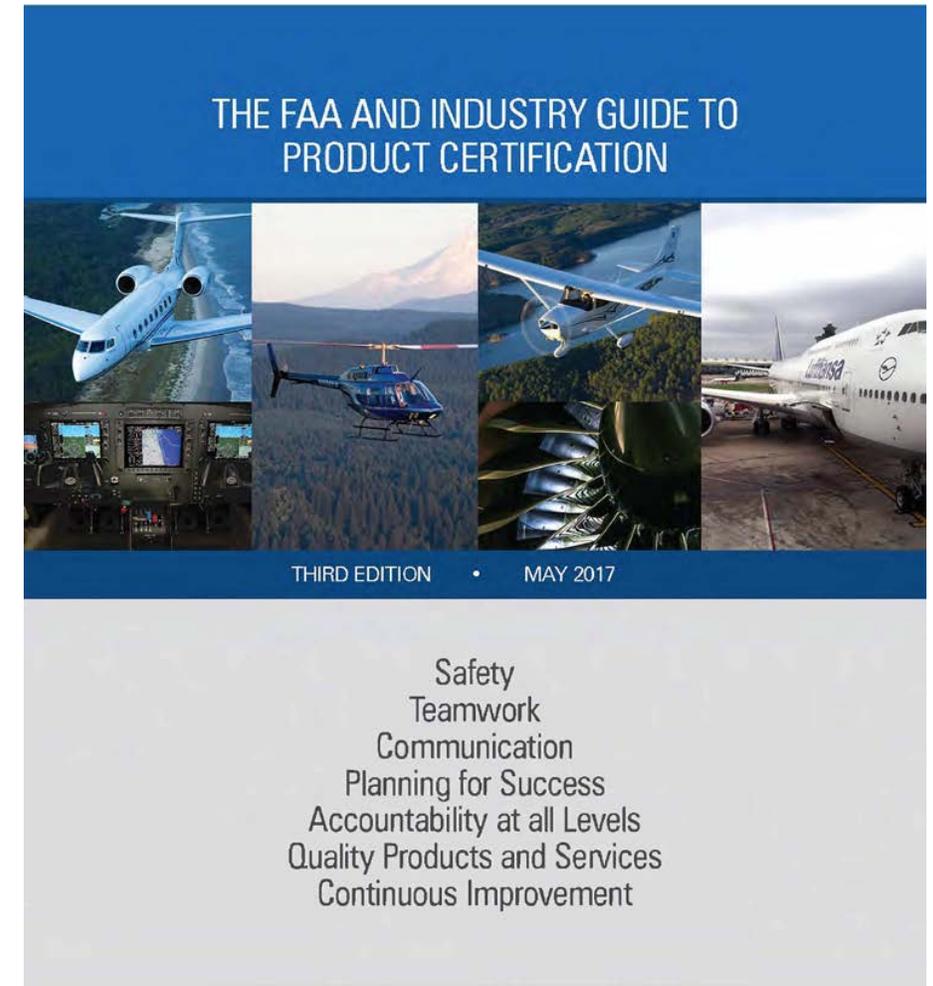


Certification Process Guide Workshop for ODA Holders

Hosted by the Wichita
Aircraft Certification Office
February 13, 2019

Co-presented by the FAA and Industry
Certification Product Guide Implementation Team



Prepared by AIA, AEA, GAMA, and the FAA Aircraft Certification Service and Flight Standards Service





Poll Everywhere

Please send a text to 22333 and enter
FAACPG734 (no spaces)
once to join

Your responses are anonymous

Your handouts include the questions that we will be asking for your input on.

Please review the questions in advance



What is the first word that comes to mind when you think about FAA Aircraft/Engine Certification?

Total Results: 0



Poll Everywhere

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Our Hurdles to Success:

Stretched

Resources...

Frustration...

Delays...

And on...

And on...

And on...

And on...

