



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVATION ADMINISTRATION**

Detailed Implementation Plan

For

**The Federal Aviation Administration
Modernization and Reform Act of 2012**

Public Law No. 112-95, Section 312

July 31, 2013



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVATION ADMINISTRATION**

| REVISION HISTORY | | |
|-------------------------|---|-----------------|
| Revision | Description of Change | Date |
| 0 | Original release. | January 7, 2013 |
| 1 | <p>Added reference to the appendix in the Executive Summary and FAA Initiatives.</p> <p>Added Appendix A to provide the status of the milestones and measures of effectiveness of each initiative.</p> <p>Removed "Completed" status from milestones in Section B, F, G, H, I, J, L, M, N since status is covered in the appendix.</p> | May 14, 2013 |
| 2 | <p>Corrected the responsible organization in section F.</p> <p>Clarified details of the FAA Plan in sections J & K.</p> <p>Clarified the intent of the Closure of Recommendations in section K.</p> <p>Clarified details of the Measures of Effectiveness in sections K & N.</p> <p>Updated status for each initiative in appendix A.</p> | July 12, 2013 |
| 3 | Revised section A to increase the scope from AIR SMS Implementation to the AIR Strategic Roadmap. | July 31, 2013 |

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Executive Summary

This implementation plan is a follow-up of the Federal Aviation Administration (FAA) response on August 13, 2012, to Section 312 of the FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95 (“FAA 2012”), that required the FAA, in consultation with the aviation industry, to conduct an assessment of the aircraft certification and approval process under 49 U.S.C. Section 44704. Consistent with the FAA response, the FAA has developed a comprehensive implementation plan, along with a plan to measure the effectiveness of the recommendations which the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee submitted to the Director of Aircraft Certification on May 22, 2012. Furthermore, the FAA has begun implementation of these actions which FAA 2012 required to begin no later than February 14, 2013, and which FAA monitors by other means than in this plan. The FAA considers this implementation plan a living document which is periodically updated to reflect its progress and completion.

Committee Recommendations

The Aircraft Certification Process Review and Reform (ACPRR) Aviation Rulemaking Committee (ARC) submitted the following recommendations to the Director of Aircraft Certification on May 22, 2012:

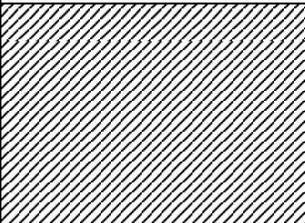
1. Development of Comprehensive Means to Implement and Measure the Effectiveness of Implementation and Benefits of Certification Process Improvements
2. Enhanced Use of Delegation
3. Integrated Roadmap and Vision for Certification Process Reforms
4. Update Part 21 to Reflect a Systems Approach for Safety
5. Culture and Change Management
6. Process Reforms and Efficiencies Needed for Other Aircraft Certification Service (AIR) Functions

FAA Initiatives

The FAA is acting on these recommendations. The FAA has already initiated many activities as part of on-going, continuous certification process improvement efforts which are associated with the committee’s recommendations and will begin others to fulfill the intent of all of the recommendations. These FAA initiatives are linked to the committee recommendations and identified below in the table of Committee Recommendations to FAA Initiatives.

The FAA initiatives related to the ARC’s recommendations are briefly described in this plan. The description includes the plan, milestones, the ARC recommendations, the closure of the recommendation and measures of effectiveness. This plan is a reflection of the FAA’s normal business planning. Consequently, the FAA will periodically update this implementation plan to reflect the current state of the initiatives that are described, particularly the appendix will show the status of the milestones and measures of effectiveness for each initiative. This implementation plan is a living document.

TABLE: Committee Recommendations Mapped to the FAA Initiative

| No.* | Recommendation | FAA Initiative |
|-------|--|--|
| 1a | <p>Development of Comprehensive Implementation Plans The ARC recommends the FAA develop comprehensive implementation plans for certification process improvement initiatives, including Safety Management System (SMS), that address—</p> | <p>Develop an Integrated Comprehensive Roadmap for Major Change Initiatives in AIR</p> |
| 1a(1) | People (FAA staff knowledge, skills, and abilities; roles/responsibilities; and culture change), | |
| 1a(2) | Process (including change management), | |
| 1a(3) | Tools, | |
| 1a(4) | Training, and | |
| 1a(5) | Implementation. | |
| 1b | <p>Development of Tracking and Monitoring Process to Ensure Effectiveness The ARC recommends the FAA develop a means to track and monitor certification process improvement initiatives, including those in the Certification Process Improvement (CPI) Guide, to ensure effectiveness of implementation, including—</p> | <p>Deploy System to Monitor Process Improvement and Effectiveness</p> |
| 1b(1) | A database for tracking recommendations and FAA response initiatives; | |
| 1b(2) | Metrics for implementation and measuring expected benefits; and | |
| 1b(3) | Establishment of a joint FAA/industry group to review the status of implementation. | |
| 2 | <p>Enhanced Use of Delegation The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—</p> |  |
| 2(a) | Implementation of the Organization Designation Authorization (ODA) action plan, including assessment of metrics to determine the effectiveness of improvements and periodic joint FAA/industry review of the status. | ODA Action Plan |
| 2(b) | Ensuring appropriate training and resources are available to maintain robust oversight of delegation programs, including teams/individuals with specialized audit training to conduct ODA audits. | Establish Internal Evaluation Program for FAA Personnel. |

| | | |
|------|--|---|
| 2(c) | Expanding delegation capability to include support for all certification airworthiness standards when appropriate, particularly low-risk or routine activities such those related to noise and emissions tests and instructions for continued airworthiness (ICA). | Delegation Expansion – ICAs – Emissions – Noise |
| 2(d) | Reviewing and updating the AIR certification project sequencing program to account for ODA. | Project Sequencing Process Improvement |
| 3 | Integrated Roadmap and Vision for Certification Process Reforms The ARC recommends the FAA develop an integrated, overarching vision of the future state for certification procedures and a roadmap such that— | Develop an Integrated Comprehensive Roadmap for Major Change Initiatives in AIR |
| 3(a) | A detailed roadmap clearly shows how initiatives/programs support the future state and provides gates or phases with clear milestones and success criteria; and | |
| 3(b) | There is a periodic review and update to the vision and roadmap for certification procedures which includes input from affected stakeholders. | |
| 4 | Update Part 21 to Reflect a Systems Approach for Safety The ARC recommends the FAA undertake a review to update Title 14, Code of Federal Regulations (14 CFR) part 21 certification procedures to reflect a system safety approach to product certification processes and oversight of design organizations which includes consideration of— | Update Part 21 Part 21/SMS ARC |
| 4(a) | Minimum qualification and organizational requirements for design approval applicants and holders including responsibilities and privileges, | |
| 4(b) | Certified Design Organization (CDO) and the recommendations of the FAA’s CDO ARC for implementation of this concept, | |
| 4(c) | Training and resources necessary to maintain robust oversight of design organizations and certification activity, | |
| 4(d) | SMS for design approval holders (DAHs), and | |
| 4(e) | Issuance of an advance notice of proposed rulemaking (ANPRM) to solicit public input and views on some of the concepts to be considered. | |
| 5 | Culture and Change Management The ARC recommends the FAA develop and implement a comprehensive change management plan that takes full advantage of training development capability to prepare the workforce for its new and evolving roles and responsibilities in a systems safety approach to certification and oversight. The SMS principles, data analysis, evaluation of safety systems, and root cause analysis should be required training for those AIR staff overseeing safety systems. | Develop an Integrated Comprehensive Roadmap for Major Change Initiatives in AIR |
| 6 | Process Reforms and Efficiencies Needed for Other AIR Functions | [Hatched Box] |

