the industry co-chair, whose professional interests align with that group, regarding the ICA content and distribution requirements. The TCH Group's interpretation of these requirements aligns squarely with the FAA's longstanding interpretation and guidance with respect to those requirements. The OOMRO Group's interpretation stands in stark contrast and would require extensive changes to those requirements. Those changes would, in turn, disincentivize DAHs from investing in innovative maintenance and repair methods and technologies because, in the ideal world advocated by the OOMRO Group, the DAHs would have to fully disclose that information as part of ICA, for free, and then would lose complete control over how that information could then be redistributed to anyone, anywhere, for any reason. In short, it effectively would require DAHs to publish proprietary information for the whole world to see. The TCH Group cannot envision a scenario where the FAA, whose core mission is aviation safety, would choose to involve itself in

improving the competitive position of independent MROs in this way, where the existing requirements are working just fine and there has been no safety case made for a different approach.

These disagreements, fueled by commercial interests of some industry participants, also led to missed harmonization opportunities. The ARC failed to take advantage of all the work EASA has done in recent years to clarify ICA requirements. EASA has addressed many of the items in the ARC charter and clearly set out its ICA requirements based on the safety benefit of ICA. This approach would avoid challenges to the interpretation of the regulations based on commercial interests.

Despite these disagreements and missed opportunities, the ARC was able to find common ground on a group of recommendations that gained the consensus support of the ARC. The TCH Group urges adoption of those recommendations.

In closing, the TCH Group thanks the Chairs of the ARC and all ARC voting members and participants for their professionalism, diligence, and significant efforts expended in researching, discussing, and deliberating the issues associated with the tasks assigned to this ARC in the ARC charter.

B. OOMRO Comments

1. Summary

ICA are fundamental to aviation safety and the regulatory framework governing operations in the National Airspace System (NAS). FAA rules require Design Approval Holders (DAHs) and Production Approval Holders (PAHs) to design and produce airworthy products and articles. DAHs must also develop and maintain Instructions for Continued Airworthiness (ICA). Owners and operators must ensure their aircraft remain airworthy. Certified maintainers, when performing maintenance, preventative maintenance, and alterations, must restore a product or article to its approved or properly altered design and ensure it is in condition for safe operation using methods, techniques, and practices acceptable to the FAA (e.g., ICA). This framework functions effectively only when ICA are complete and accessible, and the rules are consistently applied to all stakeholders.

Despite its longstanding recognition of the importance of ICA in aviation safety,⁴⁰⁰ the FAA's application of ICA rules is inconsistent, resulting in uneven implementation and limited enforcement.

The ARC process has highlighted a clear imbalance: While FAA appropriately scrutinizes maintenance practices used by operators and repair stations, there is limited evidence of comparable oversight of DAH obligations under § 21.50(b). Moreover, there are no documented instances of a DAH being subject to enforcement action pursuant to part 13 for violating § 21.50(b). Further, in practice, existing processes have not consistently resolved stakeholder concerns or provided transparency into complaint outcomes.

The agency has said restrictive access or use agreements are “unacceptable” and has stated that a DAH may not “avoid its obligations under FAA regulations by entering into contracts that conflict with regulations.”⁴⁰¹ The implementing rules⁴⁰² require that ICA (including distribution methods) be “acceptable to” the Administrator. However, these principles have not been consistently enforced in practice. Through inaction, the FAA has allowed the proliferation of “unacceptable” restrictive practices. As a result, the industry continues to face:

- Licensing restrictions that limit the ability of authorized parties to share ICA; and
- Fee structures that can make ICA constructively unavailable.

⁴⁰⁰ See Section IX.B.2, below.

⁴⁰¹ Letter from FAA Deputy Chief Counsel James W. Whitlow to Ronald M. Mrozek, GE Engine Services, Dec. 13, 1999.

⁴⁰² See, e.g., 14 CFR 25.1529.

Owners, operators, and repair stations have urged the FAA to address these challenges for decades.⁴⁰³ A common understanding of ICA requirements is essential for safety, compliance, operational efficiency, and enforcement across the aviation system.

After more than two years of discussions, the ARC has provided valuable analysis and identified opportunities to improve both regulations and policy; however, the ARC could not reach consensus on the two most fundamental issues: what constitutes ICA and to whom and how those instructions must be made available. These issues directly affect the ability of regulated entities to meet their safety obligations. It is therefore imperative that the FAA, as the agency responsible for the safety of the NAS, definitively answer those questions.

The *agency's* rules require DAHs to provide ICA that are sufficiently detailed to enable owners, operators, and maintenance providers to fulfill their regulatory obligations.⁴⁰⁴ The ICA for the product must include the maintenance data for parts that are essential to the continued airworthiness of the aircraft. Further, any system or part required for type certification or supplemental type certification or for operations in the NAS⁴⁰⁵ is inherently essential to continued airworthiness and must be addressed in ICA.

If parts and appliances are installed to obtain design approval, the ICA must be provided for them. The TC/STC holder may provide the information, or refer to the supplier, but in either event, the ICA must include the scheduling, troubleshooting, and corrective actions necessary to maintain airworthiness.

The argument that ICA are intellectual property and/or trade secrets is a red herring.⁴⁰⁶ Copyright protection for ICA is limited by the Fair Use Doctrine because the FAA requires compliance with ICA. Similarly, the trade secret argument is invalid because ICA must be made available (to those parties described in § 21.50(b)) and cannot be withheld from persons who are required to comply with those instructions (thus they cannot be “secrets” with respect to those persons).

The suggestion that DAHs have an obligation to ensure ICA is only made available to repair stations the DAH determines should perform the work is contrary to the law; only the FAA has the statutory authority to make the determination that the repair station has the proper qualifications through the certification process and by issuing ratings.⁴⁰⁷

⁴⁰³ As an example, a timeline of the Aeronautical Repair Station Association's ICA engagement since 1999 is available at <https://arsa.org/regulatory/faa/design/ica-efforts/>.

⁴⁰⁴ These issues are discussed in Section 3 below and in more detail in the OOMRO Subgroup Position Paper on ICA Content in Section VII.B.

⁴⁰⁵ See, e.g., equipment requirements in part 91, subpart C.

⁴⁰⁶ These issues are discussed in Section IX.B.3 below and in more detail in the OOMRO Subgroup Position Paper on ICA Availability in Section VIII.B.

⁴⁰⁷ See, e.g., “Request for Legal Interpretation Concerning (1) Whether a Design Approval Holder (DAH) May Restrict the Availability of the Details of Mandatory Inspections and Repairs that are Part of the Instructions for

The FAA is responsible for overseeing the safety of the NAS; consistent application of ICA content and availability rules are essential to safety and efficiency. Given the duration and persistence of these challenges, it is now appropriate for the FAA to provide clear regulatory direction regarding ICA content and availability in the public interest

2. ICA Regulatory History

The FAA has required DAHs to provide maintenance information as a condition for certification for more than 80 years. The Civil Aeronautics Administration (CAA), the FAA's predecessor, adopted the first maintenance documentation requirements for a type certificated product in 1941 with § 13.32 ("Manufacturer's Instructions") in part 13 (Aircraft Engine Airworthiness) of the Civil Air Regulations (CAR). Sec. 13.32 required TCHs to:

within a reasonable time after receiving such certificate, prepare and submit for approval by the Administrator suitable instructions for the installation, operation, servicing, maintenance, repair and overhaul of the type certificated engine model or models. The holder of a type certificate shall make the approved instructions available to persons engaged in the operation, maintenance, repair or overhaul of engines manufactured under such certificate and shall prepare, submit for approval, and make available such revisions to the instructions as are found advisable from service experience.

In the following decades, maintenance data requirements were expanded to rotorcraft, propellers, and airplanes until the FAA finally adopted § 21.50(b), and related product-specific ICA requirements, in 1980.⁴⁰⁸ The agency explained in the rulemaking that the proposed changes would "ensure that those persons needing the Instructions for Continued Airworthiness and the changes thereto will have that information available."⁴⁰⁹

The development of the requirement that maintainers use manufacturer maintenance data parallels – and is connected to – the development of ICA rules. The earliest reference is a 1938 rule, which mandated that repairs and overhauls of certificated engines must be done pursuant to recommendations in the manufacturer's instructions.⁴¹⁰ A 1941 rule required agency approval of all major repairs and alterations not done in accordance with a manual or specification approved by the Administrator.⁴¹¹ By 1952, repair stations were required to maintain in current condition all manufacturer service manuals, instructions, and service bulletins pertaining to parts undergoing repair or alteration.⁴¹² And in 1980, § 43.13 was adopted in conjunction with the new

Continued Airworthiness (ICA) to Require that those Inspections and Repairs be Performed Only at a DAH-Specified Facility, and (2) What Can the FAA Do to Enforce the 14 CFR § 21.50(b) Requirement that Design Approval Holders Provide Instructions for Continued Airworthiness (ICA) to Persons Required to Comply with Those Instructions", Letter from FAA Assistant Chief Counsel for International Law, Legislation, and Regulations to Mike McPhaul, Piedmont Propulsion Systems, LLC (March 31, 2014).

⁴⁰⁸ 45 Fed. Reg. 60154 (Sept. 11, 1980).

⁴⁰⁹ 40 Fed. Reg. at 29412 (July 11, 1975).

⁴¹⁰ CAR § 18.7221.

⁴¹¹ CAR § 18.51.

⁴¹² CAR § 18.11.

ICA rules and established that maintenance, alteration or preventive maintenance must be performed in accordance with the current manufacturer's maintenance manual or ICAs, or other methods, techniques, and practices acceptable to the Administrator, except as noted in § 43.16.

Put simply, in establishing the current continued airworthiness system, the FAA clearly intended to ensure the availability of more (not less) comprehensive ICA and the use of that ICA by persons working under part 43. In the years since, guidance has proliferated without updating the regulations. In many cases, the guidance is not followed (e.g., prohibition on licensing restrictions), and the FAA has yet to enforce its interpretation of the rules.

3. Owner, Operator, and Maintainer Experiences and Advocacy Efforts

Owners, operators, and maintenance providers have a long history of engagement with the FAA on ICA issues, and, in many cases, the FAA has recognized the merits of the community's arguments in issuing its guidance. Compliance and enforcement, meanwhile, have not materialized in any significant or comprehensive manner.

FAA guidance strives for certainty: A 1999 FAA legal interpretation requested by GE Accessory Services, a certificated repair station, addressed British Aerospace's (BAe) failure to provide ICA for seven airframe components of the BAe-146 aircraft. FAA Deputy Chief Counsel James Whitlow wrote that:

BAe may not avoid its obligations under FAA regulations by entering into contracts that conflict with regulations. Furthermore, the fact that BAe and some of its vendors have supplied the original owners or operators with ICAW would not obviate the design approval holder's obligation to also provide ICAW "thereafter ... to any other person required to comply" with any of the terms of the ICAW.⁴¹³

A 2003 FAA legal opinion issued to Alcor Engine Company identified four conditions for ICA to be provided to authorized requesters by DAHs:

- 1) Application for the latest related type certificate (original, amended, or supplemental) was made after 01/28/81.
- 2) The latest related certification basis includes 21.50 as amended 09/11/80 or later ... i.e., the certificate holder was required to develop (furnish) ICA as part of the certification process.
- 3) The requester (repair station) of the ICA is currently rated for the product/part and is required by Chapter 1 of 14 CFR to comply with ICA from the product/part.
- 4) If the ICA data requested is a component maintenance manual (CMM) or specific repair information, the CMM or repair information is referenced in higher-level ICA

⁴¹³ Letter from FAA Deputy Chief Counsel James W. Whitlow to Ronald M. Mrozek, GE Engine Services, Dec. 13, 1999.

(airplane or engine ICA) as the appropriate source of information for continued airworthiness actions.⁴¹⁴

In a 2012 legal interpretation issued to the Aeronautical Repair Station Association (ARSA), FAA Assistant Chief Counsel for Regulations Rebecca MacPherson confirmed that (1) all component maintenance manuals referenced in the airworthiness limitations section are part of the ICA and subject to § 21.50(b), (2) modifications or changes to the ALS made after January 28, 1981 are changes in type design which trigger the requirement of § 21.50(b), and (3) a properly rated repair station with a need to comply with the ALS (*i.e.*, a repair station in possession of a component to be worked on) or a repair station with some other indicia of the need for the ALS for the component, *i.e.*, a contract, a work order, etc.), which would demonstrate such need, is “any other person required by this chapter to comply” with these instructions.⁴¹⁵

The letter also repeated a statement of the intent of § 21.50(b) included in a policy memorandum by the FAA’s Aircraft Engineering Division released in March 2012:

The intent of § 21.50(b) is to provide for the development and distribution of the information necessary to maintain products in an airworthy condition. The scope of who ICA is distributed to is limited to owners/operators and those authorized by the FAA to perform maintenance on those products (or components thereof). It is not intended to require that ICA be made available to any person seeking ICA for purposes other than preventive maintenance, maintenance, or alteration, unless that person has a regulatory requirement to comply with the terms of ICA.⁴¹⁶

Despite these definitive statements, multiple complaints regarding ICA availability have been filed and gone unaddressed by the agency.⁴¹⁷ Even in cases in which the FAA determined that DAH conduct violated § 21.50(b) and the agency stated that enforcement action would be taken, the agency did not do so.⁴¹⁸

The proliferation of DAH restrictive practices in the face of the agency interpretation underscores the FAA’s failure to enforce its ICA regulations and the need to do so.

⁴¹⁴ Letter from FAA AGC-12 Manager Richard McCurdy to David Rain, Alcor Engine Company, Inc., April 14, 2003.

⁴¹⁵ “Request for Legal Interpretation Concerning Availability of Component Maintenance Manuals Referenced in Airworthiness Limitations Sections of Instructions for Continued Airworthiness”, Letter from FAA Assistant Chief Counsel for Regulations Rebecca MacPherson to Sarah MacLeod, Aeronautical Repair Station Association, Aug. 9, 2012.

⁴¹⁶ *Id.*

⁴¹⁷ See, *e.g.*, ARSA complaints dated Oct. 3, 2003, Nov. 23, 2005, and Feb. 29, 2008, available at <https://arsa.org/regulatory/faa/design/ica-efforts/>.

⁴¹⁸ See Letter from FAA Assistant Chief Counsel for International Law, Legislation, and Regulations to Mike McPhaul, Piedmont Propulsion Systems, LLC, note 407, *supra*.

4. Questions for the FAA

The ARC has sought consensus for more than two years but the DAH and OOMRO communities were unable to reach alignment in their understanding and interpretation of the ICA rules. The FAA must therefore answer two fundamental questions to provide much-needed regulatory certainty for all stakeholders: What comprises ICA and how and to whom must ICA be made available.

a. What comprises ICA?

Owners, operators, and maintainers agree ICA must:

- Provide them sufficient detail to fulfill their regulatory obligations to return an article to at least its original or properly altered condition.
- Be in the form of methods, techniques, and practices necessary to clean, inspect, repair, or replace as necessary, reassemble, and test an article and specify task intervals and the method of compliance.
- Include maintenance data for all appliances and parts that are essential to the aircraft's continued airworthiness. If an article must be installed to obtain design approval or is required to obtain an airworthiness certificate from the FAA, it is inherently essential to airworthiness and must be covered by the ICA.
- Be complete regardless of source. The fact that a supplier and not the TC/STC holder developed the maintenance instructions is immaterial; it is the TC/STC holder's regulatory responsibility to ensure the ICA is available.
- Differentiate between ICA and non-ICA. If ICA are included within broader documentation, those portions must remain accessible.
- Be maintained and kept current. ICA is also dynamic and, as it is amended during the product's lifecycle, updates must be made available just as ICA provided at aircraft delivery. This is particularly important as aircraft technologies evolve more rapidly and Safety Management Systems and AI are deployed more widely to identify additional safety risks.

The agency must also clarify the implications of the word "recommended" when used in the context of DAH recommended actions in ICA. As described above, the term has been used for almost a century and was introduced in the 1938 rule mandating certificated engine repairs and overhauls be done pursuant to recommendations in the manufacturer's instructions. While other terminology has been made consistent across the regulations, FAA has neglected to ensure that ICA terminology is similarly aligned.

b. How and to whom must ICA be "made available"?

Section 21.50(b) requires product TC or STC holders to "furnish" a complete set of ICA to the owner of the product upon delivery or upon issuance of the first standard airworthiness for the

affected aircraft, whichever occurs later.⁴¹⁹ Thereafter, the DAH must make those instructions (and any changes) “available to any other person required by this chapter to comply with any of the terms of those instructions.” Making ICA available is therefore not just a question of ICA contents, but also a question of “to whom” and “how.”

The notion that the operator of an aircraft or that a repair station or mechanic certificated by the agency to perform maintenance in accordance with ICA could be denied access is contrary to logic and the intent of the FAA’s rules. Part 91 requires owners and operators to ensure the airworthiness of their aircraft and part 43 requires certified maintainers to use data acceptable to the Administrator. That data is the ICA.

The plain language of the regulation is clear and provides all the authority the agency needs to enforce § 21.50(b). However, the question of how the data is made available is not stated in the regulations. The rule is silent on the questions of price and terms of access. All that is clear is that the ICA must be made available. Anything that makes it unavailable violates the rule. This includes constructive unavailability, in which the price charged is so high that it becomes an economic disincentive to purchase the ICA.

The argument that ICA may legally be withheld because it constitutes intellectual property and/or trade secrets is without merit.⁴²⁰ Where ICA are protected by a valid copyright, the courts have explicitly concluded that the Fair Use Doctrine permits copying for certain purposes, including aviation maintenance.⁴²¹ Once an idea or method is set down on paper, copyright laws protect the text used to express the idea or method but they do not confer any exclusive rights with respect to the use of those ideas or methods.⁴²² Similarly, ICA cannot be considered a trade secret. Information generally known within a relevant industry⁴²³ and information that can be discovered by fair and honest means is not a trade secret.⁴²⁴ Section 21.50(b) requires ICA to be made available to persons required to comply. It can therefore be legally acquired by fair and honest means by persons entitled to receive it and cannot be considered secret.

By availing themselves of the FAA certification process, DAHs have entered into a social contract with the American people: In exchange for the public investment in the resources associated with granting a TC or STC and conducting ongoing oversight of the DAH’s product (even if the DAH ceases to exist), the DAH agrees to certain conditions established by the government. Among these is abiding by regulations designed to keep aircraft airworthy and

⁴¹⁹ The OOMRO perspective on ICA availability is addressed fully in Section VIII.B.

⁴²⁰ See expanded discussion in Section VIII.B.

⁴²¹ See *Gulfstream Aero. Corp. v. Camp Sys. Int’l*, 428 F. Supp. 2d 1369, 1377-78 (S.D. Ga. 2006).

⁴²² *Santilli v. Cardone*, 88 U.S.P.Q.2D (BNA) 1685, 2008 U.S. Dist. LEXIS 88668 at *8 (M.D.FL. 2008) (“The Copyright Act contains no prohibition against the use of another’s ideas”); *Boyle v. United States*, 44 Fed. Cl. 60, 63 (1999) (“a copyright does not preclude others from using ideas found in a copyrighted work”).

⁴²³ *American Paper & Packaging Products, Inc. v. Kirgan*, 183 Cal.App.3d 1318, 1326, 228 Cal. Rptr. 713, 718 (1986).

⁴²⁴ *Chicago Lock Co. v. Fanberg*, 676 F.2d 400, 404 (9th Cir. 1982).

passengers, cargo, and mail on those aircraft safe. And among these is the requirement to make ICA available to those required to comply.

ICA are a regulatory obligation and should not be profit center for the DAH. However, the prices charged for ICA become a revenue source and the restrictions on sharing limit who can perform the work, often to certificated entities approved by the manufacturer. The FAA must enforce its ICA rules to ensure all individuals required to comply – not just those chosen by the DAH – have access to the information necessary to maintain airworthiness.

5. Other Owner, Operator, and Maintainer Recommendations

Owners, operators, and maintenance providers urge the FAA to align its policy with this perspective to fully advance the agency’s core safety mission. Ensuring that all regulated parties have reliable, timely access to complete ICA is not simply beneficial—it is essential to maintaining safety and compliance across the system. The current regulatory framework already reflects this principle, assigning DAHs responsibility for developing and making ICA available, while holding owners, operators, and maintainers accountable for their proper use.

What is needed now is clear, consistent direction on ICA content and availability, applied uniformly across all stakeholders. Doing so will resolve longstanding uncertainty, drive more consistent compliance, and significantly strengthen the FAA’s oversight of continued airworthiness. Addressing these issues decisively will ensure that ICA are both complete and accessible to those responsible for maintaining safety—reinforcing the integrity of the regulatory system and directly supporting the shared objective of protecting the flying public.

X. Chairman's Comments

This section contains the observations and reflections of the Industry Chairman and does not represent consensus views of the ARC. Readers should note that these comments differ from and directly conflict with the many stakeholder positions detailed in Sections VII through IX.

The United States operates the largest, most complex, and—by multiple metrics—the safest airspace system in the world. Built on layers of rigorous regulation, advanced technology, and a deeply embedded safety culture, the National Airspace System (NAS) has achieved accident rates that remain among the lowest globally, even as demand for air travel continues to grow. This safety record reflects decades of coordinated effort among federal agencies, airlines, aircraft owners, manufacturers, maintainers, airports, and aviation professionals who treat safety as the system's defining priority.

Aviation is also a critical engine of the U.S. economy, enabling the rapid movement of people, goods, and services that underpin national and global commerce. It is estimated that aviation supports over 11 million jobs across numerous sectors and contributes hundreds of billions of dollars to the national GDP. Thus, the NAS plays a central role in maintaining U.S. economic competitiveness and mobility.

The safety and economic importance of the NAS were two central, though often opposing, themes of the ICA ARC deliberations. The concept that aircraft owners, operators, and maintainers must be provided with some set of information to maintain safety in the NAS was not controversial, nor was the understanding that DAHs need to earn healthy returns on their billions of dollars of annual investment into new, safer, and more efficient products and technologies. However, the devil is in the details. The ARC couldn't even reach consensus on the meaning and relative importance of the terms "safe," "airworthy," and "essential to continued airworthiness," thus preventing the ARC from coalescing around one core objective from which the bounds for further debate could be formed. As such, the required depth and breadth of ICA were hotly contested, as were the terms and conditions under which such instructions would be distributed. These debates featured arguments influenced by the significant resources invested by DAHs, the economic value of maintenance information, competitive pressures, and related aspects of intellectual property law.

As the ARC deliberated these safety and economic considerations, two distinct industry positions emerged: the (1) TCH group position and (2) the OOMRO group position.⁴²⁵ These two groups hold vastly different interpretations of the existing regulatory obligations. Because of these differences, it was impossible for the committee to have any productive debate over material changes to the regulations to describe ICA content or availability. Instead, the ARC's subgroups each coalesced around their positions concerning the fundamental ICA issues, such as required

⁴²⁵ As defined in Section I.

ICA content, ICA availability, and FAA’s oversight/compliance/enforcement. Each of these is discussed below in turn.

Required ICA Content

Although there are two separate and distinct industry positions regarding the ICA content required by the existing regulations,⁴²⁶ the TCH and OOMRO positions are not necessarily mutually exclusive. When applying for a design approval, the DAH must perform an extensive analysis to demonstrate compliance with the applicable airworthiness standard(s). ARC stakeholders generally agree that, in the process of completing this analysis, the DAH generates information that determines what instructions must be included in the product or article’s complete set of ICA. ARC stakeholders also agree that the same analysis must be performed when a DAH makes a design change that could lead to ICA changes.

Whether the product is an aircraft, aircraft engine, or aircraft propeller, all of the airworthiness standards require ICA to contain “troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.”⁴²⁷ The regulations define a “probable failure condition” as one that is expected to occur once or more during a product’s life cycle.⁴²⁸ The analysis that the DAH performs to identify various types and probabilities of failure conditions is used to develop the list of probable malfunctions for which certain instructions must be created. For failure conditions that would result in hazardous (or worse) conditions, the resultant instructions must be included in the FAA-approved Airworthiness Limitations Section (ALS). All ARC participants agree that the ALS is part of ICA. For all other probable malfunctions, the regulations require that description, recognition, and remediation instructions be created and included in ICAs that are acceptable to the FAA. ARC participants also agreed that this information is required ICA, and DAH participants reported that they dutifully meet this requirement for their products.

Although the requirement to provide ICA for probable malfunctions was not a controversial issue per se, controversy did arise with respect to what constitutes an appropriate remediation instruction. This controversy can be roughly characterized as the “repair-versus-replace” debate, where in some cases, the remedial action could include a method, technique, or practice that restores airworthiness to the malfunctioning item (i.e., repair instructions); while in other cases, the remedial action could be to provide instructions to remove the malfunctioning item, discard it, and replace it (i.e., replace instructions). ARC participants all agreed that prescriptive regulations would not be helpful in resolving the repair-versus-replace debate because both DAHs and OOMROs need flexibility to meet the specific technical attributes of the product or article in question, as well as evolving operational demands. Indeed, the ARC’s attempts to parse

⁴²⁶ See TCH and (separately) OOMRO position papers in Section VII.

⁴²⁷ See, e.g., 14 CFR H25.3(b)(2).

⁴²⁸ See, e.g., 14 CFR 25.4.

the meaning of repair-versus-replace proved unhelpful due to the practical and regulatory interconnectedness of those terms and related actions.

In many cases, however, the repair-versus-replace debate might be a red herring. For example, during one such debate, an ARC participant representing the OOMRO community gave an example of a common issue regarding an in-line generator for a certain airplane. These airplanes were frequently unairworthy because a sight glass would leak. The DAH's ICA provided a remedial action for this malfunction: replace the entire in-line generator. Subsequent ARC debate centered on whether generator "repair" instructions were required instead of the "replace" instructions.

Despite many OOMRO participants lobbying for "repair" instructions, I assert that in this case the operator really needed and wanted "replace" instructions. The debate should have been: "what is the malfunction?" The malfunction is the leaking sight glass seal. Per existing ICA regulations, the DAH must provide an instruction to remediate the common (and therefore "probable") sight glass seal malfunction. Typically, this would take the form of instructions to replace the sight glass seal, which may include a procedure for the user to disassemble the sight glass (and perhaps other portions of the in-line generator, if necessary) to the point that the faulty seal can be removed, discarded, and replaced with new. The ICA would also need to include instructions to reassemble the sight glass and/or generator. There may be other necessary instructions, as well, depending on the product, article, and part, such as test instructions that would confirm whether or not the part replacement was carried out successfully.

Ultimately, this seal replacement would likely be a maintenance event performed under Part 43, so perhaps one might call this seal replacement a "repair" of the in-line generator. These terminology semantics proved insurmountable for the ARC to resolve within its designated timeline. Nevertheless, in this report, the ARC thoroughly documented the various considerations and industry positions. The FAA will need to look beyond the meaning of the terms "repair" and "replace" to ensure that appropriate ICA exist to adequately address the root cause of each probable malfunction.

The ARC reached the same repair-versus-replace debate when considering other regulatory requirements, such as the requirement for "scheduling information" (including the "work recommended" at such schedules); or the engine and propeller requirement regarding "worn or otherwise substandard" parts. As with the troubleshooting regulation, the sentiment of the ARC is that ICA regulations should not be prescriptive in these areas either. All of these existing regulations regarding ICA content are performance-based, providing both the DAH and OOMRO community with flexibility, while empowering FAA to ensure safety.

"Scheduling Information for each part..."⁴²⁹ is either (1) a preventative schedule recommended by the DAH to perform some sort of maintenance event (including, but not limited to, parts

⁴²⁹ See, e.g., 14 CFR H25.3(b)(1).

replacement) before a malfunction is expected to occur, or (2) simply defaults to the troubleshooting rule, i.e., becomes an “on condition” schedule that provides the recommended remedial action whenever the malfunction occurs.

Similarly, where the regulations mandate an engine and propeller requirement for “details of repair methods for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary,”⁴³⁰ the engine or propeller DAH needs to provide instructions not just for malfunctions or scheduled recommendations, but also for addressing “worn or otherwise substandard” parts that might not yet be malfunctioning. Such engine and propeller parts instructions would presumably need to provide inspection criteria so that the user knows when the part has become “worn or otherwise substandard” along with the recommended action to address the wear or substandard condition. The recommended action could be a method, technique, or practice to restore the part to an acceptable condition, perhaps depending on certain inspection criteria. Even if a method, technique, or practice to restore airworthiness is provided, ICAs would also likely need to provide instructions to discard and replace all parts in case of extreme wear that has no other safe remedy.

The ICA regulations also use the word “recommended” in various sections (e.g., ICA shall contain instructions for the action recommended by the DAH). When considering recommended actions, the ARC grappled with two questions:

- If the DAH has developed multiple corrective actions for an identified failure or malfunction, which of those actions should be deemed the *recommended action* for the purpose of complying with the regulation?
- Is it acceptable for the *recommended action* to vary based on the status of the user (e.g., preferred users receive one set of instructions, while other users receive a different set of instructions)?

From the TCH group’s perspective, the obligation is to make ICA available, but there is no obligation to provide the instruction(s) that the *user would prefer to receive*. The OOMRO view stands in fierce and absolute opposition – the DAH’s preferential method is the recommendation. The ARC was unable to reconcile the conflict between these opposing views, but each position and supporting rationale is detailed in Section VII for the FAA’s consideration.

ICA Availability

Another area of disagreement between the TCH and OOMRO groups was ICA availability. While there was a lot of common ground on which the FAA could base decisions about required ICA content, the industry position papers⁴³¹ do not provide much commonality regarding ICA availability. There is a significant gap between the TCH community’s interpretation of “make

⁴³⁰ See, e.g., 14 CFR A35.3(b)(4).

⁴³¹ See Section VIII.

available” and that of the OOMRO group, particularly with respect to cost and licensing of ICA where the two positions are polar opposites.

The ARC participants agree that owners, operators, and certain maintainers are persons required to comply, and thus entitled to ICA in accordance with the “make available” requirement in § 21.50(b). However, other categories of “persons” did not achieve consensus support. Specifically, the TCH group is opposed to allowing the owner or operator of a product or article to provide ICA to third parties, preferring instead that third parties contract directly with the DAH for ICA access. The OOMRO participants object, noting that DAHs may decline to establish commercial relationships with third party service providers, and even when the DAH offers an ICA licensing arrangement, it is often a lengthy and costly process, which further hinders ICA access.

The ARC’s OOMRO participants further assert that availability of ICAs has been shrinking for decades despite the FAA’s clear objective to *increase* the level of information available as stated in the 1980 amendment to § 21.50(b).⁴³² The TCH community would counter that the level of information available to OOMROs is greater than ever, but not necessarily required to be provided under the regulations. Instead, the TCH stakeholders state that this expanded scope of information can be made available via commercial agreements. Consequently, the FAA will need to review and understand the two opposing positions and determine the appropriate interpretation of the rules.

ICA Oversight, Compliance, and Enforcement

Not only do the ARC’s stakeholder groups hold opposing interpretations of ICA regulations, these groups also noted differing opinions among the FAA representatives who participated in ARC discussions. This inconsistency in FAA’s interpretations of its own ICA regulations further hindered the ARC’s ability to discuss potential clarifications or updates to ICA regulations in accordance with the ARC’s charter.

The subject-to-interpretation nature of ICA regulations highlights the importance of the FAA’s role as the regulator. FAA employees will need to continue to use their best judgement to consistently assess the appropriateness and completeness of each product or article’s ICA, and the agency must compel additional information if a DAH’s ICA is deemed inadequate. If the FAA determines ICA to be insufficient, either during initial certification or at any point in the product/article’s life cycle, the agency has the authority to deem the ICA unacceptable to the Administrator and mandate that the DAH make changes to bring ICA into compliance.

While there is no disagreement regarding the FAA’s authority to perennially assess ICA adequacy, the TCH and OOMRO groups report differing experiences with regard to how FAA

⁴³² 40 FR 60157, September 11, 1980, stating that “the FAA has found that the recommended maintenance procedures made available under current regulations are frequently inadequate in scope and content, and often do not provide a sound basis for the operator/owner to maintain the airworthiness of the aircraft.”

exercises this authority. The OOMRO community, in particular, expresses considerable frustration and considers the FAA's compliance and enforcement regime to be lacking, specifically with respect to how ICA complaints are received and resolved. The TCH group considers ICA oversight to be adequate, including FAA's Part 13 process, which provides a specific procedure for addressing ICA (and other) complaints. Despite these differing experiences, the full ARC recommended that the FAA identify and clarify its process for addressing complaints about ICA content and availability⁴³³ with all participants agreeing that a lack of consistent enforcement would render the regulations ineffective and threaten both public safety and the industry's prosperity.

Safety Versus Economics

The FAA's statutory mandate is to regulate civil aviation for the purpose of protecting public safety. That said, the FAA cannot escape the fact that its safety-centric regulations have both direct and indirect effects on the economics of aviation. This does not render such FAA regulations unlawful; indeed, the United States has authorized dozens, if not hundreds, of agencies (the FAA included) to promulgate regulations where unchecked free markets might harm the public good.

This ARC's charter asked actors in the civil aviation market to come together and (among many other tasks) define ICA and several related terms, distinguish between safety and commercial interests, and address ICA cost and intellectual property matters. We failed to reach consensus on these topics despite expending well over 20,000 person-hours exploring them in detail. The real obstacle here was that industry was tasked with an impossible assignment: regulate itself. It can't. Different stakeholder groups have different – and often directly opposing – economic incentives that always and forever will prevent industry consensus on these charter tasks.

This report includes well-developed and -supported positions from the two stakeholder groups, but ultimately hands the charter assignments back to the regulator. The FAA exists to regulate public safety because opposing market forces prevent industry from regulating itself.

With regard to ICA, specifically, the agency has required that such instructions must be prepared, furnished and made available in order to prevent the information asymmetry that would otherwise inhibit various members of the NAS from being able to verify and maintain the airworthiness of aviation products.

The FAA necessarily stands at the intersection of competing safety and economic interests. The agency may seek to be competitively neutral, but this is often an impossible objective. Most, if not all, FAA regulations impose some sort of cost or constraint on at least one industry stakeholder group. Each regulation may disadvantage some, while helping others. Indeed, the requirement to create and furnish ICA imposes costs on DAHs, while benefiting the aircraft

⁴³³ See Consensus Recommendations 9 and 10 in Section V.D.

owner who receives the ICA. Depending on how the FAA interprets and enforces § 21.50(b), the conditions imposed on the requirement to make ICA available could impose considerable costs on operators and maintainers,⁴³⁴ provide tremendous net benefits to those same stakeholders,⁴³⁵ or some combination of the two.

ICA regulations have already survived the cost-benefit scrutiny of the rulemaking process, and the rules are currently imposing costs and providing benefits throughout industry. FAA can neither avoid this, nor can the agency ensure that costs and benefits are always balanced for every affected stakeholder.

Regardless of one's commercial viewpoint, it cannot be denied that ensuring broad distribution of appropriate ICA is essential to maintaining a system in which every aircraft is maintained to the standards envisioned by its designers and required by regulation. Enforcing the rules consistently strengthens the integrity of the NAS and helps the FAA meet its statutory duty to place safety above all other considerations. It is in this moment that the FAA's role as regulator is paramount. The FAA will need to review and understand the two opposing positions and determine the appropriate interpretation of the rules using safety of the NAS as the core value upon which its decisions are based.

The Industry Chairman extends his sincere appreciation to all participants who contributed to the development of this report. Their expertise, thoughtful analysis, and sustained engagement were essential to examining the ICA regulatory framework and to presenting clear, well-supported proposals and recommendations. The collective effort of aircraft owners, operators, maintainers, manufacturers, and other subject matter experts strengthened the quality and credibility of the committee's work, and their commitment to constructive dialogue reflects the shared goal of supporting safety across the NAS. It has been an honor to serve this ARC.

A special note of gratitude is owed to Patrick Markham, who volunteered his time to share the burden of Industry Chairman duties. Pat attended nearly every single ARC meeting, including all working group meetings, subgroup meetings, and Co-Chair team meetings, while also spending countless additional hours outside of the ARC's official schedule to perform research, prepare presentations and report content, and track ARC action items. The ARC would not have been possible without Pat's efforts. Thank you, Mr. Markham!

⁴³⁴ See TCH position paper in Section VIII.A.

⁴³⁵ See OOMRO position paper in Section VIII.B.

Appendix A – ARC Members/Participants

Note: This list includes only active members/participants at time of report submission.