Applicant schedule not realistic

Rationale for FAA involvement unclear

Root Cause/Corrective Action not a priority

FAA requirements change when personnel change

Welcome to the CPG Workshop for ODA Holders

Today's Agenda

- Introductions
- Workshop Goals
- Why the CPG is critical to our collective success
- CPG principles and tools
- Questions



Introductions



- Lance Gant, Director, Compliance and Airworthiness Division
- Kevin Dickert, Manager, Boston ACO
- Christina Underwood, Manager, Atlanta ACO
- Ric Peri, AEA, Vice President of Government and Industry Affairs
- Walter Desrosier, GAMA, Vice President of Engineering and Maintenance
- David Silver, AIA, Vice President of Civil Aviation
- Mazdak Hobbi, Manager of Farmingdale and Saddle Brook MIDO (SO)
- Scott Geddie, Manager, Delegation and Organizational Procedures Branch
- Darby Mirocha, Program Manager, Atlanta ACO, Change Management Practitioner
- Heather Thorson, Senior Change Management Advisor, AIR-700

Building Emergencies

Tornado shelter

- Stairs to basement located in north vestibule
- Remain with meeting POC for further instructions

Building evacuation

- Proceed to nearest safe exit, then to primary muster area
- Remain with meeting POC for further instructions



Introductions



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CPG and ODA Terminology

- Project Specific Certification Plan (PSCP) is similar to a PNL
- A Partnership for Safety Plan (PSP) is different from and ODA Procedures Manual
 - Complements the ODA PM
 - Offers a vehicle for what shouldn't be in your ODA PM
 - An ODA PM is regulatory
 - A PSP is an agreement



ODA Terminology Review -- Part 183.41

- “ODA holder” – entity authorized as a representative of the FAA to perform authorized functions
- “ODA unit” – individuals identified by the ODA holder who perform the authorized functions
- The “ODA unit” is part of the “ODA holder”
 - Not a separate entity

The ODA Holder is/represents the “Applicant”

ODA Terminology Review -- “ODA administrator”

- Recognized as part of the unit in 183.51.
 - ...must have within its ODA unit-
 - (a) At least one qualified ODA administrator.....and (b/c) staff to perform authorized functions
- “ODA administrator” is FAA POC for all ODA requirements
 - Administers duties for the FAA
 - Ensures organization follows procedures manual, regulations, and policies and that procedures are compliant
 - Oversees performance of FAA functions



How would you define "Success" in a Certification Process?

Start the presentation to see live content. Still no live content? Install the app or get help at PollEv.com/app

Goals of the CPG workshop



- Increase **understanding of CPG principles** and their benefits
- **Practical applications of CPG principles**
- Increase **commitment to use CPG principles**
- Obtain **Feedback on the workshop**

CPG Evolution: History and purpose of the guide

History

- **Certification Process Improvement (CPI) Guide (1999)**
 - “The FAA and Industry Guide to Product Certification” released January 1999
 - “The FAA and Industry Guide to Avionics Approvals” released April 2001
- **Second Edition “The FAA and Industry Guide to Product Certification” (2004)**
 - Incorporates “The FAA and Industry Guide to Avionics Approvals”
- **Third Edition “The FAA and Industry Guide to Product Certification” (2017)**



Purpose of the CPG

Philosophy and tools to foster open communication and alignment regarding roles and responsibility. This leads to increased predictability.

What's new in the 3rd generation of the CPG?

- Shift from Inspirational to Instructional
- Adds emphasis on accountability and expectations
- Adds emphasis on systems oversight approach
- Reflects current delegation systems/organizations
- Emphasis on Project Management Principles
- Updated Guidance on Partnership for Safety Plans





CPG supports our Joint Interest

The design and approval of safe and compliant product in a timely manner

BENEFITS

- ✓ *safety enhancements through new technology and design innovation can be more rapidly integrated into aviation products*
- ✓ *Reduced time and cost of product certification*
- ✓ *Increased capacity for other certification-related work*
- ✓ *Increased predictability in schedule*



BENEFITS

FAA

- Reduced involvement in the routine
- Increased capacity to focus on the new and novel (safety risk)

