

SUMMARY SHEET
Airworthiness Directive Implementation Aviation Rulemaking Committee
Service Information Working Group

Primary Report and Recommendation	Standard Practices (Task 2) Recommendation 1: (T2, R1, B5)
Secondary Report and Recommendation	None
Assigned Members	Eduardo Cerdeira (Embraer) Serge Cheyrouze (Airbus) Drew Helder (American Eagle Airlines) Bob McCabe (FAA – AVS) Joe Nolan (Alaska Airlines) Tom Novello (JetBlue Airways)
Links to Other Working Groups	None

WORKING GROUP REVIEW OF ISSUE/PROBLEM

Service Bulletins (SB) that are mandated by Airworthiness Directive (AD) contain all of the steps to accomplish the necessary inspections, repairs, modifications, and/or testing. Although SBs include full detailed instructions necessary to complete the work package including access and close-up, not all of these steps may be directly related to correcting the unsafe condition that prompted the AD. However, this puts an air carrier into a position that does not allow them to use accepted or approved alternate processes or procedures. In some cases, tasks that are included in the SB can be accomplished using acceptable air carrier procedures. In other cases, tasks must be accomplished in accordance with the procedures specified in the SB. This can cause confusion between air carriers, design approval holders (DAH), repair stations, and regulatory authorities when judging whether approval of an alternative method of compliance (AMOC) is necessary in order to deviate from the SB and the AD. This results in air carriers having to submit a request for an AMOC each time they wish to use alternate processes or procedures.

Air carriers and maintenance providers often have their own acceptable procedures that can be used to accomplish some of the SB actions. Some confusion and unnecessary AMOCs may be avoided by ensuring that AD mandated SBs specify which procedures must be followed exactly and which can be accomplished using an air carrier's equivalent procedures. In 2006, one DAH signed an agreement with the Seattle Aircraft Certification Office (SACO) and the Los Angeles Aircraft Certification Office (LAACO) to implement "AD Friendly SBs". This agreement contained numerous principles and practices that were developed by a DAH/FAA team. Some of the agreements implemented were:

- The phrase "in accordance with" will be used to identify maintenance procedures that must be followed
- The phrase "refer to...as an accepted procedure" will be used to identify maintenance procedures that can be used, but for which an air carrier or maintenance provider may use their own accepted equivalent procedure.
- A general note describing use of "in accordance with" and "refer to" will be included at the beginning of the service bulletin accomplishment instructions.

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One DAH currently includes a general note that gives air carrier some flexibility to use alternate processes or procedures, but still meet the design requirements for the aircraft. One DAH also currently includes guidelines in their service bulletin development process to determine when to use the note. However, not all DAH's include this type of note in their service bulletins or have guidelines when it is appropriate to use the note.

The Service Information Working Group (SIWG) reviewed one of the general notes that currently exists in at least one DAH's service bulletins related to the use of air carrier accepted equivalent processes or procedures. The Working Group felt there was merit in making the note, or a similar version of the note, available for use by all DAHs. Each DAH will review the note and incorporate the note into their service bulletins and will review the guidelines for appropriate use of the note and incorporate those guidelines into their service bulletin development process and documentation.

In addition, this recommendation is directly related to Task 1, Recommendation 1, Bullet 1 (T1, R2, B1) and Task 2, Recommendation 1, Bullet 1 (T2, R1, B1), *Critical Task Differentiation*, and to Task 2, Recommendation 1, Bullet 4 (T2, R1, B4), *Flexibility as appropriate*. Therefore, the solution to T1, R2, B1; T2, R1, B1; and T2, R1, B4 will also result in providing the use of standard practices as appropriate.

REGULATIONS AND GUIDANCE IDENTIFIED FOR REVIEW

Air Transport Association (ATA) Spec2200 "*Information Standards for Aviation Maintenance*"

S1000D – International Specification for Technical Publications

FAA Order 8900.1 (FAA Inspector's Handbook)

WORKING GROUP PROPOSAL TO ADDRESS THE RECOMMENDATION(S)/FINDING(S)

The proposal includes using the following note developed as part of Task 2, Recommendation 1, Bullet 4 (T2, R1, B4), *Flexibility as appropriate*, to provide the air carrier the flexibility to use standard practices to accomplish processes or procedures identified in the service bulletin:

These work instructions refer to methods, techniques, and practices described in other (*Design Approval Holder name*) documents. When the words "refer to" are used and the air carrier has other acceptable methods, techniques, and practices (including tools, equipment, and test equipment) those acceptable methods, techniques, practices (including tools, equipment, and test equipment) can be used to complete the work. When the words "in accordance with" are included in the instruction, the methods, techniques, and practices specified (including tools, equipment, and test equipment) in the (*Design Approval Holder name*) document must be used.

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The proposal includes using the following guidelines for determining when to use “refer to” or “in accordance with.”

