

ODA Metric Continuous Improvement Team (CIT) Summary Report for 2019

Executive Summary

One of the foundational elements of the Aircraft Certification Service's transformation is strengthening our safety culture and oversight of our regulated industry. The Organization Designation Authorization (ODA) Scorecard is both a tool and a process to help the FAA and industry institutionalize how we work at the local and national levels to implement a systems approach to improve safety. The scorecard provides data that lays the foundation for productive dialogues, leading to action plans where needed. Use of the ODA Scorecard process and metric data has enabled the FAA and industry to focus on safety and strengthen oversight of our delegated organizations through monitoring areas of high risk.

In 2019, the ODA Scorecard cycle evaluated Type Certificate (TC) and Supplemental TC (STC) ODA holders totaling 42 companies that resulted in 51 scorecards. A review of the findings in this report will reflect that ODA is working well overall in driving conversations that move industry and FAA forward on oversight and safety issues. Based on the data, the CIT also identified improvements we can make as we move forward to make ODA an even more effective tool in improving aviation safety through the ODA system.

While the CIT endeavors to advance aviation system performance and safety through use of the ODA Scorecard, the FAA and industry continue to employ complementary approaches to support these same goals. For example:

- The FAA prioritized their efforts to stand up the AVS ODA Office that when fully operational, will be responsible for ODA program improvements.
- The FAA and CIT representatives are participating on the 2018 Reauthorization Act Section 213 Expert Panel. This Expert Panel will assess and make recommendations concerning ODA processes and procedures; evaluate best practices; and capture lessons learned. The panel will provide a report to congress with recommendations.
- The CIT anticipates new FAA processes that will generate improved data awareness, and is cognizant of investigations associated with The Boeing Company 737 MAX that may provide additional ODA system recommendations.

This year's CIT report is mindful of the above activities, thus the CIT is coordinating with representatives of these other initiatives to ensure all efforts are aligned. That said, during the next ODA Scorecard cycle we do not anticipate any changes resulting from the referenced activities other than the AVS ODA Office taking responsibility for administering the scorecard effort within the FAA.

Summary of Scorecard Results

The goal of the CIT is for our measures of success to reflect a year-to-year safety improvement. Of our 12 measures of success, nine trended in the positive or neutral direction in 2019. These

nine measures were associated with the areas of overall FAA and company performance, instruction for continued airworthiness (ICA) and electrical wiring interconnection systems (EWIS) delegation, and FAA project involvement.

Of the three measures that trended negatively, two were associated with FAA identification of non-compliance: an increase in airworthiness non-compliances and timeliness of corrective actions.

Opportunities for Improvement

Measures noted below that trended negatively were largely due to local performance for which local action plans will address any performance issues unique to that particular FAA/company pair.

For example, the metric for airworthiness non-compliances (Measure 9), which showed a 95% national increase from the previous year, was primarily influenced by the data of two FAA/company pairs. In both cases, the FAA/company pairs are investigating the local increase in this particular metric and they are taking action to correct the non-compliances and any systemic causes. This approach is reflective of the expectation that ODA holders not only report system escapes, but also take action to correct the system to prevent recurrence. The CIT is investigating other measures that will better reflect the health of the system and whether the system is working as intended.

ODA Scorecard Background

The FAA Modernization and Reform Act (FMRA) of 2012 required the FAA to work with industry stakeholders to streamline and improve the certification process. Section 312 of the FMRA was aimed at reducing certification delays while maintaining or improving the existing level of safety. The ODA Scorecard balances this requirement by measuring FAA involvement while also monitoring system safety output. This provides the FAA a tool to identify areas of risk and helps us target our resources effectively.

Both Industry and FAA agree that delegation continues to be a very powerful tool to leverage industry expertise and reduce certification cycle time, with no negative impact to safety. Organizational delegation is reliant on industry processes and a healthy compliance culture, coupled with an oversight approach that is properly executed by the FAA. Over the past 10-15 years, there have been significant improvements in certification processes. Specifically, with the creation of ODA in 2005, FAA and Industry began to make the necessary investments in moving toward a systems approach to certification.