| | | |
|------|---|--|
| | The ARC recommends AIR undertake a review of continued operational safety (COS) and rulemaking processes and implement reforms necessary to improve efficiency, including— | |
| 6(a) | Increased design approval holder responsibilities for continued operational safety activities. | Update Part 21 Part 21/SMS ARC |
| 6(b) | Strengthening the effectiveness of validation programs under bilateral agreements through the establishment of metrics and joint FAA/industry review of performance to eliminate redundant activities and ensure the intended efficiencies for both FAA and the industry. | Validation Process Improvements |
| 6(c) | Eliminating duplication of efforts in issuing mandatory continuing airworthiness information (MCAI) by leveraging bilateral agreements and capability of the civil aviation authority (CAA) state of design. | International COS Improvements |
| 6(d) | Fast Track rulemaking process to update airworthiness standards in cases where special conditions (SC) have been used for a period of time and the design is no longer new and novel. | Expediting Rulemaking |
| 6(e) | Implementing the recommendations provided by the Aviation Rulemaking Advisory Committee (ARAC) Rulemaking Prioritization Working Group (RPWG). | |
| 6(f) | Implementing the recommendations provided by the consistency of interpreting regulations (CRI) ARC to improve efficiencies in the certification process. | Consistency of Regulatory Interpretation |
| 6(g) | Implementing the Part 23 ARC recommendations to address the Part 23 certification process study (CPS) recommendations. | Part 23 Reorganization |

* The ARC's recommendation numbers are modified in this table to facilitate reference between the ARC's recommendations and FAA initiatives.

A. Develop an Integrated Roadmap for Major Change Initiatives in AIR

Responsible Organization: AIR-001, Aircraft Certification Service

Point of Contact: AIR-101s, Assistant Directorate Managers

FAA Plan

The ARC's recommendations will be addressed through identified elements of the AIR Strategic Roadmap. This roadmap will include high-level descriptions, outcomes, projects and milestones for the major change initiatives planned for aircraft certification. The Roadmap will be structured around the four key areas of Safety, People, Organizational Excellence, and Globalization based on AIR's vision in AIR: 2018 and will include key certification process change initiatives recommended in the ARC report. Implementation plans for AIR change initiatives and annual business plans and activities will be integrated with this comprehensive and integrated roadmap and will address key phases, decision gates, processes, people and tools that demonstrate integrated implementation.

As one of our major roadmap projects, AIR is developing a scaled change management process for application in all change initiatives. The intent is to begin working the roadmap projects using industry-proven best practices for project/change management and ultimately move to a formally developed and documented process for future initiatives.

The initial AIR Roadmap will be completed by February 2014. However, as the scope of AIR: 2018 extends beyond the recommendations found in the ARC report and to ensure the AIR Vision remains current and relevant, the AIR Strategic Roadmap is viewed as a dynamic work tool.

Milestones

| Activity | Start | End |
|---|--------------|------------|
| Develop vision AIR: 2018. | 6/2012 | 6/2013 |
| Develop measureable outcomes to establish end targets. | 4/2013 | 6/2013 |
| Develop format, process, requirements, roles and responsibilities and business rules for use and integration of roadmap into current practices. | 5/2013 | 8/2013 |
| Apply risk-based prioritization process to roadmap projects to optimize sequencing and resource allocation. | 7/2013 | 8/2013 |
| Communicate details of roadmap projects and process information to stakeholders. | 7/2013 | 9/2013 |
| Provide select prioritized projects to project managers for project planning. | 10/2013 | 2/2014 |
| Finalize AIR Strategic Roadmap for FY15. | 2/2014 | 2/2014 |
| Integrate select projects into the annual business planning process. | 2/2014 | 8/2014 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 38]

Recommendation 1a: The ARC recommends the FAA develop comprehensive implementation plans for certification process improvement initiatives, including SMS, that address—

- People (FAA staff knowledge, skills, and abilities; roles/responsibilities; and culture change),
- Process (including change management),
- Tools,
- Training, and Implementation (including the transition to new processes and tools).

Recommendation 3—Integrated Roadmap and Vision for Certification Process Reforms

The ARC recommends the FAA develop an integrated, overarching vision of the future state for certification procedures and a roadmap such that—

- A detailed roadmap clearly shows how initiatives/programs support the future state and provides gates or phases with clear milestones and success criteria; and
- There is a periodic review and update to the vision and roadmap for certification procedures which includes input from affected stakeholders.

Recommendation 5—Culture and Change Management

The ARC recommends the FAA develop and implement a comprehensive change management plan that takes full advantage of training development capability to prepare the workforce for its new and evolving roles and responsibilities in a systems safety approach to certification and oversight. The SMS principles, data analysis, evaluation of safety systems, and root cause analysis should be required training for those AIR staff overseeing safety systems.

Closure of Recommendation

The closure of this recommendation will be based on the development and implementation of an integrated roadmap for major change initiatives within AIR.

Measures of Effectiveness

AIR will develop an initial set of success measures that address each recommendation before closure. The implementation of the AIR Strategic Roadmap will demonstrate the integrated nature of the associated actions and include related success measures. The measures will be defined in a manner to monitor and evaluate the benefits of the overall change activity.

B. Deploy System to Monitor Process Improvement and Effectiveness

Responsible Organization: ANM-100, Transport Airplane Directorate

Point of Contact: ANM-109, Oversight and Evaluation Office

FAA Plan

The FAA will deploy a tracking system to track and monitor the implementation of initiatives related to certification. This centralized tracking system will ensure that recommendations for process (system) improvements that come from various sources (e.g., Congress, GAO, NTSB, etc.) will be monitored until completion. The system will also provide a method for developing metrics (or indicators) to measure the benefits or improvements that these initiatives are meant to address.

Milestones

| Activity | Start | End |
|---|--------|---------|
| Develop Prototype Tracking System. | 8/2012 | 10/2012 |
| Develop Governance for Managing System and acquiring 'new' or existing recommendations. | 8/2012 | 1/2013 |
| Develop Guidance for Evaluating Recommendation Effectiveness. | 8/2012 | 4/2013 |
| Deploy Tracking System. | 1/2013 | 9/2013 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 39]

Recommendation 1b: The ARC recommends the FAA develop a means to track and monitor certification process improvement initiatives, including those in the CPI Guide, to ensure effectiveness of implementation, including—

- A database for tracking recommendations and FAA response initiatives;
- Metrics for implementation and measuring expected benefits;

Closure of Recommendation

The deployment of a System to Monitor Process Improvement Effectiveness will directly address the Committee recommendation 1b. This initiative will create:

- A database for process improvement and effectiveness tracking;
- Guidance for developing metrics to assess the effectiveness of process improvements based on recommendations;
- A means to monitor initiative closure (implementation) and effectiveness of intended changes over time.

This initiative will provide AIR with a tool to ensure that recommendations are addressed, implemented, tracked and effective.

Measures of Effectiveness

AIR will develop measures of effectiveness for each recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions or initiatives outlined in this plan. To determine the effectiveness of this tool and any associated guidance it must, qualitatively, be able to capture the right recommendations from appropriate sources internal or external to AIR, have a process defined which allows for development of indicators for effectiveness of change driven by the associated recommendation(s) including changes which are not quantifiable, and managed for all of AIR.

As the tool matures and is effective it should not be limited to AIR and, as such, be shown to work across other service / offices. At mid-level maturity we should be able to show, over a period of about 3-5 years that recommendations for process improvement have been routinely captured and monitored as part of a management review process and that the effectiveness of initiatives initiated and implemented to support said recommendations are continuously tracked. Over a 5-10 year period, this system should demonstrate the ability to historically review the implementation and effectiveness of all initiatives associated with the captured recommendations.