FAA & Industry Co-Chairs	Organization
Erik Brown	FAA
Josh Krotec	First Equity
Members	Organization
Christian Klein	Aeronautical Repair Station Association
David Le Maux	Aerospace, Security & Defence Industries Association of Europe
Stewart D’Leon	Aerospace Industries Association
Ric Peri	Aircraft Electronics Association
Jim Coon	Aircraft Owners and Pilots Association
Justin Madden [primary]	Airlines for America
Kevin Berger [alternate]	Airlines for America
Mark Schuster	Air Methods
Tim Brown	American Airlines
Mary Fox	Boeing
Jennifer Thibodeau	Cargo Airline Association
John Green	Chromalloy
Kate Guinn	CTS Engines
Lucas Cardoso da Silva Moraes	Embraer
Tom Charpentier	Experimental Aircraft Association
Paul Mast	Garmin
Joseph Sambiasi	General Aviation Manufacturers Association
Richard Dubell [primary]	GE Aerospace
Doug Hensley [alternate]	GE Aerospace
Jamie Moss	Gulfstream
Kemal Simsek	HAECO
Stephen Szpunar	HEICO
Kevin Raub	Honeywell
Chris Markou	International Air Transport Association
Jason Dickstein	Modification and Replacement Parts Association
George Paul	National Air Carrier Association
Hector Huezo	National Air Transportation Association
Joe Hertzler (Thoroughbred)	National Business Aviation Association
John Goglia	Professional Aviation Maintenance Association

Members	Organization
Terry Butler (Envoy Air)	Regional Airline Association
Keith Morgan (P&W)	RTX Corporation
Alyssa Birmingham [primary]	Textron
Elisabeth Archibald [alternate]	Textron
Sean Oldham	United Airlines
Amber Harrison	Vertical Aviation International
Erik Vogt	Vogt Aero

Participants	Organization
Sarah MacLeod	Aeronautical Repair Station Association
Antoin Asius (Safran)	Aerospace, Security & Defence Industries Association of Europe
Harry Batoul (Safran)	Aerospace, Security & Defence Industries Association of Europe
Jean-Manual Ferreira (Safran)	Aerospace, Security & Defence Industries Association of Europe
Wolfgang Feyrer (Airbus Helicopter)	Aerospace, Security & Defence Industries Association of Europe
Benoit Gade fait (Safran)	Aerospace, Security & Defence Industries Association of Europe
Michael Kanter (Safran)	Aerospace, Security & Defence Industries Association of Europe
Laurent Lalaque-Guiraute (Safran)	Aerospace, Security & Defence Industries Association of Europe
Bryan Larimore (Safran)	Aerospace, Security & Defence Industries Association of Europe
Pascal Monsieur (Safran)	Aerospace, Security & Defence Industries Association of Europe
Chris Rawden (Rolls-Royce)	Aerospace, Security & Defence Industries Association of Europe
Jonathan Allen (FedEx)	Airlines for America
Sofiane Benchabla (Air Canada)	Airlines for America
Christian Daoud (JetBlue)	Airlines for America
Shannon Ferrington (Southwest Airlines)	Airlines for America
Mandy Lucke (Southwest Airlines)	Airlines for America
Ray Romesburg (Delta)	Airlines for America
Morgan Schweinzger (Southwest Airlines)	Airlines for America
Mark Watton (Delta)	Airlines for America
Mark Wibben (Southwest Airlines)	Airlines for America
Leo Morrisette	Air Methods
Jason Quisling	Air Methods
Christopher Reeves	American Airlines
Cory Pearce	American Airlines
Walter Desrosier	Boeing

Participants	Organization
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Rebecca Hinman	Boeing
Kelly Kyes	Boeing
Charles Raley	Boeing
Kristina Ringland	Boeing
Daniel Sullivan	Boeing
Buddy Cusick	Chromalloy
Mike Hitt	Chromalloy
Amanda Sanders	Chromalloy
Aaron Albold	Embraer
Antônio Lopes Cançado Júnior	Embraer
Claudinei da Silva Casagrande	Embraer
Michael Klevens	Embraer
Natalia Rebello Moreira	Embraer
Rodrigo Fernandes Santos	Embraer
Rafael de Paula Teixeira	Embraer
Rob Hackman	Experimental Aircraft Association
Kai Odenthal	Garmin
Jeff Coykendall (Bombardier)	General Aviation Manufacturers Association
Michael Gillis (Bombardier)	General Aviation Manufacturers Association
Angie Ingalls (Bombardier)	General Aviation Manufacturers Association
Zanthe Jordine	General Aviation Manufacturers Association
Doug Beneteau	GE Aerospace
Dariusz Czarnecki	GE Aerospace
Greg Dice	GE Aerospace
Matthew Miller	GE Aerospace
Duygu Sert	GE Aerospace
Jim Snyder	GE Aerospace
Corey Wright	GE Aerospace
Gina Zuckerman	GE Aerospace
Pat Markham	HEICO
Joseph Randolph	HEICO
Kurt Luther	Honeywell
Seadrick Marshall	Honeywell
Kat Brigham	Modification and Replacement Parts Association
Clara Greceanu	Modification and Replacement Parts Association
Lee Kapel (TSI Aviation)	Modification and Replacement Parts Association

Participants**Organization**

Keith Lipscomb	Modification and Replacement Parts Association
George Novak	National Air Carrier Association
Jason Bell	National Business Aviation Association
Doug Carr	National Business Aviation Association
Sal Valentino (FlexJet)	National Business Aviation Association
Tony Levanen (Alaska Air Group)	Regional Airline Association
Nobuyo Reinsch	Regional Airline Association
Melissa Coombes (P&W)	RTX Corporation
David Danielson (Collins)	RTX Corporation
Matt Dushek (P&W)	RTX Corporation
Alyssa Grooms (P&W)	RTX Corporation
Sean O'Brien (P&W)	RTX Corporation
Lyndsay Pess (Collins)	RTX Corporation
Piotr (Peter) Piskorski (P&W)	RTX Corporation
Katherine Stachrowski (P&W Canada)	RTX Corporation
Tammy Stupalo (P&W Canada)	RTX Corporation
Alex Tsarouhas (P&W)	RTX Corporation
Skip McLean (Bell Flight)	Textron
Judson Rupert	Textron
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Amy O'Dell	United Airlines
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NATCA Representatives

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Steve Rosenfeld	

FAA Representatives

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John Ashbrook	
Michael Bartron	
Brian Cable	
Charity Harrison	
Samuel Kovitch	
Thomas Kuhns	
James Langsdale	
Doug Law	
Tom Matzen	
Dave McGhee	
Chris McVay	
Chris Parady	
Victor Powell	

Tyeshia Roberson-Curtis	
Alan Strom	
Brandi Williamson	

Foreign Civil Aviation Authority Representatives	Organization
Pedro Caldeira	ANAC
Fausto Enokibara	ANAC
Nelson Nagamine	ANAC
Ludovic Aron	EASA
Markus Janischowsky	EASA
Luis Perez-Ilarena	EASA
Luca Tosini	EASA
Ryan Hennigar	Transport Canada
Jeffrey Phipps	Transport Canada

Contractors	Organization
Becca Fribush	The Regulatory Group
Anastasia Hempel	The Regulatory Group
Ann Masse	The Regulatory Group
Puja Sardana	The Regulatory Group

Appendix B – List of Acronyms

Acronym	Definition
ACO	Aircraft Certification Office
AD	Airworthiness Directive
AED	Aircraft Evaluation Division
AFS	Office of Safety Standards
AIR	FAA Aircraft Certification Service
ALS	Airworthiness Limitation Section
AMC	Acceptable Means of Compliance
AMM	Aircraft Maintenance Manual
AMOC	Alternate Method of Compliance
ANAC	National Civil Aviation Agency of Brazil
ARC	Aviation Rulemaking Committee
AVS	Aviation Safety (FAA)
AWL	Airworthiness Limitations
CDCCL	Critical Design Configuration Control Limitation
CMM	Component Maintenance Manual
CMR	Certification Maintenance Requirements
CMT	Certification Management Team
CPN	Certification Project Notification
COS	Continued Operational Safety
DAH	Design Approval Holder
EASA	European Union Aviation Safety Agency
ECO	Engine Certification Office
EIS	Entry Into Service
EWIS	Electrical Wiring Interconnection Systems
FAA	Federal Aviation Administration
FOQA	Flight Operational Quality Assurance
GM	Guidance Material
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IPC	Illustrated Parts Catalog
MEL	Minimum Equipment List
MRB	Maintenance Review Board
MSG-3	Maintenance Steering Group-3
ODA	Organization Designation Authorization
OEM	Original Equipment Manufacturer
OOMRO	As defined in Section I of this report
PAH	Production Approval Holder
PMA	Parts Manufacturer Approval
RTC	Restricted Type Certificate
SARPs	Standards and Recommended Practices

Acronym	Definition
SEI	Safety Emphasis Item
SMS	Safety Management System
SRM	Structural Repair Manual
SSD	Significant Standards Difference
SSP	State Safety Program
STC	Supplemental Type Certificate
TC	Type Certificate
TCH	Type Certificate Holder; see also Section I of this report
TCDS	Type Certificate Data Sheet
TCCA	Transport Canada Civil Aviation
TSO	Technical Standard Order
WG-A	Working Group A
WG-D	Working Group D
WG-E	Working Group E
WG-F	Working Group F
WG-G1	Working Group G1

Appendix C – Section 349 of the FAA Reauthorization Act of 2024

The following is the full text of Section 349 of the FAA Reauthorization Act of 2024.

SEC. 349. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS AVIATION RULEMAKING COMMITTEE.

- (a) **IN GENERAL.**—The Administrator shall convene an aviation rulemaking committee to review, and develop findings and recommendations regarding, instructions for continued airworthiness (as described in section 21.50 of title 14, Code of Federal Regulations), and provide to the Administrator a report on such findings and recommendations and for other related purposes as determined by the Administrator.
- (b) **COMPOSITION.**—The aviation rulemaking committee established pursuant to subsection (a) shall consist of members appointed by the Administrator, including representatives of—
 - (1) holders of type certificates (as described in subpart B of part 21, title 14, Code of Federal Regulations);
 - (2) holders of production certificates (as described in subpart G of part 21, title 14, Code of Federal Regulations);
 - (3) holders of parts manufacturer approvals (as described in subpart K of part 21, title 14, Code of Federal Regulations);
 - (4) holders of technical standard order authorizations (as described in subpart O of part 21, title 14, Code of Federal Regulations);
 - (5) operators under parts 121, 125, or 135 of title 14, Code of Federal Regulations;
 - (6) holders of repair station certificates (as described in section 145 of title 14, Code of Federal Regulations) that are not also type certificate holders as included under paragraph (1), production certificate holders as included under paragraph (2), or aircraft operators as included under paragraph (5) (or associated with any such entities);
 - (7) the certified bargaining representative of aviation safety inspectors and engineers for the Administration;
 - (8) general aviation operators;
 - (9) mechanics certificated under part 65 of title 14, Code of Federal Regulations;
 - (10) holders of supplemental type certificates (as described in subpart E of part 21 of title 14, Code of Federal Regulations);
 - (11) designated engineering representatives employed by repair stations described in paragraph (6); and

- (12) aviation safety experts with specific knowledge of instructions for continued airworthiness policies and regulations.
- (c) CONSIDERATIONS.-The aviation rulemaking committee established pursuant to subsection (a) shall consider-
 - (1) existing standards, regulations, certifications, assessments, and guidance related to instructions for continued airworthiness and the clarity of such standards, regulations, certifications, assessments, and guidance to all parties;
 - (2) the sufficiency of safety data used in preparing instructions for continued airworthiness;
 - (3) the sufficiency of maintenance data used in preparing instructions for continued airworthiness;
 - (4) the protection of proprietary information and intellectual property in instructions for continued airworthiness;
 - (5) the availability of instructions for continued airworthiness, as needed, for maintenance activities;
 - (6) the need to harmonize or deconflict proposed and existing regulations with other Federal regulations, guidance, and policies;
 - (7) international collaboration, where appropriate and consistent with the interests of safety in air commerce and national security, with other civil aviation authorities, international aviation and standards organizations, and any other appropriate entities; and
 - (8) any other matter the Administrator determines appropriate.
- (d) DUTIES.-The Administrator shall-
 - (1) not later than 1 year after the date of enactment of this Act, submit to the appropriate committees of Congress a copy of the aviation rulemaking committee report under subsection (a); and
 - (2) not later than 180 days after the date of submission of the report under paragraph (1), initiate a rulemaking activity or make such policy and guidance updates necessary to address any consensus recommendations reached by the aviation rulemaking committee established pursuant to subsection (a), as determined appropriate by the Administrator.

Appendix D – Instructions for Continued Airworthiness Aviation Rulemaking Committee Charter

The following is the full text of the Federal Aviation Administration Aviation Rulemaking Committee Charter for the Instructions for Continued Airworthiness ARC.

Effective Date: 1/22/2024

SUBJECT: Instructions for Continued Airworthiness Aviation Rulemaking Committee

1. **PURPOSE.** This charter establishes the Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC), according to the Administrator’s authority under Title 49 of the United States Code (49 U.S.C.) § 106(p)(5). The sponsor of the ARC is the Associate Administrator for Aviation Safety. This charter outlines the ARC’s organization, responsibilities, and tasks.
2. **BACKGROUND.** U.S. operators transport millions of passengers each year. The expectation of the flying public and the FAA is that they will conduct their operations to the highest levels of safety. Operators are required by applicable regulations to operate and maintain aircraft in an airworthy condition. While an operator may make arrangements with another source to perform maintenance and approve a product or article for return to service, the operator ultimately is responsible for the airworthiness, maintenance, and safe operation of their aircraft. To fulfill their responsibilities, operators must have access to complete and up-to-date ICA.

Applicants for FAA design approvals must prepare acceptable ICA as required by rules governing the certification of products and articles. The sole purpose of ICA is to support an operator’s responsibility for maintaining airworthiness. Without ICA, operators and maintenance personnel may not be able to meet applicable compliance responsibilities.

The FAA published requirements for ICA in Title 14 of the Code of Federal Regulations (14 CFR) in 1980. Those requirements are found in 14 CFR § 21.50. ICA are intended to provide documentation of recommended methods, inspections, processes, and procedures to maintain the airworthiness of aircraft, aircraft engines, propellers, and installed articles. ICA furnished or made available by a Design Approval Holder (DAH) are intended to enhance the ability of operators and maintenance personnel to comply with applicable maintenance requirements.

Section 21.50 requires the holders of certain design approvals, or changes to those design approvals, to furnish ICA upon delivery of the affected aircraft (or aircraft engine or propeller) on issuance of the aircraft’s first standard airworthiness certificate. A DAH must also make those instructions available to any person required to comply with any of the terms of those instructions. The DAH is responsible for ensuring there is enough information in the ICA to maintain the continued airworthiness of the product.

Different expectations for ICA applicability, content, and availability among DAHs, modifiers, maintenance and repair providers, and operators show a lack of universal understanding and inconsistent structure associated with ICA and its overarching purpose. Additionally, the aviation system is changing rapidly, which is placing greater demands on its participants. The aviation system is more complex, more interconnected, incorporates new business models, and is more reliant on new technologies, both domestically and internationally. These changes have led the FAA to issue multiple policy clarifications and interpretations of the ICA requirements. Therefore, the FAA determined that it is necessary to conduct a comprehensive review of ICA objectives and requirements. This review may determine that current requirements for ICA applicability, content, and availability should be revised to meet the current and future demands of DAHs, aircraft operators, and aircraft maintenance providers.

3. **OBJECTIVES OF THE ARC.** The ICA ARC will provide recommendations to the FAA for ICA regulations, policy, and guidance. In doing so, the ARC will recommend a clear definition for ICA and recommend performance-based requirements for ICA applicability, content, and availability. It will propose how to distinguish between safety and customer convenience provisions in ICA and describe the safety intent of recommended ICA requirements. The ARC will consider the role of repair source approval and restrictions on the use of ICA to certain entities. The ARC's recommendations will consider the standards of other authorities and, when possible, further international harmonization.
4. **TASKS OF THE ARC.** The tasks of the ARC are:
 - A. Propose a clear baseline standard defining ICA, recommending performance-based requirements for applicability, content, and availability as necessary to address the following areas of controversy:
 - i. An apparent lack of consistent understanding across segments of industry about the intent for DAH-provided ICA and its contribution toward operators' compliance with operating rules. The focus should consider the flow down of operator's airworthiness responsibilities as follows:
 - a. Fulfilling expectations for ICA to provide a means for operators (under 14 CFR parts 121, 125, 135, and part 91 subpart K) to maintain the airworthiness of their aircraft. ICA can provide a basis to establish approved aircraft inspection programs (AAIP), maintenance programs, continuous airworthiness maintenance programs (CAMP), and (approved) maintenance programs.

- b. Fulfilling expectations for ICA to provide a means for other owner/operators, including non-certificated operators, to inspect and maintain the airworthiness of their aircraft under part 91.
 - ii. The contribution ICA are expected to provide for supporting safety through the availability of information to maintain, verify, and restore airworthiness (conformity with type design and condition for safe operation). If other factors exist that affect ICA's contribution, they must be identified and addressed.
 - iii. Variations in the regulations, policy, and guidance that are not clearly associated with the level of safety expected between different product types or categories. Variations in the requirements for articles produced under a Parts Manufacturer Approval (PMA) and design approval under 14 CFR 21.8 (d) must be addressed. ICAs are not linked to PMAs and design approvals under 14 CFR 21.8 (d) per our regulatory framework (14 CFR 21.11 states that Subpart B regs apply to type certificates, STCs, and amended TCs). If the ICA ARC proposes different requirements for different types or categories of aeronautical products or articles, then it must provide a rationale for why those differences exist. It is understood that the acceptable safety risk for various categories of aircraft, embodied in the airworthiness standards, is one source of differences.
- B. Propose how to distinguish between safety-related provisions and service enhancements contained in ICA:
 - i. Recommend criteria for which maintenance information is necessary for the safe operation of the product (presumably ICA) and which information is provided for customer convenience (presumably not ICA). This difference is particularly complicated when the same types of documents (e.g., aircraft maintenance manuals, component maintenance manuals, service bulletins) are used to communicate both types of information.
 - ii. Propose how industry must distinguish between safety and commercial interests when developing acceptable ICA.
- C. Propose definitions and guidelines for the terms “furnish,” “make available,” and “any other person” as used in 14 CFR § 21.50 that are based on the safety intent for ICA. Address the following areas of controversy:
 - i. Which persons must have access to ICA for purposes of safety and regulatory compliance. The meaning of terms used to describe the availability of ICA are not universally understood. Additionally, questions

have arisen regarding licensing and operators providing access to other persons (including third-party or subcontracted maintenance providers).

- ii. The requirement that maintenance providers must have the latest version of the ICA accessible even if earlier versions of the ICA remain valid. This requirement must be evaluated for its safety intent, considering that operators may have their own maintenance programs.
 - iii. The validity of ICA furnished or made available by a DAH. ICA remains valid until the FAA determines it to be unsafe. Propose DAH responsibilities for ongoing enhancements of ICA and describe how enhancements must be distributed and put into effect.
 - iv. The requirement that a DAH must furnish or make available the ICA it develops while a maintenance provider does not have a similar requirement to distribute in-house developed maintenance data as ICA. The ARC must address this inconsistent requirement for DAHs and maintenance providers.
 - v. Cost as an obstacle to the availability of ICA. Specifically, there may be a point at which cost renders ICA unavailable from a practical standpoint. The ARC must propose how the FAA must address and regulate this issue appropriately.
- D. Propose how to protect intellectual property while achieving safety objectives: Identify what intellectual property factors exist that may affect the content of ICA and its availability to product owners and maintenance providers. Describe how these factors can be addressed while preserving the purpose of ICA. Consider whether requirements for ICA availability must be based on maintenance programs or specialized providers, which may lead a maintenance provider to need only a subset of ICA, rather than complete ICA, to perform required maintenance.
- E. Propose the role of repair source approval and criticality of parts and repairs:
- i. Evaluate whether the current ICA and maintenance regulations provide sufficient controls to maintain required safety characteristics for products and component parts (such as for “critical” and “influencing” parts) and appliances. Consider any differences in rigor regarding process oversight that may exist in the manufacturing environment versus the maintenance environment.
 - ii. Determine whether situations exist that warrant different treatment when working on safety critical parts and features. In the interest of safety,

assess if there is a legitimate need to engage the DAH based on the criticality of parts or features when developing or performing repairs or other maintenance. This is an area of consideration due to potential differences in requirements or policy between the FAA and the European Union Aviation Safety Agency (EASA), wherein EASA may include DAHs more closely in critical part repairs and repair source approval.

- iii. Evaluate whether the FAA must expand the scope of critical design configuration control limitations, referred to as “CDCCLs,” currently used solely for transport airplane fuel tank safety, beyond fuel tanks to other products, such as rotorcraft, and to other areas of the aircraft, such as engines.

- F. Propose harmonized requirements for adoption internationally: civil aviation authorities share a common objective of safety through continued airworthiness. Consider the standards of other authorities and the International Civil Aviation Organization and provide recommendations that may increase harmonization.
- G. Consider other issues that arise from this effort that are deemed worthy of consideration by the ICA ARC FAA and Industry Co-Chairs.
- H. Within 24 months from the first meeting after the effective date of the charter, submit a recommendation report. This recommendation report must document both majority and dissenting positions on the findings and the rationale for each position. Any disagreements must be documented, including the rationale for each position and the reasons for the disagreement. The FAA Co-Chair may task the ARC with subsequent recommendation reports with deadlines prior to the ARC’s sunset date.
 - i. The Industry Co-Chair(s) sends the recommendation report to the FAA Co-Chair and the Executive Director of the Office of Rulemaking.
 - ii. The FAA Co-Chair determines when the recommendation report and records, pursuant to paragraph (8), will be made available for public release.

5. ARC PROCEDURES.

- A. The ARC acts solely in an advisory capacity by advising and providing written recommendations to the FAA Co-Chair.
- B. The ARC may propose related follow-on tasks outside the stated scope of the ARC to the FAA Co-Chair for consideration.

- C. The ARC may reconvene following the submission of the recommendation report for the purposes of providing advice and assistance to the FAA, at the discretion of the FAA Co- Chair, provided the charter is still in effect.
6. **ARC ORGANIZATION, MEMBERSHIP, AND ADMINISTRATION.** The FAA will set up a committee of members representing a diverse set of aviation stakeholders, including design approval holders, operators, and maintenance providers. Members will be selected based on their familiarity and experience with ICA matters related to the tasks of the ARC. Membership will be balanced in viewpoints, interests, and knowledge of the committee’s objectives and scope.

The provisions of the August 13, 2014, Office of Management and Budget (OMB) guidance, “Revised Guidance on Appointment of Lobbyists to Federal Advisory Committees, Boards, and Commissions” (79 FR 47482), continue the ban on registered lobbyists participating on Agency Boards and Commissions if participating in their “individual capacity.” The revised guidance allows registered lobbyists to participate on Agency Boards and Commissions in a “representative capacity” for the “express purpose of providing a committee with the views of a nongovernmental entity, a recognizable group of persons or nongovernmental entities (an industry, sector, labor unions, or environmental groups, etc.) or state or local government.” For further information, refer to the OMB Guidance at 79 FR 47482.

Membership is limited to promote discussion. Attendance, active participation, and commitment by Members is essential for achieving the objectives and tasks. When necessary, the ARC may set up specialized and temporary working groups that include at least one ARC member and invited subject matter experts from industry and government.

The ARC will consist of members from the ICA stakeholder community. The FAA and other U.S. Government subject matter experts, as well as foreign civil aviation authorities and regional safety oversight organizations, may be requested to participate as observers and provide technical support to the ARC members.

- A. The Sponsor, the Associate Administrator for Aviation Safety, will designate the FAA Co-Chair who will:
 - i. Select and appoint industry Members and FAA participants,
 - ii. Select the Industry Co-Chair(s) from the membership of the ARC,
 - iii. Ensure FAA participation and support from all affected lines of business,
 - iv. Notify Members of the time and place for each meeting, and
 - v. Receive any status report and the recommendations report.

- B. The Industry Co-Chair(s) will be appointed from the ICA stakeholder community. Once appointed, the Industry Co-Chair(s) will:
- i. Coordinate required ARC meetings to meet the objectives and timelines,
 - ii. Establish and distribute meeting agendas in a timely manner,
 - iii. Keep meeting notes, if deemed necessary,
 - iv. Perform other responsibilities as required to ensure the objectives are met,
 - v. Provide status reports, as requested, in writing to the FAA Co-Chair, and
 - vi. Submit the recommendation report to the FAA Co-Chair and the Executive Director of the Office of Rulemaking.
7. PUBLIC PARTICIPATION. Meetings are not open to the public. Persons or organizations outside the ARC who wish to attend a meeting must secure approval in advance of the meeting from the Industry Co-Chair(s) and the FAA Co-Chair.
8. AVAILABILITY OF RECORDS. Subject to the applicable Freedom of Information Act exemptions pursuant to Title 5 U.S.C. § 552, the FAA will make records provided by the ARC to the FAA available for public inspection and copying. Available records will be located at the Office of Aircraft Certification, FAA Headquarters, 800 Independence Ave. SW, Washington, D.C. 20591. Fees will be charged for information furnished to the public according to the fee schedule published in 49 CFR part 7.
- This charter is available on the FAA Committee Database website at:
http://www.faa.gov/regulations_policies/rulemaking/committees/documents/.
9. DISTRIBUTION. This charter is distributed to: the Office of the Associate Administrator for Aviation Safety, the Office of the Chief Counsel, the Office of Assistant Administrator for Policy, International Affairs, and Environment, and the Office of Rulemaking.
10. EFFECTIVE DATE AND DURATION. The ARC is effective upon issuance of this charter and will remain in existence for a maximum of 32 months unless the charter is sooner suspended, terminated, or extended by the Administrator.

Issued in Washington, D.C., on January 22, 2024.

Michael G. Whitaker
Administrator

Appendix E – Addressing of Reauthorization Act and Charter Taskings

Table 1: Reauthorization Act Tasks

Paragraph #	Reauthorization Act Tasking Language	Section of the Report Where Task is Addressed
c(1)	Consider existing standards, regulations, certifications, assessments, and guidance related to instructions for continued air-worthiness and the clarity of such standards, regulations, certifications, assessments, and guidance to all parties.	Considered in recommendations and proposals throughout report
c(2)	Consider the sufficiency of safety data used in preparing instructions for continued airworthiness.	Position Papers (Section VII)
c(3)	Consider the sufficiency of maintenance data used in preparing instructions for continued airworthiness.	Position Papers (Section VII)
c(4)	Consider the protection of proprietary information and intellectual property in instructions for continued airworthiness.	Position Papers (Section VIII)
c(5)	Consider the availability of instructions for continued airworthiness, as needed, for maintenance activities.	Position Papers (Section VIII)
c(6)	Consider the need to harmonize or deconflict proposed and existing regulations with other Federal regulations, guidance, and policies.	Recommendation 12
c(7)	Consider international collaboration, where appropriate and consistent with the interests of safety in air commerce and national security, with other civil aviation authorities, international aviation and standards organizations, and any other appropriate entities.	Each recommendation and proposal contains an explanation of its harmonization (or de-harmonization) with international regulators
c(8)	Consider any other matter the Administrator determines appropriate.	Working Group G1; see also discussion of Working Group G1 in Sections III and IV.E

Table 2: Charter Tasks

Paragraph #	Charter Tasking Language	Section of the Report Where Task is Addressed
A	Propose a clear baseline standard defining ICA, recommending performance-based requirements for applicability, content, and availability as necessary to address the following areas of controversy:	Working Group A Narrative (Section IV.A.2); Proposals AT1, AO1; Position Papers (Section VII)
A.i	An apparent lack of consistent understanding across segments of industry about the intent for DAH-provided ICA and its contribution toward operators' compliance with operating rules. The focus should consider the flow down of operator's airworthiness responsibilities as follows:	Working Group A Narrative (Section IV.A.2); Recommendation 3; Proposals AO4, G14A, G14B, G19; Position Papers (Section VII)
A.i.a	Fulfilling expectations for ICA to provide a means for operators (under 14 CFR parts 121, 125, 135, and part 91 subpart K) to maintain the airworthiness of their aircraft. ICA can provide a basis to establish approved aircraft inspection programs (AAIP), maintenance programs, continuous airworthiness maintenance programs (CAMP), and (approved) maintenance programs.	Working Group A Narrative (Section IV.A.2); Position Papers (Section VII); Proposal AO4
A.i.b	Fulfilling expectations for ICA to provide a means for other owner/operators, including non-certificated operators, to inspect and maintain the airworthiness of their aircraft under part 91.	Working Group A Narrative (Section IV.A.2); Position Papers (Section VII); Proposal AO4
A.ii	The contribution ICA are expected to provide for supporting safety through the availability of information to maintain, verify, and restore airworthiness (conformity with type design and condition for safe operation). If other factors exist that affect ICA's contribution, they must be identified and addressed.	Working Group A Narrative (Section IV.A.2); Recommendations 2, 7, 11, 13, 14; Proposals AT4, AO2, F9; Position Papers (Section VII)

Paragraph #	Charter Tasking Language	Section of the Report Where Task is Addressed
A.iii	Variations in the regulations, policy, and guidance that are not clearly associated with the level of safety expected between different product types or categories. Variations in the requirements for articles produced under a Parts Manufacturer Approval (PMA) and design approval under 14 CFR 21.8(d) must be addressed. ICA are not linked to PMAs and design approvals under 14 CFR 21.8(d) per the FAA’s regulatory framework (14 CFR 21.11 states that Subpart B regs apply to type certificates, STCs, and amended TCs). If the ICA ARC proposes different requirements for different types or categories of aeronautical products or articles, then it must provide a rationale for why those differences exist. It is understood that the acceptable safety risk for various categories of aircraft, embodied in the airworthiness standards, is one source of differences.	Section III; Working Group G1 Narrative (Section IV.E); Recommendations 1, 2; Proposals G6A, F9
B	Propose how to distinguish between safety-related provisions and service enhancements contained in ICA:	Section III; Position Papers (Section VII)
B.i	Recommend criteria for which maintenance information is necessary for the safe operation of the product (presumably ICA) and which information is provided for customer convenience (presumably not ICA). This difference is particularly complicated when the same types of documents (e.g., aircraft maintenance manuals, component maintenance manuals, service bulletins) are used to communicate both types of information.	Section III; Recommendation 1; Proposals AT1, AT5, AO1, AO4, F7, F8, G6C, G19; Position Papers (Section VII)
B.ii	Propose how industry must distinguish between safety and commercial interests when developing acceptable ICA.	Section III; Working Group E Narrative (Section IV.C.3); Recommendation 1; Proposals AT1, AT4, AO1, AO2, F3, F7, F8,

Paragraph #	Charter Tasking Language	Section of the Report Where Task is Addressed
		G19; Position Papers (Section VII)
C	Propose definitions and guidelines for the terms “furnish,” “make available,” and “any other person” as used in 14 CFR 21.50 that are based on the safety intent for ICA. Address the following areas of controversy:	Working Group D Narrative (Section IV.B); Position Papers (Section VIII)
C.i	Which persons must have access to ICA for purposes of safety and regulatory compliance. The meaning of terms used to describe the availability of ICA are not universally understood. Additionally, questions have arisen regarding licensing and operators providing access to other persons (including third-party or subcontracted maintenance providers).	Working Group D Narrative (Section IV.B); Position Papers (Section VIII)
C.ii	The requirement that maintenance providers must have the latest version of the ICA accessible even if earlier versions of the ICA remain valid. This requirement must be evaluated for its safety intent, considering that operators may have their own maintenance programs.	Section III; Working Group G1 Narrative (Section IV.E.3) Addressed in NPRM concerning 14 CFR 145.109(d) ⁴³⁶
C.iii	The validity of ICA furnished or made available by a DAH. ICA remains valid until the FAA determines it to be unsafe. Propose DAH responsibilities for ongoing enhancements of ICA and describe how enhancements must be distributed and put into effect.	Section III; Working Group G1 Narrative (Section IV.E.3); Recommendation 7, Proposals G14A, G14B, G19
C.iv	The requirement that a DAH must furnish or make available the ICA it develops while a maintenance provider does not have a similar requirement to distribute in-house developed maintenance data as	Section III; Working Group G1 Narrative (Section IV.E.3); Proposals F3, G6B

⁴³⁶ [Inspection Programs for Single-Engine Turbine-Powered Airplanes and Unmanned Aircraft; and Miscellaneous Maintenance-Related Updates NPRM](#), 89 FR 6056 (Jan. 31, 2024).

Paragraph #	Charter Tasking Language	Section of the Report Where Task is Addressed
	ICA. The ARC must address this inconsistent requirement for DAHs and maintenance providers.	
C.v	Cost as an obstacle to the availability of ICA. Specifically, there may be a point at which cost renders ICA unavailable from a practical standpoint. The ARC must propose how the FAA must address and regulate this issue appropriately.	Working Group D Narrative (Section IV.B); Position Papers (Section VIII)
D	Propose how to protect intellectual property while achieving safety objectives: Identify what intellectual property factors exist that may affect the content of ICA and its availability to product owners and maintenance providers. Describe how these factors can be addressed while preserving the purpose of ICA. Consider whether requirements for ICA availability must be based on maintenance programs or specialized providers, which may lead a maintenance provider to need only a subset of ICA, rather than complete ICA, to perform required maintenance.	Working Group D Narrative (Section IV.B); Position Papers (Section VIII)
E	Propose the role of repair source approval and criticality of parts and repairs:	Working Group E Narrative (IV.C.2)
E.i	Evaluate whether the current ICA and maintenance regulations provide sufficient controls to maintain required safety characteristics for products and component parts (such as for “critical” and “influencing” parts) and appliances. Consider any differences in rigor regarding process oversight that may exist in the manufacturing environment versus the maintenance environment.	Working Group E Narrative (IV.C.2); Recommendations 5, 6
E.ii	Determine whether situations exist that warrant different treatment when working on safety critical parts and features. In the interest of safety, assess if there is a legitimate need to engage the DAH based on the criticality of parts or features when developing or performing repairs or other maintenance. This is an area of consideration due to potential differences in	Working Group E Narrative (IV.C.2)

Paragraph #	Charter Tasking Language	Section of the Report Where Task is Addressed
	requirements or policy between the FAA and the European Union Aviation Safety Agency (EASA), wherein EASA may include DAHs more closely in critical part repairs and repair source approval.	
E.iii	Evaluate whether the FAA must expand the scope of critical design configuration control limitations, referred to as “CDCCLs,” currently used solely for transport airplane fuel tank safety, beyond fuel tanks to other products, such as rotorcraft, and to other areas of the aircraft, such as engines.	Working Group E Narrative (IV.C.2)
F	Propose harmonized requirements for adoption internationally: civil aviation authorities share a common objective of safety through continued airworthiness. Consider the standards of other authorities and the International Civil Aviation Organization and provide recommendations that may increase harmonization.	Working Group F Narrative (IV.D); each recommendation and proposal contains an explanation of its harmonizing (or de-harmonizing) effect
G	Consider other issues that arise from this effort that are deemed worthy of consideration by the ICA ARC FAA and Industry Co-Chairs.	Working Group G1 Narrative (IV.E); Recommendations 2, 3, 7, 8, 9, 10, 12, 13, 17; Working Group G1 proposals (VI.E)

Appendix F – ARC Work Product

A. Working Group A Tiger Team #1 Matrix (ICA Requirements in Appendices)

This section contains portions of the Tiger Team #1 Matrix analyzing and comparing the language in the appendices to 14 CFR parts 23, 25, 27, 29, 33, and 35.

The ARC cautions that the content of the Tiger Team #1 Matrix has been neither carefully reviewed nor approved by the ARC, nor is it intended to convey any sort of ARC (or TCH or OOMRO) position or FAA action with regard to ICA regulation. Rather, this early, preliminary deep dive into ICA regulations was used solely to determine where areas of misalignment were most prevalent and prioritize for further ARC review and discussion.

Readers should disregard any positions, comments, questions, or attributions displayed in the below matrix and defer instead to the main body text of Sections I through IX of this report.