APPLICANT

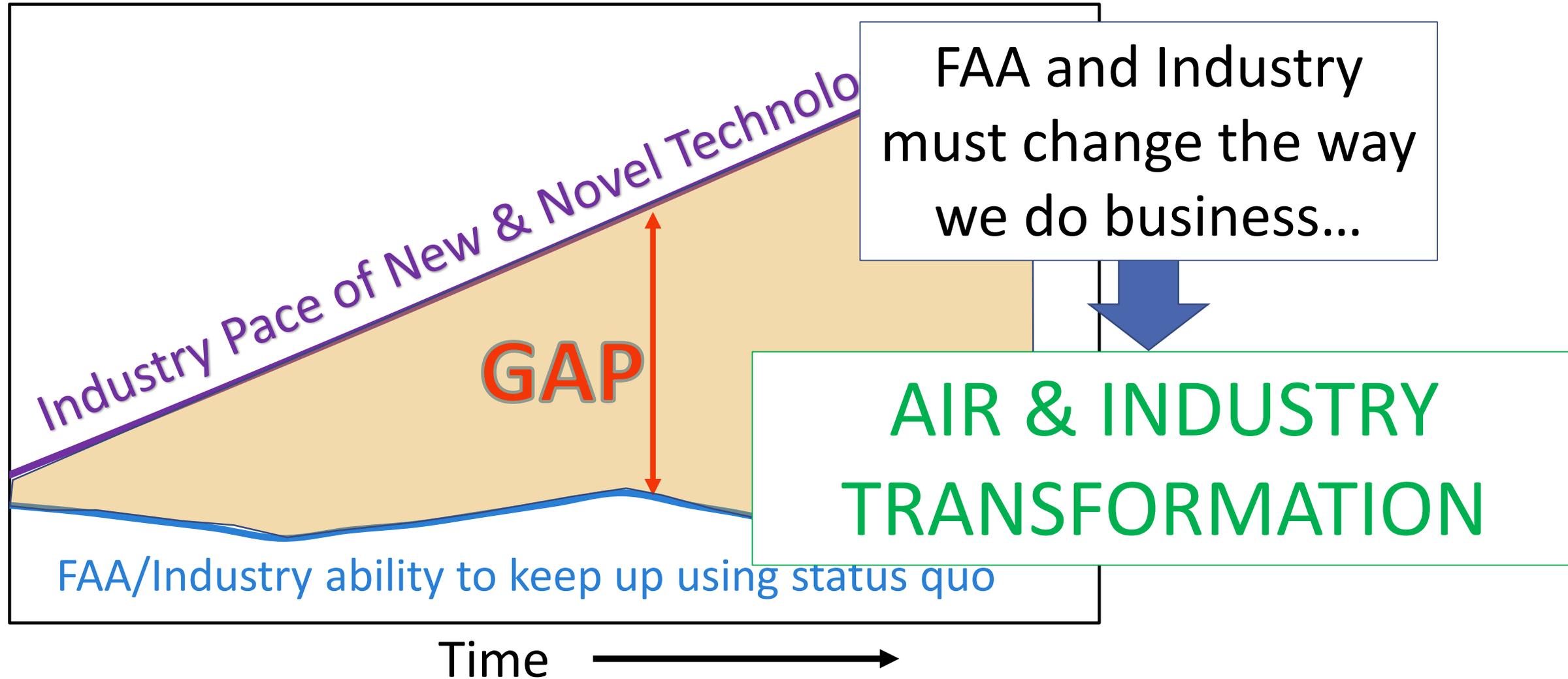
- More efficient certification
- Faster time to market
- Increased capacity for certification