C. ODA Action Plan

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

FAA Plan

The FAA, in collaboration with the General Aviation Manufacturer's Association (GAMA) and the Aerospace Industries Association (AIA), has an existing action plan established to improve the effectiveness of ODA processes. The action plan outlines specific actions needed to increase the efficiency of ODA certification processes including; full utilization of ODA authority, increased FAA focus on ODA-related workload, updating of FAA procedural requirements, and identifying training needs for FAA personnel. Progress on the action plan and outcomes is routinely reviewed by FAA management and industry representatives. The action plan includes the establishment of joint teams, as needed, to focus on and resolve issues.

This recommendation will be addressed by completion of the existing items in the ODA action plan. Multiple action items are being addressed by the issuance of revision B to Order 8100.15 as well as a future policy change and associated training.

Milestones

| Activity | Start | End |
|--|--------------|------------|
| Publish Order 8100.15 Rev B. | 10/2011 | 2/2013 |
| Update Academy Delegation Management Course 23005 to Address Rev B. | 1/2013 | 4/2013 |
| GAMA/AIA/FAA team meets to assess effectiveness of Rev B changes. | 9/2013 | 9/2013 |
| Publish Order 8100.15 Rev B Change 1. | 10/2012 | 7/2013 |
| Update Academy Delegation Management Course 23005 to Address Change 1. | 8/2013 | 11/2013 |
| GAMA/AIA/FAA team meets to assess effectiveness Change 1 changes. | 7/2014 | 7/2014 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 39-40]

Recommendation 2—Enhanced Use of Delegation

The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—

- Implementation of the ODA action plan, including assessment of metrics to determine the effectiveness of improvements and periodic joint FAA/industry review of the status.
- Ensuring appropriate training and resources are available to maintain robust oversight of

delegation programs, including teams/individuals with specialized audit training to conduct ODA audits.

Closure of Recommendation

This recommendation is closed when AIR completes the 23 action items in the current ODA action plan.

Measures of Effectiveness

The FAA/GAMA/AIA ODA team has established the following goals and metrics to be assessed by industry and/or the FAA:

- Timeframes for FAA involvement in the Unit Member selection process:
 - FAA prescreening
 - FAA review of selection decisions.
- Timeframe for FAA review of ODA manual revisions (Goal of 30 days)
- Timeframe for FAA review of certification plans/project notification letters (PNLs) (Goal of 30 days)

D. FAA Audit Training

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

Training Development Point of Contact: AIR-520, AIR Training Branch

FAA Plan

The Aircraft Certification Training Advisory Committee has previously identified training in auditing skills, including ODA audits as a high priority. AIR will develop training that addresses auditing skills that would be applicable to ODA oversight and existing production systems, as well as internal evaluation supporting quality and safety assurance systems. Implementation of training will foster increased system-focused oversight of ODA holders.

Milestones

| Activity | Start | End |
|---|--------------|------------|
| Submit training support request. | 10/2012 | 1/2013 |
| Issue training support contract. | 12/2012 | 5/2013 |
| Develop training needs analysis and curriculum development. | 4/2013 | 12/2013 |
| Develop training. | 10/2013 | 8/2014 |
| Establish training requirements in policy. | 8/2014 | 8/2014 |
| Deliver first training session. | 11/2014 | 12/2014 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 39-40]

Recommendation 2—Enhanced Use of Delegation

The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—

- 2(b)—Ensuring appropriate training and resources are available to maintain robust oversight of delegation programs, including teams/individuals with specialized audit training to conduct ODA audits.

Closure of Recommendation

This recommendation is closed when AIR finalizes auditing skills training necessary to support ODA supervision and inspections.

Measures of Effectiveness

AIR will develop measures of effectiveness for this recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions based on

the percentage of organization management team (OMT) members attending the audit training class.

E. Delegation Expansion - ICAs

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

AFS-300, Flight Standards Service - Aircraft Maintenance Division

FAA Plan

FAA Order 8100.15A authorizes ODA holders, to find acceptability of ICAs. However, implementation of ICA authority has progressed slowly, partly due to a lack of ODA holder interest in getting the delegation. The AIR, in conjunction with the Flight Standards Service (AFS) has increased the focus on increased utilization of ICA delegation under ODA by establishing a pilot program for ICA development with four ODA organizations. As part of the pilot program, one ODA holder is operating with ICA acceptance authority on a limited basis, and the FAA has requested that three additional ODA organizations place a priority on obtaining ODA acceptance authority under the pilot program. Successful implementation of this recommendation will require commitment by both the FAA and the ODA organizations, who must develop acceptable ICA development and review procedures.

Milestones

| Activity | Start | End |
|---|--------------|------------|
| Address ICA authority at 2013/2014 ODA Seminars. | 6/2012 | 9/2014 |
| Add ICA delegation process to procedures manual of the 3 additional lead ODA organizations. | 6/2012 | 6/2014 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 39-40]

Recommendation 2—Enhanced Use of Delegation

The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—

- Expanding delegation capability to include support for all certification airworthiness standards when appropriate, particularly low-risk or routine activities such those related to noise and emissions tests and ICA.

Closure of Recommendation

This recommendation is closed upon completion of the ODA ICA pilot program.

Measures of Effectiveness

AIR will develop measures of effectiveness for each recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions and be

based on the release of coordinated orders, and the number of ODAs with ICA delegation approved.

F. Delegation Expansion - Emissions

Responsible Organizations: ANE-100, Engine and Propeller Directorate

AEE-001, Office of Environment and Energy

Points of Contact: ANE-110, Aircraft Certification Service Engine & Propeller Directorate - Standards Office

AEE-300, Office of Environment and Energy - Emissions

AIR-112, Delegation Procedures Branch

AGC-200, International Law, Legislation & Regulations Division

FAA Plan

Congress established the Clean Air Act in 1963 and amended it in 1967 to mandate that the Environmental Protection Agency (EPA) must regulate aircraft engine exhaust emissions, with the FAA being identified as the regulator that enforces the EPA-established emissions standards. FAA's Office of Environment and Energy (AEE) is responsible for working with the EPA to establish FAA regulations (14 CFR part 34), policy and guidance on turbine engine exhaust and aircraft emissions standards, as well as fuel venting requirements. AIR is responsible for making findings of compliance to part 34.

The AIR will collaborate with AEE to develop criteria and qualifications to enable designees to approve emissions data.

Milestones

Note: The following milestones have been agreed between AEE and AIR. The interim milestones and dates may be adjusted to support the objective of section 312 of the FAA Modernization and Reform Act of 2012 and hold the end milestone of June 2015.

| Activity | Start | End |
|---|--------------|------------|
| Develop an agreed AEE and AIR plan to complete this recommendation. | 9/2012 | 10/2012 |
| Review legal issues for delegation including The Clean Air Act. ➤ Coordinate with AGC-200. | 9/2012 | 1/2013 |
| Develop knowledge, skills and attributes (KSAs) for engine designated engineering representative (DER) for emissions approvals. | 10/2012 | 6/2013 |
| Develop recurrent training for engine DER for emissions approvals. | 6/2013 | 6/2014 |
| Revise DER Handbook, Order 8110.37E, to recognize this delegation. Revise ODA Procedures, Order 8100.15A, to include emissions delegation. ➤ Coordinate with AIR-112. | 6/2013 | 6/2014 |
| Deliver initial training to engine DERs for emissions approvals. | 10/2014 | 12/2014 |
| Issue AEE/AIR delegation memo announcing expanded delegation of emissions compliance findings. | 6/2014 | 6/2014 |
| Evaluate designee applications for DER-appointment to be an approved engine DER for emissions approvals. | 6/2014 | 6/2015 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 39-40]

Recommendation 2—Enhanced Use of Delegation

The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—

- Expanding delegation capability to include support for all certification airworthiness standards when appropriate, particularly low-risk or routine activities such those related to noise and emissions tests and ICA.

Closure of Recommendation

This recommendation is closed when AIR designees are authorized to approve emissions data. An FAA delegation memo will be jointly released to the aircraft certification offices (ACOs) by AEE-300/ANE-110.