1. Analysis Tab

Cite	Language	Undisputed ICA	Undisputed ICA, but needs an update or clarification	Doesn't need to be ICA, but does need clarification	Not always ICA, but agreement that it should be	Not always ICA, but agreement on whether it should be	Issues/Comments
HDS.1(a) General	This appendix specifies requirements for preparation of Instructions for Continued Airworthiness as required by §§ 25.1526, 25.1726, and applicable provisions of parts 23 and 25 of this chapter. The Instructions for Continued Airworthiness for each airplane must include the Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane (this applies to maintenance and operations (software releases/settings, etc.).	Required by §§ 25.1526, 25.1726, and applicable provisions of parts 23 and 25 of this chapter.					Agreement that info for appliances required under the chapter is ICA, but uncertainty about the definition of appliances (AGC) and the variation in requirements by chapter (more requirements for 23 than 25).
HDS.1(b) General (1st sentence)			ICA for appliances required under the relevant chapter			ICA for appliances NOT required under the relevant chapter	Basic baseline ICA v. operator specific ICA. Is info for appliances that are not required under the chapter ICA per endorsement? ("What" operates or is intended to operate the aircraft in flight?)
HDS.1(b) General (2nd sentence)	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued airworthiness of the airplane connected to HDS.1(b).		Referenced data when OEM is not supplying the ICA.				What if the reference does producing/providing it? See example. DAI is only required to give the "inferred" data, not necessarily the whole CHM. DAI should be required to notify of ICA changes. Should the DAI be required to formally cancel the old ICA because it can still be used under Part 43 unless there was an AD. Notification requirement only exists in 25.1527(n).
HDS.1(c) General	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturer or products and appliances installed in the airplane will be distributed.		ICA Changes		Type Design/Major Minor Change		May require new ICA depending on the changes made TC holder changes the manual but does not inform the operator. Only requirement for notification is in 25.1527(n) for in service problems. No other requirement to notify in the reg or the appendix. Only in FAA Order 8136.58A is that enough? Does also EASA 21.A.7.
HDS.2(a) Format	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided. The content of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manual or sections, as appropriate, and information:		Electronic data				Check with AGC - do electronic manuals need to be specifically included in the reg or is a policy statement/guidance enough to allow electronic documentation? Other issues are manual's section and the meaning of appropriate. Any partial manuals okay?
HDS.3			Electronic data				

Cite	Language	Undisputed ICA	Undisputed ICA, but needs an update/clarification	Doesn't need to be ICA, but does need clarification	Not always ICA, but agreement that it should be	Not always ICA. Disagreement as to whether it should be	Issues/Comments
H25.3(a)(1)	Introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance.					H25.3(a)(1) requires introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance. One ARC TCH participant produces and offers a System Schematic Manual (SSM) and disagrees with a part 121 operator that it should be ICA. The TCH participant disagrees because it produces and provides other documents such as the System Description Section of the APM and the Wiring Diagram. Newall is initially silent. H25.3(a) of the ICA requirements and says the SSM provides neither an explanation nor the information necessary for maintenance of preventive maintenance, which would include wiring coding, wire numbers, wiring gauges, connector identification etc. and updates sometimes lags behind the WOM. The TCH states that the SSM is provided via contract/purchase agreement to some part 121 operators who don't think it is not the document used by the DAM who produces it to satisfy ICA requirements as part of certification and is not and should not be an additional document that is required to be submitted provided to comply with either §25.1529 or §25.150. Info that is useful for general understanding of the aircraft, appliances, and systems broadly (H25.3(a)(1)).	AM has a spec describing how ECAs, CHMs etc. should be organized (at least in case the creator of the ICA doesn't know/believe the standard format, but the spec needs to be in the rules to want the FAA to accept and enforce it. Some Part 121 operators treat the SSM as ICA (e.g., it is part of one ARC participant's maintenance toolbox). BUT: One ARC participant does NOT consider the SSM to be ICA. Adding this SSM to ICA will impact certification. Not all info helpful to operator is ICA (provided by contract v. provided by rule). Adding more ICA content will increase the problems we currently have (minority view).
H25.3(a)(2)	A description of the airplane and its systems and installations including its engines, propellers, and appliances.				See section H25.3(a)(1) above.		
H25.3(a)(3)	Basic control and operation information describing how the airplane components and systems are controlled and how they operate, including any special procedures and limitations that apply.				See section H25.3(a)(1) above.		
H25.3(a)(4)	Service information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tool instructions and limitations, towing, jacking, and towing information.				Service info.		Need a specific definition for "servicing info", but there is general agreement that it should be ICA and it should include how to perform the servicing task. Need to clarify the level of detail required (e.g., are we including details like how to remove the cap?). The servicing task is the same for all aircraft regardless of what operating rule it is being used under, but who can perform the task will vary by operating rule (e.g., servicing can be done by pilots in B1, but not B2). Largely captured under "servicing info" (preventive maintenance) but could be some differences based on the applicable operating rules.
H25.3(b)	Maintenance instructions				Maintenance instructions		General agreement among operators/maintainers that requiring something to be done at a specified interval requires ICA to be provided, but exceptions are noted from TC holders (e.g., TBO components - the RSR procedure is ICA, but the overhaul/restoration procedure is not). MB0 is ICA in Part 121, but what is a Part 91 operator supposed to do without the OBM's recommended program? Need to decide if it should be provided to the operator, or is it enough to say "remove this part and send it to X vendor for repair." Scheduled tasks/specified intervals/overhaul/restoration

Cite	Language	Classification					Issues/Comments
		Uninspected ICA	Uninspected ICA, but needs a update/identification.	Doesn't need to be ICA, but does need classification	Not always ICA, but agreement that it should be.	Not always ICA. Inspection period not defined & should be.	
HCS-3(b)(1)	Scheduling information for each part of the airplane and its engine, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods.					CHM	When is it required? Which CHM is needed? Why not just put everything in the AMM? CHM can be ICA if the DAH refers to it (e.g., mandatory functional checks). DAH can also leave rights of the CHM contents through vendor's suppliers. Oversight/completeness. Off-airplane tasks only!
HCS-3(b)(3)	However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant proves that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the airplane.					Referenced data - items with high degree of complexity/specialized maintenance. AMM.	Required to send to authorized vendors only for repair. OEM can't do maintenance without a Part 145 repair station certification. The FAA should intervene to curtail this practice. Overhaul mandated by AMM, not by ICA. Maintenance instructions that preclude that ICA should be ICA. Inspection parameters, design requirements, AMM links to Chapter 5 to the intervals & procedures can't be changed without notice.
HCS-3(b)(2)	Troubleshooting information describing probable malfunctions, how to recognize these malfunctions, and the immediate action for these malfunctions.					Troubleshooting info for malfunctions/component repairs (as opposed to just replacing).	Need a line code to test this. Troubleshooting info at the aircraft level should come from the TC holder. Do the rig require troubleshooting info for each component as part of airplane ICA for compliance with Parts 25/27/29? If the component is going to a repair station, the troubleshooting info should be in the CHM, but not part of airplane ICA, but per 18, if you are giving me a requirement to do the work at a certain interval, it must include that troubleshooting info. PM will usually give you to replace the component.
HCS-3(b)(2)	Information describing the order and method of removing and replacing products and parts, with any necessary precautions to be taken.		Info for R&P for UICs. ICA is required under 18 for scheduled maintenance and 18.5 for any R&P, whether scheduled or not, or discovered following troubleshooting. Includes info on how to access (and warning/cautions not to damage the equipment or the person etc).				
HCS-3(b)(4)	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and jacking, and storage limitations.		Info required for scheduled maintenance is ICA (storage, ground checks, time removed for maintenance, weight & balance).			Info necessary for non-scheduled maintenance is not always ICA.	
HCS-3(c)(3)(ii)(B)	Access plates, special inspections, protective treatments, structural fasteners.		Info is ICA and may include the parts of the CHM at the TC holder referenced for the task, but not necessarily the whole CHM.				TC holder is required to give the info for the task, including troubleshooting, R&P info, testing procedures, access panel numbers/zones - anything required to do the work at that specific interval, but it is not required to mention the whole CHM given to the operator. Only the sections of the CHM referenced for that task are required ICA.

QIR	Language	Undisputed ICA	Undisputed ICA, but needs an update/clarification	Doesn't need to be ICA, but does need clarification	Not a heavy ICA, but agreement that it should be	Not always ICA. Disagreement on whether it should be	Issues/Comments
H25.2(g)	A list of special tools needed.		Equivalency and special tools - equivalent tools are not equivalent for ADUs and ADs. ONLY the tool specified in the AD/AWL can be used for <i>that task</i> , even though other tools are listed as alternatives in one AEC participant's equivalency doc. The ICA needs to specify.				Human factors issue because equivalent is not always equivalent.
H25.4(a)(1) thru (a)(5)	Airworthiness Limitation information required by the regulations - § 25.571, 25.964, 25.981, 25.1701. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is FAA approved and specifies maintenance required under §§ 43.18 and § 43.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved." Electrical Wiring Interconnection System (EWIS) Instructions for Continued Airworthiness.		All things necessary for the AWL under the regulations and inspections. Determined by the design standard cited after the analysis.				
H25.4(b)			May be broken up into several documents (e.g., SIC, AWL, ROL, LRS, MPO, S).				Appears to conflict with the language in H25.4(a) which requires everything to be in a section that spread across multiple documents. One AEC participant has an EISD statement that allows them to segregate manuals. Consider a recommendation that allows segregated multiple manuals without am H25.
H25.5(a) thru H25.5(a)(1)(i)		No deficiencies in EWIS data, but if there was, the FAA could link it back to 25.1701.	The EWIS ICA source document has the intervals and zonal access and is used to satisfy the Appendix H requirements. The AEW is NOT approved.				For Part 91 operators, the source document is incorporated under § 1400e. What Part 91 operators does EWIS apply to and why?
H25.5(a)(1)(v), H25.5(a)(1)(v)(4), and H25.5(a)(1)(v)(5)	EWIS zones, inspection intervals/procedures, cleaning, and protection/cautions.						
H25.5(a)(2) thru (a)(5) and H25.5(b)	Standard formatting required, with separation, EWIS ID methods, and electrical load analysis. This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 33.4.	The EWIS ICA source document that contains the required EWIS ICA or specifically references other portions of the ICA that contain this information.					
§ 33.1(a)	The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine. The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturer of engine parts will be distributed.	Required by § 33.4.					
§ 33.1(b)			Referenced data is required ICA but there is a distinction between referenced data for parts of the engine versus referenced data for engine parts.				Does the regulation allowing informal mean that you can refer to ICA for the parts of the engine that are required for type design (e.g., combustion section), or does it mean you can refer to ICA for the individual engine parts (e.g., accessories)?
§ 33.1(c)							

Cite	Language	Underscored ICA	Underscored ICA, but needs an update/clarification	Doesn't need to be ICA, but does need clarification	Not a term ICA, but agreement that it should be	Use phrase ICA. Or approximate what it back it should be	Issues/Comments
K33.3(b)(1), (b)(2), (b)(3), (b)(5), & (b)(7)	Engine Overhaul Manual or Section	The manufacturer does not have to establish an overhaul period, but is required to provide sufficient information for the operator to do the work "overhaul" in the maintenance record (i.e., overhaul instructions must include sufficient information to disassemble, clean, inspect, repair as necessary, reassemble, and test. Also includes storage instructions in (b)(7).					
K33.3(b)(3) & (b)(4)	(b)(3) Details of all fits and clearances relevant to overhaul. (b)(4) Details of repair methods for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.					Repair procedures when the part does not meet the specified fits and clearances or when the part is oversized/substandard. Are FSM procedures enough?	This is similar to the disagreement surrounding ICA for scheduled maintenance or work recommenced required at specified intervals (i.e., if you tell me to do this inspection at X times, then you must provide the instructions for how to do it). Must the engine manufacturer provide details of the repair method if the item is repaired? What does the operator do when the item does not meet fits and clearances or is oversized or substandard? OEMs interpret this section very narrowly and very differently from operators. Some OEMs will specify a tool, but they won't list the overtorque purchase it. Others will give you the tool, but won't let you use it - only their staff can use it. Operators/maintenance need to be able to obtain and use the actual tool.
K33.3(b)(5)	A list of tools needed for overhaul.					Does the operator get the tool or just the list of tools?	
K33.3(c)	ETOPS Requirements. For an applicant seeking eligibility for an engine to be installed on an airplane approved for ETOPS, the Instructions for Continued Airworthiness must include procedures for engine condition monitoring. The engine condition monitoring procedures must be able to determine prior to flight, whether an engine is capable of providing, within approved engine operating limits, maximum continuous power or thrust, bleed air, and power extraction required for an event engine inoperative diversion. For an engine to be installed on a two-engine airplane approved for ETOPS, the engine condition monitoring procedures must be validated before ETOPS eligibility is granted.	Requires coordination. Either the TC can be issued under the current rules without engine & airframe collaboration. The engine manufacturer cannot write ICA for an engine without the aircraft, and the aircraft manufacturer can't qualify an engine-aircraft combination without the engine.					ETOPS is not mentioned in Appendix H to Part 25, making it difficult to demonstrate compliance because it is not in the regulation.
K33.3(c)	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.	This section means that, regardless of how the ICA is originally distributed (i.e., directly from the accessory/component manufacturer or directly from the engine TC holder), the engine TC holder must describe the distributor process, including an explanation of how their manufacturers will distribute ICA, and a method for ensuring ICA updates are distributed whether reported to them or not by the ICA holder directly control.					

Cite	Language	Undisputed ICA	Undisputed ICA, but needs an update/clarification	Doesn't need to be ICA, but does need clarification	Not always ICA, but agreement that it should be	Not always ICA. Disagreement on whether it should be	Issues/Comments
A33.4(a)(2)	This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is FAA approved and specifies maintenance required under 33.43.36 and 33.43.37 of Title 14 of the Code of Federal Regulations unless an alternative program has been FAA approved."		Is the ALS approval for the ALS document itself or for the technical data that supports the document?				
A33.4(b)(2)	The applicant must establish an in-service engine evaluation program to ensure the continued airworthiness of the engine for mandatory post-flight inspections and maintenance actions prescribed under paragraph (b)(1) of this section A33.4 and of the rules for 33.53(b)(4) pertaining to power availability. The program must include service engine tests or equivalent service engine test experience on engines of similar design and evaluation of service usage of the 30-second OI or 2-minute OI ratings.			Uncertainty regarding why this is in the appendices and not there. There is no ICA req for this info.			
A37.1(a)	The appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 27.1529.	Linked to the regulations under 27.1529					
A39.1(a)	The appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 29.1529.	Linked to the regulations under 29.1529					
			ICA for appliances required under the relevant chapter				Agreement that info for appliances required under the chapter is ICA, but uncertainty about the definition of appliances (AOI) and the variation in requirements by chapter (more requirements for 121 than 91).
A37.1 (b) & A39.1(b) (first sentence)	The Instructions for Continued Airworthiness for each rotorcraft must include the Instructions for Continued Airworthiness for each engine and rotor (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the rotorcraft.					ICA for appliances NOT required under the relevant chapter	Basic/baseline ICA v. operator specific ICA. Should ICA be provided for equipment that is not mandated by regulation but must meet regulatory requirements if installed? A letter on a helicopter would have an STC. Was any other optional equipment. The letter installation, although not required by regulation, does require FAA approval and must meet certain criteria if installed (25.739(b) & ICA required for the letter?

Cite	Language	Undisputed ICA	Undisputed ICA, but needs an update/certification	Doesn't need to be ICA, but does need clarification	Not always ICA, but agreement that it should be	Not always ICA. Disagreement as to whether it should be	Issues/Comments
A27.1 (b) & A25.1(b) (second sentence)	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.						Disagreement among the working group members about the scope and type of ICA that must be provided. TC holders consider that they are adequately meeting their ICA obligations, and they also provide non-ICA maintenance data. Just because maintenance data exists, does not mean that it should be provided as ICA. It could be provided by contract or they can just replace the part and not repair it. Operators/maintainers contend that all information necessary to effectively maintain the aircraft should be provided as ICA, including CHMs because operators/maintainers need comprehensive documentation to maintain the aircraft, which is more than the FAR procedures that TC holders often provide. Operators want full maintenance/CHMs, not just FAR procedures, especially for maint tasks req'd at specified intervals.

2. Comparison Tab

Part 25 Cite	Part 25	Part 23	Part 27	Part 29	Part 33	Part 33 Cite
	General	General	General	General	General	a33.1
H25.1(a) General	This appendix specifies requirements for preparation of Instructions for Continued Airworthiness as required by §§ 25.1529, 25.1720, and applicable provisions of parts 21 and 26 of this chapter. The Instructions for Continued Airworthiness for each airplane must include the Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane. No applies to maintenance and operations (software version/s, etc.).	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by this part.	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 27.1529.	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 29.1529.	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 23.1.	a33.1(a)
H25.1(b) General	The Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane. No applies to maintenance and operations (software version/s, etc.).	The Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane.	The Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the rotorcraft.	The Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the rotorcraft.	The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts.	a33.1(b)
H25.1(b) General (continued)	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued airworthiness of the airplane, connected to H25.20.	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.	If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.	a33.1(c)
H25.1(b) General	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the airplane will be distributed.	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the airplane will be distributed.	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the rotorcraft will be distributed.	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the rotorcraft will be distributed.	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.	a33.2
H25.2(a) Format	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided. The format of the manual or manuals must provide for a practical arrangement.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided. The format of the manual or manuals must provide for a practical arrangement.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided. The format of the manual or manuals must provide for a practical arrangement.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided. The format of the manual or manuals must provide for a practical arrangement.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided. The format of the manual or manuals must provide for a practical arrangement.	a33.2(a)
H25.2(b) Format	The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: Airplane maintenance manual or section.	The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: Airplane maintenance manual or section.	The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: Rotorcraft maintenance manual or section.	The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: Rotorcraft maintenance manual or section.	The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: Engine maintenance manual or section.	a33.2(b)
H25.3 Content	Introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance. A description of the airplane and its systems and installations including its engines, propellers, and appliances.	Introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance. A description of the airplane and its systems and installations including its engines, propellers, and appliances.	Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance. A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance. A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	Introduction information that includes an explanation of the engine's features and data to the extent necessary for maintenance or preventive maintenance. A detailed description of the engine and its components, systems, and installations. Installation instructions, including proper procedures for uncrating, crating, acceptance checking, fitting, and attaching accessories, with any necessary checks. Basic control and operating information describing how the engine components, systems, and installations operate, and information describing the methods of starting, running, testing, and stopping the engine and its parts including any special procedures and limitations that apply.	a33.3
H25.3(a)(1)						a33.3(a)
H25.3(a)(2)						a33.3(a)(2)
H25.3(a)(3)	Basic control and operation information describing how the airplane components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operation information describing how the airplane components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operating information describing how the engine components, systems, and installations operate, and information describing the methods of starting, running, testing, and stopping the engine and its parts including any special procedures and limitations that apply.	a33.3(a)(3)
H25.3(a)(4)	Service information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, locations of access panels for inspection and servicing, locations of lubrication points, the lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information. Maintenance instructions.	Service information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, the lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information. Maintenance instructions.	Service information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, the lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information. Maintenance instructions.	Service information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, the lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information. Maintenance instructions.	Service information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, locations of lubrication points, the lubricants to be used, and equipment required for servicing.	a33.3(a)(4) a33.3(a)(5)

Part 25 Cite	Part 25	Part 23	Part 27	Part 28	Part 33	Part 33 Cite
	Scheduling information for each part of the airplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the airplane.	Scheduling information for each part of the airplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the airplane.	6	Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	Scheduling information for each part of the engine that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the engine.	a33.3(a)(8)
K25.30(k)	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	a33.3(a)(7)
K25.30(l)	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing the engine and its parts and replacing parts, with any necessary precautions to be taken. Instructions for proper ground handling, crating, and unloading must also be included.	a33.3(a)(8)
K25.30(m)	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Engine Overhaul Manual or Section, Disassembly information including the order and method of disassembly for overhaul.	a33.3(b)
K25.30(n)	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified by the applicant.	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	The order and method of assembly at overhaul.	a33.3(b)(1)
K25.30(o)	Information needed to apply protective treatments to the structure after inspection.	Information needed to apply protective treatments to the structure after inspection.	Information needed to apply protective treatments to the structure after inspection.	Information needed to apply protective treatments to the structure after inspection.	Instructions for testing after overhaul.	a33.3(b)(2)
K25.30(p)	All data relative to structural fasteners such as identification, discard recommendations, and torque values.	All data relative to structural fasteners such as identification, discard recommendations, and torque values.	All data relative to structural fasteners such as identification, discarded recommendations, and torque values.	All data relative to structural fasteners such as identification, discarded recommendations, and torque values.	Instructions for storage preparation, including any storage limits.	a33.3(b)(3)
K25.30(q)	A list of special tools needed.	A list of special tools needed.	A list of special tools needed.	A list of special tools needed.	Details of all fits and clearances relevant to overhaul.	a33.3(b)(4)
K25.30(r)	In addition, for level 4 airplanes, the following information must be furnished— (1) Electrical loads applicable to the various systems; (2) Methods of controlling control surfaces; (3) Identification of primary and secondary structures; and (4) Special repair methods applicable to the airplane.	In addition, for level 4 airplanes, the following information must be furnished— (1) Electrical loads applicable to the various systems; (2) Methods of controlling control surfaces; (3) Identification of primary and secondary structures; and (4) Special repair methods applicable to the airplane.			Details of repair methods for items or otherwise substituted parts and components along with the information necessary to determine when replacement is necessary.	a33.3(b)(5)
K25.30(s)	A list of tools needed for overhaul.	A list of tools needed for overhaul.	A list of special tools needed.	A list of special tools needed.	Overhaul and inspection instructions that show the materials and apparatus to be used and methods and precautions to be taken during overhaul. Methods of overhaul inspection must also be included.	a33.3(b)(6)
K25.30(t)	A list of the tools and equipment necessary for maintenance and directions as to their method of use.	A list of the tools and equipment necessary for maintenance and directions as to their method of use.				a33.3(b)(7)
K25.30(u)	A list of tools needed for overhaul.	A list of tools needed for overhaul.				a33.3(b)(8)
K25.30(v)	A list of tools needed for overhaul.	A list of tools needed for overhaul.				A33.4

Part 25 Cite	Part 25	Part 23	Part 27	Part 29	Part 33	Part 33 Cite
	The applicant must prepare instructions for Continued Airworthiness (CA) applicable to EWS as defined by § 25.1701 that are approved by the FAA and include the following:				ETOPS Requirements. For an applicant seeking eligibility for an engine to be installed on an airplane approved for ETOPS, the instructions for Continued Airworthiness must include procedures for engine condition monitoring. The engine condition monitoring procedures must be able to determine prior to flight, whether an engine is capable of providing, within approved engine operating limits, maximum continuous power or thrust, bleed air, and power operation required for a relevant engine inoperative scenario. For an engine to be installed on a two-engine airplane approved for ETOPS, the engine condition monitoring procedures must be validated before ETOPS eligibility is granted. §33.2(c)	
H25.5(a) – insert hyperlink for 1701	Maintenance and inspection requirements for the EWS developed with the use of an enhanced zonal analysis procedure that includes:					
H25.5(a)(1)	Identification of each zone of the airplane.					
H25.5(a)(1)(i)	Identification of each zone that contains EWS.					
H25.5(a)(1)(ii)	Identification of each zone containing EWS that also contains combustible materials.					
H25.5(a)(1)(iii)	Identification of each zone in which EWS is in close proximity to both primary and backup hydraulic, mechanical, or electrical flight controls and lines.					
H25.5(a)(1)(iv)	Identification of—					
	Tasks, and the intervals for performing those tasks, that will reduce the likelihood of ignition sources and accumulation of combustible material; and					
H25.5(a)(1)(v)(A)	Procedures, and the intervals for performing those procedures, that will effectively clean the EWS components of combustible material if there is not an effective task to reduce the likelihood of combustible material accumulation.					
H25.5(a)(1)(v)(B)	Instructions for protections and caution information that will minimize contamination and accidental damage to EWS, as applicable, during performance of maintenance, alteration, or repairs.					
H25.5(a)(1)(v)	Acceptable EWS maintenance practices in a standard format.					
H25.5(a)(2)	Wire separation requirements as determined under § 25.1707.					
H25.5(a)(3)	Information explaining the EWS identification method and requirements for identifying any changes to EWS under § 25.1711.					
H25.5(a)(4)	Electrical load data and instructions for updating that data.					
H25.5(b)	The EWS ICA developed in accordance with the requirements of H25.5(a)(1) must be in the form of a document appropriate for the information to be provided, and they must be easily recognizable as EWS ICA. This document must either contain the required EWS ICA or specifically reference other portions of the ICA that contain this information.					

B. Working Group F Comparisons Informing Recommendations and Proposals

In the course of its work, Working Group F developed a series of comparison tables between the FAA, EASA, Transport Canada, and ANAC regulatory systems. In developing its initial proposals (see Section IV.D), WG-F used extracts of these comparison tables to illustrate the regulatory system differences and opportunities for harmonization relevant to each proposal. In some cases, the resulting ARC recommendations and proposals contain these comparison extracts. Where they have not been included in the recommendations or proposals, they are contained in this Appendix, with a reference to the relevant ARC recommendation or proposal and the related topic within the WG-F narrative in Section IV.D.

Recommendation 1: “Identification of ICA”

Comparison from WG-F topic F6:

FAA	EASA
21.50 Instructions for continued airworthiness and manufacturer's maintenance manuals having airworthiness limitations sections. ... (b) The holder of a design approval... must furnish at least one set of complete Instructions for Continued Airworthiness...	21.A.7 Instructions for continued airworthiness ... (b) At least one set of complete instructions for continued airworthiness shall be provided by the [DAH]...
Order 8110.54A Chapter 3. ICA Format and Types of Data Section 1. ICA Requirements for Design Approval Holders. The design approval applicant should list the documents that will constitute a complete set of ICA for its design as early as practical in the project and submit that list to the FAA for concurrence. ... 2. How to Format the ICA. ... b. If there are multiple manuals, there should be a principal manual that describes the other	<u>AMC2 21.A.7(a) Identification of ICA</u> (see text below) <u>AMC1 21.A.7(b) Identification of a complete set of instructions for continued airworthiness (ICA)</u> (see text below)

FAA	EASA
manuals and how to apply them. It should also have a table of contents of all other manuals. The principal manual is the one used for day-to-day maintenance of the aircraft, aircraft engine, or propeller.	

AMC2 21.A.7(a) Identification of ICA

The instructions for continued airworthiness (ICA) may be provided together with other, additional or optional, maintenance information, as described in point [21.A.6](#), or in another acceptable format as per [GM1 21.A.7\(a\)](#), with the following conditions:

(a) The information that is necessary for the continued airworthiness is clearly identified (refer to [AMC1 21.A.7\(b\)](#)).

(b) The ICA may reference additional instructions for continued airworthiness in separate publications, where necessary (for example, those produced by suppliers).

If the product ICA reference the use of supplier's data (e.g. component maintenance manual (CMM) or section of it) as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product.

(c) Additional or optional maintenance information not considered as ICA but referenced by the design approval holder (DAH) together with the ICA should be evaluated appropriately by the DAH in order to ensure that its use will not compromise the continued airworthiness of the product or article.

(d) If the maintenance data made available by a DAH includes data from an operator (i.e. in order to customise the data for the operator, and created under the authority of the operator), the operator's data should be identified as such, and the DAH is not required to additionally evaluate it.

AMC1 21.A.7(b) Identification of a complete set of instructions for continued airworthiness (ICA)

The design approval holder (DAH) should identify the complete set of ICA according to point [21.A.7\(b\)](#) in such a way that the complete set can be:

(a) directly listed in the product TCDS; or

(b) indirectly referenced in the TCDS through other means, which allow the complete list of the ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal manual’ or a reference to a DAH’s website); or

(c) directly listed in the product STC; or

(d) indirectly referenced in the STC through other means, which allow the obtainment of the complete list of the ICA; or

(e) if direct reference is made to the ICA in the TCDS or the STC, no reference to the revision level of the ICA should be made; in this case, the revision level should be available elsewhere (e.g. on the DAH’s website).

For changes to type certificates and repairs, the identification of ‘a complete set of the changes to the instructions for continued airworthiness’ should be performed by the DAH by a statement to provide this information, or by confirmation that there are no changes to the ICA. This statement can also be made in the accomplishment document (e.g. embodiment instructions).

For products and articles for which the DAH holds a design organisation approval (DOA), the ICA are considered to be issued under the authority of the DOA and, therefore, the approval of the ICA should be made explicit to the reader in accordance with point [21.A.265](#)(h), unless otherwise agreed with EASA.

GM1 21.A.7(a) Scope of ICA, their publication format and typical ICA data

(a) ICA can be published in documents or in a manner other than the traditional understanding of a document — for example, as a series of web pages, or Information Technology (IT) tools, or in a publishing format linked to tasks or data modules rather than pages.

(b) The design approval holder (DAH) can decide — within the framework provided by point [21.A.7](#) and its acceptable means of compliance and guidance material — to publish the ICA in the most suitable location as part of all the information published to support the airworthiness of an aircraft. Publications typically produced by DAHs (e.g. for the demonstration of compliance with a certification basis established on the basis of CS-25), and which may therefore include ICA, consist of:

- o aircraft maintenance manuals (AMMs);
- o scheduled maintenance requirements (e.g. MRBRs);
- o off-wing component maintenance or overhaul manuals;
- o parts catalogues;
- o tooling manuals;

- o wiring diagram manuals;
- o weight and balance manuals;
- o electrical loads analyses;
- o extended range operations (ETOPS) configuration maintenance programs/plans;
- o supplemental structural inspection documentation;
- o certification maintenance requirements;
- o Airworthiness Limitations items;
- o ageing aircraft maintenance requirements;
- o fuel tank safety related limitations (e.g. critical design configuration control limitation (CDCCL));
- o electrical wiring interconnection system instructions;
- o corrosion prevention and control programmes;
- o troubleshooting manuals.

Note: The above is only an example of the publications that may contain ICA according to CS-25; the list is not exhaustive, nor does it represent a minimum list of ICA.

(c) The requirement for ICA is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be permanently withdrawn from service, and restoration may not be reasonably achievable. Notwithstanding the above, the existence of an MRBR task other than ‘Discard (DS or DIS)’ should be a clear indication of the necessity/obligation to produce a corresponding ICA.

Certain deteriorations or levels of deterioration may require specific instructions (e.g. inspection or restoration) that will only be developed and provided on a case-by-case basis, as needed, for a given product or article, and as such, will not be included in the ICA.

In some exceptional cases, product ICA may ultimately instruct the user to contact the DAH in order to define the specific instructions on a case-by-case basis. This typically happens when the definition of generic instructions covering all possible cases is not possible. For example, following an aircraft hard landing, a detailed analysis may have to be carried out by the DAH to determine the specific instructions to be followed, which depends on the touchdown loads, recalculated postflight, based on recorded flight data.

Recommendation 7 “In-Service Feedback”

Comparison from WG-F topic F4:

FAA	EASA
Part 25 Appendix H - H25.1 General (c) The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers or products and appliances installed in the airplane will be distributed.	21.A.7 Instructions for continued airworthiness (d) ... That design approval holder shall demonstrate to the Agency, on request, the adequacy of the process of making changes to the instructions for continued airworthiness available in accordance with this point.
Order 8110.4C CHG 7 2-7. POST-CERTIFICATION ACTIVITIES ... d. Changes to Instructions for Continued Airworthiness (ICA). The rule, § 21.50(b), requires ICA changes to be made available to any person who must comply with them. The design approval holder should provide these changes according to a plan that was accepted by both the certification branch and AED. The changes should be formatted to directly supplement the original ICA and should clearly say what’s being changed.	AMC1 21.A.7(b) Identification of a complete set of instructions for continued airworthiness (ICA) ... For changes to type certificates and repairs, the identification of ‘a complete set of the changes to the instructions for continued airworthiness’ should be performed by the DAH by a statement to provide this information, or by confirmation that there are no changes to the ICA. This statement can also be made in the accomplishment document (e.g. embodiment instructions). ...
[No comparable requirement]	21.A.6 Manuals The holder of a type-certificate, restricted type-certificate, or supplemental type-certificate shall produce, maintain and update master copies of all manuals or variations in the manuals required by the applicable type-certification basis, the applicable operational suitability data certification basis and the environmental protection requirements for the product or article, and provide copies, on request, to the Agency.

FAA	EASA
Subpart G Production Certificate 21.137 Quality System Each applicant for or holder of a production certificate must establish... a quality system... (m) In-service feedback. Procedures for receiving and processing feedback on in-service failures, malfunctions, and defects. These procedures must include a process for assisting the design approval holder to— (1) Address any in-service problem involving design changes; and (2) Determine if any changes to the Instructions for Continued Airworthiness are necessary	Subpart A General 21.A.4 Coordination between design and production Each holder of a [design approval], shall collaborate with the production organisation as necessary to ensure: (a) the satisfactory coordination of design and production required by 21.A.122, 21.A.130(b)(3) and (4), 21.A.133 and 21.A.165(c)(2) and (3) as appropriate; and (b) the proper support of the continued airworthiness of the product, part or appliance.

Proposal G6A: “ICA Requirements for PMA and § 21.8(d)”

Specifically, the proposal to move ICA requirements from part 21 subpart B to subpart A.

Comparison from WG-F topic F2:

FAA	EASA
Subpart B – Type Certificate 21.50 Instructions for continued airworthiness and manufacturer's maintenance manuals having airworthiness limitations sections.	Subpart A - General 21.A.7 Instructions for continued airworthiness
(b) The holder of a design approval, including either a type certificate or supplemental type certificate for an aircraft, aircraft engine, or propeller for which application was made after...	(a) The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change or repair design approval ...

C. List of ICA Policies for FAA Review

The following table, compiled by the ARC, provides a list of legal interpretations, policy statements, letters, orders, and ACs related to ICA which the FAA should review as part of the process described in Recommendation 12.

Note: This list was compiled at the beginning of the ARC. It may be incomplete, revised, and/or outdated.

Document Date	Document	Area of ICA	Source	Name (if applicable)	Regulatory Reference
1/4/2016	AC	CAMP	DRS	AC 120-16G	
https://drs.faa.gov/browse/excelExternalWindow/39CB31CA8F0ED9EB86257F4900681109.0001					
5/23/2023	AC	AAIP	DRS	AC 135-10C	135.419
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID182599507520230525162703.0001					
10/24/2023	AC	Incorporation	DRS	AC 120-77A	43.13(c)
https://drs.faa.gov/browse/excelExternalWindow/91546F9ED22422A9862569C4006778F3.0001					
8/27/1999	AC	Preparation	DRS	AC 33.4-1	33.4
https://drs.faa.gov/browse/excelExternalWindow/91546F9ED22422A9862569C4006778F3.0001					
5/31/2024	AC	MRBR	DRS	AC 121-22D	
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID181886482920240604184322.0001					
10/3/2011	AC	CRM	DRS	AC 25-19A	25.1529
https://drs.faa.gov/browse/excelExternalWindow/FAB5C2606A93D0248625792F00514DC8.0001					
1/22/2024	AC	Content	DRS	AC 25.1529-1A	25.1529
https://drs.faa.gov/browse/excelExternalWindow/E4111B5537E0B345862573B0006FA23B.0001					
5/4/2010	AC	Preparation	DRS	AC25-27A	
https://drs.faa.gov/browse/excelExternalWindow/4620B63F4B3D58F98625771F0053A1D6.0001					
3/8/2001	AC	ALS	DRS	AC 33.4-2	33.4
https://drs.faa.gov/browse/excelExternalWindow/6CF96E66FDE2BD0E86256A84005B1F8A.0001					
2/27/2017	AC	HIRF	DRS	AC 33.4-3 (1)	33.4
https://drs.faa.gov/browse/excelExternalWindow/4173A686D103940186257083006B60B6.0001					
11/3/2003	AC	Preparation	DRS	AC 35.4-1	35.4
https://drs.faa.gov/browse/excelExternalWindow/6E01F1B5F14D299586256DD60067E023.0001					
3/21/2014	AC	PMA	DRS	AC 21.303-4	

Document Date	Document	Area of ICA	Source	Name (if applicable)	Regulatory Reference
https://drs.faa.gov/browse/excelExternalWindow/6A42B2B46A76BA9086257CF400455E58.0001					
2/28/2011	AC	Content	DRS	AC 21-50	
https://drs.faa.gov/browse/excelExternalWindow/988C35FD2FF2579F8625784600558DE7.0001					
4/30/2010	AC	Repairs	DRS	AC 33.-9	33.4
https://drs.faa.gov/browse/excelExternalWindow/31916B17FF7305D48625771C006F2ECA.0001					
7/31/2009	AC	LLPs	faa.gov	AC 33.70-1	33.70
https://drs.faa.gov/browse/excelExternalWindow/46F4E2512561476086257609006A293B.0001					
6/10/2013	AC	Data Retention	faa.gov	AC 20-179	IP Law
https://drs.faa.gov/browse/excelExternalWindow/C8C86A31B568497E86257B8D0059EFAE.0001					
2/17/2023	AC	IP and Bilateral	faa.gov	AC 21-52	IP Law
https://drs.faa.gov/browse/excelExternalWindow/8F23079E065D0D1186257B4A0056305F.0001					
3/31/2017	AC	Content	faa.gov	AC 25.1701-1	IP Law
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID153333432120230217230947.0001					
10/1/2016	AC	C&E	DRS	AC 00-68	
https://drs.faa.gov/browse/excelExternalWindow/A8093BA515DEE2CD862573AA0077FD46.0001					
1991	Legal Interp	Content	91 note from FAA on Cessna		91.409(a)
8/8/1998	Legal Interp			Legal Interp of provisions of parts 21, 25, 91 and 121	
8/11/2006	Legal Interp	“Mandatory” SBs	FAA	Busch	43.13
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2006/Busch_2006_Legal_Interpretation.pdf					
3/26/2007	Legal Interp	Approval vs. Acceptance	FAA	Loh-Dassault	135.21 & 43.13
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2007/Loh-DassaultFalconJet_2007_Legal_Interpretation.pdf					
3/26/2008	Legal Interp	Points to case law for definition of airworthy	FAA		91.7, 121.563, 121.627, 135.65, & 135.69
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2008/Witkowski-AssocFlightAttendants_2008_Legal_Interpretation.pdf					

Document Date	Document	Area of ICA	Source	Name (if applicable)	Regulatory Reference
12/5/2008	Legal Interp	Currency	faa.gov	“Current” for AFS-300	91.409(f)(3)
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2008/Manager-AFS-300_2008_Legal_Interpretation.pdf					
9/3/2009	Legal Interp	“Approved” vendors	FAA	MacLeod	43.13 & ADs
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2009/MacLeod-2-ARSA_2009_Legal_Interpretation.pdf					
8/13/2010	Legal Interp	Currency	faa.gov	“Current” as applies to CMMs	43.13 & 145.109(d)
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2010/Maintenance Manuals and Other Documents_2010_Legal_Interpretation.pdf					
8/3/2012	Legal Interp	Availability/Content/Cost/IP Concerns	faa.gov	MacLeod (CMMs in ICA)	21.50(b)
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2012/MacLeod-AeronauticalRepairStation_2012_Legal_Interpretation.pdf					
3/31/2014	Legal Interp	Cost	FAA		
5/21/2014	Legal Interp	Who can perform maintenance? DAH attempted restriction	FAA	Herford	43.13 & 43.16
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2014/Hereford-KansasAvionics_2014_Legal_Interpretation.pdf					
12/3/2015	Legal Interp	“Mandatory” Inspections	FAA	Siilats	91.409(f)(3)
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2015/Siilats_2015_Legal_Interpretation.pdf					
5/27/2016	Legal Interp	Installed Appliance	faa.gov	Nkugba	91.205
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2016/Nkugba_2016_Legal_Interpretation.pdf					
7/5/2017	Legal Interp	“Mandatory” Inspections	FAA	Cash	91 & 135
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2017/Cash_2017_Legal_Interpretation.pdf					
9/29/2017	Legal Interp	Limited Time Repairs	FAA	Murphy	
https://www.faa.gov/sites/faa.gov/files/faa_migrate/interps/2017/Murphy_2017_Legal_Interpretation.pdf					

Document Date	Document	Area of ICA	Source	Name (if applicable)	Regulatory Reference
3/7/2019	Legal Interp	"Mandatory" Inspections	FAA	DiSalvatore	Part 91
8/4/2017	Letter	Removal of Content	First Aviation / The Regulatory Group	CRM repairs are ICA	21.50(b) A35.3
3/29/2012	Policy Statement	Availability	faa.gov	PS-AIR-21.50-01	2150.(b)
https://drs.faa.gov/browse/excelExternalWindow/757C84AC9BECEC27862579D00054DF95.0001					
10/23/2010	Order	All	DRS	8110.54A	21.5
https://drs.faa.gov/browse/excelExternalWindow/29DA771AC7916EC8862578010049F950.0001					
10/20/2023	Order	TC/STC	DRS	8110.4C (7)	
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID146104418820231013050059.0001					
10/27/2023	Order	PMA	DRS	8110.42D (2)	
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID173539790620231101201436.0001					
5/17/2010	Order	Protection of IP	faa.gov	IR-M 8040.1C	Part 39
https://drs.faa.gov/browse/excelExternalWindow/66DDD8E1D2E95DB3862577270062AABD.0001					
9/14/2016	Order	Protection of IP	faa.gov	8110.103A	Part 39
https://drs.faa.gov/browse/excelExternalWindow/66DDD8E1D2E95DB3862577270062AABD.0001					
10/3/2014	Order	Protection of IP	faa.gov	8110.112A	
https://drs.faa.gov/browse/excelExternalWindow/127B6D648F64F98A86257D6600687599.0001					
6/8/2022	Order	C&E	DRS	8000.373C	
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID167818439820220713161542.0001					
8/8/2023	Order	C&E	DRS	2150.3C (11)	
https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID121148635420230914134004.0001					

D. Proposed Changes to Order 8110.54A

[The Working Group A TCH subgroup developed this proposed revision to Order 8110.54A to illustrate the changes they call for in Proposal AT5. Proposed deletions are ~~in strikethrough~~; proposed new text is **in red**.]