- Provide maximum flexibility for the air carrier when determining if a referenced process or procedure may be followed or must be followed. Processes or procedures that may be followed provide more flexibility to the air carrier than processes or procedures that must be followed.
- Use “in accordance with” when referring to a process or procedure which must be followed exactly to correct the unsafe condition and comply with the anticipated AD, otherwise use “refer to.”
- Use “refer to” when referring to standard practices in which an air carrier may use methods, techniques, and practices accepted by their regulatory authority. Typical examples of accepted methods, techniques, and practices include:
 - Airplane Maintenance Manual (AMM) procedures for access, removal/installation and test
 - Standard Overhaul Practices Manual (SOPM) procedures
 - Standard Wiring Practices Manual (SWPM) procedures
 - Overhaul Manual (OHM) and Component Maintenance Manual (CMM) for disassembly, assembly and test procedures
 - Structural Repair Manual (SRM) Chapter 51 procedures that provide common industry practices (such as drilling holes or installing fasteners)
 - Fault Isolation Manual (FIM) procedures
 - Generic or common Non-Destructive Test (NDT) manual procedures not developed for a specific service instruction application
- In the rare situation in which standard practice must be followed exactly to correct the unsafe condition and comply with the anticipated AD, then accomplish the following:
 - 1) use “in accordance with” when referring to the process or procedure
 - 2) consider repeating the steps of the process or procedure in the service bulletin
 - 3) consider internally identifying the process or procedure in the standard practice documentation’s management system as related to a safety issue for a specific airplane

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configuration with a note not to change the process or procedure without full consideration of the consequences

As part of this proposal each DAH will review the note and incorporate it or an appropriate similar note into their service bulletins as appropriate. In addition each DAH will review their service bulletin development process and documentation and incorporate the guidelines for the use of the note as appropriate or develop similar guidelines for the use of the note.

ALTERNATIVES CONSIDERED

The recommendation was very specific in stating service instructions should refer to standard practices to provide air carriers latitude. One DAH already included a relevant general note and some guidelines, however as part of the recommendation related to Task 1, Recommendation 1, Bullet 1 (T1, R2, B1) and Task 2, Recommendation 1, Bullet 1 (T2, R1, B1), *Critical Task Differentiation*, several additional alternative methods were identified. They include:

- Include a note or paragraph at the beginning of the Accomplishment Instructions listing critical steps/figures in which the processes and/or procedures must be followed exactly. Include a paragraph stating “AD Tasks” or “tasks Required for Compliance”. List tasks as required or optional.
- For structure related fixes, include the repair in a separate document.
- Notate something in the margin to differentiate between tasks that must be accomplished and those that do not.
- Have two SBs, one listing mandatory tasks (processes and/or procedures) and one listing optional tasks (processes and/or procedures).
- Use bold or italics or underlining to distinguish between mandatory and not mandatory actions (processes and/or procedures) in the SB.
- Conduct further training of FAA specialists and inspectors in what is critical to airplane airworthiness and what is not.
- Separate non-approvable data like access and restoration from the specific instructions in the SB.

After consideration of all the alternatives and the “pros” and “cons” of each alternative, the Working Group agreed the proposal in this Summary Sheet was the best solution.

IMPLEMENTATION PLAN

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The existing note will be documented in this paper along with the guidelines for determining when it is applicable to use “refer to” or “in accordance with” when referring to processes and/or procedures. Each DAH will then evaluate the note and the guidelines and incorporate the note and the guidelines or an appropriate similar note and or guidelines into their service bulletins and their service bulletin development process. It is expected that each DAH develop and include guidance for use of the note and guidelines in their internal service bulletin preparation documentation. In addition, a high level recommendation will be included in ATA iSpec 2200 to recommend that the general note which provides flexibility in the use of processes and/or procedures be included in service bulletins. A Change Request will also be submitted the organization responsible for maintaining S1000D specification to recommend that a general note which provides flexibility in the use of processes and/or procedures be included in that specification document. Guidance material, including the note and guidelines, will also be included in a new FAA Advisory Circular to document DAH best practices for creating service bulletins.

Use of the concept to use “refer to” and “in accordance with” terminology has been discussed with the European Aviation Safety Agency (EASA) and the National Civil Aviation Agency of Brazil (ANAC). They have agreed with the concept for using the specified terminology and will work with their respective Design Approval Holders to implement the solution. The solution has been discussed with Transport Canada but they have not provided a response. It is not anticipated that Transport Canada will have concerns with the concept and we believe they will support the solution.

ASSUMPTIONS/CONSTRAINTS

This solution assumes that each DAH is willing to include the general note and guidelines for its use in their service bulletins and service bulletin preparation documentation. This solution also assumes each DAH has documented guidance for the preparation and content for service bulletins.

ISSUES FOR WORKING GROUP CONSIDERATION

Each DAH on the Working Group is governed by different regulatory authorities. Each DAH may have different standards and requirements which allow use of alternate parts, materials, and processes. Each DAH will need to work with their respective regulatory authority to obtain concurrence for including the notes that allow air carriers to use standard industry practices or their own accepted procedures when possible.

ISSUES FOR ARC CONSIDERATION

Each DAH on the Working Group is governed by different regulatory authorities. Each DAH may have different standards and requirements which allow use of alternate processes and procedures. Each DAH will need to work with their respective regulatory authority to obtain

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concurrence for including the note that allows air carriers to use standard industry practices or their own accepted procedures when possible.

FINDING No. 1

The Team found that in some cases, service instructions were not sufficiently user-friendly and complete. These incomplete instructions resulted in widespread air carrier confusion because of the differences in the referenced service instructions and AD instructions. These deficiencies in service instructions have led to an increased demand for AMOCs and AD time extensions and/or exemptions. This has strained limited national aviation authority resources. The Team found that there is an opportunity for expanded use of the Fleet Team Emerging Issues (FTEI) process within the OEM industry. Use of this will ensure air carrier's review proposed mitigating actions and make user-friendly inputs to draft OEM service instructions.

RECOMMENDATION No. 1.

Standard Practices. The aviation industry has many processes for performing maintenance and modifications that have been standardized and proven to be very effective. Service instructions should refer to these standard practices in which air carriers have experience, confidence, and training.