FOR ALL

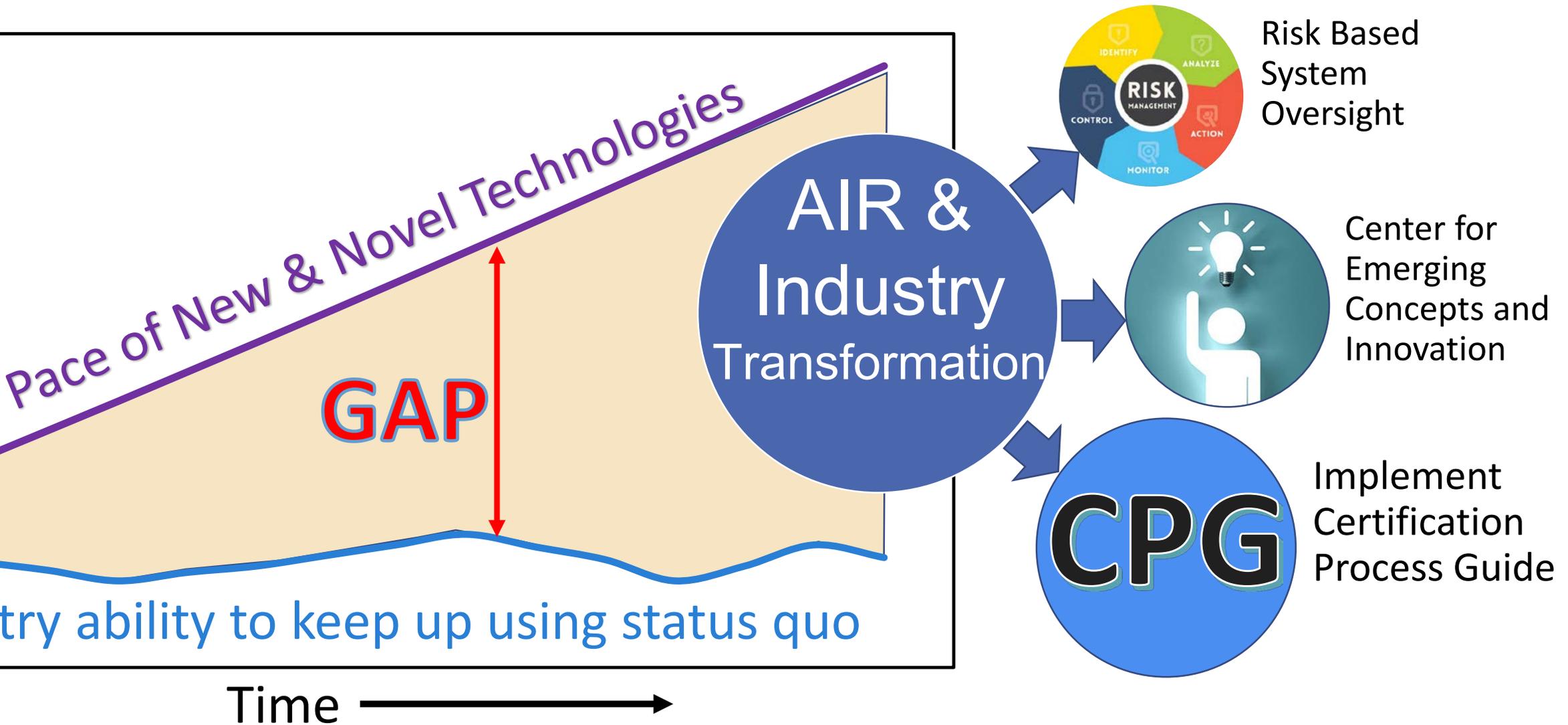
- *Focus on safety & compliance*
- *Fewer 11th hour issues*
- *Defined issues resolution process*
- *Less rework on cert documents*
- *Less sensitivity to personnel changes*
- *Clarity on roles and responsibilities*

**Our joint solution:
Consistent use of CPG principles and tools benefits everyone**

Why are we here?



Why are we here?





Industry Pace of New Applications

GAP

FAA/Industry ability to keep up using status quo



CPG Principles

- Foster Relationships
- Promote Accountability
- Provide Quality Guidance
- Increase Applicant and FAA Compliance Proficiency
- Enable Appropriate Level of Involvement

Foster Relationships

- Consistent and transparent communication
- Clear Applicant and FAA Stakeholder responsibilities & expectations



- Familiarization Meetings
- Technical Meetings
- Relationship Gauging Meetings
- Regularly scheduled program reviews



Promote Accountability

- *Both parties held to joint commitments*
- *Develop a documented escalation process that works issues at the lowest level*
- *Timely response to inquiries*



- *Regular meetings to review the upcoming commitments to prevent delay in certification*
- *Develop metrics to track performance to commitments*