In 2015, the FAA and industry stakeholders developed a set of metrics aimed at measuring the overall performance, health, and safety output of the ODA system in type certification projects. The objectives were to define mutually agreed to metrics; identify areas that were in need of greater focus; and to identify issues and concerns with respect to FAA and ODA holders' performance, safety output, and safety culture. The FAA initiated an ODA Scorecard pilot

project to resolve implementation issues, and obtain data to support implementation of the metrics nationwide. AIA (Aerospace Industries Association) and GAMA (General Aviation Manufacturers Association) supported this activity, assisted in securing greater involvement by ODA holders and participated in regional meetings around the country. Twenty-four companies participated in this pilot project, which concluded in December of 2015.

The results of the pilot project were reviewed and discussed in January 2016 in a joint AIA, GAMA, and FAA meeting. The results revealed that the initiative was a resounding success, with over 80% of participants (both FAA and companies) indicating they experienced value in the pilot, and recognized the greater potential that the scorecard could present to all stakeholders. The FAA, with full support of industry and safety experts, decided to proceed with implementation of the metrics nationwide for all ODAs with TC and STC approval authorization.

It is important to keep an open, constructive dialogue to be successful in this effort. To achieve this objective, the FAA and industry (AIA and GAMA) agreed to establish an ODA Metrics Continued Improvement Team (CIT). The mission of this team is to advance systems performance and safety through reliable and accurate indicators, such that, all stakeholders agree on ODA performance, safety output, and contributions to improvement plans designed to enhance ODA effectiveness. The CIT is a tool for ensuring continuing progress toward the effective and efficient certification processes that are needed to maintain U.S. leadership in aviation safety.

The scorecard provides the opportunity to identify and address - via action plans - areas for improvement that are essential to the success of our ODA system. The scorecard allows the FAA and the ODA holder to assess each other's performance and satisfaction with the ODA program and associated certification activity. The scorecard also provides data that can differentiate local from national issues, so the appropriate group can address the unique issue.

Currently, the scorecard focuses on the engineering design approval aspects of TC and STC ODA holders.

At the local level, the scorecard is intended to promote healthy data-driven discussions between the ODA holder and the FAA. The scorecard is not a perfect measure of involvement, efficiency or compliance, and is not intended to identify the acceptability of any given metric.

2019 ODA Scorecard Measures of Success

For 2019, the CIT identified the following 12 measures of success as indicators of overall ODA program health:

- 1) Qualitative Company/FAA Performance: The goal is for overall ratings to show a year-to-year improvement in the percentage of green/green Company/FAA pairings. In 2017, 89% of the scorecards indicated a green/green Company/FAA pairing (40 out of 45 scorecards). In 2018, 70% of the scorecards indicated a green/green Company/FAA pairing (35 out of 50 scorecards). The year-to-year decline from 2017

to 2018 was reflected in the 19% decrease. The reason for the decline was greater emphasis placed on industry and FAA to provide more accurate/forthright performance assessments. In 2019, 78% of the scorecards indicated a green/green Company/FAA pairing (40 out of 51 scorecards). The year-to-year improvement from 2018 to 2019 was reflected in the 8% increase. This increase is attributable to successful completion of several action plans to address concerns raised in the 2018 cycle; the remaining action plans are still in work and progressing satisfactorily.

Measure 1 - Qualitative Company/FAA Performance



- 2) No Project Notification Letter (No-PNL) Action Plan Status: The goal is to show a year-to-year increase in the number of ODAs with No-PNL Authority. No-PNL Authority was a 2015 ODA Scorecard Initiative. In January of 2018, 89% of the 36 companies had received No-PNL Authority. By February of 2019, 90% of the 39 companies had received No-PNL Authority. The year-to-year improvement was reflected in the 1% increase. By April of 2020, 92% of the 39 companies had received No-PNL Authority. The year-to-year improvement was reflected in the 2% increase. The CIT has determined that the 2015 ODA Scorecard Initiatives have reached a point of diminishing returns and achieved success to the point that this measure is no longer necessary.