U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

National Policy

**ORDER
8110.54A**

10/23/2010

SUBJ: Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents

This order provides guidance on responsibilities, requirements, and content for instructions for continued airworthiness (ICA) as required by Title 14 of the Code of Federal Regulations (14 CFR) § 21.50 and the various airworthiness standards.

This revision does not contain guidance on electrical wiring interconnection systems (EWIS) (14 CFR 25 subpart H), or continued airworthiness and safety improvements for transport category airplanes (14 CFR part 26). **Guidance on these topics can be found in advisory circular 25-27A, 25.17-1 and 26-1.** ~~We will introduce these programs in a separate document due to differing requirements.~~

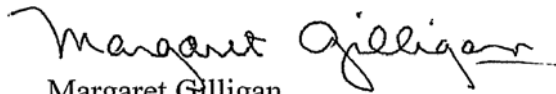

Margaret Gilligan
Associate Administrator
Aviation Safety

Table of Contents

Paragraph

Page

[....]

Chapter 4. Required Manuals/Publications or Sections 12

[....]

[Note: The remainder of the Table of Contents has been omitted, as it does not contain any proposed changes.]

[Note: Chapter 1 has been omitted, as it does not contain any proposed changes.]

Chapter 2. Regulatory Requirements for ICA

[....]

- 2. Purpose of ICA.** ICA provide a way to keep products airworthy. ICA provide documentation of recommended methods, inspections, processes, and procedures. The ICA must contain information **relevant to** each item or part, as appropriate, installed on the product.

[....]

- 8. ICA in Manufacturer's Service Documents.** Service documents are not a preferred method of changing type design within a DAHs design control system. They are an acceptable method of transmitting approved information regarding product improvement, economics, operational and/or maintenance practices, and safety, including ICA.

a. When these documents do change the type design, the publications constitute design approval, and are subject to the applicable airworthiness requirements and 14 CFR § 21.50(b). Consequently, we expect the TC holder/manufacturer to assess the change to type design and provide all necessary information to correctly maintain the product throughout its operational life with the service document incorporated.

b. Manufacturers/TC holders can use their service documents as the method of making changes to ICA available if:

- i. The documents contain all required information for the change to type design;
- ii. They furnish the documents to the FAA and all owners of the product per the program identified in chapter 5, paragraphs 1 k. and l. of this order; and
- iii. They are incorporated or referenced into the ICA ~~manual, or manuals~~ **publications**, in a timely manner.

(c) Typical publications include; service bulletins, all-operators letters, service newsletters, service digests, and magazines. They do not include publications required for FAA type certification or approval such as flight manuals and certain maintenance manuals. ~~Refer to FAA Advisory Circular (AC) 20-114, Manufacturer's Service Documents, for more information.~~

[....]

[**Note:** The remainder of Chapter 2 has been omitted, as it does not contain any proposed changes.]

Chapter 3. ICA Format and Types of Data

1. Identification of ICA. The instructions for continued airworthiness (ICA) may be provided together with other, additional or optional, maintenance information, with the following conditions:

(a) The design approval holder (DAH) shall provide a list of publications that contain the instructions essential for the continued airworthiness for the product or article.

(b) The ICA may reference additional methods, techniques & practices for performing maintenance in separate publications, where necessary (for example, those produced by suppliers). If the product ICA reference supplier's data (e.g. component maintenance manual (CMM) or section of it) as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product.

2. Non-ICA data referenced together with the ICA

(a) Additional or optional maintenance information not considered as ICA but referenced by the design approval holder (DAH) together with the ICA should be evaluated appropriately by the DAH to ensure that its use will not compromise the continued airworthiness of the product or article.

(b) If the maintenance data made available by a DAH includes data from an operator (i.e. to customize the data for the operator, and created under the authority of the operator), the operator's data should be identified as such, and the DAH is not required to additionally evaluate it.

(c) Supplier data, or parts of the supplier data, which is not considered to be part of the ICA but is additional or optional maintenance information referenced together with the product-level ICA, may be issued by the supplier under a contract or an arrangement with the DAH.

3. ICA Requirements for Design Approval Holders. The design approval applicant should list the documents that will constitute a complete set of ICA for its design as early as practical in the project and submit that list to the FAA for concurrence. The submittal must include the applicant's program showing how it plans to distribute changes to the ICA it has made, as the DAH, or by the manufacturers of installed products and appliances. Examples of these changes must include a list of effective pages, revision levels, revision bars, and date changes.

a. ICA for each aircraft must include:

(1) ICA for each aircraft engine, propeller, and appliance required by the applicable airworthiness regulations; and

(2) Any required information about the interface of those aircraft engines, propellers, and appliances with the aircraft.

b. If the ICA are not supplied by the manufacturer of an aircraft engine, propeller or appliance installed in the aircraft, then the ICA for the aircraft must include the information essential to the aircraft's continued airworthiness.

c. As required by the regulations, the ALS of the ICA must include:

(1) Each mandatory replacement time, structural inspection interval, and related structural inspection procedure(s); and

(2) For affected transport category airplanes, the ALS must also include each mandatory replacement time, inspection interval, related inspection procedure, and all critical design configuration control limitations (CDCCL) approved for the fuel tank system under 14 CFR § 25.981 for the fuel tank system.

d. In the case of airframe structure, the FAA recognizes that DAHs may not be able to complete development of structural inspection procedures or other ICA procedures needed to support maintenance requirements for the entire design life of the aircraft by the delivery of the first new aircraft or return to service of modified aircraft or at the time of TC issuance. Under these circumstances, the DAH can establish an operational limit for the first inspection for which the data is not available. The operational limit must be clearly stated in the ALS of the ICA, and no aircraft may be operated beyond this limit. As the data becomes available, the ALS can be revised to extend or eliminate the operational limit.

4. How to Format the ICA.

a. If you are in an ACO, tell applicants to prepare ICA as a manual/**publication**, or manuals/publications, depending on how much data is necessary to provide complete ICA. The manual(s)/**publication(s)** and included data must be in English. The manuals/**publications** need to be easy to read and follow. Each chapter or section should give detailed instructions for completing a task. All manuals/**publications** must have a method of recording updates to their content, such as a list of effective pages and a record of revisions. The applicant should propose the format or standard, and media, to be used for FAA concurrence prior to developing ICA. You can refer applicants to sample formats in:

(1) The Air Transport Association's (ATA) iSpec 2200, *Information Standards for Aviation Maintenance*, latest edition,

(2) General Aviation Manufacturers Association (GAMA), Specification No. 2, *Manufacturer's Maintenance Data*, latest edition, or

(3) Aerospace and Defence Industries Association of Europe (ASD), ASD-

S1000D, *International Specification for Technical Publications Utilizing a Common Source Data Base*, latest edition.

- ~~b.~~ If there are multiple manuals/~~publications, there should be a list or other method acceptable to the administrator, identifying the location(s) of ICA [Reference Chapter 3].~~ ~~there should be a principal manual that describes the other manuals and how to apply them. It should also have a table of contents of all other manuals. The principal manual is the one used for day-to-day maintenance of the aircraft, aircraft engine, or propeller. Overhaul manuals, component maintenance manuals (CMM), maintenance review board (MRB) reports, and service bulletins do not offer this information.~~
- c. If previous ICA or maintenance documents do not exist, or were developed before January 28, 1981, the ICA submitted for a subsequent design change (after January 28, 1981) should follow the format requirements in the applicable airworthiness regulations. Regardless of the format, you should review any submittal of ICA to ensure it contains the essential information for acceptability.

5. ICA Content for Specific Design Approvals.

- a. The appendixes in the applicable airworthiness regulations specify what must be in the ICA. In addition to the information in paragraphs 3.b. through 3.e~~d.~~, all ICA submitted to you:

(1) Must be specific to the product, not general. It's been our experience that applicants rely too much on "standard practices" or other general guidance as the only installation and maintenance details. Often, type design data packages refer to AC 43.13-1, *Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair*, for installation and maintenance instructions. That guidance is general, in that it is acceptable only when there are no manufacturer repair or maintenance instructions. It allows an owner, operator, or installer to choose many options for installation or maintenance. Although some standard practice manuals are acceptable for use on a specific task, they are not acceptable as the "complete set" of ICA. We must have product-specific ICA to find that the configuration complies with criteria set by the certification basis. Applicants should substantiate any use of standard practices documents applicable to the configuration being certified.

(2) Must contain the ALS statement shown in the applicable airworthiness regulations even when the design approval does not affect the ALS. We require this to document that the ALS has been reviewed and the applicant addressed any changes or impacts.

- b. New TC.** ICA for a new TC must have all information required by the appendix of the applicable airworthiness regulations, as shown in chapter 4 of this order. For example, for a new aircraft being type certificated to 14 CFR part 25, the applicant's ICA should include all items marked in this order as "(Aircraft)." An

aircraft engine TC project should include all information marked “(Engine).” The maintenance manual/**publication** is marked for both “(Aircraft) and (Engine),” because the regulations require maintenance manuals/**publications** for both the aircraft and aircraft engine.

[....]

[Note: The remainder of Chapter 3 has been omitted, as it does not contain any proposed changes.]

Chapter 4. Required Manuals/**Publications** or Sections

a. **Airworthiness Limitations Section.**

a. For an aircraft, aircraft engine, or propeller, there must be a separate and distinguishable ICA section, called Airworthiness Limitations Section. The ALS must prominently display the statement regarding FAA-approval as shown in the appendix of the applicable airworthiness regulations. The applicable airworthiness regulations require the applicant set forth the following in the ALS:

- (1) Approved mandatory replacement times for type certification,
- (2) Approved mandatory inspection times for type certification,
- (3) Inspection procedures for those approved mandatory times, and
- (4) Critical design configuration control limitations (CDCCL).

b. If the ICA consists of multiple manuals/**publications, all locations within the Instructions for Continued Airworthiness which contain Airworthiness Limitations Section requirements must be clearly identified.** ~~we require applicants to include the ALS in the “principal manual.”~~ Coordinate with the applicant to identify **the location of Airworthiness Limitations Section requirements** ~~the principal manual.~~ In general, the principal manual will be the document used for maintenance. However, it may also be the document used for scheduled maintenance to ensure all required inspections and associated limitations are contained within a single document. ICA complexity and the type of product will **determine where the Airworthiness Limitations Section requirements are located within the Instructions for Continued Airworthiness** ~~assignment of the principal manual.~~

c. We consider the above paragraphs, 1.a.(1) through (4), critical. The product’s airworthiness could be compromised if an aircraft, aircraft engine, or propeller does not comply with the inspection and replacement times and procedures in those paragraphs. Applicants typically identify these items when they perform safety assessments on the product’s structure and systems.

d. The ALS information ~~contained in the principal manual~~ must contain, at a minimum, the times (thresholds and/or intervals) for the required maintenance or replacement actions and a description of the tasks to be performed. To avoid duplication the specific detailed instructions for performing the associated maintenance, including inspection methods to be used, may be contained in the maintenance instructions portion of the ICA. If the applicant elects to do this the referenced information must be sufficiently identified and protected to prevent unauthorized or inadvertent change, and confusion as to the mandatory nature of the inspection methods and details.

e. Examples of items required for type certification are structural inspections per 14

CFR §§ 23.571, 23.572, 23.573, 25.571, 27.571, and 29.571, and fuel system requirements per 14 CFR § 25.981.

f. For specific regulatory requirements, refer to:

- 14 CFR § 23.1529, Appendix G A, § G A23.4,
- 14 CFR § 25.1529, Appendix H, § H25.4,
- 14 CFR § 27.1529, Appendix A, § A27.4,
- 14 CFR § 29.1529, Appendix A, § A29.4,
- 14 CFR § 31.82, Appendix A, A § 31.4,
- 14 CFR § 33.4, Appendix A, § A33.4, and
- 14 CFR § 35.4, Appendix A, § A35.4.

2. Certification Maintenance Requirements. These are required inspections or maintenance tasks used primarily for transport category airplanes. They apply to equipment, systems, and powerplant installations. They are performed at certain times to detect and correct safety- significant latent failures (failures not known to the flight or ground crew). CMRs are required by the type design and to maintain a product's airworthiness. CMRs are equal to limitations and are required as part of the ALS. Refer to FAA AC 25-19, *Certification Maintenance Requirements and 14 CFR Part 25, 25.1529 Appendix H, H25.4(a)(6)*, for more information.

3. Airplane/Rotorcraft Maintenance Manual/Publication. These manuals/publications or sections must explain aircraft/rotorcraft features, and give information to the extent necessary to conduct aircraft/rotorcraft maintenance or preventive maintenance, including:

- a. Description of all systems and installations, including aircraft engines, propellers, and appliances (for aircraft/rotorcraft) and accessories (for aircraft engines);
- b. Removal and installation instructions for parts, including any required equipment and precautions;
- c. Description of how the aircraft components, installed appliances, and systems operate and are controlled, including special procedures and limitations;
- d. Servicing information; including:
 - (1) Servicing points (location and access), including capacities of tanks and reservoirs and the types of fluid used;

(2) Pressures applicable to the various systems, and any required equipment and precautions,

(3) Location of access panels for inspection and servicing;

(4) Location of lubrication points and lubricants to use, including any required equipment, and precautions;

(5) Aircraft towing instructions, including any required equipment, precautions, and limitations;

(6) Aircraft jacking, mooring, and leveling instructions, including any required equipment, precautions, and limitations;

(7) Lifting and shoring instructions, including required equipment and precautions;

(8) Weight and balance instructions to determine the center of gravity; and

(9) A method for **providing** part configuration ~~control~~-**information** (eg. illustrated parts catalog (IPC), master drawing list (MDL), **Service Bulletins, other**) ~~is not required, but encouraged if properly maintained and controlled.~~

e. For regulatory requirements, refer to:

- 14 CFR § 23.1529, Appendix **A** ~~G~~, ~~G~~ **A**23.3(a),
- 14 CFR § 25.1529, Appendix H, H25.3(a),
- 14 CFR § 27.1529, Appendix A, A27.3(a), and
- 14 CFR § 29.1529, Appendix A, A29.3(a).

4. Airplane/Rotorcraft Maintenance Instructions.

a. These manuals/**publications** and sections must include:

(1) Scheduling information for each item of the aircraft, its engines, auxiliary power units, propellers, accessories, instruments, and equipment.

(a) This information should give recommended times for cleaning, inspecting, testing, lubricating, and adjusting each part.

(b) Include the degree of inspection required, the wear tolerances, and work recommended.

(c) Applicants can refer to an accessory, instrument, or equipment manufacturer as the source of this information. They can do this only if they show that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise.

(d) Applicants must provide information on these techniques, test equipment, or expertise to the FAA for review. The FAA understands that the DAHs may determine that component level maintenance data are not appropriate for some items. In this case the requirement for “complete ICA” can be met by providing the necessary instructions to determine the item(s) are unairworthy (or otherwise unserviceable), remove the item from the product, replace the item with an airworthy unit, and perform the necessary checks to be able to return the affected product to service;

(2) The recommended overhaul periods, **when applicable**, that show when to overhaul the product, accessories, instruments, or equipment. **(Note that many new products are managed on an “on condition” maintenance program that manages component serviceability through established serviceability limits instead of overhaul thresholds).** Information on overhaul periods should include the necessary cross-reference to the ALS if the overhaul time is a limitation as discussed in paragraph 1 of this chapter. If the ICA gives an overhaul time, then the ICA must include the necessary overhaul information or refer to an overhaul manual, which becomes incorporated into the ICA by reference. The applicant must provide the information or manual to the FAA for review;

(3) An inspection program consisting of the thresholds for inspection, inspection intervals, type of inspection required, and the extent of inspections necessary to ensure continued airworthiness;

(4) Troubleshooting information describing probable malfunctions, and how to recognize and correct them;

(5) Information describing the order and method of removing and replacing products and parts, with any necessary precautions to be taken;

(6) Descriptions of how to adjust and test the systems; including flight control systems functional checkout procedures after maintenance, and any required equipment and precautions;

(7) Diagram of structural access plates, and how to gain access when access plates are not provided;

(8) Details for applying special inspection techniques, including specific procedures where these techniques are specified;

(9) Identification of primary structure and recommended inspection times, locations, and inspection methods such as ultrasonic, and eddy current;

(10) All data on structural fasteners, such as identification, discard recommendations, and torque values; and

(11) A list of special tools needed to accomplish recommended maintenance.

b. The applicant can choose to utilize a maintenance review board. The resulting MRB report can be included by the DAH as part of the ICA. Inclusion of the MRB report in the ICA is required only when one was developed and subsequently requested by the owner or operator. The MRB report is intended for air carriers. This report contains the initial minimum scheduled maintenance and inspection requirements for a particular transport category aircraft and on-wing aircraft engine program. Air carriers can use the MRB report, and its associated requirements, to develop maintenance programs. Refer to AC 121-22, *Maintenance Review Board Procedures*, for additional information.

c. For regulatory requirements, refer to:

- 14 CFR § 23.1529, Appendix A G, G A23.3(a),;
- 14 CFR § 25.1529, Appendix H, § H25.3(b) thru (g);
- 14 CFR § 27.1529, Appendix A, § A27.3(b); and
- 14 CFR § 29.1529, Appendix A, § A29.3(b).

5. Manned Free Balloon Instructions.

a. These manuals/~~publications~~ or sections must explain the balloon's features and provide information to the extent necessary to conduct maintenance or preventive maintenance. They include:

- (1) Description of the balloon, its systems, and installations. This description should include, but is not limited to, the controls, basket structure, fuel systems, and heating assembly;
- (2) Description of how the systems operate and are controlled, including special procedures and limitations;
- (3) Servicing information that covers balloon components, including burner nozzles, fuel tanks, valves during operation, and any required equipment and precautions;
- (4) Maintenance information for each part of the balloon and its envelope, controls, basket structure, fuel systems, instruments, and heater assembly that provides recommended times for cleaning, inspecting, testing, lubricating, and adjusting the balloon and its components. Include the degree of inspection required, the wear tolerances, and work recommended. Applicants may refer to an accessory, instrument, or equipment manufacturer as the source of this information if they show that

the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise;

- (5) The recommended overhaul periods that show when to overhaul the product, accessories, instruments, or equipment. Information on overhaul periods should include the necessary cross-reference to the ALS if the overhaul time is a limitation identified in paragraph 4-1 of this order. If the ICA gives an overhaul time, then the ICA must include the overhaul information or refer to an overhaul manual. The applicant must provide the information or manual to the FAA for review;
- (6) An inspection program consisting of the thresholds for inspection, inspection intervals, type of inspection required, and the extent of inspections necessary to ensure continued airworthiness;
- (7) Troubleshooting information describing probable malfunctions, and how to recognize and correct them;
- (8) Hard landing inspection items and procedures;
- (9) Balloon storage preparation and limits;
- (10) Description of how to repair the balloon envelope, its basket, or trapeze;
- (11) Description of how to inflate and deflate the balloon envelope;
- (12) A method for **providing** part configuration ~~control~~ **information** (e.g. IPC, MDL, **Service Bulletins, other**) ~~is not required, but encouraged if properly maintained and controlled.~~

b. Refer to 14 CFR § 31.82, Appendix A, A31.3 for the regulatory requirements.

6. Aircraft Engine Instructions. These manuals/**publications** or sections must explain aircraft engine features and provide information to the extent necessary to conduct aircraft engine maintenance or preventive maintenance **tasks needed to maintain the continued operational safety of the engine.** *[Based upon AC 33.4-1, para. 4]* The determination of need for instructions regarding parts, subassemblies, assemblies or modules should include consideration of airworthiness limitations, safety assessments, classification of parts, and compliance requirements. Each part needs to be addressed either individually or as part of a group or system. *[See AC 33.4-1, para. 7(b)]*

a. **The Engine Maintenance Manual/**Publication** or Section must provide:**

(1) The description of the engine features and data, its components, systems, and installations should contain sufficient details to the extent necessary to perform engine maintenance. This may include any necessary warnings, cautions and guidance, such as applicable metric system or U.S. Standard System requirements. This is necessary to meet the regulatory requirements relating to the performance of maintenance for recording and

surveillance of the actual work performed, and the methods, techniques and practices employed. [See A33.3(a)(1) and(a)(2)].

(2) The instructions should also address all accessories, cover-plates, etc., that may be attached to, mounted on, or driven by the engine, since their interfaces affect the engine. Complete installation instructions are required for those parts and accessories that are a part of the engine type design. Minimum interface instructions and any appropriate specifications, warnings, or cautions should be provided for those areas where non-engine TC accessories or parts could be installed on the engine at a later date. [See A33.3(a)(3)].

6. (3) The ICA's should provide adequate information in engine control and operations described in this paragraph to the extent necessary to perform the maintenance at the levels specified. [See A33.3(a)(4)].

(4) The servicing information includes both engine type design parts, and systems or components that are not part of the engine TC but are installed integrally with or dependent upon the engine. For example, shared oil systems with accessories or propellers, gear drive interfacing with the engine. In these instances, it is important to coordinate with the ACO that is responsible for the engine installation and the acceptance of the servicing information. [See A33.3(a)(5)].

(5) Scheduling information need not be provided for "every part", but rather the scheduling information should provide for the continued airworthiness of the entire engine to the extent that the lack of specific scheduling information on any part will not adversely affect the continued airworthiness of the engine. The substantiation for scheduling information may be derived from engine certification testing, development testing, service experience of the same or similar type design engine, or a combination thereof. The ICA's should state that those parts not scheduled need not be serviced other than to be inspected when exposed. [See A33.3(a)(6)].

(a) An applicant should provide one or several scheduling options in the ICA. The engine parts, components and accessories should be monitored and serviced while installed, otherwise the products should be scheduled for appropriate maintenance or overhaul to ensure their continued airworthiness. For example, this could mean "soft times" for each module, assembly, sub-assembly, accessory, or part of the engine. If the engine is taken off aircraft, then the ICA's should provide maintenance or overhaul instructions that are necessary to determine their eligibility for reinstallation in an engine and continued service use. This could also mean that the disassembly of the engine, module or component assembly to the piece part level may be required before returning the engine to service if the exposure occurs after a considerable number of hours or cycles in service. Refer to paragraphs in Section 9b for more information.

(b) A single top level "overhaul" time between overhaul (TBO) for the engine could be sufficient when it provides an appropriate interval to ensure the continued airworthiness of the entire engine.

(c) Where there is a fixed schedule for Overhaul, the TC holder should clearly define what level or amount of inspection and repair or replacement of parts constitutes an "overhaul". This is critical for several reasons. Section 33.19 requires that an engine be designed and constructed to minimize the development of an unsafe condition between overhaul periods, which includes components and accessories that are part of the type certificate. Further, for the issuance of an export airworthiness approval on a "newly overhauled" product defined under § 21.321(b)(4), it is necessary to know what work constitutes a complete overhaul of the product in order to make the correct airworthiness determination for export. Section 43.2 describes in general terms what constitutes overhaul, but the ICA's should detail what work on the particular engine type meets that definition. The recommended overhaul periods should be included in the ICA's, and the necessary cross-references would typically not be in the airworthiness limitations section, unless it was necessary to prevent a failure or malfunction that could directly lead to an unsafe or hazardous condition.

(d) When the engine is maintained under an "on condition" maintenance program, the applicant must include an inspection program in the ICA's necessary to provide the continued airworthiness of the engine. The initial maintenance inspection requirements, derived from § 33.90 testing, in conjunction with other certification tests, analyses, and service experience, if available, are typically used to develop the inspection program for parts, subassemblies, assemblies or modules. The program need not be defined in the airworthiness limitations section. However, such recommendations should cross-reference any airworthiness limitations that are required to be accomplished in conjunction with the inspection program. The development of an adequate inspection program should also include subsequent inspections (periods, frequency, and parts involved) and, when applicable, the procedures for increasing inspection periods, such as a sampling program or service experience of the same or similar type design engine. For systems, it is necessary to include an assessment of the entire system which may require joint engine, aircraft, or propeller systems review and coordination with the engine installing ACO.

(e) The applicant may refer to a component manufacturer as the source for the scheduling information. If the product ICA reference supplier's data (e.g. component maintenance manual (CMM) or section of it) as the appropriate location for the scheduling information, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product. There may be instances where only the original equipment manufacturer (OEM) is approved to work on a part or component due to the complexity of the maintenance task. In such instance, when approved by the cognizant ACO, only the recommended scheduling periods and the manufacturer's contact data would be referenced in the ICA's.

(f) The ICA should clearly identify and reference any component manuals or part thereof that are part of the ICA. In such cases, the TC holder shall establish, with the

components manufacturer, a program to show how changes to the ICA of engine parts will be distributed and submit it to the FAA under section A33.1(c) of the Appendix to part 33. The TC holder may work in conjunction with the component manufacturer to distribute changes to component manuals.

(6) The troubleshooting information should ensure that the engine and its modules, assemblies, sub-assemblies and parts perform their intended functions within the approved flight envelope and prevent engine malfunctions. The probable malfunctions that could occur should be addressed either to rectify them or replace the affected part or component before continued operation. [See A33.3(a)(7)].

(7) Information describing the order and method of removing and installing the aircraft engine and its parts and accessories. These instructions must include any warnings, cautions, and notes that are part of the aircraft engine type design. A method for parts configuration control (e.g., IPC, MDL) is not required but encouraged if properly maintained and controlled. [See A33.3(a)(8)].

(8) The list of tools should be adequate to complete the work. The list may consist of several lists located in the appropriate sections of the ICA's where the work is described. It is recommended however, that the list of tools and equipment be centrally located in the front of the manual/publication or section, to better facilitate locating and ordering tools and equipment. Also, the list should include a cross-reference to the appropriate section where directions to the method of using each tool are located. Special tools should be highlighted, since there is a specific regulatory requirement for the use of a special tool when performing maintenance. [See A33.3(a)(9)].

(9) A method of providing part configuration information (IPC, MDL, Service Bulletins, other).

- ~~(1) A detailed description of the aircraft engine and its components, systems, and installations;~~
- ~~(2) Installation instructions, including proper procedures for uncrating, deinhibiting, acceptance checking, lifting, and attaching accessories. Include any necessary checks, warnings, cautions, and notes that are part of the aircraft engine type design in these instructions;~~
- ~~(3) Description of how the aircraft engine components, systems, and installations operate. Applicants should also describe how to start, run, test, and stop the aircraft engine and its parts. These descriptions must include any special procedures and limitations;~~
- ~~(4) Servicing information, including servicing points (location and access), capacities of tanks and reservoirs, types of fluid used, and pressures applicable to the various systems. It includes any required equipment and precautions;~~

- ~~(5) Scheduling information for each part of the aircraft engine that provides recommended times for cleaning, inspecting, testing, lubricating, and adjusting the aircraft engine. It includes the degree of inspection required, the wear tolerances, and work recommended. Applicants can refer to an accessory, instrument, or equipment manufacturer as the source of this information. They can do this only if they show that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise;~~
- ~~(6) The recommended overhaul periods that show when to overhaul the product, accessories, instruments, or equipment. Information on overhaul periods should include the necessary cross reference to the ALS if the overhaul time is a limitation identified in paragraph 1 of this order;~~
- ~~(7) An inspection program consisting of the thresholds for inspection, inspection intervals, type of inspection required, and the extent of inspections necessary to ensure the continued airworthiness;~~
- ~~(8) Troubleshooting information describing probable malfunctions, how to recognize and correct them, and precautions;~~
- ~~(9) Information describing the order and method of removing and installing the aircraft engine and its parts and accessories. These instructions must include any warnings, cautions, and notes that are part of the aircraft engine type design;~~
- ~~(10) List of tools and equipment necessary for maintenance and directions as to their method of use;~~
- ~~(11) A method for parts configuration control (e.g., IPC, MDL) is not required, but encouraged if properly maintained and controlled;~~
- ~~(12) Refer to 14 CFR §§ 33.4 and A33.3(a) for the regulatory requirements.~~

b. The Engine Overhaul Manual/Publication** or Section.**

(1) Engine Overhaul Manual/Publication or Section. It is not necessary to define a single overhaul time for the entire engine, or even modules or assemblies. However, the experience has shown that every part of the engine is exposed for inspection at some point during the life of the engine. The TC holder should clearly define what level or amount of inspection and repair or replacement of parts constitutes an "overhaul". Utilizing the modular maintenance concept is a method of achieving this overhaul in an efficient manner, though each part may effectively be overhauled at different times or

cycles. The recommended overhaul periods should be included in the ICA's, and the necessary cross-references would typically not appear in the airworthiness limitations section, unless it was necessary to prevent a failure or malfunction that could directly lead to an unsafe or hazardous condition. Specific inspections with "threshold" or "window" schedule requirements should be established in the ICA. The "window" schedule, for example, may be established to coincide with a life limited component removal. Additionally, when an engine is in the shop and areas of the engine are exposed on an opportunity basis, parts and components of those areas should be subjected to appropriate inspections to determine the eligibility of a part or assembly for reinstallation and continued service use. [See A33.3(b)].

(2) The engine overhaul manual/publication or section should contain sufficient details to the extent necessary for disassembly, overhaul and reassembly to be performed. This also includes any necessary warnings, cautions, and guidance. [See A33.3(b)(1)].

(3) The engine overhaul manual/publication should contain cleaning and inspection instructions necessary to assess the serviceability of the engine assemblies and components. [See A33.3(b)(2)]:

(a) The determination of adequate inspection criteria should provide for appropriate inspection of each part of the engine, subassembly, assembly, and module as well as systems and components. Inspections should identify the required action at each level, such as part replacement or further detailed inspection.

(b) The accuracy and reliability of inspection techniques need to be consistent with the criticality of the parts being inspected, and the types of defects for which the inspection is being conducted. During inspections, when special emphasis or a higher awareness is needed, the ICA's should clearly identify those critical parts and key features or areas. The cleaning could have a significant effect on inspectability, since improper cleaning can result in missed inspection of potentially hazardous defects. Therefore, the proper cleaning methods should be emphasized with the appropriate cautions where improper cleaning could be a factor.

(4) The engine overhaul manual/publication should contain details for all fits and clearances relevant to the engine and components, structural integrity, and functionality for new and worn parts. While these fits and clearances may be identified in the manual/publication as "limits," they are not considered "airworthiness limitations". However, these limits, if exceeded, may mean that the component or part is not airworthy. Therefore, such limits need to be analyzed and adjusted accordingly. [See A33.3(b)(3)].

(5) The engine overhaul manual/publication may also contain details of repair methods when they are provided as an alternative to replacing unserviceable parts. The main objective of this requirement is that worn or substandard parts that do not meet the ICA inspection limits cannot be returned to service. Such parts should be either replaced or repaired in order to make the engine airworthy. While the ICA need not contain repairs for all engine parts, the ICA's should identify when or under what conditions parts must be replaced or repaired. If a part or component fails to meet the requirements in the Inspection/Check section of the ICA, replacement is an acceptable alternative to repair in order to maintain the continued airworthiness of the engine. Repair instructions should be complete and may include personnel training requirements. The FAA may allow and approve of other repair data that is not part of the TC and is not reflected in the ICA. However, when design change data for repair or alteration constitutes a substantial change to the type design, and therefore could be considered major, the need for information in the ICA for such a repair or alteration should be evaluated, since any repair or alteration could introduce a new feature that does not exist in the original type design. This is particularly true for an STC. Any major design change data, whether in support of a repair or alteration, which is substantive enough to require significant additions to the ICA, should be approved as an STC or amended TC. [See A33.3(b)(4)].

(6) The engine overhaul manual/publication should contain information describing the order and method of removing and installing the aircraft engine and its parts and accessories. These instructions must include any warnings, cautions, and notes that are part of the aircraft engine type design. A method for parts configuration control (e.g., IPC, MDL) is not required but encouraged if properly maintained and controlled. [See A33.3(b)(5)].

(7) The engine overhaul manual/publication should contain test acceptance criteria that are identified as "limits," even though not "airworthiness limitations." However, changes to such engine test acceptance criteria that is safety related should be considered major design changes and may be changed with appropriate FAA approved data to substantiate the change. The manual/publication or section should include instructions for testing an engine after overhaul. This should also include any minimum testing requirements for a single overhauled component or model when applicable. [See A33.3(b)(6)].

(8) The engine overhaul manual/publication should contain any special containers, equipment and tools that may be necessary to comply with the instructions for storage. The storage limits should also include any environmental restrictions, such as limits for temperature, humidity, etc. [See A33.3(b)(7)].

(9) The engine overhaul manual/publication should contain list of tools adequate to complete the work. The list may consist of several lists located in the appropriate sections of the ICA where the work is described. It is recommended that the list of tools necessary for overhaul is centrally located in the front of the manual/publication to facilitate locating and ordering them. Also, the list should include a cross-reference to the appropriate section where the directions to the method of using each tool is located or where the tools are utilized. Special tools should be highlighted, since there is a specific regulatory requirement for the use of a special tool when performing maintenance. [See A33.3(b)(8)].

~~—This manual or section offers the owner information on inspection, repair, or replacement information necessary to restore the airworthiness of the product. It covers aircraft engine disassembly, overhaul, reassembly, and necessary cautions or warnings. The manual or section also gives:~~

- ~~(1) Cleaning and inspection instructions that cover the materials and apparatus to use, and methods and precautions to take during overhaul. It must include methods of overhaul inspection;~~
- ~~(2) Details on all fits and clearances of the aircraft engine and components, and structural integrity and functionality for new and worn parts;~~
- ~~(3) Details of repair methods for worn or otherwise substandard parts and components along with information necessary to determine when replacement is necessary;~~
- ~~(4) Instructions for testing an aircraft engine after overhaul, including test acceptance criteria.~~
- ~~(5) Instructions for storing aircraft engines. These instructions identify special containers and required equipment or tools. The ICA should also include environmental restrictions for storage and storage limits;~~
- ~~(6) List of tools and equipment necessary for overhaul, and directions as to their method of use; and~~
- ~~(7) Refer to 14 CFR §§ 33.4 and A33.3(b) for the regulatory requirements.~~

7. Propeller Maintenance Instructions. These manuals/publications or sections must explain propeller features, and provide information to the extent necessary to conduct propeller maintenance or preventive maintenance.

a. The propeller maintenance manual/publication section includes:

- (1) A detailed description of the propeller and its systems and installations.
- (2) A description of how the propeller components, systems, and installations are controlled and operated, including any special procedures and limitations.
- (3) Installation instructions, including proper procedures for uncrating, acceptance checking, and lifting. They should also include any necessary checks, warnings, cautions, and notes that are part of the propeller type design.
- (4) Scheduling information for each part of the propellers that provides recommended times for cleaning, inspecting, testing, lubricating, and adjusting the propellers. It includes the degree of inspection required, the wear tolerances, and work recommended. Applicants can refer to an accessory, instrument, or equipment manufacturer as the source of this information. They can do this only if they show that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise.
- (5) The recommended overhaul periods that show when to overhaul the product, accessories, instruments, or equipment. Information on overhaul periods should include the necessary cross-reference to the ALS if the overhaul time is a limitation identified in paragraph 4-1 of this order.
- (6) An inspection program consisting of the thresholds for inspection, inspection intervals, type of inspection required, and the extent of inspections necessary to ensure the continued airworthiness.
- (7) Troubleshooting information describing probable malfunctions, how to recognize and correct them, and precautions.
- (8) Information describing the order and method of removing and installing the propeller and its parts and accessories. It includes warnings, cautions, and notes that are part of the propeller type design.
- (9) List of tools and equipment necessary for maintenance, and directions as to their method of use.
- (10) A method for **providing** part configuration ~~control~~ **information** (e.g., IPC, MDL, **Service Bulletins, other**) ~~is not required, but encouraged if properly maintained and controlled;~~ and
- (11) Refer to 14 CFR §§ 35.4 and A35.3(a) for the regulatory requirements.

b. The Propeller Overhaul Section manual/publication or section includes:

- (1) Propeller disassembly, overhaul, and reassembly. It must include any necessary cautions or warnings.
- (2) Cleaning and inspection instructions that cover the materials and apparatus to use, and methods and precautions to take during overhaul. These instructions must also include methods of overhaul inspection.
- (3) Details on all fits and clearances for the propeller and components relative to overhaul.
- (4) Details of repair methods for worn or otherwise substandard parts and components, along with information necessary to determine when replacement is necessary.
- (5) Description of how to test the propeller after overhaul, including test acceptance criteria.
- (6) Instructions for storing propellers. These instructions identify special containers and required equipment or tools. The ICA should also include the environmental restrictions for storage and storage limits.
- (7) List of tools and equipment necessary for overhaul, and directions as to their method of use; and
- (8) Refer to 14 CFR §§ 35.4 and A35.3(b) for the regulatory requirements.