Provide Quality Guidance

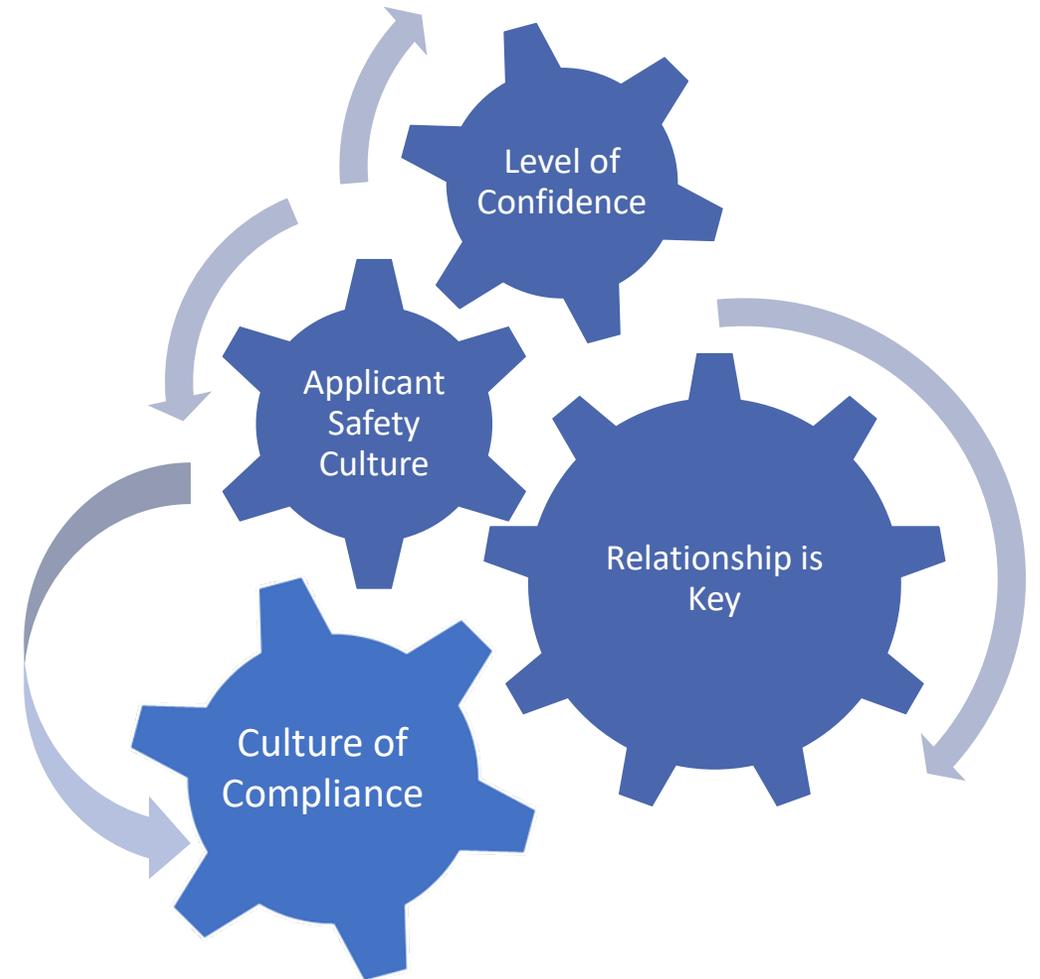
- **Early engagement with the FAA's Center for Emerging Concepts and Innovation (CECI) on new / novel technologies / MOCs**
- **FAA provides guidance** to applicants on expectations for a successful cert project
- **Respect and address feedback** from both sides
- **FAA should provide a consistent approach** when guiding applicants in the certification process
- **Communication paths established** between FAA/ODA Holder/Unit members



Increase Applicant and FAA Compliance Proficiency

- **Systems approach** to certification enables appropriate FAA involvement in projects
 - Continuous improvement of processes & procedures
 - Oversight to assess performance
- Foster a **culture of safety and compliance**

Increased FAA confidence leads to



Enable Appropriate Level of Involvement

- **Systems approach** to certification enables appropriate FAA involvement in projects
 - Continuous improvement of processes & procedures
 - Oversight to assess performance
 - **Optimal delegation** using a risk based approach
 - Maximum use of the available delegation
 - Applicant proficiency level, demonstrated performance, & complexity of project all impact level of involvement
- **Increased FAA post-activity oversight**



Which of these items is a challenge to you?