Measure 2 - No-PNL Action Plan Status



- 3) FAA Involvement – Project Notification Letter (PNL) Projects: The goal is to show a year-to-year decrease in the percentage of projects with PNL. In 2017, there were 59% of projects with PNL (45 scorecards). In 2018, there were 60% of projects with PNL (50 scorecards). The year-to-year decline from 2017 to 2018 was reflected in the 1% increase. In 2019, there were 51% of projects with PNL (51 scorecards). The year-to-year improvement from 2018 to 2019 was reflected in the 9% decrease. The CIT considers the associated 2015 ODA Scorecard Initiative to be largely responsible for driving this measure to the current level of 51%. Although that initiative is completed, this measure will continue to be monitored and reported to establish a new baseline until such time that a new initiative is implemented.

Measure 3 - FAA Involvement – PNL Projects



- 4) ICA Delegation Action Plan Status: The goal is to show a year-to-year increase in the number of ODAs with ICA Delegation. ICA Delegation was a 2015 ODA Scorecard Initiative. In January of 2018, 90% of the 39 companies had received ICA Delegation. By February of 2019, 86% of the 42 companies had received ICA Delegation. The year-to-year decline was reflected in the 4% decrease. By April of 2020, 90% of the 42 companies had received ICA Delegation. The year-to-year increase was reflected in the 4% increase. The CIT has determined that the 2015 ODA Scorecard Initiatives have reached a point of diminishing returns and achieved success to the point that this measure is no longer necessary.

Measure 4 - ICA Delegation Action Plan Status



- 5) FAA Involvement – ICA: The goal is to show a year-to-year decrease in the percentage of projects with FAA involvement when ICA is listed as a reason. In 2017, there were 31% of projects with FAA ICA involvement (45 scorecards). In 2018, there were 24% of projects with FAA ICA involvement (50 scorecards). The year-to-year improvement from 2017 to 2018 was reflected in the 7% decrease. In 2019, there were 23% of projects with FAA ICA involvement (51 scorecards). The year-to-year improvement from 2018 to 2019 was reflected in the 1% decrease. The CIT considers the associated 2015 ODA Scorecard Initiative to be largely responsible for driving this measure to the current level of 23%. Although that initiative is completed, this measure will continue to be monitored and reported to establish a new baseline until such time that a new initiative is implemented.

Measure 5 - FAA Involvement – ICA



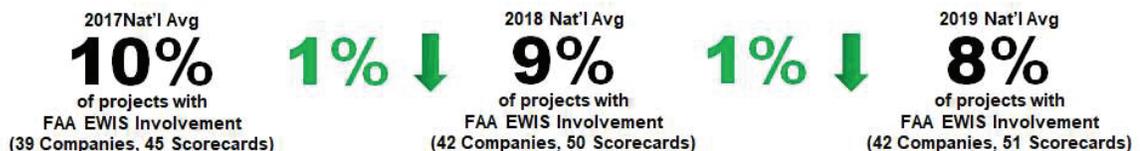
- 6) FAA Involvement – EWIS ICA Delegation Action Plan Status: The goal is to show a year-to-year increase in the number of ODAs with EWIS ICA Delegation. EWIS ICA Delegation was a 2015 ODA Scorecard Initiative. Note that at the start of the 2017 cycle, the CIT agreed to reduce the number of companies eligible for EWIS ICA Delegation, from 29 companies to 10 companies, based on past involvement data. In January of 2018, 80% of the 10 eligible companies had received EWIS ICA Delegation. By February of 2019, 90% of the 10 eligible companies had received EWIS ICA Delegation. The year-to-year improvement was reflected in the 10% increase. By April of 2020, 90% of the 10 eligible companies had received EWIS ICA Delegation, which remained the same from 2019. The CIT has determined that the 2015 ODA Scorecard Initiatives have reached a point of diminishing returns and achieved success to the point that this measure is no longer necessary.