8. System Wiring Diagrams. For aircraft, aircraft engines, and propellers, these diagrams cover the aircraft's electrical or electronic circuits. They must include wire routing information detailed enough to enable maintenance personnel to troubleshoot, repair, and service the electrical system. These diagrams must also include a method of determining connector type, wire type, and wire size. We consider the system wiring diagrams as descriptive data of the systems used on the product, and part of the ICA.

9. Component Maintenance Manual or Section. If the aircraft, aircraft engine, or propeller maintenance information references the use of a CMM as the appropriate location for the ICA (i.e. **Component/Assembly serviceability criteria**), those applicable instructions are incorporated by reference and become part of the complete set of the ICA. ~~If CMM information was developed to comply with 14 CFR § 21.50 then the CMM, or referenced section(s) are part of the ICA.~~ As part of the ICA, they must be furnished to the owner and made available to any other person required to comply with those instructions per 14 CFR § 21.50. **However, CMMs referenced by the DAH as additional or optional maintenance information, are not considered ICA.** ~~The CMM must also contain the following information:~~

- a.**——Manuals or sections explaining the article's features, and provide information to the extent necessary on how to conduct maintenance or preventive maintenance;
- b.**——A description of the control and operation of the article's components and systems. The description should provide enough detail to perform the maintenance at the levels specified;
- c.**Complete installation instructions for those parts and accessories that are part of the approved design. The instructions should include minimum interface instructions and any appropriate specifications, warnings, or cautions for those areas on which articles that are not part of the approved design could later be installed on the type certificated product;
- d.**——Recommended times for cleaning, inspecting, testing, lubricating, and adjusting the article and its components and systems. This scheduling information must include the depth of inspection required, the wear tolerances, and tasks performed. It should ensure the continued airworthiness of the article. Although the applicant does not have to provide specific scheduling information for each part, the lack of such information on any part should not adversely affect continued airworthiness of the article
- e.**An inspection program to ensure the continued airworthiness of the article. Certification tests, analyses, and service experience, if available, are useful when developing the inspection program for parts, assemblies, sub-assemblies, or modules;
- f.** Troubleshooting information to address potential malfunctions and provide procedures to correct them or replace the affected part or component before continued operation;
- g.**——A means to ensure configuration control during maintenance is not required, but encouraged if properly maintained and controlled. This ensures that the proper parts, components, and combinations of parts and components are identified and conform to the approved design. For example an IPC or MDL;
- h.**——Location of access panels for inspection and servicing. This includes a diagram of structural access plates, and how to gain access when access plates are not provided;
- i.** Instructions for storing parts and components and identifying special containers and any equipment or tools. The ICA should also include environmental restrictions for storage and storage limits; and

~~k. A list of tools and equipment necessary for maintenance and directions as to their method of use.~~

10. Component Overhaul Manual or Section. If the aircraft, aircraft engine, or propeller maintenance information references the use of a component overhaul manual, or specific section of a CMM, as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of ICA. ~~If component overhaul manual information was developed to comply with 14 CFR § 21.50 then the component overhaul manual, or referenced section(s) are part of the ICA.~~ As part of the ICA, it must be furnished to the owner and made available to any other person required to comply with those instructions per 14 CFR § 21.50. **However, CMMs referenced by the DAH as additional or optional maintenance information, are not considered ICA.** ~~This manual or section must contain the following information:~~

- ~~a. ——— Cleaning and inspection instructions that cover the materials and apparatus to use and methods and precautions to take during overhaul. These instructions must include methods of overhaul inspection;~~
- ~~b. ——— Details on all fits and clearances for the component relative to overhaul;~~
- ~~c. ——— Details of repair methods for worn or otherwise substandard parts with information necessary to determine when to replace parts;~~
- ~~d. ——— Instructions for testing the article after overhaul. This should include test acceptance criteria;~~
- ~~e. ——— Instructions for storage that identify special containers and required equipment or tools. The ICA should also include the environmental restrictions for storage and storage limits; and~~
- ~~f. ——— A list of tools and equipment necessary for maintenance and directions as to their method of use.~~

11. Non-Destructive Test (NDT) and Inspection (NDI). For aircraft, aircraft engines, and propellers, this manual/**publication** or section covers testing techniques, instructions, and required equipment for all required NDT/NDI identified in the maintenance and inspection programs. Applicants can write the manual/**publication** or section specifically for the product, or they can refer to a standard practices/procedures document.

Chapter 5. ACO and AEG Responsibilities

1. What ACOs and Directorate Offices Responsible for TC, STC, PMA, TSOA and Other Design Approvals Must Do. If you are in an ACO or directorate office responsible for design approval activity you are the primary connection with the applicant for design approvals. You are also responsible for approving the ALS of the ICA, and CMRs if applicable, with support from the AEG in review of associated maintenance procedures. You must determine if the remainder of the ICA is acceptable with concurrence from the AEG on maintenance requirements. Also, you must advise all applicants that they have to develop ICA for every design approval application. After you receive an application, you:

a. Can delegate findings of acceptability only to an authorized designee or delegated organization. For ICA delegation qualifications and authorization refer to:

- FAA Order 8100.8, *Designee Management Handbook*,
- FAA Order 8100.15, *Organization Designation Authorization Procedures*, and
- Related policy memos.

b. Will coordinate with the responsible AEG individual(s) (Refer to FAA Order 8110.4, *Type Certification*, Appendix 8) at the start of each program to give them information, and notify them that you need their concurrence of the ICA. The ACO will use a certification project notification (CPN) to notify the AEG. The AEG will determine the level of involvement for ICA review and notify the ACO. If it is determined the ICA must be reviewed by the AEG, the ACO will forward or otherwise verify the transmission of the document(s) to the AEG for review and concurrence.

c. Notify applicants early in the program that you require ICA per 14 CFR §§ 23.1529, 25.1529, 27.1529, 29.1529, 31.82, 33.4, or 35.4 (whichever applies) and their associated appendixes. In this notification, state that the review can take up to 30 calendar days after they submit the complete set of ICA (including reference documents). Refer to chapter 3 in this order for more information on content requirements. For a TSOA/LODA, ensure that the applicant addresses all ICA requirements that apply.

d. Give the applicant the names and offices of the AEG airworthiness inspectors who will review the ICA.

e. Invite the AEG airworthiness inspector(s) to the TC board, or other formal meetings with the applicant. This ensures that everyone understands the requirement for ICA and what should be in it.

f. Communicate regularly with the applicant and AEG airworthiness inspector to ensure that the ICA meets the project schedule. Reviewing the ICA can be time-consuming. You, the AEG, and the applicant need to communicate regularly to keep the project on schedule.

g. Review and approve the ALS and CMRs as applicable, and the instructions for installing and operating the aircraft engine, propeller, or both. Contact the AEG and ask for their help with reviewing and finding acceptability of the format and content of the ALS, and CMRs as applicable, before you approve them.

h. Approve a program to ensure the applicant provides a complete set of accepted ICA to the owner before delivery of the first aircraft or issuance of the standard airworthiness certificate, whichever occurs later for new type certificates or change in type design projects requiring a new standard certificate of airworthiness

i. Should not normally issue design approvals before you and the AEG have concurred, where applicable, with the proposed ICA or the assessment showing there is no ICA. If there is a need to issue a design approval without complete ICA coverage, you must approve a program that ensures all ICA requirements will be complete and accepted before the first affected aircraft is operated with a standard airworthiness certificate. The program must at least have:

(1) A list of all parts of the ICA affected or required by the design change or approval;

(2) A detailed schedule for completing and submitting the ICA to the ACO;

(3) A statement saying, “Instructions for Continued Airworthiness are incomplete. The aircraft will be eligible for return to service when the ICA is complete and accepted.” You must put this statement in the type certificate data sheet (TCDS) or the “Limitations” section of the STC, as applicable. This means an aircraft can be modified, but cannot return to service until we accept the complete ICA. When we accept the ICA, you can remove the statement; and

(4) A memo to notify the appropriate individual or office (FAA or designee) that a standard airworthiness certificate cannot be issued. When we accept the ICA, rescind the memo. In the case of a TC issue, once a program for completing the ICA is approved, the responsible ACO should inform the affected MIDO of the delay in ICA. As a courtesy, the ACO should also inform the applicant of the delay. After accepting the ICA, inform the MIDO and applicant that a standard airworthiness certificate can be issued. If it’s an STC, then the responsible FSDO should be informed of the delay and approval of return to service delayed until completion of the ICA.

j. Place a statement on the design approval document (that is, design approval letter, FAA- approved top drawing, or type certificate data sheet) when the applicant submits an impact assessment showing there are no changes to the existing ICA or maintenance instructions. It shows that supplemental ICA are not required. For an STC, we recommend placing a statement below the “Limitations and Conditions” section. This will show that the FAA reviewed the impact assessment and found that no additional changes to the existing ICA are required.

k. Review and determine (with AEG concurrence) the acceptability of the applicant's program showing how the applicant, or the DAH, is going to distribute the initial ICA and subsequent changes. This program should include the kind of media the applicant will use to distribute the ICA and how soon after a change the applicant will send it.

l. Review and determine (with AEG concurrence) the acceptability of the applicant's program for ~~submitting~~ **publishing** ICA changes, not associated with a new design approval, ~~to the FAA for review~~. These changes include manual/**publication** revisions driven by service bulletins or errors found during operation of the product. The program should allow the applicant to send changes to the owners while sending changes to the FAA for review **when applicable**, with the exception of changes to airworthiness limitations and certification maintenance requirements. This ensures accurate ICA are immediately available to those operating the product. If you and the AEG find errors in the submitted changes, contact the applicant and suspend use of the published changes until the applicant can make the proper corrections. Changes to airworthiness limitations and certification maintenance requirements must be FAA- approved prior to distribution.

m. For aircraft engines and propellers, changes to ICA made by service documents (service bulletins and service letters) must be incorporated into the ICA by reference as described in AC 33.4- 1, *Instructions for Continued Airworthiness*, and AC 35.4-1, *Propeller Instructions for Continued Airworthiness*, respectively.

[....]

[**Note:** The remainder of Chapter 5 has been omitted, as it does not contain any proposed changes.]

Chapter 6. Distributing ICA and Changes

1. ACOs Review the Program. In this chapter, we discuss how to work with applicants on an acceptable way to distribute new and subsequent changes to ICA. We'll also cover when non- owners or operators (like 14 CFR part 145 repair stations) must have ICA "made available" to them. As was discussed in chapter 5, paragraph 1 of this order, if you're in an ACO you must review and accept the method of distributing ICA.

2. Distributing ICA.

a. The reason for furnishing ICA to the owner upon delivery of the aircraft or issuance of the airworthiness certificate is to ensure that the owner has ICA when operations begin. Most of the time, DAHs will provide the ICA when they deliver the aircraft to the owner. However, there are cases when the owner has possession of the aircraft, but does not have an airworthiness certificate because of changes in the type design. In these cases, we would not require the ICA for the changes in type design until we issue the airworthiness certificate.

b. To comply with 14 CFR § 21.50(b) we require the DAH to furnish a complete set of ICA to the owner of each type aircraft, aircraft engine, or propeller at delivery or issuance of the first standard airworthiness certificate; whichever occurs ~~first~~ later. They can furnish it in hard copy (paper), by electronic means, or through web-based access. Regardless of the method, the owner can request a paper copy, which the DAH must furnish. We require this to ensure that owners have a copy of ICA they can use regardless of technology.

3. Changes to ICA. Title 14 CFR § 21.50(b) requires that the DAH make changes to the ICA available to any person required to comply with them. The DAH provides changes following a program they wrote and the ACO and responsible AEG accepted. Or, they can follow previously established procedures acceptable to the FAA. Design approval holders should format the changes to supplement the original ICA. To prevent confusion, they should clearly say what's being changed. You should instruct DAHs that they can distribute changes to ICA using:

- a. Paper copies of the changes, sent to all owners on record. Persons receiving changes can request that the changes be distributed to them only in paper format;
- b. Electronic format copies, sent to all owners on record; or
- c. Web-based access to ICA changes. This option also requires a way of notifying owners on record that a change is available.

4. When DAHs Must Make ICA Available.

- a. In accordance with 14 CFR § 21.50(b) DAHs must furnish the owner of a type certificated product at least one set of complete ICA. This rule also requires the DAH to make those instructions available to any person required to comply with the terms of the instructions. The owner or operator is required to maintain the airworthiness of the product. Therefore, if the person requesting the ICA is not the product owner or operator, Conditions 1 and 2 below must be met, in addition to meeting either Condition 3 or 4 below before we will require the DAH to make the ICA available to them.
- 1) Condition 1 – Application for the latest design approval was made after January 28, 1981.
 - 2) Condition 2 - The latest related certification basis includes 14 CFR § 21.50 as amended September 11, 1980 or later, and 14 CFR §§ 23.1529, 25.1529, 27.1529, 29.1529, 31.82, 33.4 or 35.4 as applicable. Therefore the certificate holder was required to develop and furnish ICA as part of the certification process.
 - 3) Condition 3 - The requester, a repair station or operating certificate holder, of the ICA is currently rated for the product/part and is required by ~~of~~ 14 CFR, Chapter 1, to comply with ICA for the product/part. Currently rated is defined as either appropriately class rated for the product or part, or, appropriately limited rated for the product or part and the product or part is on the repair station's capability list or operations specifications as applicable. In either case the repair station must meet all other applicable requirements, including 14 CFR §§ 145.109, 145.201, and 145.215.
 - 4) Condition 4-The requester, an individual, of the ICA is performing work for the product owner or operator under the authority of their mechanic certificate issued under 14 CFR part 65.
- b. If the requested ICA data are a CMM or specific repair information, the DAH must have identified the CMM or repair information in its ICA (aircraft, aircraft engine, or propeller ICA) as the source of information for continued airworthiness actions. If the ICA contain "remove and replace" instructions for the components, and don't refer to CMM or specific repair procedures for necessary airworthiness actions, then the aircraft's airworthiness can be maintained by replacement action, and CMM or repair documentation is not part of the ICA for the product.
- c. As previously stated meeting Conditions 1 and 2, and either Condition 3 or Condition 4 is necessary to ensure enforcement of 14 CFR § 21.50(b). Conditions 1 and 2 are self-evident in their effect as to whether the rule applies. Condition 3 is the only case in which a repair station is required to perform maintenance per ICA. Condition 4 is the only case in which an individual is required to perform maintenance per ICA.

- d. If a person can show they meet the “make available” conditions above then by regulation they are also entitled to request and receive changes to that ICA from the DAH.
- e. Work on a 14 CFR parts 121 or 135 operator’s products must be performed per the operator’s processes and procedures (operator’s specification approved by the FAA). The processes and procedures might not be those of the DAHs ICA.
- f. The FAA does not regulate competition between repair stations, but rather safety. Our intent for 14 CFR § 21.50(b) is to facilitate owners and operators ability to manage their own maintenance, and to ensure that those required to accomplish continued airworthiness actions have access to continued airworthiness instructions, in the interests of safety. We did not intend to ensure that any person wishing to enter the repair/overhaul business is provided with repair manuals/publications.

Appendix A. Part 23 Airplane ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
() ICA for each aircraft engine.	A23.1(b)	
() ICA for each propeller.	A23.1(b)	
() ICA for each appliance required by this chapter.	A23.1(b)	
() Required information on the interface of () appliances, () aircraft engines, and () propellers with the aircraft.	A23.1(b)	
() If ICA are not supplied by the manufacturer of an () appliance, () aircraft engine, or () propeller installed on the aircraft, the ICA for the aircraft must include () the information essential to the continued airworthiness of the aircraft.	A23.1(b)	
() Applicant's program showing how they or the manufacturers of products and appliances installed on the airplane will distribute changes to the ICA.	A23.1(c)	
() ICA in a manual/publication or manuals/publications. () Manuals arranged for easy and practical use.	A23.2(a) A23.2(b)	
() Manuals/publications prepared in English.	A23.3	
() Manuals/publication must include introductory information explaining the airplane's features and data necessary for maintenance or preventive maintenance.	A23.3(a)(1)	
() Description of the () aircraft and its systems and installations, () aircraft engines and its systems and installations, () propellers and its systems and installations, and () appliances and its systems and installations.	A23.3(a)(2)	
() Basic control and operating information describing () how the aircraft components and systems are controlled and () how the aircraft components and systems are operated, including () any special procedure and limitations.	A23.3(a)(3)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Servicing information covering () servicing points, () capacities of tanks, () capacities of reservoirs, () types of fluids used, and () pressures applicable to the various systems.	A23.3(a)(4)	
() Location of access panels for () inspection and () servicing.	A23.3(a)(4)	
() Servicing information covering () locations of lube points and () lube used.	A23.3(a)(4)	
() Equipment required for servicing.	A23.3(a)(4)	
() Tow instructions and limitations.	A23.3(a)(4)	
() Mooring information.	A23.3(a)(4)	
() Jacking information.	A23.3(a)(4)	
() Leveling information.	A23.3(a)(4)	
() Scheduling information for each part of the () aircraft, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A23.3(b)(1)	
() Scheduling information for () aircraft engines, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Note: This information may be in the FAA accepted aircraft engine ICA. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A23.3(b)(1)	
() Scheduling information for () the aircraft's auxiliary power unit, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A23.3(b)(1)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Scheduling information for () aircraft propellers, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A23.3(b)(1)	
() Scheduling information for () aircraft accessories, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A23.3(b)(1)	
() Scheduling information for () aircraft instruments, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A23.3(b)(1)	
() Scheduling information for () aircraft equipment, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A23.3(b)(1)	
() Degree of inspection for each part of the () aircraft and its () aircraft engines, () the auxiliary power unit, () propellers, () accessories, () instruments, and () equipment.	A23.3(b)(1)	
() Applicable wear tolerances.	A23.3(b)(1)	
Applicant may refer to an () accessory, () instrument, or () equipment manufacturer as the source of this information if applicant shows () that the item is exceptionally complex and requires specialized maintenance techniques, test equipment, or expertise.	A23.3(b)(1)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Recommended overhaul periods and necessary cross-references to the ALS.	A23.3(b)(1)	
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	A23.3(b)(2)	
() Description of the order and method of () removing and () replacing products (aircraft engines and propellers) with any precautions.	A23.3(b)(3)	
() Description of the order and method of () removing and () replacing parts, with any precautions.	A23.3(b)(3)	
() Other instructions, including () storage limitations and procedures for () testing system during ground running, (including trim checks, alignment, and calibration), () making symmetry checks, () weighing and determining the center of gravity, () lifting, and () shoring.	A23.3(b)(4)	
() Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	A23.3(c)	
() Details for applying special inspection techniques, including radiographic and ultrasonic testing, where such processes are specified.	A23.3(d)	
() Information needed to apply protective treatment to structure after inspection and/or maintenance.	A23.3(e)	
() All data on structural fasteners, such as () installation requirements, () type, () identification, () discard recommendations, and () torque values.	A23.3(f)	
() List of special tools needed.	A23.3(g)	
() For commuter category aircraft: electrical loads applicable to the various systems.	A23.3(h)(1)	
() For commuter category aircraft: methods of balancing control surfaces.	A23.3(h)(2)	

REQUIREMENT	Regulation Appendix	Location In ICA
() For commuter category aircraft: identification of primary and secondary structures.	A23.3(h)(3)	
() For commuter category aircraft: any special repair methods applicable.	A23.3(h)(4)	
() ICA must contain a section, titled Airworthiness Limitations, that is () segregated and () clearly distinguishable from the rest of the document. Note: The appropriate ACO office will evaluate and approve the Airworthiness Limitations Section (ALS) in the applicant's ICA. Airworthiness Limitations can not be altered, established or cancelled without coordinating with the appropriate Certificate Management Aircraft Certification Office.	A23.4	
() ALS must describe each () mandatory replacement time, () structural inspection interval, and () related structural inspection procedure, including () envelope structural integrity, required for type certification.	A23.4	
() If ICA consist of multiple manuals/publications, the ALS required by this paragraph must be in the principal manual/publication.	A23.4	
() ALS must contain a legible statement in a prominent location that reads : "The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved." If there are no new (including changes) airworthiness limitations associated with the project, the airworthiness limitations section should include the following statement: "There are no new (or additional) airworthiness limitations associated with this equipment and/or installation."	A23.4	

Appendix B. Part 25 Airplane ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
☐ ICA for each aircraft engine.	H25.1(b)	
☐ ICA for each propeller.	H25.1(b)	
☐ ICA for each appliance required by this chapter.	H25.1(b)	
☐ Required information on the interface of ☐ appliances, ☐ aircraft engines, and ☐ propellers with the aircraft.	H25.1(b)	
☐ If ICA are not supplied by the manufacturer of an ☐ appliance, ☐ aircraft engine, or ☐ propeller installed on the aircraft, the ICA for the aircraft must include ☐ the information essential to the continued airworthiness of the aircraft.	H25.1(b)	
☐ Applicant's program showing how they or the manufacturers of products and appliances installed on the airplane will distribute changes to the ICA.	H25.1(c)	
☐ ICA in a manual/ publication or manuals/ publications . ☐ Manuals/ publications arranged for easy and practical use.	H25.2(a) H25.2(b)	
☐ Manuals/ publications prepared in English.	H25.3	
☐ Manuals/ publications must include introductory information explaining the airplane's features and data necessary for maintenance or preventive maintenance. Includes any other information on the () content, () scope, () purpose, () arrangement, () applicability, () definitions, () abbreviations, () precautions, () units of measurement, () referenced publications.	H25.3(a)(1)	
☐ Description of the () aircraft and its systems and installations, () aircraft engines and its systems and installations, () propellers and its systems and installations, and () appliances and its systems and installations.	H25.3(a)(2)	
☐ Basic control and operating information describing () how the aircraft components and systems are controlled and () how the aircraft components and systems are operated, including () any special procedure and limitations.	H25.3(a)(3)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Servicing information covering () servicing points, () capacities of tanks, () capacities of reservoirs, () types of fluids to be used, and () pressures applicable to the various systems.	H25.3(a)(4)	
() Location of access panels for () inspection and () servicing.	H25.3(a)(4)	
() Servicing information covering () locations of lube points, () lube used.	H25.3(a)(4)	
() Equipment required for servicing.	H25.3(a)(4)	
() Tow instructions and limitations.	H25.3(a)(4)	
() Mooring information.	H25.3(a)(4)	
() Jacking information.	H25.3(a)(4)	
() Leveling information.	H25.3(a)(4)	
() Scheduling information for each part of () aircraft, including periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	H25.3(b)(1)	
() Scheduling information for () aircraft engines, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Note: This information may be in the FAA accepted aircraft engine ICA. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	H25.3(b)(1)	
() Scheduling information for () the aircraft's auxiliary power unit, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	H25.3(b)(1)	
() Scheduling information for () aircraft propellers, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the	H25.3(b)(1)	

REQUIREMENT	Regulation Appendix	Location In ICA
maintenance section of the manual/publication.		
() Scheduling information for () aircraft accessories, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	H25.3(b)(1)	
() Scheduling information for () aircraft instruments, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	H25.3(b)(1)	
() Scheduling information for () aircraft equipment, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	H25.3(b)(1)	
() Degree of inspection for each part of () aircraft and its () aircraft engines, () the auxiliary power unit, () propellers, () accessories, () instruments, and () equipment.	H25.3(b)(1)	
() The applicable wear tolerances.	H25.3(b)(1)	
Applicant may refer to an () accessory, () instrument, or () equipment manufacturer as the source of this information if applicant shows () that the item is exceptionally complex and requires specialized maintenance techniques, test equipment, or expertise.	H25.3(b)(1)	
() The recommended overhaul periods and necessary cross-references to the ALS.	H25.3(b)(1)	
() An inspection program that includes () the frequency and () extent of the inspection necessary to provide for continued airworthiness.	H25.3(b)(1)	

REQUIREMENT	Regulation Appendix	Location In ICA
() All CMR necessary for airworthiness.	H25.3(b)(1)	
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	H25.3(b)(2)	
() Descriptions of the order and method of () removing and () replacing products (aircraft engines and propellers) with any necessary precautions.	H25.3(b)(3)	
() Descriptions of the order and method of () removing and () replacing parts with any necessary precautions.	H25.3(b)(3)	
() Other instructions, including () storage limitations and procedures for () testing system during ground running, (including trim checks, alignment, and calibration), () making symmetry checks, () weighing and determining the center of gravity, () lifting, and () shoring.	H25.3(b)(4)	
() Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	H25.3(c)	
() Details to apply special inspection techniques, including radiographic and ultrasonic testing where such processes are specified.	H25.3(d)	
() Information needed to apply protective treatment to structure after inspection and/or maintenance.	H25.3(e)	
() All data on structural fasteners, such as () installation requirements, () type, () identification, () discard recommendations, and () torque values.	H25.3(f)	
() List of special tools needed.	H25.3(g)	
() ICA must contain a section, titled Airworthiness Limitations that is () segregated and () clearly distinguishable from the rest of the document. Note: The appropriate ACO office will evaluate and approve the Airworthiness Limitations Section (ALS) in the applicant's ICA. Airworthiness Limitations cannot be altered, established or cancelled without coordinating with the appropriate Certificate Management Aircraft Certification Office.	H25.4(a)	

REQUIREMENT	Regulation Appendix	Location In ICA
() ALS must describe each mandatory replacement time, structural inspection interval, and related structural inspection procedures approved under 14 CFR § 25.571.	H25.4(a)(1)	
() ALS must describe each mandatory replacement time, inspection interval, related inspection procedure, and all critical design configuration control limitations approved under 14 CFR § 25.981 for the fuel tank system.	H25.4(a)(2)	
() ALS must set forth any mandatory replacement time of EWIS components as defined in section 25.1701.	H25.4(a)(3)	
() ALS must set forth A limit of validity of the engineering data that supports the structural maintenance program (LOV), stated as a total number of accumulated flight cycles or flight hours or both, approved under § 25.571. Until the full-scale fatigue testing is completed and the FAA has approved the LOV, the number of cycles accumulated by the airplane cannot be greater than 1/2 the number of cycles accumulated on the fatigue test article.	H25.4(a)(4)	
() ALS must set forth each mandatory replacement time, inspection interval, and related inspection and test procedure, and each critical design configuration control limitation for each lightning protection feature approved under § 25.954.	H25.4(a)(5)	
() ALS must set forth Each certification maintenance requirement established to comply with any of the applicable provisions of part 25.	H25.4(a)(6)	
() If the ICA consist of multiple manuals/publications, the ALS required by this paragraph must be in the principal manual/publication.	H25.4(b)	
() ALS must contain a legible statement in a prominent location that reads: “The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved.” If there are no new (including changes) Airworthiness Limitations associated with the project, the Airworthiness Limitations Section should include the following statement: “There are no new (or additional) Airworthiness Limitations associated with this equipment and/or installation.”	H25.4(b)	

() The applicant must prepare Instructions for Continued Airworthiness (ICA) applicable to EWIS as defined by § 25.1701 that are approved by the FAA and include the following: (1) Maintenance and inspection requirements for the EWIS developed with the use of an enhanced zonal analysis procedure that includes: (i) Identification of each zone of the airplane. (ii) Identification of each zone that contains EWIS. (iii) Identification of each zone containing EWIS that also contains combustible materials. (iv) Identification of each zone in which EWIS is in close proximity to both primary and back-up hydraulic, mechanical, or electrical flight controls and lines. (v) Identification of— (A) Tasks, and the intervals for performing those tasks, that will reduce the likelihood of ignition sources and accumulation of combustible material, and (B) Procedures, and the intervals for performing those procedures, that will effectively clean the EWIS components of combustible material if there is not an effective task to reduce the likelihood of combustible material accumulation. (vi) Instructions for protections and caution information that will minimize contamination and accidental damage to EWIS, as applicable, during performance of maintenance, alteration, or repairs.	H25.5(a)(1)	
() The applicant must prepare acceptable EWIS maintenance practices in a standard format.	H25.5(a)(2)	
() The applicant must prepare wire separation requirements as determined under § 25.1707.	H25.5(a)(3)	
() The applicant must prepare information explaining the EWIS identification method and requirements for identifying any changes to EWIS under § 25.1711.	H25.5(a)(4)	
() The applicant must prepare electrical load data and instructions for updating that data.	H25.5(a)(4)	
() The applicant must prepare EWIS ICA developed in accordance with the requirements of H25.5(a)(1) must be in the form of a document appropriate for the information to be provided, and they must be easily recognizable as EWIS ICA. This document must either contain the required EWIS ICA or specifically reference other portions of the ICA that contain this information.	H25.5(b)	

Appendix C. Part 27 Rotorcraft ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
☐ ICA for each aircraft engine.	A27.1(b)	
☐ ICA for each rotor.	A27.1(b)	
☐ ICA for each appliance required by this chapter.	A27.1(b)	
☐ Required information on the interface of ☐ appliances, ☐ aircraft engines, and ☐ rotors with the rotorcraft.	A27.1(b)	
☐ If ICA are not supplied by the manufacturer of an ☐ appliance, ☐ aircraft engine, or ☐ rotor installed on the rotorcraft, the ICA for the rotorcraft must include the ☐ information essential to the continued airworthiness of the rotorcraft.	A27.1(b)	
☐ Applicant's program showing how they or the manufacturers of products and appliances installed on the rotorcraft will distribute changes to the ICA.	A27.1(c)	
☐ ICA in a manual/publication or manuals/publications. ☐ Manuals arranged for easy and practical use.	A27.2(a) A27.2(b)	
☐ Manuals/publications prepared in English.	A27.3	
☐ Manuals/publications must include introductory information explaining the rotorcraft's features and data necessary for maintenance or preventive maintenance. Includes any other information on the ☐ content, ☐ scope, ☐ purpose, ☐ arrangement, ☐ applicability, ☐ definitions, ☐ abbreviations, ☐ precautions, ☐ units of measurement, ☐ referenced publications.	A27.3(a)(1)	
☐ Description of ☐ rotorcraft and its systems and installations, ☐ aircraft engines and its systems and installations, ☐ rotors and its systems and installations, and ☐ appliances and its systems and installations.	A27.3(a)(2)	
☐ Basic control and operating information describing ☐ how the rotorcraft components and systems are controlled and ☐ how the rotorcraft components and systems are operated, including ☐ any special procedure and limitations.	A27.3(a)(3)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Servicing information covering () servicing points, () capacities of tanks, () capacities of reservoirs, () types of fluids used, and () pressures applicable to the various systems.	A27.3(a)(4)	
() Location of access panels for () inspection and () servicing.	A27.3(a)(4)	
() Servicing information covering () locations of lube points and () the lube used.	A27.3(a)(4)	
() Equipment required for servicing.	A27.3(a)(4)	
() Tow instructions and limitations.	A27.3(a)(4)	
() Mooring information.	A27.3(a)(4)	
() Jacking information.	A27.3(a)(4)	
() Leveling information.	A27.3(a)(4)	
() Scheduling information for each part of the () rotorcraft, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A27.3(b)(1)	
() Scheduling information for () aircraft engines, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods. Note: This information may be in the accepted aircraft engine ICA.	A27.3(b)(1)	
() Scheduling information for () the rotorcraft's auxiliary power unit, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A27.3(b)(1)	
() Scheduling information for () rotorcraft rotors, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A27.3(b)(1)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Scheduling information for () rotorcraft accessories, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A27.3(b)(1)	
() Scheduling information for () rotorcraft instruments, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A27.3(b)(1)	
() Scheduling information for () rotorcraft equipment, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and () the work recommended at these periods.	A27.3(b)(1)	
() Degree of inspection for each part of () rotorcraft and its () engines, () the auxiliary power unit, () rotors, () accessories, () instruments, and () equipment.	A27.3(b)(1)	
() The applicable wear tolerances.	A27.3(b)(1)	
Applicant may refer to an () accessory, () instrument, or () equipment manufacturer as the source of this information if applicant shows () that the item is exceptionally complex and requires specialized maintenance techniques, test equipment, or expertise.	A27.3(b)(1)	
() Recommended overhaul periods and necessary cross-references to the ALS.	A27.3(b)(1)	
() Inspection program that includes () the frequency and () extent of the inspection necessary to provide for continued airworthiness.	A27.3(b)(1)	
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	A27.3(b)(2)	
() Descriptions of the order and method of () removing and () replacing aircraft engines with any necessary precautions.	A27.3(b)(3)	
() Descriptions of the order and method of () removing and () replacing rotors with any necessary precautions.	A27.3(b)(3)	
() Descriptions of the order and method of () removing and () replacing parts with any necessary precautions.	A27.3(b)(3)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Other instructions, including () storage limitations and procedures for () testing system during ground running, () making symmetry checks, () weighing and determining the center of gravity, () lifting, and () shoring.	A27.3(b)(4)	
() Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	A27.3(c)	
() Details to apply special inspection techniques, including radiographic and ultrasonic testing where such processes are specified.	A27.3(d)	
() Information needed to apply protective treatment to structure after inspection.	A27.3(e)	
() All data on structural fasteners, such as () identification, () discard recommendations, and () torque values and installation requirements, if any.	A27.3(f)	
() List of special tools needed.	A27.3(g)	
() ICA must contain a section, titled Airworthiness Limitations, that is () segregated and () clearly distinguishable from the rest of the document. Note: The appropriate ACO office will evaluate and approve Airworthiness Limitations Section (ALS) in the applicant's ICA.	A27.4	
() ALS must describe each mandatory replacement time, structural inspection interval, and related structural inspection procedures approved under 14 CFR § 27.571.	A27.4	
() If the ICA consist of multiple manuals/publications, the ALS required by this paragraph must be in the principal manual/publication.	A27.4	
() ALS must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations Section is FAA approved and specifies inspections and other maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved."	A27.4	