Engaging early in the process (before application) regarding new technologies, MOC's, etc.

FAA written guidance (CFRs, Orders, AC's, Policy, etc.)

Respecting and addressing feedback from BOTH SIDES.

FAA/Applicant treating PSCP as a living document

FAA guidance is not consistent

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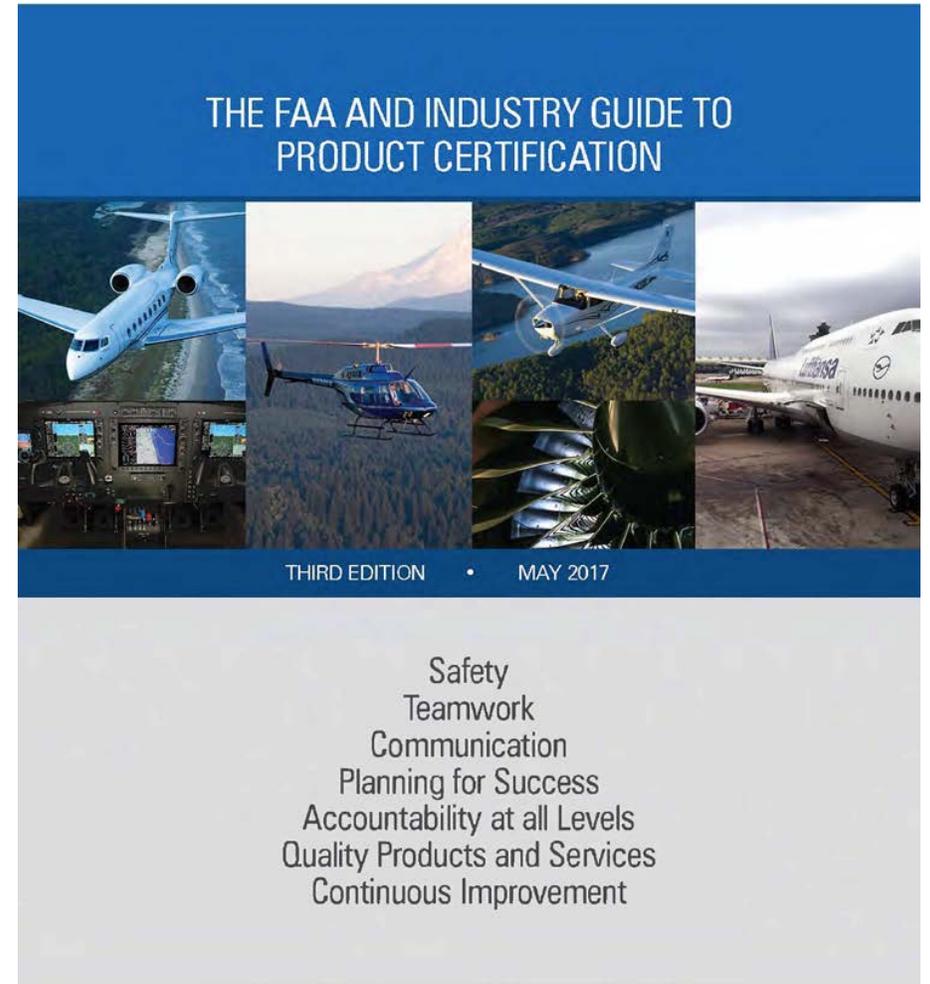


Questions?



FAA and Industry Guide to Product Certification

Certification Plans



Prepared by AIA, AEA, GAMA, and the FAA Aircraft Certification Service and Flight Standards Service



Certification Plans

- CPG includes Cert Plan templates
 - TC / STC
 - TSOA
 - Complex PMA (no template but TC/STC may be used as a guide)
- Are all of the CPG Cert Plan elements required?
 - Not all elements are required for every project
 - Some projects may require additional information
 - Single document containing all applicable elements
 - One project level CP with multiple subject specific cert plans



Cert Plans should include all information that provides a clear path to certification and entry into service

Cert Plan is intended to be living document

- Revise as changes occur
 - Major issues
 - Design changes
 - Changes in compliance requirements/MOCs
 - Deliverables
 - Milestones / Schedule
- Revisions:
 - Should be jointly managed
 - Require agreement from all parties