Measure 6 - FAA Involvement – EWIS ICA Delegation Action Plan Status



- 7) FAA Involvement – EWIS: The goal is to show a year-to-year decrease in the percentage of projects with FAA involvement when EWIS is listed as a reason. In 2017, there were 10% of projects with FAA EWIS involvement (45 scorecards). In 2018, there were 9% of projects with FAA EWIS involvement (50 scorecards). The year-to-year improvement from 2017 to 2018 was reflected in the 1% decrease. In 2019, there were 8% of projects with FAA EWIS involvement (51 scorecards). The year-to-year improvement from 2018 to 2019 was reflected in the 1% decrease. The CIT has determined that with the successful completion of the 2015 ODA Scorecard Initiatives and the trend of this measure being below 10% FAA involvement, it is no longer necessary to track this 2015 initiative.

Measure 7 - FAA Involvement – EWIS



- 8) Identified Non-Compliances: The goal is to show a year-to-year decrease in the percentage of Non-Compliances found by FAA in comparison to those identified by the company. In 2017, the FAA identified 39% of Non-Compliances (45 scorecards). In 2018, the FAA identified 38% of Non-Compliances (50 scorecards). The year-to-year improvement from 2017 to 2018 was reflected in the 1% decrease. In 2019, the FAA identified 47% of Non-Compliances (51 scorecards). The year-to-year decline

from 2018 to 2019 was reflected in the 9% increase. Note that in past reports, this measure was based on 2-yr data points, whereas the trend below is based on 1-yr data points.

Measure 8 - Identified Non-Compliances



- 9) Airworthiness Non-Compliances: The goal is to show a year-to-year decrease in the rate of airworthiness non-compliances per company. In 2017, the rate of non-compliances per company was 1.9. In 2018, the rate of non-compliances per company was 2.1, resulting in an 11% increase from 2017 to 2018. In 2019, the rate of non-compliances per company was 4.1, a 95% increase from 2018. The data shows how sensitive this metric is. Even less than one non-compliance increase per company in a year can significantly drive up the percentage increase from year to year. From 2018 to 2019, the average went from approximately two non-compliances per company to four. Note that in past reports, this measure was based on 2-yr data points, whereas the trend below is based on 1-yr data points.

As stated earlier, this measure was primarily influenced by the data of two FAA/company pairs. In both cases, the FAA/company pairs are investigating the local increase in this particular metric and they are taking action to correct the non-compliances and any systemic causes. This approach is reflective of the expectation that ODA holders not only report system escapes, but also take action to correct the system to prevent recurrence. A number of factors could be driving increases in this number, including an increase in system escapes; the robustness/maturity of the investigating and reporting system; the level of activity of the applicant; expectations of the FAA, etc. The CIT is investigating the drivers for these increases and other measures that will better reflect the health of the system.

Measure 9 - Airworthiness Non-Compliances



10) Corrective Action Timeliness: The goal is to show a year-to-year improvement in company corrective action timeliness. In 2016, this data was collected in a different format as total time corrective actions were open. In 2017, this data started being collected in a percent on-time format. In 2017, the national average for corrective actions completed on time was 82% (18% of corrective actions were late). For the 18% of corrective actions that were late, the additional time needed to complete the corrective actions was 106% of the originally scheduled completion time. In 2018, the national average for corrective actions completed on time was 82% (18% of corrective actions were late), which was no change from 2017. For the 18% of corrective actions that were late, the additional time needed to complete the corrective actions was 196% of the originally scheduled completion time, a 90% increase from 2017. In 2019, the national average for corrective actions completed on time was 78% (22% of corrective actions were late), which was a 4% decrease from 2018. For the 22% of corrective actions that were late, the additional time needed to complete the corrective actions was 104% of the originally scheduled completion time, a 92% reduction from 2018. Note that in past reports, this measure was based on 2-yr data points, whereas the trend below is based on 1-yr data points.