Appendix D. Part 29 Rotorcraft ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
☐ ICA for each aircraft engine.	A29.1(b)	
☐ ICA for each rotor.	A29.1(b)	
☐ ICA for each appliance required by this chapter.	A29.1(b)	
☐ Any required information on the interface of the ☐ appliances, ☐ aircraft engines, and ☐ rotors with the rotorcraft.	A29.1(b)	
☐ If ICA are not supplied by the manufacturer of an ☐ appliance, ☐ aircraft engine, or ☐ rotor installed on the rotorcraft, the ICA for the rotorcraft must include ☐ the information essential to the continued airworthiness of the rotorcraft.	A29.1(b)	
☐ Applicant's program showing how they or the manufacturers of products and appliances installed on the rotorcraft will distribute changes to the ICA.	A29.1(c)	
☐ ICA in a manual/ publication or manuals/ publications . ☐ Manuals/ publications arranged for easy and practical use.	A29.2(a) A29.2(b)	
☐ ICA manual/ publication prepared in English.	A29.3	
☐ Manuals/ publications must include introductory information explaining the rotorcraft's features and data necessary for maintenance or preventive maintenance. Any other information on the ☐ content, ☐ scope, ☐ purpose, ☐ arrangement, ☐ applicability, ☐ definitions, ☐ abbreviations, ☐ precautions, ☐ units of measurement, ☐ referenced publications.	A29.3(a)(1)	
☐ Description of ☐ rotorcraft and its systems and installations, ☐ aircraft engines and its systems and installations, ☐ rotors and its systems and installations, and ☐ appliances and its systems and installations.	A29.3(a)(2)	
☐ Basic control and operating information describing ☐ how the rotorcraft components and systems are controlled and ☐ how the rotorcraft components and systems are operated, including ☐ any special procedure and limitations.	A29.3(a)(3)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Servicing information covering () servicing points, () capacities of tanks, () capacities of reservoirs, () types of fluids to be used, and () pressures applicable to the various systems.	A29.3(a)(4)	
() Location of access panels for () inspection and () servicing.	A29.3(a)(4)	
() Servicing information covering () locations of lube points and () the lube used.	A29.3(a)(4)	
() Equipment required for servicing.	A29.3(a)(4)	
() Tow instructions and limitations.	A29.3(a)(4)	
() Mooring information.	A29.3(a)(4)	
() Jacking information.	A29.3(a)(4)	
() Leveling information.	A29.3(a)(4)	
() Scheduling information for each part of the () rotorcraft, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods.	A29.3(b)(1)	
() Scheduling information for () aircraft engines, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods. Note: This information may be in the FAA accepted engine ICA.	A29.3(b)(1)	
() Scheduling information for () the rotorcraft auxiliary power unit, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods.	A29.3(b)(1)	
() Scheduling information for () rotorcraft rotors, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods.	A29.3(b)(1)	
() Scheduling information for () rotorcraft accessories, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods.	A29.3(b)(1)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Scheduling information for () rotorcraft instruments, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods.	A29.3(b)(1)	
() Scheduling information for the () rotorcraft equipment, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; and the () work recommended at these periods.	A29.3(b)(1)	
() Degree of inspection for each part of the () rotorcraft and its () engines, () the auxiliary power unit, () rotors, () accessories, () instruments, and () equipment.	A29.3(b)(1)	
() Applicable wear tolerances.	A29.3(b)(1)	
Applicant may refer to an () accessory, () instrument, or () equipment manufacturer as the source of this information if applicant shows () that the item is exceptionally complex and requires specialized maintenance techniques, test equipment, or expertise.	A29.3(b)(1)	
() Recommended overhaul periods and necessary cross-references to the ALS.	A29.3(b)(1)	
() Inspection program that includes () the frequency and () extent of the inspection necessary to provide for continued airworthiness.	A29.3(b)(1)	
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	A29.3(b)(2)	
() Description of the order and method of () removing and () replacing aircraft engines with any necessary precautions.	A29.3(b)(3)	
() Description of the order and method of () removing and () replacing rotors with any necessary precautions.	A29.3(b)(3)	
() Description of the order and method of () removing and () replacing parts with any necessary precautions.	A29.3(b)(3)	
() Other instructions, including () storage limitations and procedures for () testing the system during ground running, () making symmetry checks, () weighing and determining the center of gravity, () lifting, and () shoring.	A29.3(b)(4)	
() Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	A29.3(c)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Details for applying special inspection techniques, including radiographic and ultrasonic testing where such processes are specified.	A29.3(d)	
() Information needed to apply protective treatment to structure after inspection.	A29.3(e)	
() All data on structural fasteners, such as () identification, () discard recommendations, and () torque values and installation requirements, if any.	A29.3(f)	
() List of special tools needed.	A29.3(g)	
() ICA must contain a section, titled Airworthiness Limitations, that is () segregated and () clearly distinguishable from the rest of the document. Note: The appropriate ACO will evaluate and approve the Airworthiness Limitations Section (ALS) in the applicant's ICA.	A29.4	
() ALS must describe each mandatory replacement time, structural inspection interval, and related structural inspection procedures approved under 14 CFR § 29.571.	A29.4	
() If ICA consists of multiple manuals/publications, ALS required by this paragraph must be in the principal manual/publication.	A29.4	
() ALS must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved."	A29.4	

Appendix E. Manned Free Balloon ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
() ICA includes ICA for all balloon parts required by this chapter.	A31.1(b)	
() ICA includes any required information on the interface of the balloon's required parts.	A31.1(b)	
() ICA includes information essential to the balloon's continued airworthiness.	A31.1(b)	
() Applicant's program showing how they or the manufacturers of parts installed on the balloon will distribute changes to the ICA.	A31.1(c)	
() ICA in a manual/ publication or manuals/ publication .	A31.2(a)	
() Manuals/ publications arranged for easy and practical use.	A31.2(b)	
() The manuals/ publications prepared in English.	A31.3	
() Manuals/ publications must include introductory information that explains the balloon's features and data necessary for maintenance or preventive maintenance. Include any other information on the content, scope, purpose, arrangement, applicability, definitions, abbreviations, precautions, units of measurement, referenced publications, and distribution of the ICA as applicable.	A31.3(a)	
() Description of balloon and its systems and installations.	A31.3(b)	
() Basic control and operating information for the balloon and its components and systems, and special procedures, if any.	A31.3(c)	
() Servicing information covering () servicing of balloon components, servicing points, () burner nozzles, () fuel tanks, and () valves during operations.	A31.3(d)	
() Maintenance information for each part of balloon with recommended periods for () cleaning, () adjustment, () test, () lubrication, () applicable wear tolerances, and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A31.3(e)	
() Maintenance information for each part of the envelope with recommended periods for () cleaning, () adjusting, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/ publication .	A31.3(e)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Maintenance information for each part of the controls with recommended periods for () cleaning, () adjusting, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	A31.3(e)	
() Maintenance information for each part of the rigging, including recommended periods for () cleaning, () adjusting, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	A31.3(e)	
() Maintenance information for each part of the basket structure, including recommended periods for () cleaning, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	A31.3(e)	
() Maintenance information for each part of the fuel systems, including recommended periods for () cleaning, () adjusting, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	A31.3(e)	
() Maintenance information for each of the instruments, including recommended periods for () cleaning, () adjusting, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	A31.3(e)	
() Maintenance information for each part of the heater assembly, including recommended periods for () cleaning, () adjusting, () testing, and () lubricating; () applicable wear tolerances; and () the work recommended. Include any special notes, cautions or warnings in the maintenance section of the manual/publication.	A31.3(e)	
Applicant may refer to an () accessory, () instrument, or () equipment manufacturer as the source of this information if applicant shows () that the item is exceptionally complex and requires specialized maintenance techniques, test equipment, or expertise.	A31.3(e)	
() Recommended overhaul periods and necessary cross-references to the ALS must also be included.	A31.3(e)	
() Inspection program that includes () the frequency and () extent of the inspection necessary to provide for the balloon's continued airworthiness.	A31.3(e)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	A31.3(f)	
() Details for what, and how, to inspect after a hard landing.	A31.3(g)	
() Instructions for storage preparation, including any storage limits.	A31.3(h)	
() Instructions for repair on the balloon envelope and its basket or trapeze.	A31.3(i)	
() ICA must contain a section, titled Airworthiness Limitations Section, that is () segregated and () clearly distinguishable from the rest of the document. The FAA Inspector will not establish, alter, or cancel Airworthiness Limitations without coordinating with the appropriate type certificate holding office. Note: The appropriate ACO will evaluate and approve the Airworthiness Limitations Section (ALS) in the applicant's ICA.	A31.4	
() ALS must describe each () mandatory replacement time, () structural inspection interval, and () related structural inspection procedure, including () envelope structural integrity, required for type certification.	A31.4	
() If ICA consist of multiple manuals/publications, the ALS required by this paragraph must be in the principal manual/publication.	A31.4	
() ALS must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations." If there are no new (including changes) airworthiness limitations associated with the project, the Airworthiness Limitations Section should include "There are no new (or additional) airworthiness limitations associated with this equipment or installation."	A31.4	

Appendix F. Aircraft Engine ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
() ICA for each aircraft engine must include the ICA for all engine parts.	A33.1(b)	
() Applicant's program showing how they or the manufacturers of aircraft engine parts will distribute changes to the ICA.	A33.(c)	
() ICA in a manual/publication or manuals/publications.	A33.2(a)	
() Manuals/publications arranged for easy and practical use.	A33.2(b)	
() Manuals/publications prepared in English.	A33.3	
() ICA must contain the following manuals/publications or sections, as appropriate, and information: () Engine Maintenance Manual or Section. () Engine Overhaul Manual or Section.	A33.3	
Engine Maintenance Manual/Publication or Section.	A33.3(a)	
() Introduction information that explains the aircraft engine's features and data for maintenance or preventive maintenance. Includes any other information on the () content, () scope, () purpose, () arrangement, () applicability, () definitions, () abbreviations, () precautions, () units of measurement, () referenced publications.	A33.3(a)(1)	
() Detailed description of the aircraft engine and its () components, () systems, () and installations.	A33.3(a)(2)	
() Installation instructions, including proper procedures for () uncrating, () deinhbiting, () acceptance checking, and () lifting and attaching accessories, () with any necessary checks. (These accessories are items not supplied with the aircraft engine as part of the engine TC).	A33.3(a)(3)	
() Basic control and operating information describing how the aircraft engine components, systems, and installations () operate, and information describing the methods of () starting, () running, () testing, and () stopping the aircraft engine and its parts, including any () special procedures and () limitations that apply.	A33.3(a)(4)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Servicing information covering () servicing points, () capacities of tanks, () reservoirs, () types of fluids to be used, () pressures applicable to the various systems, () locations of lubrication points, () lubricants to be used, and () equipment required for servicing.	A33.3(a)(5)	
() Scheduling information for each part of the aircraft engine, including recommended periods for () cleaning, () inspecting, () adjusting, () testing, and () lubricating; the () degree of inspection; the applicable () wear tolerances; and () work recommended.	A33.3(a)(6)	
() Recommended () overhaul periods and () necessary cross-references to the ALS of the manual/ publication must also be included.	A33.3(a)(6)	
() Applicant must include an () inspection program that includes the () frequency and () extent of the inspection necessary to provide for continued airworthiness.	A33.3(a)(6)	
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	A33.3(a)(7)	
() Descriptions of the order and method of () removing the aircraft engine and its parts and replacing () parts, with any necessary () precautions. Instructions for proper () ground handling, () crating, and () shipping must also be included.	A33.3(a)(8)	
() List of the () tools and () equipment necessary for maintenance and directions for use.	A33.3(a)(9)	
Engine Overhaul Manual/Publication or Section.	A33.3(b)	
() Disassembly information, including the order and method of disassembly for overhaul.	A33.3(b)(1)	
() Cleaning and inspection () instructions that cover the () materials and () apparatus to be used and () methods and () precautions during overhaul.	A33.3(b)(2)	
() Methods of overhaul inspection must also be included.	A33.3(b)(2)	
() Details of all fits and clearances relevant to overhaul.	A33.3(b)(3)	
() Details of repair methods for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.	A33.3(b)(4)	
() Order and method of assembly at overhaul.	A33.3(b)(5)	

REQUIREMENT	Regulation Appendix	Location In ICA
() Instruction for testing after overhaul.	A33.3(b)(6)	
() Instructions for () storage preparation, including any () storage limits.	A33.3(b)(7)	
() A list of tools needed for overhaul.	A33.3(b)(8)	
() ICA must contain a section, titled Airworthiness Limitations, that is () segregated and () clearly distinguishable from the rest of the document. Note: The appropriate ACO will evaluate and approve the Airworthiness Limitations Section (ALS) in the applicant's ICA.	A33.4	
() ALS must describe each () mandatory replacement time, () inspection interval, and () related procedure required for type certification.	A33.4	
() If ICA consist of multiple manuals/publications, the section required by this paragraph must be in the principal manual/publication.	A33.4	
() ALS must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved."	A33.4	

Appendix G. Propeller ICA Checklist

REQUIREMENT	Regulation Appendix	Location In ICA
☐ ICA for each propeller must include ICA for all propeller parts.	A35.1(b)	
☐ Applicant's program showing how they or the manufacturers of propeller parts will distribute changes to the ICA.	A35.1(c)	
☐ ICA in a manual/publication or manuals/publications.	A35.2(a)	
☐ Manuals/publications arranged for easy and practical use.	A35.2(b)	
☐ Manuals/publications prepared in English.	A35.3	
☐ ICA must contain the following sections and information: ☐ Propeller Maintenance Section. ☐ Propeller Overhaul Section.	A35.3(a)	
Propeller Maintenance Section.	A35.3(a)	
☐ Introduction information that explains the propeller's features and data for maintenance or preventive maintenance. Includes any other information on the ☐ content, ☐ scope, ☐ purpose, ☐ arrangement, ☐ applicability, ☐ definitions, ☐ abbreviations, ☐ precautions, ☐ units of measurement, ☐ referenced publications.	A35.3(a)(1)	
☐ Detailed description of propeller and its ☐ systems, ☐ and installations.	A35.3(a)(2)	
☐ Basic descriptions of how propeller components and systems are ☐ controlled and how they ☐ operate, including any ☐ special procedures that apply.	A35.3(a)(3)	
☐ Instructions for ☐ uncrating, ☐ acceptance checking, ☐ lifting, and ☐ installing propeller.	A35.3(a)(4)	
☐ Instructions for propeller operational checks.	A35.3(a)(5)	
☐ Scheduling information for each part of propeller, including recommended periods for ☐ cleaning, ☐ adjusting, and ☐ testing; the applicable ☐ wear tolerances; and the ☐ work recommended.	A35.3(a)(6)	
☐ Recommended ☐ overhaul periods and ☐ necessary cross-references to the ALS of the manual/publication must also be included.	A35.3(a)(6)	
☐ In addition, the applicant must include an ☐ inspection program that includes the ☐ frequency and ☐ extent of	A35.3(a)(6)	

inspection necessary for propeller's continued airworthiness.		
() Troubleshooting information describing () probable malfunctions, () how to recognize those malfunctions, and () remedies for them.	A35.3(a)(7)	
() Description of order and method of () removing and replacing () propeller parts, with any () necessary precautions.	A35.3(a)(8)	
() List of special tools for maintenance, other than for overhauls.	A35.3(a)(9)	
Propeller Overhaul Section.	A35.3(b)	
() Disassembly information, including () order and method of disassembly for overhaul.	A35.3(b)(1)	
() Cleaning and inspection () instructions covering the () materials and () apparatus used, and () methods and () precautions to take during overhaul.	A35.3(b)(2)	
() Include methods of overhaul inspection.	A35.3(b)(2)	
() Details of all fits and () clearances relevant to overhaul.	A35.3(b)(3)	
() Details of repair methods for worn or otherwise substandard parts and components along with the () information to determine when replacement is necessary.	A35.3(b)(4)	
() Order and method of assembly at overhaul.	A35.3(b)(5)	
() Instruction for testing after overhaul.	A35.3(b)(6)	
() Instructions for storage preparation, including any () storage limits.	A35.3(b)(7)	
() A list of tools needed for overhaul.	A35.3(b)(8)	
() ICA must contain a section, titled Airworthiness Limitations, that is () segregated and () clearly distinguishable from the rest of the document. Note: The appropriate ACO will evaluate and approve the Airworthiness Limitations Section (ALS) in the applicant's ICA.	A35.4	
() The ALS must describe each () mandatory replacement time, () inspection interval, and () related procedure required for type certification.	A35.4	

() ALS must contain a legible statement in a prominent location that reads: “The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.”	A35.4	
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[**Note:** Appendix H has been omitted, as it does not contain any proposed changes.]

Appendix I. Definitions

- 1. Acceptable ICA.** ICA that the FAA has evaluated and found to meet the requirements of the applicable airworthiness regulations.
- 2. ACO Engineer.** Aviation safety engineer or aerospace engineer responsible for finding compliance and issuing design approvals.
- 3. Aircraft Evaluation Group (AEG).** Flight Standards organization that is co-located with each directorate. These groups are responsible for determining the operational acceptability and continuing airworthiness requirements of newly certified or modified aircraft, engines, and propellers. These products are intended to be operated under 14 CFR requirements.
- 4. Airworthy.** When a product conforms to its type design or properly altered condition and is in a condition for safe operation.
- 5. Applicant.** Individual, firm, partnership, corporation, company, association, joint stock association, or governmental entity. Includes a trustee, receiver, assignee, or similar representative of any of them.
- 6. Certificate Management ACO (CMACO) – the ACO managing the product’s TC.** The CMACO also manages the continued airworthiness for all products it approves for as long as the products are in service.
- 7. Continued Airworthiness.** When certified aircraft, engines, propellers, and appliances maintain a condition in which they can be operated safely for their intended purpose. They maintain this condition safely throughout their service life. The product shows its continued airworthiness when it meets its type design and is in a condition for safe operation.
- 8. Design Approval Holder (DAH).** Holder of any design approval, including TCs, amended TCs, STCs, amended STCs, PMAs, TSO authorization, letter of TSO design approval, and field approvals (FAA Form 337).
- 9. FAA Oversight Office** is the aircraft certification office or office of the Transport Airplane Directorate with oversight responsibility for the relevant type certificate, supplemental type certificate, or manufacturer, as determined by the FAA.
- 10. Field Approval.** Major repair or major alteration authorized by an aviation safety inspector for an individual aircraft, aircraft engine, propeller, or appliance. We approve these major repairs or alterations by either examining data only, or by physically inspecting, demonstrating, or testing the product.
- 11. Instructions for Continued Airworthiness (ICA).** Documentation that gives instructions and requirements for the maintenance that is essential to the continued airworthiness of an aircraft, engine, or propeller.

12. Manufacturers' Service Documents. Publications by a TC holder (or appliance or component manufacturer) about safety, product improvement, economics, and operational and maintenance practices. Typical publications include: service bulletins, all-operator's letters, service newsletters, service digests, and magazines. They do not include publications required for FAA type certification or approval such as flight manuals/**publications** and certain maintenance manuals/**publications**.

13. Operator. Person who uses, or is authorized to use, aircraft for air navigation, including piloting the aircraft.

14. Owner. For this order, an owner is a person who owns an aircraft, balloon, aircraft engine, or propeller.

15. Product. For this order, product means an aircraft, aircraft engine, or propeller.

16. Repair. Any operation other than routine maintenance which is required to restore an aircraft, aircraft engine, or propeller to a condition for safe operation, including the mending or replacement of damaged or deteriorated parts. [*Based upon Civil Aeronautics Board's Civil Air Regulations (CAR) § 18.2*]

[**Note:** Appendices J through L have been omitted, as they do not contain any proposed changes.]

Appendix G – ARC Member Voting Responses and Ballots

The ARC believes this report fulfills the tasks in the mission of the Charter. The recommendations contained in this report were robustly debated and every voting member of the ARC voted on the report electronically prior to submission to the FAA.

Members were permitted to concur as written, concur with comment/exception, or not concur. All submissions are included in this report.

The ARC completed its deliberations and report drafting on July 17, 2026. Voting ballots were distributed to the voting ARC members on July 17, 2026. The tallies are as follows:

14 – Concur as Written

18 – Concur with Comment/Exception

0 – Non-Concur

1 – Ballot Not Submitted

Organization	Voting Member	Vote
Aeronautical Repair Station Association	Christian Klein	Concur as written
Aerospace, Security & Defence Industries Association of Europe	David Le Maux	Concur with comment/exception
Aerospace Industries Association	Stewart D’Leon	Concur with comment/exception
Aircraft Electronics Association	Ric Peri	Concur as written
Aircraft Owners and Pilots Association	Jim Coon*	Concur as written
Airlines for America	Justin Madden	Concur with comment/exception
Air Methods	Mark Schuster	Concur as written
American Airlines	Tim Brown	Concur with comment/exception
Boeing	Mary Fox	Concur with comment/exception
Cargo Airline Association	Jennifer Thibodeau	Concur as written
Chromalloy	John Green	Concur with comment/exception
CTS Engines	Kate Guinn	Concur with comment/exception
Embraer	Lucas Cardoso da Silva Moraes	Concur with comment/exception

* Ballot submitted by David Boulter on behalf of voting member Jim Coon.

Organization	Voting Member	Vote
Experimental Aircraft Association	Tom Charpentier	Concur as written
Garmin	Paul Mast	Concur with comment/exception
General Aviation Manufacturers Association	Joseph Sambiase	Concur with comment/exception
GE Aerospace	Richard Dubell	Concur with comment/exception
Gulfstream	Jamie Moss	Concur as written
HAECO	Kemal Simsek	Ballot not submitted
HEICO	Stephen Szpunar	Concur as written
Honeywell	Kevin Raub	Concur with comment/exception
International Air Transport Association	Chris Markou	Concur with comment/exception
Modification and Replacement Parts Association	Jason Dickstein [†]	Concur with comment/exception
National Air Carrier Association	George Paul	Concur as written
National Air Transportation Association	Hector Huezo	Concur as written
National Business Aviation Association	Joe Hertzler	Concur with comment/exception
Professional Aviation Maintenance Association	John Goglia	Concur as written
Regional Airline Association	Terry Butler	Concur with comment/exception
RTX Corporation	Keith Morgan	Concur with comment/exception
Textron	Alyssa Birmingham	Concur as written
United Airlines	Sean Oldham	Concur with comment/exception
Vertical Aviation International	Amber Harrison	Concur as written
Vogt Aero	Erik Vogt	Concur as written

[†] Ballot submitted by Clara Greceanu on behalf of voting member Jason Dickstein.

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Aeronautical Repair Station Association

2. Name of Primary Point of Contact Submitting Ballot *

Christian A. Klein

3. Statement of Concurrence/ Non-Concurrence: *

☒

I concur with the report as written

☐

I concur with the report with comment or exception **(see Question 4)**

☐

No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Christian A. Klein

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

ASD - Aerospace, Security and Defence Industries Association of Europe

2. Name of Primary Point of Contact Submitting Ballot *

David LE MAUX

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

Comments from ASD on the final ARC report regarding the Instructions for Continued Airworthiness were submitted on July 31, 2026, by David Le Maux (on behalf of ASD) via email to Ms. Becca Fribush.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

David LE MAUX

ASD would like to sincerely thank the ARC Chairs and participants for fostering open and constructive discussions on the highly complex topic of Instructions for Continued Airworthiness (ICA). ASD is fully aware of this unique opportunity to unite all relevant stakeholders and focus on a technical and airworthiness-based dialogue. Also, as the representative of the European aerospace industry, ASD firmly supports harmonization between the FAA and EASA regulatory systems, recognizing their aligned foundations and the mutual validation needs sought by manufacturers on both continents. Active involvement as ARC members enabled ASD to work closely with various working groups and stakeholders all along the ARC in the spirit of understanding and to try to accommodate different expectations. ASD will therefore vote in favour of the report while providing these comments for consideration:

The balance of the ARC limited progress.

We are concerned with the balance of the ARC membership and its governance. Given the strongly opposing views in the ARC, it was important for the ARC to be carefully balanced, and with hindsight, would have benefitted from industry co-chairs from more than one of the opposing groups, or a strictly neutral individual. We believe that this imbalance could have affected the relative priority given to key discussion points, and links to many of the points below.

We are specifically concerned with the industry co-Chair's remarks in Section X as being highly inappropriate, as, rather than reflecting on the relative success of the ARC as Chair, it is used as a platform to express opinions from a particular industry sector.

Disagreements on the Definition of ICA Prevented Meaningful Progress

The matter of greatest regret is the failure to agree the definition of ICA itself – the first item in the ARC Charter. Logically, Instructions for Continued Airworthiness are required by the certification process to ensure that a product that meets the certification requirements in its newly-manufactured state has the means to prevent it falling below the certification requirements when in service. Like any other certification requirement, the requirement for ICA represents a minimum acceptable standard. If the concept of a minimum set of instructions could have been agreed early in the process, the ARC would have been able to answer many of the Charter tasks more fully.

The fundamental disagreement within the ARC was about access to additional maintenance information beyond the definition above – information that may improve operational flexibility or economic efficiency for certain stakeholders. Although participants seeking the inclusion of such additional information in ICA quoted 'safety' as a motivation, the actual effect on safety was not explored, while the importance of commercial attractiveness was emphasized, which is inconsistent with the role of certification requirements as the means to achieve a defined level of safety.

The absence of a common understanding of this fundamental definition may also have prevented the ARC from fully recognizing the benefits of the clarity that is already embedded within the EASA regulatory framework and has demonstrated both its

effectiveness and its practicality for design approval holders, operators, maintenance organizations, and authorities.

ICA Should Mean the Same, Regardless of the Product

ASD considers that the main definition of ICA, its applicability, and the duties of the different parties should be unaffected by the type of product and the type of relation that could be set up between companies to organize themselves. A set of requirements consistently applied to all Design Approval Holders, as used by EASA, is considered by ASD to be an essential foundation for establishing all the necessary rules governing ICAs. However, proposals to ensure consistency of language and intent across the different products, by harmonising language or by developing the commonly-applicable US Part 21 regulations did not gain ARC consensus, and this is a matter for great regret.

Non-ALS ICA are recommendations

An area that was not explored to any meaningful depth is the role of ICA as an input to the operator's maintenance programme. Other maintenance information may be considered, and the DAHs recommended ICA may be modified or replaced by the operator to develop an acceptable maintenance programme.

Maintenance information beyond ICA

ASD wishes to emphasize that the concerns expressed by operators have been clearly heard. We reject the OOMRO accusation that TCHs do not provide maintenance information beyond that essential for continued airworthiness. TCHs provide considerably more information than ICA, for the customers' benefit.

The DAH must create a commercially attractive product in addition to meeting the certification requirements and this is a strong motivation to ensure that recommended maintenance, while meeting the ICA requirements, is cost-effective, in a fiercely competitive industry. However, the ARC was unable to agree to separate safety and commercial considerations.

With these comments, ASD supports the consensus recommendations developed in the ARC report and in addition, ASD supports the views and proposals elaborated by the TCH group and working group F. We remain fully committed to continuing the dialogue with all stakeholders in order to further strengthen the common understanding of ICA and to promote practical, harmonized, and safety-focused solutions across both the FAA and EASA regulatory systems.

This comment was submitted by David LE MAUX (Safran Helicopter Engines) on behalf of ASD to the ARC committee on July 31st, 2026.

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Aerospace Industries Association

2. Name of Primary Point of Contact Submitting Ballot *

Stewart D'León

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

On behalf of AIA, a separate paper with comments will be provided as instructed above.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Stewart D'León

Aerospace Industries Association Comments to the Recommendation Report of the Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC)

The Aerospace Industries Association (AIA) appreciates the substantial effort invested by FAA representatives, industry participants, and ARC leadership in addressing the complex issues associated with Instructions for Continued Airworthiness (ICA). AIA concurs with the ICA ARC Final Report (revision 9) and provides these comments for consideration. Given the breadth of the charter and the timeframe available, the ARC faced a challenging task. While the final report provides a useful foundation for future FAA consideration, it is important to recognize that the ARC was unable to accomplish what many viewed as its most fundamental objective: establishing a clear baseline definition of ICA.

In our view, agreement on the definition and scope of ICA should have been the first step in the ARC process. A common understanding of what constitutes ICA is foundational to discussions regarding availability, distribution, responsibilities, compliance expectations, and potential regulatory or policy changes. Without that baseline, many subsequent discussions became more difficult, limiting the ARC's ability to fully achieve several key charter objectives.

Notwithstanding that shortcoming, we encourage the FAA to carefully consider the consensus recommendations contained in Section V of the report. These recommendations represent areas where stakeholders were able to find common ground and identify practical improvements that can enhance clarity, consistency, and effectiveness within the existing ICA framework.

Recommendations related to FAA coordination, communication of ICA responsibilities, in-service feedback mechanisms, configuration information, policy consolidation, and complaint tracking have the potential to strengthen regulatory understanding and implementation across the aviation community.

The ARC process also reinforced the importance of maintaining a clear connection between ICA-related requirements and the overarching objective of aviation safety. Continued airworthiness requirements are a foundational element of certification and operational safety, and any future policy, guidance, or regulatory action should remain focused on demonstrable safety outcomes.

While we support consideration of the consensus recommendations, we encourage a measured approach to many of the non-consensus proposals in Section VI. The differing viewpoints reflected in those proposals indicate that important technical, regulatory, operational, and economic issues remain unresolved. Accordingly, additional stakeholder engagement and technical evaluation would be beneficial before pursuing significant policy or rulemaking actions.

A recurring theme throughout the ARC was the importance of harmonization. Aviation operates within a global regulatory environment, and differences among regulatory frameworks can create unnecessary complexities for manufacturers, operators, maintenance organizations, and authorities. As the FAA evaluates potential actions arising from this report, we encourage continued coordination with international partners, including EASA, TCCA, and ANAC, to support regulatory consistency and efficient certification and continued airworthiness activities. The ARC experience also offers useful lessons regarding stakeholder engagement. Future advisory committees addressing issues with known stakeholder differences may benefit from balanced representation and leadership structures that facilitate constructive consensus-building and ensure all perspectives are appropriately considered.

In conclusion, we encourage the FAA to advance the consensus recommendations in Section V, carefully evaluate the broader implications of non-consensus proposals, and continue pursuing harmonization with international partners wherever practicable. Most importantly, any future work in this area should prioritize establishing a clear and broadly understood baseline definition of ICA, as this remains the necessary foundation for resolving many of the issues examined by the ARC and for achieving greater clarity and consistency across the aviation system.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Stewart D'León", is positioned above the printed name.

Stewart D'León

Sr Director, Commercial Aviation Safety & Regulatory Affairs
Aerospace Industries Association

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Aircraft Electronics Association

2. Name of Primary Point of Contact Submitting Ballot *

Ric Peri

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Richard Peri

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

AOPA

2. Name of Primary Point of Contact Submitting Ballot *

David Boulter

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

David Boulter

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Airlines for America (A4A)

2. Name of Primary Point of Contact Submitting Ballot *

Justin W. Madden

3. Statement of Concurrence/ Non-Concurrence: *

☐ I concur with the report as written

☒ I concur with the report with comment or exception **(see Question 4)**

☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

Letter of comment submitted to the email address noted above.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Justin W. Madden

July 31, 2026

RE: Airlines for America (A4A) Comments Regarding Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC) Recommendations

To Whom it May Concern:

A4A appreciates the opportunity to participate in the ARC's work to modernize and clarify the regulatory framework governing ICA. That effort is important because the effectiveness of the continued airworthiness system depends on more than the existence of ICA—it depends on whether the information owners, operators, certificated maintenance organizations, and maintenance personnel must use is complete, current, traceable, and practically available when needed. As the entities responsible for maintaining the airworthiness of aircraft, owners and operators must be able to identify, access, understand, and apply all information necessary to safely operate and maintain aircraft, engines, propellers, appliances, and their component parts.

The ARC's recommendations provide a useful starting point, but they should be understood in light of the chartered questions the ARC was asked to address. As the FAA considers next steps, A4A encourages a focused approach that treats the ARC's work as a constructive foundation for further refinement, with particular attention to the safety function ICA serve, the responsibilities required by the regulations, and the practical ability of operators to meet their continued airworthiness obligations.

The ARC's recommendations correctly recognize that the regulatory obligation to maintain airworthiness rests with owners and operators, while the obligation to develop and support ICA rests with design approval holders (DAHs). Those responsibilities are not competing obligations—they are complementary and interdependent elements of the same safety system. A4A also acknowledges DAH concerns that any ICA framework should avoid imposing unbounded obligations beyond their appropriate regulatory responsibilities. At the same time, the safety and continued airworthiness principles underlying this framework should remain the anchor, and their core protections should be preserved—not diluted—so that operators can fulfill their responsibilities.

For owners and operators to meet their regulatory obligations, ICA must include the maintenance instructions, methods, techniques, and practices necessary to return an article to an airworthy condition, regardless of whether that information originates with the type certificate holder, a supplier, or another design organization. When required maintenance information is fragmented, unavailable, or difficult to identify, the result is operational uncertainty, reduced maintenance efficiency, inconsistent compliance outcomes, and avoidable pressure on the very safety objectives ICA are intended to support.

Accordingly, A4A urges the FAA to evaluate ICA through a performance-based lens while making safety the central measure of any policy or regulatory framework. ICA should be readily identifiable, maintained under an effective revision-control process, traceable to incorporated supplier data, and available in a manner that permits timely operational use. “Making available” should mean more than theoretical access. It should ensure that the entities responsible for compliance can obtain, understand, and use the information when needed to support maintenance, repair, alterations, inspections, and airworthiness determinations. Restrictions that impede practical access to ICA—whether procedural, technical, or financial—are inconsistent with the purpose of the continued airworthiness framework and should not be allowed to frustrate operator compliance.

A4A also believes ICA must be treated as a lifecycle obligation rather than a one-time deliverable. As aircraft designs evolve and operating experience accumulates, ICA must be updated to reflect lessons learned, service experience, and improvements necessary to maintain safety and reliability. The FAA’s framework should therefore ensure that ICA remain current, that revisions are communicated effectively, and that clear mechanisms exist to identify and resolve gaps, errors, access issues, or usability concerns raised by the operators and maintenance organizations that rely on this information to perform work safely and in compliance with FAA requirements.

For these reasons, A4A respectfully encourages the FAA to treat the ARC’s recommendations as an important step toward, but not the final outcome of, a clear, enforceable, and operationally workable ICA framework that reinforces safety and regulatory accountability. Because owners and operators remain accountable for the continued airworthiness of the aircraft they operate, FAA regulation and policy should ensure that they—and certificated maintenance organizations and maintenance personnel acting on their behalf—have reliable access to the complete body of ICA necessary to fulfill those responsibilities. By building on the ARC’s work while strengthening transparency, accessibility, traceability, revision control, and lifecycle support, the FAA can advance a framework that improves compliance, reduces uncertainty, maintains the safety of the National Airspace System (NAS), and best serves the traveling public.

Sincerely,

A handwritten signature in cursive script, appearing to read "Justin W. Madden".

Justin W. Madden
Vice President, Operations & Safety
jmadden@airlines.org
202-626-4099

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Air Methods, LLC

2. Name of Primary Point of Contact Submitting Ballot *

Mark Schuster

3. Statement of Concurrence/ Non-Concurrence: *

☒

I concur with the report as written

☐

I concur with the report with comment or exception **(see Question 4)**

☐

No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Mark Schuster

Instructions for Continued Airworthiness
Aviation Rulemaking Committee

ARC Member Ballot

1. Member Organization *

American Airlines

2. Name of Primary Point of Contact Submitting Ballot *

Tim Brown

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

Sent via email.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Tim Brown

American Airlines (AAL)) supports the ARC's efforts to modernize and clarify the regulatory framework governing Instructions for Continued Airworthiness (ICA). As the entities responsible for maintaining the airworthiness of aircraft in service, owners and operators must be able to identify, access, understand, and apply all information necessary to safely operate and maintain aircraft, engines, propellers, appliances, and their component parts. The effectiveness of the continued airworthiness system therefore depends not simply on the existence of ICA, but on whether such information is complete, current, traceable, and practically available to those required to use it.

AAL acknowledges that the outcome of the ARC was less than preferred. AAL believes the ARC's initial charter may have contributed to this outcome. A more concise and focused charter may have facilitated a more desirable outcome and underscores the importance of clearer scoping in future collaborative efforts.

The ARC's recommendations recognize that the regulatory obligation to maintain airworthiness rests with owners and operators, while the obligation to develop and support ICA rests with design approval holders (DAHs)—these responsibilities are complementary and interdependent. AAL also recognizes TCH/DAH concerns that any ICA framework should avoid unbounded burdens beyond their appropriate regulatory responsibilities. While that balance is important, FAA Order 8110.54 remains the continued airworthiness and safety anchor, and its core protections should not be diluted.

For owners and operators to meet their regulatory obligations, ICA must encompass all maintenance instructions, methods, techniques, and practices necessary to return an article to an airworthy condition, regardless of whether the information originates with the type certificate holder, a supplier, or another design organization. When access to required maintenance information is fragmented, incomplete, or unavailable, owners and operators face operational uncertainty, reduced maintenance efficiency, and ultimately undermine the safety objectives that ICA are intended to support.

Accordingly, AAL believes that ICA should be evaluated through a performance-based lens. Information should be readily identifiable as ICA, maintained under an effective revision-control process, traceable to any incorporated supplier data, and available in a manner that permits timely operational use. "Making available" should mean more than theoretical access—it should ensure that the entities responsible for compliance can obtain and use the information when needed to support ongoing maintenance, repair, alterations, inspections, and airworthiness determinations. Restrictions that impede practical access to ICA, whether procedural, contractual, technical, or financial in nature, are inconsistent with the underlying purpose of the continued airworthiness framework.

July 30, 2026

AAL also views ICA as a lifecycle obligation rather than a one-time deliverable. As aircraft designs evolve and operational experience accumulates, ICA must be updated to incorporate lessons learned, service experience, and improvements necessary to maintain safety and reliability. The regulatory framework should therefore ensure that ICA remain current, that revisions are communicated effectively, and that mechanisms exist to identify and resolve gaps, errors, access issues, or usability concerns raised by those who depend on the information to perform maintenance and ensure compliance. FAA oversight plays an important role in ensuring that these obligations are met consistently across the industry.

Ultimately, the ARC's recommendations should be viewed through the lens of operational safety and regulatory accountability. Because owners and operators remain accountable for the continued airworthiness of the aircraft they operate, any future policy or regulatory framework should ensure that they, along with certificated maintenance organizations and maintenance personnel acting on their behalf, have reliable access to the complete body of ICA necessary to fulfill those responsibilities. By reinforcing transparency, accessibility, traceability, and lifecycle support for ICA, the FAA can strengthen the continued airworthiness system in a manner that benefits safety, compliance, and the traveling public.



Tim Brown
Sr Manager
Certification, ODA, and Project Engineering

American Airlines 

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

The Boeing Company

2. Name of Primary Point of Contact Submitting Ballot *

Mary Fox

3. Statement of Concurrence/ Non-Concurrence: *

☐ I concur with the report as written

☒ I concur with the report with comment or exception **(see Question 4)**

☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

Please see Boeing comment to supplement Ballot - ICA ARC sent to becca.fribush@reg-group.com

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Mary Louise Fox

July 31, 2026

Comments from The Boeing Company on the Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC) Final Report

The Boeing Company (Boeing) appreciates the opportunity to participate in the ICA ARC and to provide these comments. Boeing strongly supports the FAA's initiative to review and continuously improve processes for ensuring the continued airworthiness (CA) of aircraft. Accordingly, Boeing gladly accepted the invitation to join the ARC, assigned participants with meaningful knowledge and experience, and is grateful for the opportunity to contribute to such a worthy endeavor.