Measures of Effectiveness

The primary indicator of effectiveness for Recommendation 2 - Enhanced Use of Delegation, will be the issuance of revised Order 8110.37E, the DER Handbook, and Order 8100.15A, ODA Procedures, with clear criteria defined for delegating part 34 emissions compliance findings to designees. These order revisions will be followed by a delegation memo highlighting this change to the delegation criteria to the ACOs. Completion of the actions for this recommendation will lead to full delegation to designees for part 34 compliance findings.

Part 34 compliance is required for any new part 33 type certificate (TC) program or for any substantially new amended TC. Only one finding of compliance is required for all of part 34 during the completion of a TC program. So there is a one-to-one correlation of part 34 approvals to engine TC programs.

Starting in June 2015, after designees have been appointed as engine DER for emissions, ANE-100 will track for one year, or 20 new TC programs, whichever is longer, the number of delegated part 34 approvals against the total number of new turbine engine or aircraft type certification programs.

G. Delegation Expansion – Noise

Responsible Organization: AIR-001, Aircraft Certification Service

Point of Contact: AIR-004, Aircraft Certification Service

FAA Plan

The FAA’s Office of Environment and Energy (AEE) is responsible for the FAA regulations (14 CFR part 36), policy and guidance on noise.

At the sole discretion of the Administrator, 14 CFR 183.29 permits FAA acoustical engineering representatives to witness and approve aircraft noise certification tests and approve measured noise data and evaluated noise data analyses. Consequently, we infer that the recommendation to expand delegation capability for noise is related to the FAA’s authority to determine the “acoustical change” of a type design change in accordance with 14 CFR 21.93(b). Therefore, because 14 CFR 21.93(b) is a procedural regulation, AIR will review and revise its “acoustical change” procedures to streamline the process. This will be accomplished by way of a pilot project with a candidate ODA to determine whether this type of delegation is appropriate and feasible.

The FAA and a candidate ODA will collaborate on a two-year pilot project that will expand noise delegation functions for noise certification of the candidate’s aircraft under their ODA program. The purpose of this pilot project is to identify the cooperative activities, including planning, of a pilot project that the FAA, as the regulatory agency, and the candidate ODA, as the applicant, will conduct in order to increase noise delegation functions and prototype accountability processes that are expected to increase certification efficiency, while maintaining noise compliance and FAA oversight and accountability.

The goals of the Noise Delegation Pilot Project are to:

- Expand noise delegation functions for acoustical ARs in the candidate ODA;
- Test and measure work flow efficiency for new noise actions;
- Demonstrate the accountability of the candidate ODA’s delegated noise compliance function;
- Create and exercise the new required oversight activities for the candidate ODA’s noise findings; and
- Identify methods and procedures for discovering and correcting noise finding “escapes” from the candidate ODA.

Pursuant to this pilot program, AEE will administer the related noise certification policy and coordinate pilot project activities. AIR will administer comprehensive aircraft certification policy and coordinate the field support services and pilot project ODA activities. The appropriate OMT will provide ODA administrative guidance for incorporation of the noise delegation functions and technical support services and oversight for all certification projects using the expanded authority. The cognizant directorate’s Noise Certification Specialist (NCS)

will provide technical field support on noise policy, coordination, implementation, and noise certification services, requirements and limitations.

The candidate ODA will provide the corporate engineering support necessary to substantiate noise certification delegation analyses, and coordinate the pilot project introduction within their ODA. The candidate will provide ODA process and service support for the expanded noise delegation functions and formally exercise the agreed upon activities of noise certification as required. All activities will adhere to ODA regulations and prescribed procedures manual requirements.

Assuming all requirements have been met, the FAA will, as appropriate, grant specific functions of increased noise delegation authority to the candidate’s acoustical ARs. Periodically such actions and approvals by the ARs for the newly delegated noise functions will be assessed and checked for compliance acceptable to the FAA. In addition, regular cycle OMT audits for certification will be performed to train FAA OMT noise staff on the new noise oversight process requirements. Tracking performance results will aid future decisions to either—

- Maintain/increase delegation scope,
- Identify corrective limitations to remediate non-compliance, or
- Rescind unsuccessful delegation functions.

Milestones

| Activity | Start | End |
|--|------------------------|------------------------|
| Draft memorandum of understanding (MOU). | 4/2012 | 9/2012 |
| FAA and ODA agree on program functions. | 1/2013 | 2/2013 |
| Management finalize and sign MOU. | 2/2013 | 2/2013 |
| Candidate ODA submits procedures manual to FAA for approval. | 4/2013 | 4/2013 |
| Expanded noise delegation granted to candidate ODA. | TBD | TBD |
| Candidate ODA amends their procedures manual. | TBD | TBD |
| Launch Pilot Project. | Upon manual approval | Upon manual approval |
| Informal FAA audit on noise determinations. | Quarterly | Quarterly |
| Annual performance review. | Annually | Annually |
| Complete pilot and assess it before full approval. | Before full approval | Before full approval |
| Based on the results of the pilot program satisfactorily meeting all requirements, AIR grants delegation authority for specific noise functions. | After pilot assessment | After pilot assessment |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 39-40]

Recommendation 2—Enhanced Use of Delegation

The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—

- Expanding delegation capability to include support for all certification airworthiness standards when appropriate, particularly low-risk or routine activities such those related to noise and emissions tests and ICA.

Closure of Recommendation

This recommendation is closed when AIR delegates determination of no acoustical change to a candidate ODA. Follow-on activities may include revisions to FAA advisory and directive materials; however, completion of those subsequent activities is not necessary to close this ARC recommendation. Based on the successful outcome of this pilot activity, AIR-100 will develop suitable policy and guidance for publication and use.

Measures of Effectiveness

AIR's measures of effectiveness for this recommendation are described as the audit functions included in the Milestones Table, above. Other success measures may be developed if data exist that can accurately portray how long findings of no acoustical change currently take, and after delegation of these determinations, whether that time is reduced. Although there may not be any baseline against which to compare improvements, the FAA intends to consider—

- Identifying metrics,
- Gathering and developing baseline data, and
- Periodically measuring any changes, positive or negative, in rates of completion.

H. Project Sequencing Process Improvement

Responsible Organization: ANM-100, Transport Airplane Directorate

Point of Contact: ANM-100L, Los Angeles Aircraft Certification Office

FAA Plan

The FAA will update the sequencing process of certification projects to include ODAs and other improvements. On September 1, 2011, the FAA announced the availability of and requested public comments on the Standard Operating Procedures (SOP) of the AIR Process for the Sequencing of Certification and Validation Projects. The FAA will revise the proposed process to address the public comments which closed on October 31, 2012. The FAA will again request public comments of the proposed process before issuing the updated sequencing process.

Milestones

| Activity | Start | End |
|-------------------------------------|--------------|------------|
| Request for public comments. | 9/2011 | 10/2012 |
| Develop new SOP. | 11/2012 | 4/2013 |
| Request for public comments. | 4/2013 | 6/2013 |
| Finalize and issue updated process. | 6/2013 | 9/2013 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 39-40]

Recommendation 2—Enhanced Use of Delegation

The ARC recommends the FAA continue to improve the effectiveness of delegation programs to achieve full utilization as a priority and realize the safety benefits of leveraging FAA resources and improved efficiency of the certification process by—

- Reviewing and updating the AIR certification project sequencing program to account for ODA.

Closure of Recommendation

The FAA will account for applicants with an ODA which have an established FAA-designee relationship and working procedures in a revised process for sequencing certification projects. This recommendation is closed when the revised sequencing process is issued.

Measures of Effectiveness

AIR will develop measures of effectiveness before closing this recommendation. The measures will be defined in a manner to monitor and evaluate the benefits of the actions outlined in this section. The measures will be taken for at least a one year period and be related to the number of sequenced projects, as appropriate.