Measure 10 - Corrective Action Timeliness

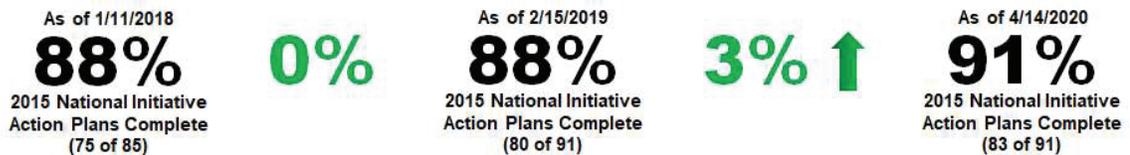


For the % that were late, the additional time needed to complete the CA was on average



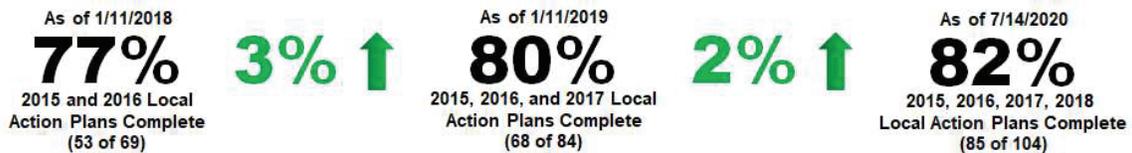
11) National Initiative Action Plans (No-PNL, ICA, EWIS): The goal is to maximize the percent of National Initiative Action Plans (No-PNL, ICA, EWIS) completed each year. As of January 2018, 88% of National Initiative Actions Plans were complete (75 out of 85). As of February 2019, 88% of National Initiative Action Plans were complete (80 out of 91), which was no change from 2018. In April of 2020, 91% of National Initiative Action Plans were complete (83 out of 91), which was a 3% improvement from the data collected the previous year. The CIT has determined that the 2015 ODA Scorecard Initiatives have reached a point of diminishing returns and achieved success to the point that these measures are no longer necessary.

Measure 11 - National Initiative Action Plans (No-PNL, ICA, EWIS)



12) Local Action Plans: The goal is to maximize the percent of Local Action Plans completed each year. As of January 2018, 77% of Local Action Plans (2015 and 2016 cumulative) were completed (53 out of 69). As of January 2019, 80% of Local Action Plans (2015, 2016, and 2017 cumulative) were completed (68 out of 84), which was a 3% improvement from the previous year. As of July 2020, 82% of Local Action Plans (2015, 2016, 2017, and 2018 cumulative) were completed (85 out of 104), which was a 2% improvement from the data collected the previous year. The CIT wants to encourage each ACO Branch/company pairing to commit to local action plans, some of which may be multi-year plans. In 2015, 30 local action plans were initiated; in 2016, 39 local action plans were initiated; in 2017, 15 local action plans were initiated; and in 2018, 20 action plans were initiated. The CIT viewed this trend as healthy.

Measure 12 – Local Action Plans



Continuous Improvement Activities

Over the last five years, the ODA Metric CIT has been advancing the performance of the ODA system by means of robust continuous improvement activities. During the 2019 cycle, the CIT also recognized there are other complimentary efforts striving to advance performance of the ODA system:

- 1) Standup of the AVS ODA Office – The FAA is currently standing up the AVS ODA Office that will be responsible for the following functions:
 - Ensure consistent application of policy
 - Optimize ODA holder responsibilities
 - Manage ODA program oversight and performance data
 - Oversee ODA program audit functions
 - Oversee risk analysis criteria and process
 - Improve FAA and ODA holder performance

- 2) Establishment of the 213 Expert Panel – The FAA is participating in the 2018 Reauthorization Act Section 213 Expert Panel Initiative. This panel will:
 - Assess and make recommendations concerning FAA ODA processes and procedures by evaluating best practices and lessons learned by the ODA holders and FAA personnel who provide oversight of the ODA holders
 - Conduct a survey to document and assess FAA certification and oversight activities, including use of the ODA program and the timeliness and efficiency of the certification process
 - Provide a report to congress

- 3) FAA data improvements – This effort will benefit from new data streams (i.e., undue pressure notifications) and information from data gathered through implementation of Safety Management Systems and oversight activities.

- 4) Various investigations resulting from The Boeing Company 737 MAX accidents.

The ODA Metric CIT is attentive to the other work being done and will support these efforts in the course of conducting all team activities reflected in this report.

For existing ODA performance metrics, the focus will be to improve and refine those measures that are believed to accurately depict ODA program health and performance. As noted above, several metrics associated with the 2015 National Initiatives are being removed from the report. In response to Organization Management Team (OMT) feedback, the 2020 worksheet will be revised to better align with Order 8100.15, ensuring more reliable and accurate data collection.