It was stated in the kickoff meeting two years ago that this ARC was assigned twice as many tasks as a normal ARC, and the charter acknowledged that some of the tasks were controversial. Indeed, as outlined in the final report, the ARC attempted at first to address the items in the charter methodically, focusing on the subjects in Task A - Defining ICA, that were voted as most important and that were considered paramount to being resolved prior to tackling the other items in the charter. Unfortunately, due to time limits, a revised approach was carried out which may have resulted in increased levels of misunderstanding and dispute over some of the issues.

Boeing believes the division into TCH and OOMRO groups contributed to the failure of the ARC to settle on a clear baseline standard for defining ICA. Also, substantial time spent debating commercial interests and not addressing task B to distinguish between safety-related provisions and service enhancements in an actual working group, was disappointing. Although the final report characterizes the divergence of views between factions as "disagreements," Boeing believes this term inaccurately implies a false equivalence. The regulatory framework governing content and dissemination of ICA is mature and well-understood. For example, FAA Order 8110.54A provides clarity on when CMM information is ICA, if an aircraft's airworthiness can be maintained by replacement action, if ICA needs to be requested, how the "make available" standard works, and who qualifies as "other persons required to comply," yet these are some of the topics that caused a stalemate in this ARC. Boeing participated in the ARC in good faith to ensure that open issues and improvement opportunities would be addressed in the interest of safety consistent with the governing regulatory regime. Unfortunately, it seems some elements of the OOMRO group sought to use the ARC as a means of advancing their commercial interests under the guise of regulatory reform. These elements sought to manufacture "disagreements" by framing commercial issues as regulatory ones to drive changes that are not warranted from a regulatory or safety point of view. As demonstrated by the continued operational safety of the existing fleet, the mature, well-understood ICA framework in the current regulations, published policy and guidance (including FAA and EASA collaboration) has functioned well. With sensible, calibrated improvements it will continue to do so.

Notwithstanding the less successful aspects of the ARC, Boeing supports the full consensus recommendations provided in section V of the report. Specifically, Recommendations 11 (Airworthiness Limitations), 12 (Consolidation of FAA Policy), 14 (Configuration Information) and 17 (ICA Updates not Associated with New Design Approval - Clarification) represent subjects that Boeing believes will have positive impact and address some of the issues it hoped could be clarified or resolved.

Boeing recognizes ICA as an important part of airworthiness requirements for certification and, as an ODA holder with ICA authorization, places much focus on ensuring that the ICA development, review, and acceptance process for its products aligns fully with all applicable regulations, FAA Orders, and policy statements. Boeing also ensures that its ICA is appropriately distributed and made available to ensure that the CA of its products is maintained. In addition, Boeing reports ICA quality information to the FAA

quarterly, and its ICA process is audited regularly by the FAA and the Boeing ODA. Therefore, Boeing strongly rejects claims in this report that the FAA does not appropriately oversee ICA compliance.

Boeing produces ICA required by the certification basis and airworthiness standards. Beyond that, Boeing also produces a variety of non-ICA offerings that are useful, helpful, and desired by its customers. As an industry partner, Boeing meets regularly with operators and regulators in forums such as Fleet Team Conferences, Working Together Meetings and Improvement Initiatives to collect and address feedback on its products and services, and provides around-the-clock support for more than 14,000 airplanes that are currently in service. Boeing proactively takes these actions toward providing world-class customer support for its products with safety as the foundation of the business. The blanket characterization of those in the TCH community as trying to avoid ICA obligations, withholding and deleting information to protect a monopoly on maintenance, making ICA availability a revenue stream, and other accusations asserted in this report are objectionable and do not depict conduct consistent with Boeing's values and behaviors. Significant investment is made in the development of additional maintenance information and repairs by both TCH and third parties that go beyond the required ICA as a service to operators for economic or operational benefits. Any mandatory expansion of ICA content beyond information essential to CA of the airplane to compel disclosure of manufacturer intellectual property (IP) for the economic benefit of aftermarket third parties goes well beyond the FAA's charter to ensure airworthiness and the safety of the flying public and could lead to unintended consequences.

Unfortunately, this ARC presented a missed opportunity to the extent it did not conduct a focused review of real-world issues that were identified by the participants. By performing a deep review of these items, outliers could have been separated from systemic issues pertaining to airworthiness for which the parties could have attempted to develop amicable solutions. At least this approach was successful for some items, such as the compromise reached in Recommendation 14 for Configuration Information, which satisfies the OOMRO group's concern, clarifies current ambiguous FAA guidance, and harmonizes with EASA in a way that is manageable for the TCH.

The FAA has accepted Boeing's process for distributing ICA and revisions for decades. Boeing's licensing agreements with owners/operators and others who are required to comply contain fair and reasonable restrictions surrounding use and sharing of IP. With the ease of digital duplication, rise of artificial intelligence and unknown limits to the capability of this unregulated technology, it is more important than ever for the IP rooted in 110 years of research & development to remain protected through these agreements. Crucially, licensing agreements in no way prevent or hinder Boeing from meeting its obligations to furnish ICA to owners at delivery or to make ICA available to those required to comply per §21.50(b). Time and experience have shown that the use of fair and reasonable licensing agreements to protect valuable IP in no way inhibits the distribution of ICA or impacts the CA of the fleet.

As demonstrated by this ARC, ICA and the broader issue of TCH IP information can be complicated and contentious. Boeing hopes the recommendations in this report are taken into consideration as a first step in improving and clarifying ICA requirements and TCH ability to provide additional services and support to its customers. Once again, Boeing thanks the Agency for the opportunity to participate in this ARC and would welcome future efforts to bring industry members together for more focused discussions on some of the topics that, unfortunately, this ARC was unable to resolve in the time frame allotted.

Respectfully,

Mary L. Fox

ICA ARC Voting Member

The Boeing Company

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Cargo Airline Association

2. Name of Primary Point of Contact Submitting Ballot *

Jennifer Thibodeau

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Jennifer Thibodeau

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Chromalloy

2. Name of Primary Point of Contact Submitting Ballot *

John Green

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

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Comment document submitted via email July 31, 2026

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

John William Green

July 31, 2026

Chromalloy Approval of ICA ARC Report with Comments

Chromalloy supports approval of the ICA ARC Final Report and appreciates the significant effort undertaken by the ARC participants to develop consensus recommendations. Chromalloy is generally aligned with the recommendations and rebuttals provided by the “OOMRO” group within the ARC. However, Chromalloy offers the following comments for consideration:

1. Recommendation 5 – “Influencing Parts”

Chromalloy supports the recommendation but believes the FAA should completely remove the concept of “influencing parts” from FAA guidance. The concept has created unnecessary ambiguity and inconsistency in ICA evaluations without providing a corresponding safety benefit. This position is consistent with Chromalloy’s long-standing advocacy on this issue.

2. Recommendation 15 – Restrictive Language

Chromalloy emphasizes that consensus on this recommendation was achieved only through the explicit inclusion of the “exceptional cases” limitation. The recommendation should not be interpreted or used as a basis for expanding circumstances under which design approval holders may withhold information from publicly available ICA. Any application beyond truly exceptional cases would be inconsistent with the consensus reached by the ARC.

3. Recommendation AT2

Chromalloy strongly disagrees with the characterization of this recommendation as a safety-driven initiative. The recommendation is driven by DAH’s and is fundamentally commercial in nature, arising from competitive concerns. It seeks to overturn the long-standing industry expectation that PMA parts generally operate under the same ICA framework as the corresponding DAH parts. Consistent with longstanding industry practice, PMA articles have relied upon existing DAH ICA, without any safety concern.

Chromalloy also notes that the rationale for recommendation AT2 intentionally confuses the FAA PMA process of “PMA by Identity” with the technical and safety concepts of “equivalence”.

“PMA by Identity” requires the PMA applicant to either be licensed to produce the part by the DAH, or have access to design data (drawings, etc.) that are identical to the DAH design data.

“PMA by Test and Computation (T&C)” is used by PMA manufacturers who are not licensed by the DAH, and produces a part that is “equivalent to” the original DAH part. The long-standing expectation, by the FAA and the aviation industry, is that parts approved under T&C can be interchanged freely with their DAH counterparts, unless specifically restricted by the PMA manufacturer. The vast majority of T&C PMA’s are not restricted, and hence no unique ICA is necessary.

Suggesting that only PMA's approved via the "PMA by identity" process should use existing ICA is a transparent attempt to restrict competition, by falsely implying that PMA's approved under T&C are not equivalent to the DAH part.

Chromalloy's position on AT2 is strongly supported by the Modification and Replacement Parts Association (MARPA) and is also consistent with the "Areas of Disagreement" section for Proposal AT2.

4. **Source Demonstration (SD) Process**

Chromalloy would like to highlight Section IV paragraph C (2) of the report (bolded for emphasis):

"Regarding the role of repair source approval and criticality of parts and repairs, the working group believes there can be safety benefits when the DAH engages in determining the important criteria for critical repairs or enhanced inspections processes. **It also recognized that source demonstrations that are tied to commercial agreements could limit access to independent repair stations.**"

There is potential for abuse of Source Demonstration (SD) requirements by DAHs, particularly with respect to engine repair ICA access. DAH representatives provided assurances during ARC discussions that the SD process exists only to improve flight safety, by enhancing DAH technical coordination with repair stations for critical repair processes. However, industry experience, and multiple examples, demonstrate that the repair SD process continues to be used as a tool to restrict legitimate access to ICA, purely for anti-competitive reasons.

As recently as July 2026, Chromalloy received a rejection letter from a major DAH when requesting access to repair ICA under SD. The rejection stated "After review and consideration, your requests have been denied. Providing these repairs to your facilities does not align with the Strategic Road map for these engine product lines". Chromalloy recommends that the FAA further evaluate the SD process and take steps to ensure it is only used as a tool to improve safety, not to limit access to repairs for commercial advantage by the DAH's.

Chromalloy's position on the repair Source Demonstration Process is supported by the Aeronautical Repair Station Association (ARSA).

Subject to the comments above, **Chromalloy approves the ICA ARC Final Report**

John Green

Chief Technical officer

Chromalloy

Instructions for Continued Airworthiness
Aviation Rulemaking Committee

ARC Member Ballot

1. Member Organization *

CTS Engines

2. Name of Primary Point of Contact Submitting Ballot *

Kate Guinn

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

CTS Engines supports the ARC's consensus recommendations and appreciates the collaborative effort undertaken by the committee to improve the identification, management, and oversight of Instructions for Continued Airworthiness. We believe these recommendations will improve regulatory clarity and promote greater consistency across the industry.

CTS also encourages the FAA to continue addressing the unresolved issues identified within the ARC report regarding the definition and availability of ICA. As an independent FAA-certificated Part 145 repair station, CTS relies on timely access to complete and current maintenance information in order to perform compliant maintenance, support configuration management, and maintain continued airworthiness. We encourage the FAA to provide additional guidance regarding the practical meaning of "make available" under 14 CFR §21.50(b), the long-term accessibility of ICA, and the treatment of repair and maintenance information necessary to support certificated maintenance organizations while respecting the legitimate intellectual property rights of Design Approval Holders.

CTS Supports all of the 17 recommendations with comments on the following 3 recommendations:

Recommendation 1: CTS believes this is a strong improvement. In addition, we encourage the FAA to establish a clear criterion for determining the complete set of information that must be identified as ICA.

Recommendation 3: CTS concurs and encourages the FAA to clarify how supplier-generated ICA incorporated by reference will remain identifiable and reasonably available over the service life of the product to persons required to comply with the ICA, including certificated operators and appropriately rated maintenance providers."

Recommendation 13: "CTS concurs with this recommendation and encourages the FAA to clarify the mechanisms by which required ICA will remain continuously available when the Design Approval Holder is no longer able to support the product, including preservation, custody, revision status, and access by persons required to comply with the ICA."

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Kathryn Guinn

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Embraer S.A.

2. Name of Primary Point of Contact Submitting Ballot *

Lucas Cardoso da Silva Moraes

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

Embraer would like to express its gratitude for the opportunity to participate in and contribute to the Instructions for Continued Airworthiness Aviation Rulemaking Committee (ARC).

Embraer concurs with the report with comment or exception. Detailed comments will be submitted in accordance with the established process and instructions.

We appreciate the collaborative efforts of all participants and the work accomplished by the ARC.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Lucas Cardoso da Silva Moraes



Embraer S.A.

Av. Brigadeiro Faria Lima, 2.170
12227-901 - S.J. dos Campos - SP
Brasil

Fone: +55 12 3313-2547

Subject: Final comments from Embraer S.A. to the Recommendation Report of the Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC)

Dear,

Embraer is pleased to have participated in the ICA ARC and to have contributed to the ongoing efforts to enhance ICA regulations and related definitions.

First and foremost, Embraer maintains an unwavering commitment to aviation safety, a principle reflected in every product, process, and decision throughout the design, development, manufacture, and in-service support of its aircraft.

Over the course of two years, Embraer has shared the expertise of its experienced specialists, helping to assess regulatory challenges from a TCH perspective and fostering greater alignment among industry stakeholders. This participation enabled meaningful discussions on opportunities to enhance the clarity, consistency, and effectiveness of ICA-related requirements, always with the objective of further strengthening safety across the aviation industry.

Given the significance and broad scope of this initiative, expectations for the ICA ARC were naturally high. While the discussions generated valuable insights and progress in several areas, Embraer believes that the process would have been more effective had it remained more closely focused on the safety and airworthiness objectives established in the committee's charter. In particular, certain discussions extended beyond these objectives to encompass broader commercial and economic interests, including positions advanced by certain OOMRO participants that sought access to proprietary design data that are not required for the performance of safety-related responsibilities. In Embraer's view, such matters fall outside the scope of the ARC safety-driven mandate and risk diverting attention from committee's primary purpose of developing practical, safety-driven, and consensus-based improvements to the ICA regulatory framework. Nevertheless, Embraer recognizes the value of the work accomplished and the constructive dialogue that contributed to a better understanding of the diverse perspectives across the industry.

Following extensive discussions and careful consideration of the differing views expressed throughout the ICA ARC activities, Embraer accepts the ICA ARC Final Report (Revision 9), subject to the comments presented herein.

Embraer supports the consensus recommendations contained in Section V and believes they represent the most balanced and technically sound path forward for achieving the objectives established in the ARC Charter. Accordingly, Embraer encourages the FAA to coordinate with other Airworthiness Authorities, including ANAC, to promote the highest possible degree of international regulatory harmonization and to carefully evaluate these consensus recommendations and, where appropriate, incorporate them into the forthcoming NPRM. Doing so would not only advance practical improvements to the ICA framework while maintaining the high level of safety achieved by the aviation industry. It would also provide an opportunity for the broader aviation community to review, comment on and further refine specific regulatory provisions through a public rulemaking process.

With respect to the remaining topics addressed in the report, Embraer concurs with the positions put forward by the Type Certificate Holder (TCH) group and refers the FAA to the comments and supporting rationale provided therein.

Respectfully,

DocuSigned by:

C5D22B10B5B540E...

Lucas Cardoso da Silva Moraes
Regulatory Affairs Specialist

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

EAA

2. Name of Primary Point of Contact Submitting Ballot *

Tom Charpentier

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Thomas Fattore Charpentier

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Garmin

2. Name of Primary Point of Contact Submitting Ballot *

Paul Mast

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

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Garmin supports the full consensus recommendations contained in the Final Report. Garmin also recommends that the FAA consider the proposals with the knowledge that there remain many "areas of disagreement" within the working groups.

It is noted that the ARC failed to complete the fundamental task 4.A. to define ICA, mainly due to the strong differences of opinion between the TCH and OOMRO groups. Unfortunately, this lack of ICA definition prevented the ARC from agreeing on several other issues. Defining what ICA is (and is not) remains a key issue to be resolved.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Paul Mast

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

General Aviation Manufacturers Association

2. Name of Primary Point of Contact Submitting Ballot *

Joe Sambiase

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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Comments provided in separate document sent to indicated email address.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Joe Sambiase

Overall Position: Accepted with Comment

GAMA accepts the ICA ARC Final Report (Revision 9) with comment. The TCH community maintains an unwavering commitment to aviation safety as the foundation of everything it does. This commitment is not incidental to the TCH position; it is the reason TCH community resists proposals that conflate regulatory ICA obligations with commercial data access. GAMA commends those who participated in good faith and files these comments to ensure that the TCH community's safety grounded perspectives, and its concerns about process balance and report neutrality, are fully reflected in the formal record.

Section V Consensus Recommendations

GAMA supports the consensus recommendations in Section V and encourages the FAA to consider their adoption. Recommendations 7(In-Service Feedback) and 8 (FAA Complaint Tracking) create structured loops that directly strengthen continued airworthiness oversight; recommendation 8 (Awareness and Communication) address gaps in how ICA obligations are understood across industry; Recommendation 4 (FAA coordination) reduces inconsistent interpretations across FAA offices; and Recommendation 14 (Configuration Information) addresses OOMRO concerns while harmonizing with EASA. GAMA notes that 6 of the 17 recommendations carry potential harmonization implications that should be evaluated with bilateral partners before implementation, while the remaining 11 do not – a distinction the FAA should preserve in its planning. GAMA endorses these recommendations in principle, with the expectation that final implementation language will be developed with balanced stakeholder input.

Section VI Non-Consensus Proposals

The TCH community urges the FAA to proceed carefully with the Section VI proposals. Most are polarizing and reflect OOMRO commercial interest more than a safety rationale. Follow on working groups with balanced membership should convene before any rulemaking action. The exceptions are: AT4 (Repair Classification) GAMA supports AT4 as both a safety distinction and a harmonized approach. Generally, repairs required after mandatory inspection findings are appropriately ICA while repairs that are commercial alternatives to removal and replacement are not. Classifying all repairs as ICA could disincentivize optional TCH repair development. AT5 (Order 8110.54A Modernization): GAMA encourages the advancement of AT5. The TCH community invested substantial effort in this update, which overlaps with consensus recommendations 3, 12, 14, and 16. GAMA does not support proposals A01-A04, G4, G8, G14 A-B, and G19, which expand § 21.50(b) beyond safety grounded ICA.

Core Disagreements: Rationale and Safety Context

The ARC report frames the TCH – OOMRO divide as balanced competing perspectives, but the record does not support that framing. ICA represents the minimum maintenance data necessary to ensure continued airworthiness with its scope defined by the Type Certification process and engineering analysis. The core disagreement in this ARC is an effort by the OOMRO participants to expand ICA beyond that safety-based scope. The ICA definition question was substantially addressed during the recent EASA rulemaking initiative and the 2011 FAA/EASA/TCCA ICA roadmap and is reflected in the CMT agreed framework. Proposal AT1 is consistent with that harmonized baseline, while Proposal A01 would move away from it. GAMA urges the FAA to anchor follow on policy on the agreed definitions by the leading states of design rather than treating the scope of ICA as an open question. The suggestion that the FAA inadequately oversees ICA compliance is also unsupported by the record where the FAA exercises oversight through type certification, ODA audits, quarterly quality reporting, and enforcement.

ARC Composition: Structural Imbalance with Safety Implications

The ARC's structural imbalances had direct consequences for the safety foundation of the deliberations. No TCHs were initially selected as ARC members rather the TCH community was represented through two trade

associations (AIA and GAMA), while OOMRO was represented by individual operators, individual MRO companies, and multiple trade associations. The selection of an industry co-chair whose viewpoint closely aligned with the OOMRO position further affected the balance of proceedings. Future ARC's addressing issues with known stakeholder conflicts should ensure balanced representation in both leadership and voting membership or appoint a demonstrably neutral co-chair. Absent such safeguards, the likelihood of safety grounded consensus is significantly reduced.

Further to this concern, the TCH community views Section X as reflecting advocacy on behalf of a particular industry segment rather than a neutral assessment of the ARC's proceedings and unresolved issues. Characterization of TCH conduct as motivated by monopolistic or revenue-driven intent are not supported by decades of successful FAA and TCH collaboration on ICA compliance. GAMA requests that the FAA note this perspective in any formal response and weigh Section X as a stakeholder viewpoint rather than a factual assessment of proceedings.

Failure to Achieve Consensus on ICA Definition

GAMA notes with concern that the ARC was unable to fulfill its primary Charter task of establishing a clear baseline definition of ICA. The foundational elements of such a definition were substantially addressed through recent EASA rulemaking and the 2011 FAA/EASA/TCCA ICA Roadmap, providing an established and harmonized reference point. The principal impediment to satisfying this Charter tasking was a sustained effort by certain OOMRO participants to expand the scope of ICA beyond that agreed and longstanding baseline.

Harmonization with CMT partners

6 of the 17 consensus recommendations carry potential harmonization implications and must be carefully evaluated with bilateral partners; regulatory divergence creates unnecessary complications during foreign validation. EASA has completed substantial foundational work through Part 21.A.7, and the TCH community supports FAA adoption of changes consistent with that framework. GAMA encourages the FAA to engage EASA bilaterally on key recommendations, route new ICA guidance through the CMT process, and pursue SEI/SSD resolution on the TIP bilateral on a defined timeline.

Regarding the OOMRO argument that EASA alignment moves the FAA further from TCCA/ANAC harmonization, GAMA respectfully disagrees. TCCA's ICA framework continues to operate on standards predating EASA's most recent rulemaking efforts and the ANAC's requirements remain substantially derivative of the existing FAA framework. The more constructive path is FAA alignment with EASA's current framework, with TCCA and ANAC following as they have done in other areas when FAA and EASA establish a common safety grounded baseline. Harmonization should reflect the direction safety standards are heading. The OOMRO objections to EASA harmonization appear driven by concern over reduced economic leverage in data access further confirms this objection is commercial rather than technical.

Conclusion

GAMA accepts Revision 9 and respectfully urges the FAA to advance the consensus recommendations in a manner that preserves their safety focused purpose and prioritizes demonstrable continued airworthiness benefits. The TCH community participated in this ARC from the foundational position that ICA requirements exist to ensure aviation safety and continued airworthiness, not to create a regulatory pathway for expanded commercial data access. GAMA submits these comments to ensure that this safety-first perspective, together with the TCH community's serious concerns regarding process balance, and report neutrality, is clearly reflected in the formal record and given appropriate weight in any subsequent FAA action.

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

GE Aerospace

2. Name of Primary Point of Contact Submitting Ballot *

Richard Dubell

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

GE Aerospace has submitted this ballot with comments for the FAA to consider. Comments sent to Becca Fribush via email today 7/30/2026.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Richard Dubell

GE Aerospace Comments to the Recommendation Report of the
Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC)

July 31, 2026

GE Aerospace appreciates our inclusion as a voting member of this ARC. We have an unwavering commitment to safety. As a leading engine designer and manufacturer, GE Aerospace has a substantial interest in ensuring that any regulatory or policy changes preserve aviation safety throughout the lifecycle of our products. We would like to thank the ARC Co-Chairs and all the participants for their engagement in the process. The participants maintained a constructive and respectful approach to the ARC discussions and invested considerable effort throughout the process.

Notwithstanding the above, GE Aerospace is disappointed that the final report does not fully accomplish the ARC Charter. We support the Type Certificate Holder (TCH) positions and concerns set forth in Sections VII.A, VIII.A, and IX.A of the report and urge the FAA to give those views full consideration. We further note our objection to the industry co-chair's remarks in Section X, which, in our view, are inappropriate and reflect advocacy on behalf of a particular industry segment rather than a neutral assessment of the ARC's proceedings, outcomes, and unresolved issues. GE Aerospace respectfully submits the following additional comments for the FAA's consideration.

ARC Composition and Procedural Lessons Learned

From the outset, it was evident that the ARC included two stakeholder groups with materially divergent views regarding the interpretation of ICA-related rules and guidance. On one side were the TCHs and a few Design Approval Holders (DAHs), who understand the ICA framework as requiring information necessary to maintain continued airworthiness be made available to operators and maintainers, while also preserving appropriate protections for proprietary information against unrestricted dissemination and use. On the other side were operators, independent MRO entities, and their trade representatives (OOMRO), many of whom have long sought broader access to proprietary data without limitation on use or re-distribution.

In GE Aerospace's view, the ARC's structure did not adequately reflect this divide in a balanced manner. An OOMRO vocal advocate was named ARC Co-Chair and voting membership disproportionately favored the OOMRO stakeholder perspective, while DAH/TCH interests were comparatively underrepresented. Individual DAHs like GE Aerospace and Pratt & Whitney had to ask to be included in the ARC, and even then, there was a continuing lack of balance on the committees between these groups. That imbalance materially impaired the ARC's ability to engage in productive, consensus-oriented deliberations on several core issues within the Charter. Accordingly, GE Aerospace recommends that future ARCs and ARACs addressing issues involving known stakeholder conflicts ensure balanced representation in both leadership and voting membership or alternatively appoint a demonstrably neutral industry co-chair. Absent such safeguards, the likelihood of meaningful consensus is significantly reduced.

Harmonization Considerations

GE Aerospace supports the report's recognition that the FAA must consider the harmonization implications of any regulatory or guidance changes, particularly with respect to EASA, Transport Canada Civil Aviation (TCCA), and ANAC. Of the seventeen consensus recommendations, six were identified as having potential harmonization impacts, while eleven were not. Those distinctions are significant and should be carefully

evaluated before proceeding with rulemaking, policy revisions, or interpretive guidance. Regulatory divergence in this area may create unnecessary complications during foreign validation and could undermine consistency across the international certification environment.

Proposal-Specific Comments

TCH Proposal AT1 and OOMRO Proposal A01 - GE Aerospace believes there is value in a clear and agreed definition of ICA. That issue was substantially addressed during the 2011 ICA Roadmap discussions involving the FAA, EASA, and TCCA. The principal disagreement is not the absence of a definition, but rather an effort by certain OOMRO participants to expand ICA beyond maintenance data necessary to maintain airworthiness. Proposal AT1 is consistent with existing harmonized understanding, whereas Proposal A01 would move in a direction inconsistent with that harmonized framework.

TCH Proposal AT4 - GE Aerospace supports Proposal AT4 as an appropriate effort to align Part 33 and Part 35 treatment of repairs with the established approach under Part 25. The TCH community recognizes that certain repairs may be required to restore serviceability after a component has been rendered unserviceable through a mandatory inspection finding. However, repairs outside that circumstance are more appropriately understood as commercial alternatives to removal and replacement, not as ICA required to maintain airworthiness. Classifying all repairs as ICA would create a substantial disincentive for TCHs to develop repairs and could shift development activity to third-party repair DAHs that are not subject to equivalent ICA obligations. Proposal AT4 reflects both a sound regulatory distinction and a more harmonized approach, particularly in relation to EASA expectations concerning TCH repair responsibilities.

TCH Proposal AT5 - GE Aerospace also encourages the FAA to give substantial weight to the work reflected in Proposal AT5. TCH participants devoted significant time and technical effort to reviewing and proposing updates to Order 8110.54 in a manner intended to improve clarity, reduce ambiguity, and reflect the practical realities of regulatory compliance. That work product was developed by entities directly responsible for complying with the applicable regulations and related FAA interpretations, and it therefore provides a well-informed basis for refinement of the Order. TCH participants made efforts to account for OOMRO concerns during this process. Despite those efforts, certain OOMRO representatives declined repeated opportunities to engage substantively on draft language. The proposals contained in AT5 represent implementation-focused input that already has support from the TCH community and overlap with consensus recommendations 3, 12, 14 & 16, and Proposal F8.

Proposals 6A, 6B, and 6C - GE Aerospace agrees in principle that PMA DAHs, Repair DAHs, and TSOA holders should bear responsibilities comparable to those of TCHs with respect to producing, furnishing, and making available ICA associated with their approved designs. These entities are responsible for those designs and how aviation products incorporating those designs may be maintained in an airworthy condition. Any framework adopted by the FAA should make clear that entities other than the product TCH are responsible for developing and supporting ICA for their own designs.

Thank you for your consideration of these comments.

Sincerely,

Richard Dubell
GE Aerospace ARC Voting Member

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Gulfstream Aerospace

2. Name of Primary Point of Contact Submitting Ballot *

James Moss

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

James Moss

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

HEICO Aerospace

2. Name of Primary Point of Contact Submitting Ballot *

Stephen Szpunar

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Stephen Jude Szpunar

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Honeywell

2. Name of Primary Point of Contact Submitting Ballot *

Kevin Raub

3. Statement of Concurrence/ Non-Concurrence: *

☐

I concur with the report as written

☒

I concur with the report with comment or exception **(see Question 4)**

☐

No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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Recommendation 14 does not align with Honeywell Aerospace's current standard practice for managing part numbers within ICA. At present, part numbers are controlled through the Illustrated Parts Catalog, which is made available in the same manner as the ICA. Incorporating part numbers directly into the ICA would create unnecessary burden on Honeywell Aerospace's internal processes and approval workflows for part number management. Because the Illustrated Parts Catalog provides an equivalent function to what Recommendation 14 intends, we request that the guidance be updated to include language allowing for "equivalent methods."

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Kevin Raub

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

Instructions for Continued Airworthiness

1. Member Organization *

International Air Transport Association (IATA)

2. Name of Primary Point of Contact Submitting Ballot *

Chris Markou

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

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Many thanks to the hard work and deliberations by the ARC ICA.
IATA fully supports the OOMRO position, and is firmly opposed to the TCH position.
Inclusion of repair instructions in the ICA definition is considered as essential by IATA for the purpose of this ARC.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Chris Markou

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Modification and Replacement Parts Association

2. Name of Primary Point of Contact Submitting Ballot *

Clara Greceanu on behalf of Jason Dickstein

3. Statement of Concurrence/ Non-Concurrence: *

☐ I concur with the report as written

☒ I concur with the report with comment or exception **(see Question 4)**

☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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email sent to Becca Fribush

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Clara Greceanu



Modification and Replacement Parts Association
2233 Wisconsin Ave, NW, Suite 503
Washington, DC 20007
Voice: (202) 628-6777

Respond to: Jason Dickstein:
(202) 628-6776
Jason@washingtonaviation.com

To: ICA ARC Chairman

From: MARPA

Date: July 31, 2026

MARPA votes in favor of the ICA ARC, with the following explanation.

1. Enforcement

MARPA believes that the FAA's first step should be to fully enforce the ICA regulations as they are written. At present, the ICA regulations impose certain clear obligations (despite the fact that other obligations may be unclear). The FAA has published guidance to explain the clear obligations. Nonetheless, some companies are failing to comply with the clear obligations. Other companies have brought these failures to the attention of the FAA and the FAA has failed to enforce the existing regulations. Clear cases, like cases where the TC holder has refused to make ICAs available to properly rated repair stations, have failed to merit any enforcement action by the FAA, nor any other action to promote compliance by the errant certificate holder.

Situations in which the FAA has failed to enforce its own ICA regulations have resulted in (1) confusion about what the plain language of the regulations means, (2) a diminution of industry safety, and (3) a decrease in the industry's faith in the FAA, based on the FAA's failure to enforce the existing regulations.

In addition, some design approval holders have established restrictions on operators from sharing ICAs with parties authorized by the FAA to implement the ICA. This may be accomplished for commercial reasons, like steering maintenance work to the design approval holders' contract partners or to its own facilities. The FAA called this practice "unacceptable" because of the obvious safety implications in FAA Memo No. AIR-100-11-100-002 (March 23, 2012). Despite FAA guidance on the subject, the practice continues without enforcement action by the FAA.

At a time when both the industry and the public repeat the mantra of “safety culture,” an environment in which manufacturers are required to make safety information like ICAs available - but fail to make that information available - seems to be the exact opposite of the mature safety culture that we are all trying to achieve. The first step is enforcing the regulations we have.

2. FAA Has Sufficient Safety Authority

The FAA’s regulations include requirements for certain design approval holders to produce instructions for continued airworthiness (“ICAs”), and they include corollary requirements to furnish the ICAs and to make available the ICAs. Federal publications clarify that a design approval holder’s compliance with the “make available” provision of the regulations is a condition for issue and retention of the applicable design approval. This is described in pages 223-275 of the ICA ARC Report, and MARPA concurs with this analysis.

The Report’s analysis explains that even if we assume that ICA are subject to copyright (not a clear conclusion), then duplication for the FAA-intended performance of maintenance is likely to be permitted under the fair use doctrine. In addition, the federal government has clearly stated that the design approval holder must make the ICAs available as a condition for obtaining and retaining design approvals. This means that the FAA may rescind or suspend a design approval when the owner fails to comply with the “furnish” or “make available” requirements.

Because the ICAs are required to be made available (to those parties described in 14 C.F.R. § 21.50(b)), they are not allowed to be kept secret from those parties who are entitled to the benefit of the “make available” clause. As to those persons, ICAs are not trade secrets, and should therefore not be protected under trade secret laws.

For these reasons, strict enforcement of 14 C.F.R. § 21.50(b) – and required distribution of ICAs to those persons covered under the rule - is consistent with intellectual property laws.

In addition, ICA regulations were intended to require the creation and distribution of ICAs in order to support continuous airworthiness. For many decades, the FAA has taken the position that ICAs are necessary for aviation safety. No arguments have been offered to counter this position. If ICAs are not made available to the parties to whom they are intended to be distributed, and who need them for safety reasons, then this would undermine aviation safety.

MARPA fully supports the OOMRO comments in pages 223-275 of the ICA ARC Report. If the FAA feels that its authority is insufficient to enforce the existing regulations, then MARPA supports implementation of the OOMRO recommendations to help clarify the law.

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

National Air Carrier Association (NACA)

2. Name of Primary Point of Contact Submitting Ballot *

George Paul

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

George Raymond Paul

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

NATA

2. Name of Primary Point of Contact Submitting Ballot *

Hector Huezo

3. Statement of Concurrence/ Non-Concurrence: *

☒

I concur with the report as written

☐

I concur with the report with comment or exception **(see Question 4)**

☐

No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Hector Huezo

Instructions for Continued Airworthiness
Aviation Rulemaking Committee

ARC Member Ballot

1. Member Organization *

NBAA

2. Name of Primary Point of Contact Submitting Ballot *

Joe Hertzler

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

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Comment Sent to Becca

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Joseph V Hertzler

Comment Accompanying Vote

ICA Aviation Rulemaking Committee — Final Report

Throughout the work of this ARC, it became evident to me that the fundamental divide is not over specific pieces of maintenance data, but over the definition and purpose of Instructions for Continued Airworthiness (ICA). The discussions repeatedly demonstrated that Design Approval Holders (DAHs) and the operations and maintenance community begin from fundamentally different assumptions about what ICA is intended to encompass.

When ICA was originally introduced through rulemaking in 1975, the Notice of Proposed Rulemaking clearly expressed the intent that manufacturers develop and provide **comprehensive maintenance instructions** for those responsible for operating and maintaining aircraft. In my view, that original purpose was clear. However, while the implementing regulations established appendices describing the minimum content required for certification, they did not clearly articulate the broader purpose or define the scope of ICA itself. As a result, over time the focus has shifted from the original intent of providing comprehensive maintenance instructions to satisfying the minimum requirements necessary for type certification.

From the DAH perspective, the appendices have become the defining boundary of what must be provided. From the operations and maintenance perspective, ICA represents the body of information necessary to safely operate and maintain an aircraft throughout its service life. These differing interpretations have created an environment where operators and maintenance providers must continually request additional information, resulting in a “pull” model rather than a “push” model of providing maintenance information to the industry.

This underlying difference surfaced repeatedly throughout our discussions. Conversations frequently centered on whether particular information was “included in the appendix,” who is legally “required to comply with this Part,” what constituted ICA, and what represented a reasonable fee for access to maintenance information. Rather than beginning with the complete body of maintenance information developed by the DAH and determining what, if anything, could appropriately be excluded from ICA based on a clearly defined purpose, many of our discussions began with the opposite premise of determining the minimum information that must be included. Without a common understanding of ICA's intended purpose, the discussion naturally gravitated toward exclusion rather than inclusion.

Even within the operator and maintenance community there are differing needs. Large Part 121 operators operating under Continuous Airworthiness Maintenance Programs maintain fleets of like aircraft and incorporate revisions into their own internal maintenance programs. The business aviation community operates in a very different environment. Aircraft ownership changes frequently, maintenance is performed by a broad network of maintenance providers, and conformity with manufacturer maintenance requirements is essential not only to safety but also to

preserving the value of the aircraft as an asset. For this segment of the industry, comprehensive ICA has an importance that extends well beyond regulatory compliance.

I recognize that DAHs have legitimate concerns regarding proprietary information, intellectual property, and the protection of sensitive data. Those concerns deserve consideration. However, without first establishing a clear definition of what constitutes ICA and a clear statement of its intended purpose, these discussions inevitably become circular. It is difficult to resolve questions about what information should be protected before first deciding what information ICA is intended to include.

In my opinion, the FAA's greatest opportunity is not simply to define what constitutes ICA, but to clearly articulate why ICA exists. Once the purpose is established, determining what belongs within ICA becomes a far more objective exercise.

For that reason, my request to the FAA is straightforward. The FAA should clearly define the intended scope of Instructions for Continued Airworthiness and should articulate, in unmistakable terms, the purpose those instructions are intended to serve. A modern statement of purpose, consistent with the intent expressed when ICA was originally established, would provide a common foundation from which future policy, guidance, and industry practices could develop. Once that foundation is established, meaningful discussions regarding scope, accessibility, proprietary protections, and cost can occur within a common framework.