I. Update Part 21

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-150, Safety Management Design and Analysis Branch

FAA Plan

The FAA will charter an ARC to evaluate certain improvements to the effectiveness and efficiency of existing “certification procedures for products and parts” along with incorporating SMS in the design and manufacturing environment. This includes considering the effects of certain changes to the existing regulations, such as applicant qualifications, hazard (or safety) reporting, compliance assurance and continued operation safety assurance systems for all DAHs. The intent is to facilitate shifting towards a systems approach for DAHs that is similar to that used for production approval holder requirement’s which involves a clear understanding of roles, responsibilities and privileges. Upon completion of the ARC, the FAA will convene a rulemaking team and begin the formal process for revising Part 21.

The ARC will produce a final report with recommendations for changes to Part 21. The FAA will take this report and initiate a rulemaking project that will result in a final rule change.

Milestones

| Activity | Start | End |
|---|--------------|------------|
| Charter Part 21/SMS ARC. | 5/2012 | 10/2012 |
| ARC Kick-off Meeting. | 11/2012 | 11/2012 |
| ARC Report development (Report due to AIR-1). | 11/2012 | 4/2014 |
| Application for rulemaking. | 5/2014 | 6/2014 |
| Rulemaking Action Plan. | 6/2014 | 8/2014 |
| Proposed rule. | 8/2014 | 1/2016 |
| Final Rule. | 1/2016 | 6/2017 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, pages 41-42]

Recommendation 4—Update Part 21 to Reflect a Systems Approach for Safety

The ARC recommends the FAA undertake a review to update 14 CFR part 21 certification procedures to reflect a system safety approach to product certification processes and oversight of design organizations which includes consideration of—

- Minimum qualification and organizational requirements for design approval applicants and holders including responsibilities and privileges,
- CDO and the recommendations of the FAA’s CDO ARC for implementation of this concept,

- Training and resources necessary to maintain robust oversight of design organizations and certification activity,
- SMS for DAHs, and
- Issuance of an ANPRM to solicit public input and views on some of the concepts to be considered.

Recommendation 6—Process Reforms and Efficiencies Needed for Other AIR Functions

The ARC recommends AIR undertake a review of COS and rulemaking processes and implement reforms necessary to improve efficiency, including—

- Increased design approval holder responsibilities for continued operational safety activities.

Closure of Recommendation

The current Part 21 ARC will provide recommendations on how to achieve the systems approach to safety within the design and manufacturing community. These recommendations will include new organizational and application requirements for some or all design approval applicants. This recommendation is closed when the FAA implements a revised Part 21 that reflects a systems approach.

Measures of Effectiveness

AIR will develop measures of effectiveness for each recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions outlined in this section. To determine the effectiveness of the final rule and its associated changes to Part 21, we must first identify what we would like to see achieved from a rule change other than just SMS implementation. The Part 21 ARC will develop goals that they would like to see achieved from the change and provide that in the final report. AIR will then transform these goals into measurements that can be monitored throughout implementation and thereafter to determine if the changes accomplished what was intended.

J. Validation Process Improvements

Responsible Organization: AIR-40, International Policy Office

Point of Contact: AIR-40, International Policy Office, Standardization Branch

FAA Plan

The FAA has validation process improvement initiatives underway focused on the bilateral agreements with the technical implementation procedures for airworthiness of the bilateral aviation safety agreements with European Aviation Safety Agency (EASA) and Transport Canada Civil Aviation (TCCA). We will use the recommendations of these initiatives to propose key metrics to monitor the effectiveness of validation processes with bilateral partners in an effort to implement continuous process improvement for the validation process and ensure intended efficiencies.

Milestones

| Activity | Start | End |
|--|--------------|------------|
| Validation Implementation Team to develop and submit recommendations to the Certification Oversight Board. | 1/2012 | 10/2012 |
| Review recommendations from Validation Implementation Team (FAA/EASA) and the bilateral Program Efficiency Plan (FAA/TCCA). | 10/2012 | 9/2013 |
| Identify key metrics to measure bilateral agreement implementation. | 10/2013 | 8/2014 |
| Develop process to monitor metrics, analyze data, conduct continuous process improvement and review performance with industry. | 10/2013 | 8/2014 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 42]

Recommendation 6—Process Reforms and Efficiencies Needed for Other AIR Functions

The ARC recommends AIR undertake a review of COS and rulemaking processes and implement reforms necessary to improve efficiency, including—

- Strengthening the effectiveness of validation programs under bilateral agreements through the establishment of metrics and joint FAA/industry review of performance to eliminate redundant activities and ensure the intended efficiencies for both FAA and the industry.

Closure of Recommendation

This recommendation is closed when metrics have been established to measure validation program effectiveness and a process to review performance with industry is implemented.

Measures of Effectiveness

AIR will develop measures of effectiveness for each recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions outlined in this section.

The plan for this recommendation is considered effective if the defined process metrics are within bounds of established baseline thresholds. We will work to identify the baseline thresholds based on the metrics which are identified. We have some accepted baselines at this point based on our historical experience with bilateral partners but these may be further honed once the appropriate metrics are identified in accordance with the aforementioned FAA plan and milestones.

K. International COS Improvements

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

FAA Plan

The FAA will develop a report to address options for streamlining the process for adopting MCAI issued by other CAAs. The options may require a notice to be published in the Federal Register to inform the public of changes to the MCAI airworthiness directive (AD) process and ensure their awareness of the opportunity to comment on proposed MCAI. The report will list a number of U.S. requirements that impact the FAA's ability to make the desired changes; among them are the Administrative Procedure Act (APA) and Executive Order 12866, Regulatory Planning and Review. The report will identify in detail the statutory and procedural requirements that have to be addressed for a streamlined MCAI process and define steps to enable a streamlined MCAI process.

Milestones

| Activity | Start | End |
|--|--------------|------------|
| Coordinate Report with AGC-1. | 3/2012 | 4/2013 |
| Submit Report to AVS-1. | 4/2013 | 6/2013 |
| Receive decision from AVS-1 in response to Report. | 6/2013 | TBD |
| Initiate next-step activities, as necessary. | TBD | TBD |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 42]

Recommendation 6—Process Reforms and Efficiencies Needed for Other AIR Functions

The ARC recommends AIR undertake a review of COS and rulemaking processes and implement reforms necessary to improve efficiency, including—

- Eliminating duplication of efforts in issuing MCAI's by leveraging bilateral agreements and capability of the CAA State of Design.

Closure of Recommendation

This recommendation is closed when the FAA completes the rulemaking and policy changes required to implement this recommendation. However, if the FAA, after a good faith effort to address the statutory and procedural requirements, is unable to streamline the MCAI process, the FAA would consider this recommendation closed.

Measures of Effectiveness

This proposal will be considered effective when AIR is able to publish policy that, consistent with all applicable legal requirements, allows for a reduction in the amount of time necessary to issue an MCAI AD.

L. Expediting Rulemaking

Responsible Organization: ARM-001, Office of Rulemaking - Airmen and Airspace Rules Division

Point of Contact: ARM-200, Office of Rulemaking - Aircraft and Airport Rules Division

FAA Plan

The FAA will adopt the committee recommendations to expedite the rulemaking process. The FAA will establish a rulemaking prioritization tool to update airworthiness standards for special conditions and will implement the recommendations from the ARAC RPWG.