The CIT has discussed the Compliance and Safety Measures part of the scorecard and is looking at the parameters that are addressed. From this point on, the AVS ODA Office will be responsible for administering the CIT and ODA Scorecard, thus progress in this area is dependent on work that will be done by the AVS ODA Office.

The AVS ODA Office will also integrate CIT recommendations as well as anticipated Section 213 recommendations. The CIT has been considering changes to the current non-compliance and corrective action measures, so they reflect a systems approach. Until this occurs, OMT members, as well as ODA holders and unit members, are encouraged to make progress towards improving ODA self-auditing and corrective action capabilities, and work together to implement effective corrective action in a timely manner so our current measures continue to trend in a positive direction. The enduring goal for data collection and metrics development is to accomplish these functions in the most efficient and effective manner while yielding a highly accurate depiction of ODA program health and performance.

In the area of new ODA performance metrics, the CIT is focused on three areas:

- Additional metrics associated with the FAA PNL process
- Expansion of the Scorecard and metrics for all other ODA types
- Additional metrics associated with the levels of FAA oversight

The CIT has made the following policy recommendations to FAA Executive Directors:

- Modify the internal FAA certification project notification (CPN) process functionality to allow closure of ODA No-PNL projects without response from the Aircraft Evaluation Group (AEG) or accountable policy staff and increase the visibility of ODA No-PNL projects
- Implement the recommendations contained in the CIT sub-team Flight Manual Supplement Delegation Report
- Provide clarification to the associated 8110.4 deviation memo
- Revise PNL requirements for STC projects with items on Transport Airplane and Small Airplane Issues Lists (TAIL/SAIL)
- Revise PNL requirements for amended TC projects

The CIT has the following recommendations to OMT members and ODA holders:

- The CIT has been considering changes to the current non-compliance and corrective action measures, so they reflect a systems approach. Until this happens, everyone is encouraged to continue to make progress towards improving ODA self-auditing and corrective action capabilities, and working together to implement effective corrective action in a timely manner so our current measures continue to trend in a positive direction.

ODA CIT Team Members:

Company/Organization	Name
FAA AVS ODA Office	Tom Stafford
FAA DSCO Branch	Fran Cox
FAA BASOO Branch	John Piccola
FAA Atlanta ACO Branch	Christina Underwood
FAA Aircraft Certification ODA Policy	Scott Geddie
FAA Wichita ACO Branch	Linda Dicken
FAA Flight Standards ODA Policy	Jay Kitchens
FAA AEG	Gary Hulverson
AIA	David Silver
GAMA	Walter Desrosier
GE Aviation	Dwight Wilson
HEICO	George Jimenez
The Boeing Company	Martin Robinett
Textron Aviation	Stephen Gielisch
Bell Textron	John Bouma
Garmin	David Armstrong
Duncan Aviation	Mike Chick
Gulfstream	Robert Glasscock
Cirrus	Chris Mitchell
Honeywell	Jim Niessink

Aerospace Industries Association
Name: David Silver
Title: Vice President, Civil Aviation

David Silver
Digitally signed by David Silver
DN: cn=David Silver, o, ou,
email=david.silver@aia-
aerospace.org, c=US
Date: 2021.01.07 10:27:25 -05'00'

General Aviation Manufacturers Association
Name: Walter Desrosier
Title: Vice President, Engineering & Maintenance

Walter Desrosier
Digitally signed by
Walter Desrosier
Date: 2021.01.07
11:58:22 -05'00'

Federal Aviation Administration
Name: Earl Lawrence
Title: Executive Director, Aircraft Certification Service

**EARL A
LAWRENCE**
Digitally signed by EARL
A LAWRENCE
Date: 2020.12.14
13:04:42 -05'00'

Federal Aviation Administration
Name: Rick Domingo
Title: Executive Director, Flight Standards Service

ROBERT C CARTY
Digitally signed by ROBERT C
CARTY
Date: 2020.12.19 16:22:42 -05'00'