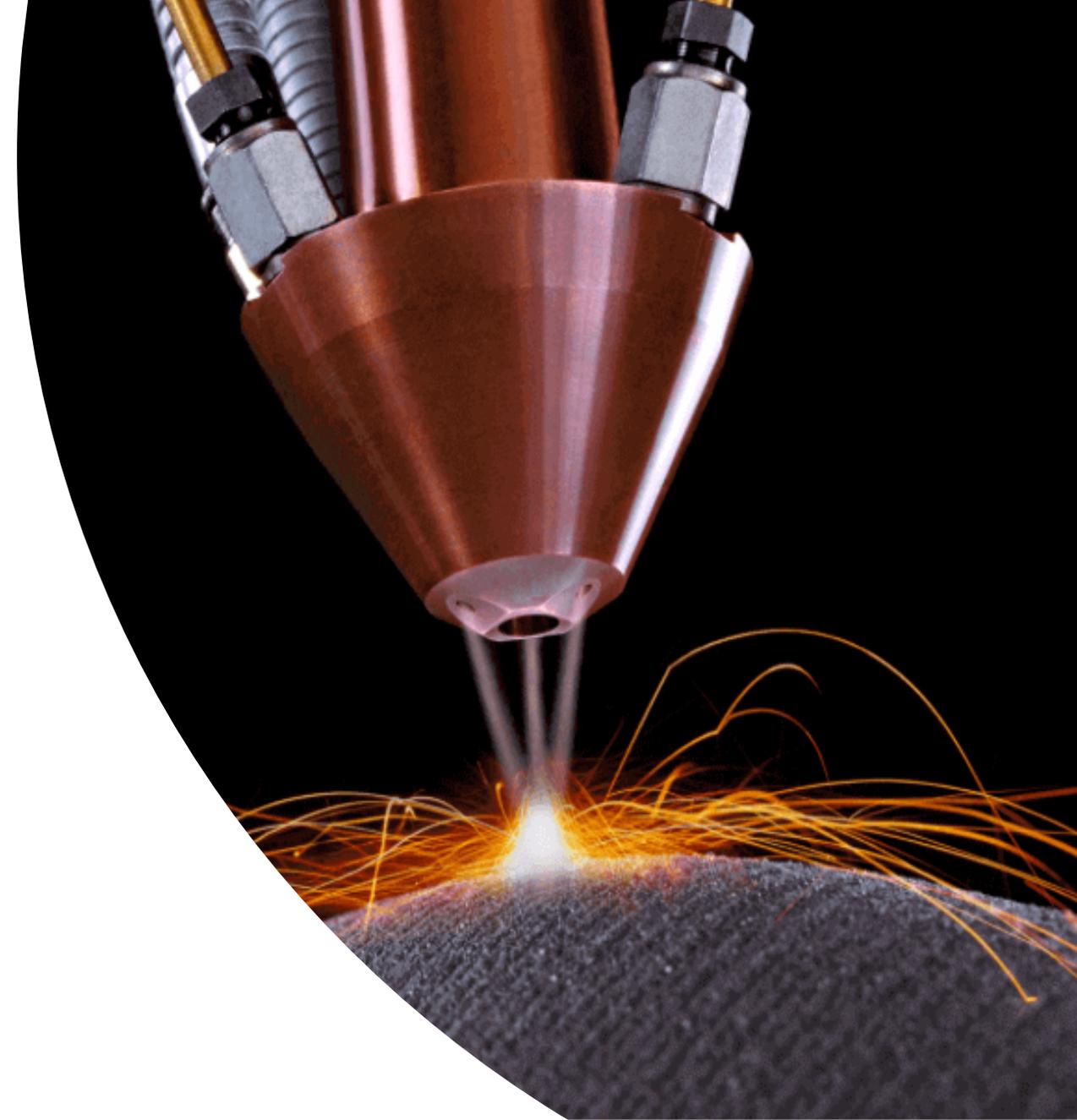




Scope/Project Description

What does the FAA expect/need?