Milestones

| Activity | Start | End |
|---|--------------|------------|
| ARM tasks RPWG to evaluate prioritization tools and submit a recommendation. | 5/2012 | 12/2012 |
| AIR identifies common special conditions for rulemaking. | 10/2012 | 9/2013 |
| ARM develops and finalizes implementation plan based on RPWG's recommendations. | 1/2013 | 3/2013 |
| ARM implements rulemaking prioritization tools. | 4/2013 | 10/2013 |
| AIR integrates the rulemaking prioritization tools to annually assess and prioritize special conditions and all other rulemaking. | 10/2013 | 9/2014 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 42]

Recommendation 6—Process Reforms and Efficiencies Needed for Other AIR Functions

The ARC recommends AIR undertake a review of COS and rulemaking processes and implement reforms necessary to improve efficiency, including—

- Fast Track rulemaking process to update airworthiness standards in cases where SCs have been used for a period of time and the design is no longer new and novel.
- Implementing the recommendations provided by the ARAC RPWG.

Closure of Recommendation

This recommendation is closed when the SC's for rulemaking have been integrated with the FAA's rulemaking prioritization plan.

Measures of Effectiveness

AIR will develop measures of effectiveness for each recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions outlined in this section.

M. Consistency of Regulatory Interpretation

Responsible Organizations: AFS-1, Flight Standards Service

Point of Contact: AIR-100, Aircraft Engineering Division

FAA Plan

On April 30, 2012, the FAA chartered Consistency of Regulatory Interpretation Aviation Rulemaking Committee (CRI ARC) with the task to make recommendations to improve the consistency of regulatory interpretation (specified in Section 313 of FAA 2012). On November 28, 2012, the CRI ARC submitted to the FAA their final report, Recommendations on Improving Consistency of Regulatory Interpretation. Subsequently, AIR and AFS will establish plans to implement the CRI ARC recommendations which are summarized as follows:

- Improve rulemaking procedures and guidance to ensure each proposed and final rule preamble contain a comprehensive explanation of the purpose, technical requirements, and intent.
- Develop a standardized decision-making methodology for the development of all policy and guidance material to ensure such documents are consistent with adopted regulations.
- Review all guidance documents and interpretations to identify and cancel outdated material and cross-reference (electronically link) material to its applicable rule and expand its current Aviation Safety Information Management System (AVSIMS) initiative to consolidate the service organization-level libraries into a single AVS master electronic database resource, organized by rule.
- Review and revise regulatory training, make the curriculum available to industry, and study the feasibility of developing a specific training program designed for personnel with regulatory development and oversight responsibilities.
- Establish a Regulatory Consistency Communications Board (RCCB) comprising representatives from AFS, AIR, and AGC that would provide clarification to FAA personnel and certificate/approval holders and applicants on questions related to the application of regulations.
- Determine the feasibility of establishing a full-time Regulatory Operations Communication Center (ROCC) as a centralized support center to provide real-time guidance to FAA personnel and industry certificate/approval holders and applicants.

Milestones

| Activity | Start | End |
|--|--------------|------------|
| Submit CRI ARC Final Report to AVS-1. | 4/2012 | 11/2012 |
| Review CRI ARC Final Report and develop an AVS action plan that addresses recommendations. | 11/2012 | 9/2013 |

| | | |
|---|--------|--------|
| Identify key metrics to measure implementation of CRI ARC recommendations within AIR and work with AFS to identify key metrics to measure implementation of CRI ARC recommendations requiring coordination between AIR and AFS. | 1/2013 | 9/2013 |
| Coordinate with AFS to develop performance measures to track implementation of CRI ARC recommendations. | 1/2013 | 9/2013 |
| Develop process to monitor metrics and review performance measures with respect to CRI ARC action plan. | 1/2013 | 9/2013 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 42]

Recommendation 6—Process Reforms and Efficiencies Needed for Other AIR Functions

The ARC recommends AIR undertake a review of COS and rulemaking processes and implement reforms necessary to improve efficiency, including—

- Implementing the recommendations provided by the Consistency of Regulatory Interpretation (CRI) ARC to improve efficiencies in the certification process.

Closure of Recommendation

This recommendation is closed when the CRI ARC recommendations are submitted to AVS-1 and AVS finalizes the CRI ARC action plan.

Measures of Effectiveness

AIR will develop measures of effectiveness for each of the CRI ARC recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions outlined in this section.

N. Part 23 Reorganization

Responsible Organization: ACE-100, Small Airplane Directorate

Point of Contact: ACE-110, Small Airplane Directorate - Standards Office

FAA Plan

On August 11, 2011, the FAA chartered the Part 23 Reorganization ARC with the task to make recommendations on reorganizing Part 23 based on the recommendations of the Part 23 CPS completed in July 2009. Subsequently, the ARC will produce a final report with recommendations for changes to Part 23. AIR will establish plans to implement the recommendations and initiate new rulemaking of Part 23 in 2015.

Milestones

| Activity | Start | End |
|---|--------------|------------|
| Charter Part 23 Reorganization ARC. | 8/2011 | 8/2011 |
| Develop and submit ARC recommendations to ACE-100 | 11/2011 | 5/2013 |
| Application for Rulemaking. | 12/2012 | 2/2013 |
| Rulemaking Action Plan. | 2/2014 | 4/2014 |
| Notice of Public Rulemaking. | 4/2014 | 7/2015 |
| Final Rule. | 7/2015 | 8/2016 |

Committee Recommendations

[From: A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on the Assessment of the Certification and Approval Process, May 22, 2012, page 42]

Recommendation 6—Process Reforms and Efficiencies Needed for Other AIR Functions

The ARC recommends AIR undertake a review of COS and rulemaking processes and implement reforms necessary to improve efficiency, including—

- Implementing the Part 23 ARC recommendations to address the Part 23 CPS recommendations.

Closure of Recommendation

The FAA will assess the Part 23 Reorganization ARC recommendations and take appropriate action including new rulemaking of Part 23. This recommendation is closed when the FAA issues a revised Part 23 that reflect high level, performance based regulations.

Measures of Effectiveness

AIR will develop measures of effectiveness for each recommendation before its closure. The measures will be defined in a manner to monitor and evaluate the benefits of the actions outlined in this section.

Rulemaking will take several years, and given the size of the current general aviation fleet (roughly 185,000 airplanes), it could take 10 years or more before measureable safety improvement occurs. In other words, it will take time to get new, safety enhancing equipment or

newly designed airplanes into the general aviation fleet at a rate fast enough to affect the overall accident rate of the 185,000 airplanes currently in existence.

Although the safety benefits of this rulemaking will take time to manifest themselves as improvements in the accident rates, there are certain items that the FAA can track which will show a positive benefit from this rulemaking.

Metric 1 - Increase in the installation of safety enhancing equipment.

The goal of the Part 23 Reorganization ARC is to increase safety by a factor of two and reduce cost by fifty percent. The ARC has determined that the FAA’s own regulations (e.g., part 23) can be a barrier to installing safety enhancing equipment. Performance-based FAA regulations and industry-developed consensus implementation standards will provide a simpler certification process that delivers safe products at a much more reasonable cost than today.

Following issuance of the final rule in July 2016, there should be an increase in the installation of angle of attack sensors, two-axis autopilots, glass displays, and other important safety-enhancing systems that can aid the pilot. These installations will continue to increase over time. As these safety enhancing products are installed, a slight downward trend in the number of Loss of Control (LOC) accidents should occur. LOC accidents are the leading cause of general aviation fatalities. As these products continue to be installed, steeper declines in LOC accidents should occur.

Although it is not feasible to directly measure the number of these safety enhancing installations, AIR will develop a means to estimate the baseline number of installations in the existing fleet before final rule issuance and the number of new installations on an ongoing basis after final rule issuance. To measure the rulemaking’s effect on LOC accidents, AIR will use existing methodologies for measuring general aviation (GA) accident rates and will compare those rates to fiscal year (FY) 2014 accident data from before the final rule was issued.

Metric 2 – Increase in the number of Primary Category applications.