By voting in support of this report, I am acknowledging that it faithfully documents both the areas of agreement and the significant differences in perspective that emerged throughout the ARC process. At the same time, I believe those differences reveal the central issue that remains unresolved: the FAA has never clearly defined the scope and purpose of Instructions for Continued Airworthiness. Until that foundation is established, the industry will continue to debate what belongs in ICA rather than working from a common understanding of what ICA is intended to accomplish.

My hope is that this report serves as the catalyst for the FAA to provide that clarity so that Design Approval Holders, operators, maintenance providers, and regulators can move forward with a shared understanding of both the definition and the purpose of ICA. Ultimately, safe continued operation depends on those who operate and maintain the aircraft, and they deserve a clear, comprehensive, and consistently understood body of Instructions for Continued Airworthiness.

Joe Hertzler

NBAA Representative

ICA Aviation Rulemaking Committee

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

PROFESSIONAL AIRCRAFT MAINTENANCE ASSOCIATION

2. Name of Primary Point of Contact Submitting Ballot *

JOHNH GOGLIA

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

John J Goglia

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Regional Airline Association (RAA)

2. Name of Primary Point of Contact Submitting Ballot *

Terry Butler

3. Statement of Concurrence/ Non-Concurrence: *

☐ I concur with the report as written

☒ I concur with the report with comment or exception **(see Question 4)**

☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

The RAA urges the FAA to evaluate ICA through a performance-based lens while making safety the central measure of any policy or regulatory framework. ICA should be readily identifiable, maintained under an effective revision-control process, traceable to incorporated supplier data, and available in a manner that permits timely operational use. "Making available" should mean more than theoretical access. It should ensure that the entities responsible for compliance can obtain, understand, and use the information when needed to support maintenance, repair, alterations, inspections, and airworthiness determinations. Restrictions that impede practical access to ICA—whether procedural, technical, or financial—are inconsistent with the purpose of the continued airworthiness framework and should not be allowed to frustrate operator compliance.

RAA also believes ICA must be treated as a lifecycle obligation rather than a one-time deliverable. As aircraft designs evolve and operating experience accumulates, ICA must be updated to reflect lessons learned, service experience, and improvements necessary to maintain safety and reliability. The FAA's framework should therefore ensure that ICA remain current, that revisions are communicated effectively, and that clear mechanisms exist to identify and resolve gaps, errors, access issues, or usability concerns raised by the operators and maintenance organizations that rely on this information to perform work safely and in compliance with FAA requirements.

For these reasons, RAA respectfully encourages the FAA to treat the ARC's recommendations as an important step toward, but not the final outcome of, a clear, enforceable, and operationally workable ICA framework that reinforces safety and regulatory accountability. Because owners and operators remain accountable for the continued airworthiness of the aircraft they operate, FAA regulation and policy should ensure that they—and certificated maintenance organizations and maintenance personnel acting on their behalf—have reliable access to the complete body of ICA necessary to fulfill those responsibilities. By building on the ARC's work while strengthening transparency, accessibility, traceability, revision control, and lifecycle support, the FAA can advance a framework that improves compliance, reduces uncertainty, maintains the safety of the National Airspace System (NAS), and best serves the traveling public.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Terry Allen Butler

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

RTX

2. Name of Primary Point of Contact Submitting Ballot *

Keith R Morgan

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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Please see comment letter submitted to TRG/Becca Fribush dated July 21, 2026

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Keith R Morgan

RTX Comments to the Final Recommendation Report for the Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC)

The Pratt & Whitney and Collins business units of RTX would like to thank the FAA for the opportunity to participate in the ICA ARC and to co-lead two working groups. These comments support our acceptance of the ARC report and are intended to provide additional insight into the deliberations and results of the ARC discussions.

Unbalanced ARC composition at inception

When establishing this ARC, one could have anticipated the difficulty the ARC leadership would encounter establishing consensus between the Type Certificate Holder community and the rest of the aviation industry. In fact, the initial composition of the ARC leadership and membership did not have any Type Certificate Holders (TCH) representation as initial members with TCHs only represented by two participating trade associations, AIA and GAMA. We thank the GAMA team for working with the FAA to rectify the situation. The Owner, Operator, Maintenance, Repair, and Overhaul (OOMRO) community, however, was well represented by owner/operators, individual MRO companies as well as several trade associations.

The selection of a non-neutral industry co-chair exacerbated the imbalance towards the OOMRO viewpoint. Choosing an individual who is completely OOMRO aligned, professionally and philosophically, was a barrier to consensus building because he failed to recognize and discourage OOMRO arguments that had no safety basis and only served commercial interests.

As a process improvement opportunity, the FAA should require balanced ARC leadership and membership composition when establishing and structuring future ARCs.

Discussion permitted to diverge into commercial considerations rather than focusing on safety

This above-mentioned ARC composition imbalance allowed the ARC discussions to diverge from being safety-based and rather encouraged the OOMRO group to put forward arguments solely based on their commercial interests.

Development and release of ICAs are part of the safety standards that TCHs are required to comply with in order to receive a Type Certificate. These are the minimum requirements necessary to safely operate our products in the National Aerospace Standards (NAS). The publications provided by the TCHs typically include additional maintenance instructions for the convenience of the owner/operator to help maximize the value of the product and reduce operating costs.

Any other acceptable maintenance data beyond those identified as essential for continued airworthiness, published and made available by the TCH to appropriate recipients, are provided for mutual commercial benefit.

Inability to align on an ICA definition

It is unfortunate that the inability of the TCH and OOMRO groups to gain alignment on what is essential for continued airworthiness resulted in the ARC not being able to satisfy the number one task in the Charter –

“Propose a clear baseline standard defining ICA, recommending performance-based requirements for applicability, content, and availability as necessary.....”

FAA acceptance of consensus recommendations

The FAA should attempt to act on as many of the consensus recommendations as possible. This will not complete the ARC mission but could be viewed as a positive step in fulfilling some elements of the ARC Charter.

FAA review of the non-consensus proposals

The ARC report includes numerous non-consensus proposals along with the reasons either the TCH or OOMRO group could not agree to them. In many cases, the TCH group felt the OOMRO group failed to justify their proposals with safety-based examples. Instead, the OOMRO continuously focused on their commercial interests to justify their position that non-essential maintenance data should be made available.

The FAA should review all the proposals for opportunities to further investigate by creating follow-on working groups (with balanced membership), and the following are two that we would like to highlight:

1. TCH Proposal AT4 – RTX/P&W supports Proposal AT4 as an appropriate effort to align Part 33 and Part 35 treatment of repairs with the established approach under Part 25. Certain repairs may be required to restore serviceability, such as re-application of anti-gallant or knife edge coating that was removed to properly perform a non-destructive test or inspection, and the TCHs do not have any issue with those being considered ICA. Repairs outside of those circumstances are more appropriately understood as commercial alternatives to removal and replacement, not as ICA required to maintain airworthiness, and should not be required for inclusion in ICA publications.
2. TCH Proposal AT5, includes a well-thought-out proposed revision to FAA Order 8110.54 that would benefit all stakeholders through the correction of several discrepancies.

Harmonization with other Certification Management Team (CMT) partners

EASA has already completed much of the work that this ARC was attempting to do, and the TCH group generally supports the FAA adopting many of the suggested changes to improve harmonization and facilitate future validation projects. The OOMRO group took an opposing position out of a concern that the EASA wording might lessen the economic benefits of the requirement to make ICA available. The FAA should strongly consider driving safety-based harmonization to the greatest extent possible.

Sincerely,

Keith R. Morgan
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Pratt & Whitney
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**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Textron Aviation

2. Name of Primary Point of Contact Submitting Ballot *

Alyssa Birmingham

3. Statement of Concurrence/ Non-Concurrence: *

- ☒ I concur with the report as written
- ☐ I concur with the report with comment or exception (**see Question 4**)
- ☐ No, I do not concur with the report (**Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length**)

4. If concurring with comment or exception, please provide comment or exception in the text box below. You may submit a separate paper on company/organization letterhead to becca.fribush@reg-group.com if additional space is required (may not exceed 2 pages in length).

No answer provided.

5. As a voting member and full participant of the Instructions for Continued Airworthiness Aviation Rulemaking Committee, I hereby acknowledge that I have reviewed the Final Report and recommendations. My response is recorded on this ballot. Below is my virtual signature. (Please type your full name) *

Alyssa Marie Birmingham

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

United Airlines

2. Name of Primary Point of Contact Submitting Ballot *

Sean Oldham

3. Statement of Concurrence/ Non-Concurrence: *

- ☐ I concur with the report as written
- ☒ I concur with the report with comment or exception **(see Question 4)**
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Comment provided via email.

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Sean Oldham

United Airlines concurs with the ICA Aviation Rulemaking Committee (ARC) report and supports the consensus recommendations. The recommendations represent meaningful progress in improving identification of Instructions for Continued Airworthiness (ICA), traceability of referenced information, revision awareness, in-service feedback processes, FAA oversight, and modernization of digital ICA delivery. These actions will improve the ability of operators and maintainers to identify, obtain, and apply the information necessary to support continued airworthiness.

While United supports adoption of the recommendations, we note that several issues of significant importance to operators remain unresolved. The report does not establish a clear and enforceable boundary between ICA and non-ICA maintenance information, nor does it fully address long-term access to prior ICA revisions, continued availability of repair information, accountability for supplier-provided ICA, or the extent to which licensing, fees, and access restrictions may affect practical availability of required maintenance information.

United encourages the FAA to view the ARC recommendations as an important first step rather than a final resolution of these issues. Operators must have reliable access to applicable maintenance information throughout the life of the product, including clear identification of controlling instructions, access to historical revisions when needed for compliance and audit purposes, and confidence that referenced supplier information remains available and traceable. Digital delivery methods can provide significant benefits, but they must remain durable, auditable, searchable, and accessible over the product lifecycle.

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Vertical Aviation International (VAI)

2. Name of Primary Point of Contact Submitting Ballot *

Amber Harrison

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- ☐ I concur with the report with comment or exception (**see Question 4**)
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Amber Harrison

**Instructions for Continued Airworthiness
Aviation Rulemaking Committee**

ARC Member Ballot

1. Member Organization *

Vogt Aero, LLC

2. Name of Primary Point of Contact Submitting Ballot *

Erik Vogt

3. Statement of Concurrence/ Non-Concurrence: *

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- ☐ I concur with the report with comment or exception **(see Question 4)**
- ☐ No, I do not concur with the report **(Letter of Dissent must be provided - must be on company/organization letterhead and may not exceed 2 pages in length)**

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Erik Vogt

Cover Letter for “ICA Appendix Review & Analysis – Tiger Team 1 Matrix” of the Instructions for Continued Airworthiness (ICA) Aviation Rulemaking Committee (ARC) Final Report

This cover letter is provided in accordance with Section 508 of the Rehabilitation Act to describe the “ICA Appendix Review & Analysis – Tiger Team 1 Matrix.” The matrix, which appears in Appendix F of the ICA ARC Final Report, is provided here as a supplemental document in the form of an Excel spreadsheet for easier readability.

The ARC reiterates its caution (on page 9 of the ICA ARC report) that the content of the matrix has neither been carefully reviewed or approved by all members of full ARC, nor is it intended to convey any sort of ARC (or TCH or OOMRO subgroup) position nor FAA action with regard to ICA regulation. Rather, this early, preliminary deep dive into ICA regulations was used solely to determine where areas of misalignment were most prevalent and prioritize for further ARC review and discussion.

The matrix consists of an Excel spreadsheet containing two tabs – one tab for *Analysis* and the other for *Comparison*.

The *Analysis* tab contains 8 columns of information.

Column A is titled “Cite” and contains the regulatory cite from the relevant appendix from 14 CFR Chapter 1, Subchapter C (e.g., H25.1(a) General).

Column B is titled “Language” and contains the language from the cited regulatory text. Some of the text in Column B is color coded blue to emphasize key language focused on during this review.

Columns C through G are color coded as follows:

- Column C is green and titled “Undisputed ICA.”
- Column D is yellow and titled “Undisputed ICA, but needs and update/clarification.”
- Column E is light blue and titled “Doesn’t need to be ICA, but does need clarification.”
- Column F is orange and titled “Not always ICA, but agreement that it should be.”
- Column G is red and titled “Not always ICA. Disagreement on whether it should be.”

Column H is titled “Issues/Comments” and contains information about the content of the preceding columns C-G.

The *Comparison* tab is a regulatory cross-reference tool comparing the language in 14 CFR Part 25 to the corresponding language in parts 23, 27, 29, and 33.

Column A is titled “Part 25 Cite” and contains the regulatory cite for 14 CFR Part 25 (e.g. H25.1(a) General).

Column B is titled “Part 25” and contains the language from the cited regulatory text.

Column C is titled “Part 23” and contains the language from part 23 that corresponds to the part 25 regulatory text cited in Column B.

Column D is titled “Part 27” and contains the language from part 27 that corresponds to the part 25 regulatory text cited in Column B.

Column E is titled “Part 29” and contains the language from part 29 that corresponds to the part 25 regulatory text cited in Column B.

Column F is titled “Part 33” and contains the language from part 33 that corresponds to the part 25 regulatory text cited in Column B. Certain rows in Column F are color coded green to indicate that they correspond directly with part 25 airplane requirements. Other rows in Column F are color coded orange to indicate that they are unique to engine requirements and do not correspond directly with part 25 airplane requirements

Column G is titled “Part 33 Cite” and contains regulatory cite for 14 CFR Part 33 that corresponds to regulatory text cited in Column F.

Cite	Language	Undisputed ICA	Undisputed ICA, but needs an update/clarification.	Doesn't need to be ICA, but does need clarification	Not always ICA, but agreement that it should be.	Not always ICA. Disagreement on whether it should be.	Issues/Comments
H25.1(a) General	This appendix specifies requirements for preparation of Instructions for Continued Airworthiness as required by §§ 25.1529, 25.1729, and applicable provisions of parts 21 and 26 of this chapter.	Required by §§ 25.1529, 25.1729, and applicable provisions of parts 21 and 26 of this chapter.					
H25.1(b) General (first sentence)	The Instructions for Continued Airworthiness for each airplane must include the Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated “products”), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane - this applies to maintenance and operations (software versions/settings etc.) .		ICA for appliances required under the relevant chapter			ICA for appliances NOT required under the relevant chapter	Agreement that info for appliances required under the chapter is ICA, but uncertainty about the definition of appliance (AGC) and the variation in requirements by chapter (more requirements for 121 than 91). Basic/baseline ICA v. operator specific ICA. Is info for appliances that are not required under the chapter ICA (pax entertainment)? What "operates or is intended to operate the aircraft in flight?"
H25.1(b) General (2nd sentence)	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued airworthiness of the airplane. connected to H25.3(b)		Referenced data when OEM is not supplying the ICA.				What if the referee stops producing/providing it? See example. DAH is only required to give the 'referred' data, not necessarily the whole CMM.
H25.1(c) General	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers or products and appliances installed in the airplane will be distributed.		ICA Changes		Type Design/Major/Minor Change		DAH should be required to notify of ICA changes. Should the DAH be required to formally cancel the old ICA because it can still be used under Part 43 unless there was an AD. Notification requirement only exists in 21.137(m) May require new ICA depending on the changes made/TC holder changes the manual but does not inform the operator. Only requirement for notification is in 21.137(m) for in service problems. No other requirement to notify in the regs or the appendix. Only in FAA Order 8110.54A. Is that enough? See also EASA 21.A.7.
H25.2(a) Format	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.		Electronic data				Check with AGC - do electronic manuals need to be specifically included in the regs or is a policy statement/guidance enough to allow electronic documentation? Other issues are manuals v. sections and the meaning of 'appropriate.' Are partial manuals okay?
H25.3	The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		Electronic data			H25.3(a)(1) requires introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventative maintenance.	A4A has a spec describing how ICAs, CMMs etc. should be organized just in case the creator of the ICA doesn't know/follow the standard format, but the spec needs to be in the rule if we want the FAA to adopt and enforce it.
H25.3(a)(1)	Introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance.			Info that is useful for general understanding of the aircraft, appliances, and systems broadly (H25.3(a)(1).	One ARC TCH participant produces and offers a System Schematics		Some Part 121 operators treat the SSM as ICA (e.g., it's part of one ARC participant's maintenance toolbox). BUT - One ARC participant does NOT consider the SSM to be ICA. Adding the SSM to ICA will impact certification. Not all info helpful to the operator is ICA (provided by contract v. provided by rule). Adding more ICA content will increase the problems we currently have (minority view).
H25.3(a)(2)	A description of the airplane and its systems and installations including its engines, propellers, and appliances.				See section H25.3(a)(1) above.		
H25.3(a)(3)	Basic control and operation information describing how the airplane components and systems are controlled and how they operate, including any special procedures and limitations that apply. Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information.				See section H25.3(a)(1) above.		
H25.3(a)(4)				Servicing info.			Need a specific definition for 'servicing info', but there is general agreement that it should be ICA and should include <i>how</i> to perform the servicing task. Need to clarify the level of detail required (e.g., are we including details like how to remove the cap?). The servicing task is the same for all aircraft regardless of what operating rule it is being used under, but who can perform the task will vary by operating rule (e.g., servicing can be done by pilots in 91, but not 121).

H25.3(b)	Maintenance instructions	Maintenance instructions	Largely captured under 'servicing info/preventive maintenance' but could be some differences based on the applicable operating rule.
H25.3(b)(1)	Scheduling information for each part of the airplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to	Scheduled tasks/specified intervals/overhaul/restoration	General agreement among operators/maintainers that requiring something to be done at a specified interval requires ICA to be provided, but exceptions were noted from TC holders (e.g., TBO components - the R&R procedure is ICA, but the overhaul/restoration procedure is not). MRB is ICA in Part 121, but what is a Part 91 operator supposed to do without the OEM's recommended program? Need to decide if it should be provided to the operator, or is it enough to say 'remove this part and send it to X vendor for repair.'
H25.3(b)(1)	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	CMM	When is it required? Which CMM is needed? Why not just put everything in the AMM? CMM can be ICA if the DAH refers to it (e.g., mandated functional checks). DAH can also lose sight of the CMM contents through vendors/suppliers. Oversight/completeness. Off airplane tasks only?
H25.3(b)(2)		Referenced data - items with high degree of complexity/specialized maintenance. AWL.	Required to send to authorized vendors only for repair. OEM can't do maintenance without a Part 145 repair station certification. The FAA should intervene to curtail this practice. Overhaul mandated by AWL should be ICA. Maintenance instructions that predate the CDCCL should be ICA. Inspection parameters, design requirements, AWL link to Chapter 5 so the intervals & procedures can't be changed without notice.
H25.3(b)(2)		Troubleshooting info for malfunctions/component repairs (as opposed to just replacing).	Need a Use Case to test this. Troubleshooting info at the aircraft level should come from the TC holder. Do the regs require troubleshooting info for each component as part of airplane ICA for compliance with Parts 25/27/29? If the component is going to a repair station, the troubleshooting info should be in the CMM, but not part of airplance ICA, but per b1, if you are giving me a requirement to do the work at a certain interval, it must include the troubleshooting info. FIM will usually drive you to replace the component.
H25.3(b)(3)	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Info for R&R for LRUs. ICA is required under b1 for scheduled maintenance and b3 is for any R&R, whether scheduled or not, or discovered following troubleshooting. Includes info on how to access it and warnings/cautions not to damage the equipment/harm the person etc.	
H25.3(b)(4)	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	Info required for scheduled maintenance is ICA (storage, ground checks, items removed for maintenance, weight & balance).	Info necessary for non-scheduled maintenance is not always ICA.
H25.3(c) thru (f)	Access plates, special inspections, protective treatments, structural fasteners.	Info is ICA and may include the parts of the CMM that the TC holder referenced for the task, but not necessarily the whole CMM.	TC holder is required to give the info for the task, including troubleshooting, R&R info, testing procedures, access panel numbers/zones - anything required to do the work at that specific interval, but this does not mean that the whole CMM is given to the operator. Only the sections of the CMM referenced for that task are required ICA.
H25.3(g)	A list of special tools needed.	Equivalency and special tools - equivalent tools are not equivalent for AWLs and ADs. ONLY the tool specified in the AD/AWL can be used for that task , even though other tools are listed as alternatives in one ARC participant's equivalency doc. The ICA needs to specify.	Human factors issue because equivalent is not always equivalent.
H25.4(a)(1) thru (a)(5)	Airworthiness Limitation information required by the regulations - §§ 25.571, 25.954, 25.981, 25.1701.	All things necessary for the AWL under the regulations and inspections. Determined by the design standard cited after the analysis.	

H25.4(b)	If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: “The Airworthiness Limitations section is FAA-approved and specifies maintenance required under §§ 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved.”		May be broken up into several documents (e.g., SCI, AWL, AWL-LNS, MPD-9).	Appears to conflict with the language in H25.4(a) which requires everything to be in a section (not spread across multiple documents). One ARC participant has an ELOS/exemption that allows them to segregate manuals. Consider a recommendation that allows segregated/multiple manuals without ann ELOS.
H25.5(a) thru H25.5(a)(1)(iii)	Electrical Wiring Interconnection System (EWIS) Instructions for Continued Airworthiness.	No deficiencies in EWIS data, but if there was, the FAA could link it back to 25.1701.		
H25.5(a)(1)(iv), H25.5(a)(1)(v)(A), and H25.5(a)(1)(v)(B)	EWIS zones, inspection intervals/procedures, cleaning, and protections/cautions.		The EWIS ICA source document has the intervals and zonal access and is used to satisfy the Appendix H requirements. The AMM is NOT approved.	For Part 91 operators, the source document is incorporated under 91.409e. What Part 91 operators does EWIS apply to and why?
H25.5(a)(2) thru (a)(5) and H25.5(b).	Standard formatting required, wire separation, EWIS ID methods, and electrical load analysis.	The EWIS ICA source document that contains the required EWIS ICA or specifically references other portions of the ICA that contain this information.		
a33.1(a)	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 33.4.	Required by §33.4.		
a33.1(b)	The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.		Referred data is required ICA but there is a distinction between referred data for parts of the engine versus referred data for engine parts.	Does the regulation allowing referral mean that you can refer to ICA for the parts of the engine that are required for type design (e.g., combustion section), or does it mean you can refer to ICA for the individual engine parts (e.g., accessories)?
a33.1(c)	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.			
a33.3(b)(1), (b)(2), (b)(5), (b)(6), & (b)(7).	Engine Overhaul Manual or Section	The manufacturer does not have to establish an overhaul period, but is required to provide sufficient information for the operator to use the word ‘overhaul’ in the maintenance record (i.e., ‘overhaul’ instructions must include sufficient information to disassemble, clean, inspect, repair as necessary, reassemble, and test). Also includes storage instructions in (b)(7).		
a33.3(b)(3) & (b)(4)	(b)(3) Details of all fits and clearances relevant to overhaul. (b)(4) Details of repair methods for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.		Repair procedures when the part does not meet the specified fits and clearances or when the part is overworn/substandard. Are R&R procedures enough?	This is similar to the disagreement surrounding ICA for scheduled maintenance or work recommended/required at specified intervals (i.e., if you tell me to do this inspection at X time, then you must provide the instructions for how to do it). Must the engine manufacturer provide details of the repair method if the item is repairable? What does the operator do when the item does not meet fits and clearances or is overworn or substandard?.
a33.3(b)(8)	A list of tools needed for overhaul.		Does the operator get the tool or just the list of tools?	OEMs interpret this section very narrowly and very differently from operators. Some OEMs will specify a tool, but they won’t let the operator purchase it. Others will give you the tool, but won’t let you use it – only their staff can use it. Operators/maintainers expect to be able to obtain and use the actual tool.

a33.3(c)	ETOPS Requirements. For an applicant seeking eligibility for an engine to be installed on an airplane approved for ETOPS, the Instructions for Continued Airworthiness must include procedures for engine condition monitoring. The engine condition monitoring procedures must be able to determine prior to flight, whether an engine is capable of providing, within approved engine operating limits, maximum continuous power or thrust, bleed air, and power extraction required for a relevant engine inoperative diversion. For an engine to be installed on a two-engine airplane approved for ETOPS, the engine condition monitoring procedures must be validated before	Requires coordination. Neither TC can be issued under the current rules without engine & airframer collaboration. The engine manufacturer cannot write ICA for an engine without the aircraft; and the aircraft manufacturer can't qualify an engine-aircraft combination without the engine.			ETOPS is not mentioned in Appendix H to Part 25, making it difficult to demonstrate compliance because it is not in the regulation.
a33.1(c)	The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.	This section means that regardless of how the ICA is originally distributed (i.e., directly from the accessory/component manufacturer or directly from the engine TC holder), the engine TC holder must describe the distribution process, including an explanation of how their manufacturers will distribute ICA, and a method for ensuring ICA updates are distributed (whether reported to them or not) for the ICAs they don't directly control.			
A33.4(a)(2)	This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is FAA approved and specifies maintenance required under §§ 43.16 and 91.403 of Title 14 of the Code of Federal Regulations unless an alternative program has been FAA approved."		Is the ALS approval for the ALS document itself or for the technical data that supports the document?		
A33.4(b)(3)	The applicant must establish an in-service engine evaluation program to ensure the continued adequacy of the instructions for mandatory post-flight inspections and maintenance actions prescribed under paragraph (b)(1) of this section A33.4 and of the data for § 33.5(b)(4) pertaining to power availability. The program must include service engine tests or equivalent service engine test experience on engines of similar design and evaluations of service usage of the 30-second OEI or 2-minute OEI ratings.			Uncertainty regarding why this is in the appendices and not the regs. There is no ICA reqt for this info.	
A27.1 (a)	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 27.1529.	Linked to the regulations under 27.1529			
A29.1 (a)	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 29.1529.	Linked to the regulations under 29.1529			
A27.1 (b) & A29.1(b) (first sentence)	The Instructions for Continued Airworthiness for each rotorcraft must include the Instructions for Continued Airworthiness for each engine and rotor (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the rotorcraft.	ICA for appliances required under the relevant chapter			Agreement that info for appliances required under the chapter is ICA, but uncertainty about the definition of appliance (AGC) and the variation in requirements by chapter (more requirements for 121 than 91).
A27.1 (b) & A29.1(b) (second sentence)	If Instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued airworthiness of the rotorcraft.		ICA for appliances NOT required under the relevant chapter	Operators want full maint data/CMMs, not just R&R procedures, especially for maint tasks reqd at specified intervals.	Basic/baseline ICA v. operator specific ICA. Should ICA be provided for equipment that is not mandated by regulation but must meet regulatory requirements if installed? A litter on a helicopter would have an STC like any other optional equipment. The litter installation, although not required by regulation, does require FAA approval and must meet certain criteria if installed (29.785(k)). Is ICA required for the litter? Disagreement among the working group members about the scope and type of ICA that must be provided, TC holders consider that they are adequately meeting their ICA obligations, and they also provide non-ICA maintenance data. Just because maintenance data <i>exists</i>, does not mean that it should be provided as ICA. It could be provided by contract or they can just replace the part and not repair it. Operators/maintainers contend that all information necessary to effectively maintain the aircraft should be provided <i>as ICA</i>, including CMMs because operators/maintainers need comprehensive documentation to maintain the aircraft, which is more than the R&R procedures that TC holders often provide.

Part 25 Cite	Part 25	Part 23	Part 27	Part 29	Part 33	Part 33 Cite	Text Comparison of Part 23 to 25				
	General	General	General	General	General	a33.1					
H25.1(a) General	This appendix specifies requirements for preparation of Instructions for Continued Airworthiness as required by §§ 25.1529, 25.1729, and applicable provisions of parts 21 and 26 of this chapter. each airplane must include the Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane. If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by this part. each airplane must include the Instructions for Continued Airworthiness for each engine and propeller (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the airplane. If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 27.1529. each rotorcraft must include the Instructions for Continued Airworthiness for each engine and rotor (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the rotorcraft. If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 29.1529. each rotorcraft must include the Instructions for Continued Airworthiness for each engine and rotor (hereinafter designated "products"), for each appliance required by this chapter, and any required information relating to the interface of those appliances and products with the rotorcraft. If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued	This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by § 33.4. The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued	a33.1(a)					
H25.1(b) General	If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued	If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the airplane, the Instructions for Continued Airworthiness for the airplane must include the information essential to the continued	If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued	If instructions for Continued Airworthiness are not supplied by the manufacturer of an appliance or product installed in the rotorcraft, the Instructions for Continued Airworthiness for the rotorcraft must include the information essential to the continued	If instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued	a33.1(b)					
H25.1(b) General (continued)	the applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the airplane will be distributed.	the applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the airplane will be distributed.	the applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the rotorcraft will be distributed.	the applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of products and appliances installed in the rotorcraft will be distributed.	the applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.	a33.1(c)					
H25.1(b) General						a33.2					
H25.2(a) Format	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	a33.2(a)	TRUE	TRUE	TRUE	TRUE	
H25.2(b) Format	The format of the manual or manuals must provide for a practical arrangement. The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:	The format of the manual or manuals must provide for a practical arrangement. The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections and information	The format of the manual or manuals must provide for a practical arrangement. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:	The format of the manual or manuals must provide for a practical arrangement. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:	The format of the manual or manuals must provide for a practical arrangement. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:	a33.2(b)					
H25.3 Content						a33.3					
H25.3(a)	Airplane maintenance manual or section. Introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance.	Airplane maintenance manual or section. Introduction information that includes an explanation of the airplane's features and data to the extent necessary for maintenance or preventive maintenance.	Rotocraft maintenance manual or section Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	Rotorcraft maintenance manual or section. Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	Engine Maintenance Manual or Section Introduction information that includes an explanation of the engine's features and data to the extent necessary for maintenance or preventive maintenance.	a33.3(a)					
H25.3(a)(1)						a33.3(a)(1)					
H25.3(a)(2)	A description of the airplane and its systems and installations including its engines, propellers, and appliances.	A description of the airplane and its systems and installations including its engines, propellers, and appliances.	A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	A detailed description of the engine and its components, systems, and installations.	a33.3(a)(1)					
					Installation instructions, including proper procedures for uncrating, deinhibiting, acceptance checking, lifting, and attaching accessories, with any necessary checks.	a33.3(a)(2)					
H25.3(a)(3)	Basic control and operation information describing how the airplane components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operation information describing how the airplane components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	Basic control and operating information describing how the engine components, systems, and installations operate, and information describing the methods of starting, running, testing, and stopping the engine and its parts including any special	a33.3(a)(3)					
H25.3(a)(4)	Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information.	Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information.	Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, the lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information.	Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, the lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and leveling information.	Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, locations of lubrication points, lubricants to be used, and equipment required for servicing.	a33.3(a)(4)	TRUE	FALSE	FALSE	FALSE	
H25.3(b)	Maintenance instructions Scheduling information for each part of the airplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and	Maintenance Instructions. Scheduling information for each part of the airplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and	Maintenance instructions Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and	Maintenance Instructions. Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested,	Scheduling information for each part of the engine that provides the recommended periods at which it should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection the applicable wear tolerances, and work	a33.3(a)(5)					
H25.3(b)(1)						a33.3(a)(6)					
H25.3(b)(2)	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing problem malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions. Information describing the order and method of removing the engine and its parts and replacing parts, with any necessary precautions to be taken. Instructions for proper ground handling, crating, and shipping must also be included.	a33.3(a)(7)					
						a33.3(a)(8)					
					Engine Overhaul Manual or Section.	a33.3(b)					
					Disassembly information including the order and method of disassembly for overhaul.	a33.3(b)(1)					

H25.3(b)(3)	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	The order and method of assembly at overhaul.	a33.3(b)(5)
H25.3(b)(4)	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	Instructions for testing after overhaul.	a33.3(b)(6)
H25.3(c)	Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	Instructions for storage preparation, including any storage limits.	a33.3(b)(7)
H25.3(d)	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified by the applicant.	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	Details of all fits and clearances relevant to overhaul.	a.33.3(b)(3)
H25.3(e)	Information needed to apply protective treatments to the structure after inspection.	Information needed to apply protective treatments to the structure after inspection.	Information needed to apply protective treatments to the structure after inspection.	Information needed to apply protective treatments to the structure after inspection.	Details of repair methods for worn or otherwise substandard parts and components along with the information necessary to determine when replacement is necessary.	a.33.3(b)(4)
H25.3(f)	All data relative to structural fasteners such as identification, discard recommendations, and torque values.	All data relative to structural fasteners such as identification, discard recommendations, and torque values.	All data relative to structural fasteners such as identification, discarded recommendations, and torque values.	All data relative to structural fasteners such as identification, discard recommendations, and torque values.	Cleaning and inspection instructions that cover the materials and apparatus to be used and methods and precautions to be taken during overhaul.	
H25.3(g)	A list of special tools needed.	A list of special tools needed. Information must be furnished— (1) Electrical loads applicable to the various systems; (2) Methods of balancing control surfaces; (3) Identification of primary and secondary structures; and	A list of special tools needed.	A list of special tools needed.	Methods of overhaul inspection must also be included.	a33.3(b)(2)
H25.4	Airworthiness Limitations section	Airworthiness limitations section	Airworthiness Limitations section	Airworthiness Limitations section	A list of the tools and equipment necessary for maintenance and directions as to their method of use.	a33.3(a)(9)
H25.4(a)	The instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth—	The instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural	The instructions for Continued Airworthiness must contain a section, titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural	The instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural	A list of tools needed for overhaul.	a33.3(b)(8)
H25.4(a)(1)	time, structural inspection interval, and related structural inspection procedure approved under § 25.571.				Airworthiness Limitations Section	A33.4
H25.4(a)(2)	Each mandatory replacement time, inspection interval, related inspection procedure, and all critical design configuration control limitations approved under § 25.981 for the fuel tank system.				The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the manual.	
H25.4(a)(3)	Any mandatory replacement time of EWIS components as defined in section 25.1701.				For all engines:	A33.4(a)
H25.4(a)(4)	Until the full-scale fatigue testing is completed, the instructions for Continued Airworthiness must include a statement in a prominent location that reads: "The Airworthiness Limitations section is FAA approved and specifies maintenance required under §§ 43.16 and 91.403 of Title 14 of the Code of Federal Regulations unless an				The Airworthiness Limitations section must set forth each mandatory replacement time, inspection interval, and related procedure required for type certification. If the Instructions for Continued Airworthiness consist of multiple documents, the section required under this paragraph must be included in the principal manual.	A33.4(a)(1)
H25.4(a)(5)	approved under § 25.954.				For rotorcraft engines having 30-second OEI and 2-minute OEI ratings:	A33.4(b)
H25.4(b)	If the instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The				The Airworthiness Limitations section must also prescribe the mandatory post-flight inspections and maintenance actions associated with any use of either 30-second OEI or 2-minute OEI ratings.	A33.4(b)(1)
H25.5	Electrical Wiring Interconnection System (EWIS) Instructions for Continued Airworthiness.				The applicant must validate the adequacy of the inspections and maintenance actions required under paragraph (b)(1) of this section A33.4.	A33.4(b)(2)
H25.5(a) - insert hyperlink for 1701	The applicant must prepare Instructions for Continued Airworthiness (ICA) applicable to EWIS as defined by § 25.1701 that are approved by the FAA and include the following:				The applicant must establish an on-service engine evaluation program to ensure the continued adequacy of the instructions for mandatory post-flight inspections and maintenance actions prescribed under paragraph (b)(1) of this section	A33.4(b)(3)
H25.5(a)(1)	Maintenance and inspection requirements for the EWIS developed with the use of an enhanced zonal analysis procedure that includes:				ETOPS Requirements. For an applicant seeking eligibility for an engine to be installed on an airplane approved for ETOPS, the Instructions for Continued Airworthiness must include procedures for engine condition monitoring. The engine condition monitoring procedures must be able to determine prior to flight, whether an engine is capable of providing, within approved engine operating limits, maximum continuous power or thrust, bleed air, and power extraction required for a relevant engine inoperative diversion. For an engine to be installed on a two-engine airplane approved for ETOPS, the engine condition monitoring procedures must be validated before ETOPS eligibility is granted.	a33.3(c)

H25.5(a)(1)(I) Identification of each zone of the airplane.

H25.5(a)(1)(ii) Identification of each zone that contains EWIS.

H25.5(a)(1)(iii) Identification of each zone containing EWIS that also contains combustible materials.

H25.5(a)(1)(iv) Identification of each zone in which EWIS is in close proximity to both primary and back-up hydraulic, mechanical, or electrical flight controls and lines.

H25.5(a)(1)(v) Identification of—

H25.5(a)(1)(v)(A) Tasks, and the intervals for performing those tasks, that will reduce the likelihood of ignition sources and accumulation of combustible material, and procedures, and the intervals for performing those procedures, that will effectively clean the EWIS components of combustible material if there is not an effective task to reduce the likelihood of combustible material accumulation.

H25.5(a)(1)(v)(B) Instructions for protections and caution information that will minimize contamination and accidental damage to EWIS, as applicable, during performance of maintenance, alteration, or repairs.

H25.5(a)(1)(vi) Acceptable EWIS maintenance practices in a standard format.

H25.5(a)(2) Wire separation requirements as determined under § 25.1707.

H25.5(a)(3) Information explaining the EWIS identification method and requirements for identifying any changes to EWIS under § 25.1711.

H25.5(a)(4) Electrical load data and instructions for updating that data. The EWIS ICA developed in accordance with the requirements of H25.5(a)(1) must be in the form of a document appropriate for the information to be provided, and they must be easily recognizable as EWIS ICA. This document must either contain the

H25.5(b)