The ARC is working to ensure “scalability” of a Production Certificate (PC). This means that applicants for a Primary Category TC will not need to meet the same production rigor as a commercial transport. As a result, the number of applicants for Primary Category certification should initially increase since PC scalability and industry design standards will be in place prior to issuance of the Part 23 final rule. This will lead to newer and safer airplanes entering the general aviation fleet, which should result in a decrease in accidents and an increase in passenger survivability. After final rule issuance, the number of Primary Category TC applications is expected to flatten as the number of Part 23 TC and amended type certificate (ATC) applications increases.

To assess this metric, AIR will track the number of Primary Category TC applications on an ongoing basis and compare it to an FY12 baseline of zero Primary Category TC applications.

Metric 3 – Increase in new TCs/ATCs after rule issuance

One indicator of a successful rulemaking will be an increase in the number of new Part 23 TCs and ATCs sought by industry. If a regulatory structure has been established that leads to safer and more affordable products, it will be easier for industry to build a business case to bring new products to market. As a result, the number of part 23 TCs and ATCs applied for and issued should increase after final rule issuance. New product designs, equipped with the latest in safety enhancing technologies, will replace airplanes in the GA fleet that are 40-50 years old. This will have a real and tangible positive impact on GA safety.

To assess this metric, AIR will track the number of Part 23 TC and ATC applications on an ongoing basis and will compare those numbers to FY14 baseline data from before the final rule was issued. To measure the rulemaking's effect on GA safety, AIR will use existing methodologies for measuring GA accident rates and will compare those rates to FY14 accident data.

APPENDIX A.

Section 312 Implementation Plan Milestone and Effectiveness Status As of July 31, 2013

PURPOSE

This appendix shows the status of the milestones and measures of effectiveness for each initiative of the Section 312 Implementation Plan. The purpose of this appendix is to serve as a stand-alone summary of the progress of the Section 312 Implementation Plan and to be updated on a regular basis, independent of the main body of the implementation plan.

DEFINITIONS

Status Colors

-  Blue – Complete.
-  Gray – No status and considered not complete.
-  Green – On track/on schedule.
-  Red – Will not meet end milestone as planned.
-  Yellow – In danger of going off track/schedule, requires management attention and/or support.

Milestone Dates

Actual – Actual date completed.

ECD – Estimated completion date. Only used to provide a revised end date if end date has or will not be met.

End – Planned completion date.

Start – Start date.

A. Develop an Integrated Comprehensive Roadmap for Major Change Initiatives in AIR

Responsible Organization: AIR-101s, Assistant Directorate Managers

Point of Contact: AIR-001, Aircraft Certification Service

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|-----------|-----------|-----|-----------|---|
| Develop vision AIR: 2018. | 6/1/2013 | 6/28/2013 | | 6/28/2013 |  |
| Develop measureable outcomes to establish end targets. | 4/1/2013 | 6/28/2013 | | 6/28/2013 |  |
| Develop format, process, requirements, roles and responsibilities and business rules for use and integration of roadmap into current practices. | 5/1/2013 | 8/30/2013 | | |  |
| Apply risk-based prioritization process to roadmap projects to optimize sequencing and resource allocation. | 7/1/2013 | 8/30/2013 | | |  |
| Communicate details of roadmap projects and process information to stakeholders. | 7/1/2013 | 9/28/2013 | | |  |
| Provide select prioritized projects to project managers for project planning. | 10/1/2013 | 2/28/2014 | | |  |
| Finalize AIR Strategic Roadmap for FY15. | 2/3/2014 | 2/28/2014 | | |  |
| Integrate select projects into the annual business planning process. | 2/3/2014 | 8/29/2014 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
| 2 | |  | |
| 3 | |  | |
| 4 | |  | |
| 5 | |  | |

B. Deploy System to Monitor Process Improvement and Effectiveness

Responsible Organization: ANM-100, Transport Airplane Directorate

Point of Contact: ANM-109, Oversight and Evaluation Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|-----------|------------|-----|------------|---|
| Develop Prototype Tracking System | 8/31/2012 | 10/17/2012 | | 10/31/2012 |   |
| Develop Governance for Managing System and acquiring 'new' or existing recommendations. | 8/31/2012 | 1/31/2013 | | 7/11/2013 |   |
| Develop Guidance for Evaluating Recommendation Effectiveness. | 8/31/2012 | 4/30/2013 | | 6/28/2013 |   |
| Deploy Tracking System | 1/31/2013 | 9/30/2013 | | 6/11/2013 |   |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|--|---|---------------|
| 1 | Database developed and implemented for use in AIR |  | 6/11/2013 |
| 2 | Database incorporates recommendation from other ARC reports and evaluates effectiveness. Rev. as needed. |  | |
| 3 | AIR assesses other data to be included and entered. Evaluating and action plans developed, addressed. |  | |
| 4 | AIR works with AVS to use this tool across AVS |  | |
| 5 | Implementing recommendations and measuring effectiveness is SOP for AVS. |  | |

C. ODA Action Plan

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|--|------------|------------|-----------|-----------|---|
| Publish Order 8100.15 Rev B. | 10/31/2011 | 2/28/2013 | | 5/16/2013 |   |
| Update Academy Delegation Management Course 23005 to Address Rev B. | 1/31/2013 | 4/30/2013 | | 5/16/2013 |   |
| GAMA/AIA/FAA team meets to assess effectiveness of Rev B changes. | 9/30/2013 | 9/30/2013 | 1/31/2014 | |  |
| Publish Order 8100.15 Rev B Change 1. | 10/31/2012 | 7/31/2013 | 9/30/2013 | |  |
| Update Academy Delegation Management Course 23005 to Address Change 1. | 8/30/2013 | 11/29/2013 | | |  |
| GAMA/AIA/FAA team meets to assess effectiveness Change 1 changes. | 7/31/2014 | 7/31/2014 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
| 2 | |  | |
| 3 | |  | |
| 4 | |  | |
| 5 | |  | |

D. FAA Audit Training

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|------------|------------|-----------|-----------|---|
| Submit training support request. | 10/31/2012 | 1/31/2013 | | 1/24/2013 |  |
| Issue training support contract. | 12/31/2012 | 5/31/2013 | 8/30/2013 | |  |
| Develop training needs analysis and curriculum development. | 4/30/2013 | 12/31/2013 | | |  |
| Develop training. | 10/31/2013 | 8/29/2014 | | |  |
| Establish training requirements in policy. | 8/29/2014 | 8/29/2014 | | |  |
| Deliver first training session. | 11/28/2014 | 12/31/2014 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
| 2 | |  | |
| 3 | |  | |
| 4 | |  | |
| 5 | |  | |

E. Delegation Expansion - ICAs

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|-----------|-----------|-----|--------|---|
| Add ICA delegation process to procedures manual of the 3 additional lead ODA organizations. | 6/29/2012 | 6/30/2014 | | |  |
| Address ICA authority at 2013/2014 ODA Seminars. | 6/29/2012 | 9/30/2014 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|-----------------------|---------------|
| 1 | | <input type="radio"/> | |
| 2 | | <input type="radio"/> | |
| 3 | | <input type="radio"/> | |
| 4 | | <input type="radio"/> | |
| 5 | | <input type="radio"/> | |

F. Delegation Expansion - Emissions

Responsible Organization: ANE-100, Engine and Propeller Directorate

Point of Contact: ANE-110, Engine and Propeller Directorate - Standards Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|------------|------------|-----|------------|---|
| Develop an agreed AEE and AIR plan to complete this recommendation. | 9/4/2012 | 10/31/2012 | | 10/31/2012 |   |
| Review legal issues for delegation including The Clean Air Act. * Coordinate with AGC-200. | 9/4/2012 | 1/31/2013 | | 7/26/2013 |   |
| Develop knowledge, skills and attributes (KSAs) for engine designated engineering representative (DER) for emissions approvals. | 10/31/2012 | 6/30/2013 | | 6/28/2013 |   |
| Develop recurrent training for engine DER for emissions approvals. | 6/28/2013 | 6/30/2014 | | |  |
| Revise DER Handbook, Order 8110.37E, to recognize this delegation. Revise ODA Procedures, Order 8100.15A, to include emissions delegation. * Coordinate with AIR-112. | 6/28/2013 | 6/30/2014 | | |  |
| Deliver initial training to engine DERs for emissions approvals. | 10/31/2014 | 12/31/2014 | | |  |
| Issue AEE/AIR delegation memo announcing expanded delegation of emissions compliance findings. | 6/30/2014 | 6/30/2014 | | |  |
| Evaluate designee applications for DER-appointment to be an approved engine DER for emissions approvals. | 6/30/2014 | 6/30/2015 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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G. Delegation Expansion - Noise

Responsible Organization: AIR-001, Aircraft Certification Service

Point of Contact: AEE-100, Office of Energy and Environment

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|--|------------|------------|-----|-----------|---|
| Draft memorandum of understanding (MOU). | 4/30/2012 | 9/28/2012 | | 7/28/2012 |   |
| FAA and ODA agree on program functions. | 1/31/2013 | 2/28/2013 | | 9/26/2012 |   |
| Management finalize and sign MOA. | 2/28/2013 | 2/28/2013 | | 6/20/2013 |   |
| Candidate ODA submits procedures manual to FAA for approval. | 4/30/2013 | 4/30/2013 | | 7/15/2013 |   |
| Expanded noise delegation granted to candidate ODA. | 10/31/2013 | 10/31/2013 | | |  |
| Launch Pilot Project. | 10/31/2013 | 10/31/2013 | | |  |
| Informal FAA audit on noise determinations. | 5/30/2014 | 6/30/2014 | | |  |
| Annual performance review. | 10/31/2014 | 11/28/2014 | | |  |
| Complete pilot and assess it before full approval. | 10/31/2015 | 10/31/2015 | | |  |
| Based on the results of the pilot program satisfactorily meeting all requirements, AIR grants delegation authority for specific noise functions. | 11/30/2015 | 12/31/2015 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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H. Project Sequencing Process Improvement

Responsible Organization: ANM-100, Transport Airplane Directorate

Point of Contact: ANM-100L, Los Angeles Aircraft Certification Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|------------------------------------|------------|------------|----------|------------|---|
| Request for public comments | 9/30/2011 | 10/31/2012 | | 10/31/2012 |   |
| Develop new SOP. | 11/30/2012 | 4/30/2013 | | 4/30/2013 |   |
| Request for public comments | 4/30/2013 | 6/28/2013 | 7/3/2013 | 7/2/2013 |   |
| Finalize and issue updated process | 6/28/2013 | 9/25/2013 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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I. Update Part 21

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-150, Safety Management Design and Analysis Branch

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|------------|------------|-----|------------|---|
| Charter Part 21/SMS ARC. | 5/31/2012 | 10/31/2012 | | 10/15/2012 |   |
| ARC Kick-off Meeting. | 11/30/2012 | 11/30/2012 | | 11/30/2012 |   |
| ARC Report development (Report due to AIR-1). | 11/30/2012 | 4/30/2014 | | |  |
| Application for rulemaking. | 5/30/2014 | 6/30/2014 | | |  |
| Rulemaking Action Plan. | 6/30/2014 | 8/29/2014 | | |  |
| Proposed rule. | 8/31/2014 | 1/29/2016 | | |  |
| Final Rule. | 1/29/2016 | 6/30/2017 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
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| 1 | |  | |
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J. Validation Process Improvements

Responsible Organization: AIR-40, International Policy Office

Point of Contact: AIR-40, International Policy Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|--|------------|------------|-----|------------|---|
| Validation Implementation Team to develop and submit recommendations to the Certification Oversight Board. | 1/31/2012 | 10/31/2012 | | 10/31/2012 |  |
| Review recommendations from Validation Implementation Team (FAA/EASA) and the bilateral Program Efficiency Plan (FAA/TCCA). | 10/31/2012 | 9/30/2013 | | |  |
| Identify key metrics to measure bilateral agreement implementation. | 10/31/2012 | 8/29/2014 | | |  |
| Develop process to monitor metrics, analyze data, conduct continuous process improvement and review performance with industry. | 10/31/2012 | 8/29/2014 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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K. International COS Improvements

Responsible Organization: AIR-100, Aircraft Engineering Division

Point of Contact: AIR-110, Engineering Procedures Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|--|-----------|-----------|-----|------------|---|
| Coordinate Report with AGC-1. | 3/30/2012 | 4/30/2013 | | 10/31/2012 |   |
| Submit Report to AVS-1. | 4/30/2013 | 6/28/2013 | | |  |
| Receive decision from AVS-1 in response to Report. | 6/29/2013 | | | |  |
| Initiate next-step activities, as necessary. | | | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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L. Expediting Rulemaking

Responsible Organization: ARM-001, Office of Rulemaking - Airmen and Airspace Rules Division

Point of Contact: ARM-200, Office of Rulemaking - Aircraft and Airport Rules Division

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|------------|------------|-----|------------|---|
| ARM tasks RPWG to evaluate prioritization tools and submit a recommendation. | 5/31/2012 | 12/31/2012 | | 12/31/2012 |  |
| AIR identifies common special conditions for rulemaking. | 10/31/2012 | 9/30/2013 | | |  |
| ARM develops and finalizes implementation plan based on RPWG's recommendations. | 1/31/2013 | 3/29/2013 | | |  |
| ARM implements rulemaking prioritization tools. | 4/30/2013 | 10/31/2013 | | |  |
| AIR integrates the rulemaking prioritization tools to annually assess and prioritize special conditions and all other rulemaking. | 10/31/2013 | 9/30/2014 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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M. Consistency of Regulatory Interpretation

Responsible Organization: AFS-001, Flight Standards Service

Point of Contact: AFS-003P, Flight Standards Service Policy Oversight

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|---|------------|------------|-----|------------|---|
| Submit CRI ARC Final Report to AVS-1. | 4/30/2012 | 11/30/2012 | | 11/30/2012 |  |
| Review CRI ARC Final Report and develop an AVS action plan that addresses recommendations. | 11/30/2012 | 9/30/2013 | | |  |
| Identify key metrics to measure implementation of CRI ARC recommendations within AIR and work with AFS to identify key metrics to measure implementation of CRI ARC recommendations requiring coordination between AIR and AFS. | 1/31/2013 | 9/30/2013 | | |  |
| Coordinate with AFS to develop performance measures to track implementation of CRI ARC recommendations. | 1/31/2013 | 9/30/2013 | | |  |
| Develop process to monitor metrics and review performance measures with respect to CRI ARC action plan. | 1/31/2013 | 9/30/2013 | | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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N. Part 23 Reorganization

Responsible Organization: ACE-100, Small Airplane Directorate

Point of Contact: ACE-110, Small Airplane Directorate - Standards Office

Initiative Status: 

Milestones

| Activity | Start | End | ECD | Actual | Status |
|--|------------|-----------|-----------|-----------|---|
| Charter Part 23 Reorganization ARC. | 8/31/2011 | 8/31/2011 | | 8/31/2011 |   |
| Develop and submit ARC recommendations to ACE-100. | 11/30/2011 | 5/31/2013 | | 6/6/2013 |   |
| Application for Rulemaking. | 12/31/2012 | 2/28/2013 | | 2/28/2013 |   |
| Rulemaking Action Plan. | 2/28/2014 | 4/30/2014 | 7/31/2014 | |  |
| Notice of Public Rulemaking. | 4/30/2014 | 7/31/2015 | 6/30/2016 | |  |
| Final Rule. | 7/31/2015 | 8/31/2016 | 7/30/2017 | |  |

Measures of Effectiveness

| Level of Effectiveness | Measure | Status | Date Achieved |
|------------------------|---------|---|---------------|
| 1 | |  | |
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