- An understanding of what are you doing and why?
- Description of new-novel technology or compliance aspects
 - Include pictorial and text descriptions
- An awareness of system level interactions (for major changes)
- An awareness of product level impacts





Certification Basis

- Early establishment of cert basis is the **KEY!**
 - Airworthiness 14 CFR part XX amendments
 - ELOS, Special Conditions, Exemptions
 - Changed Product Rule Assessment (21.101)
- Also consider
 - Emissions (part 34) & Acoustics (part 36)
 - Part 26 – Continued Airworthiness and Safety Improvement for Transports
 - Operational design requirements (i.e. part 121, 135, etc)
 - Existing models or hardware that serve as the basis for the proposed TC/ATC/STC/Design Change



Detailed Schedule

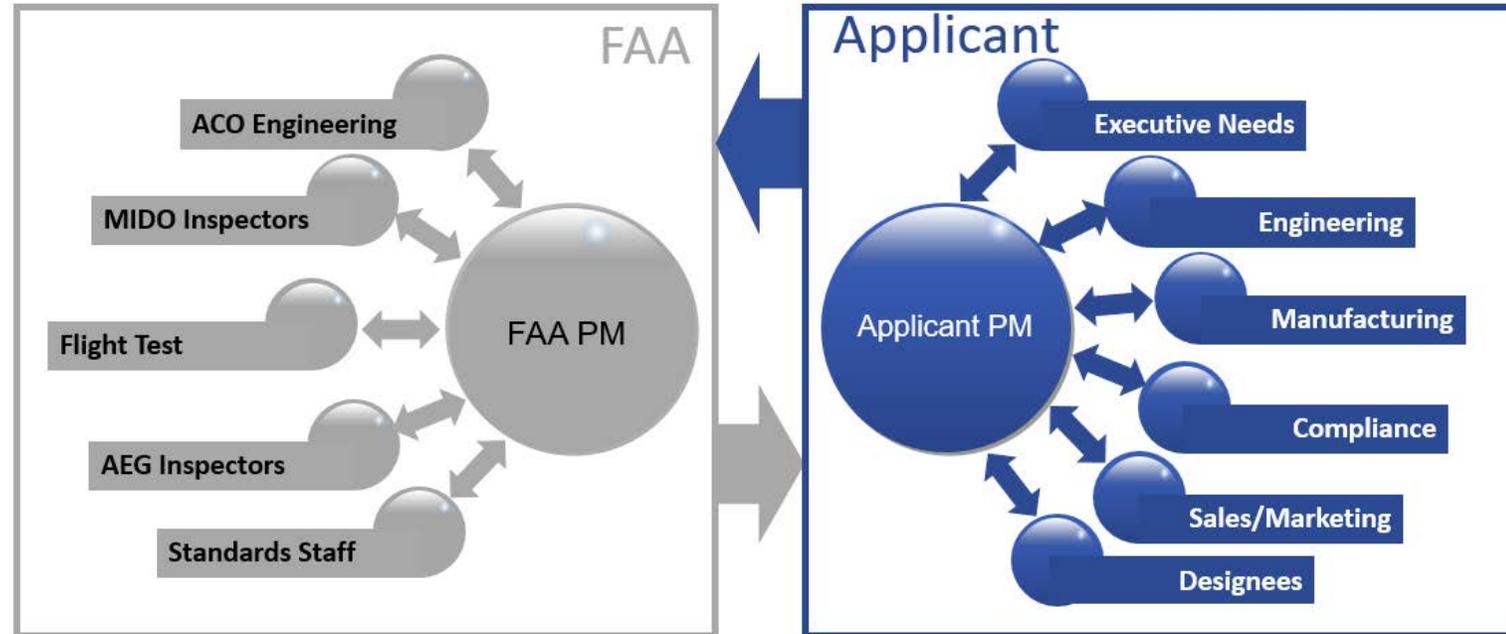
Ensure it's realistic and takes into account Applicant & FAA cycle times

- Important project milestones
- Project gates to stay on schedule
- Planned submittal dates
- Considerations for
 - Flight Test
 - MIDO
 - AEG
- TIA issuance(s)
- Conformity & testing
- Expected (S)TC/PC issuance



The Cert Plan is an AGREEMENT between the FAA and Applicant

- PLAN
- AGREE
- HOLD ACCOUNTABLE



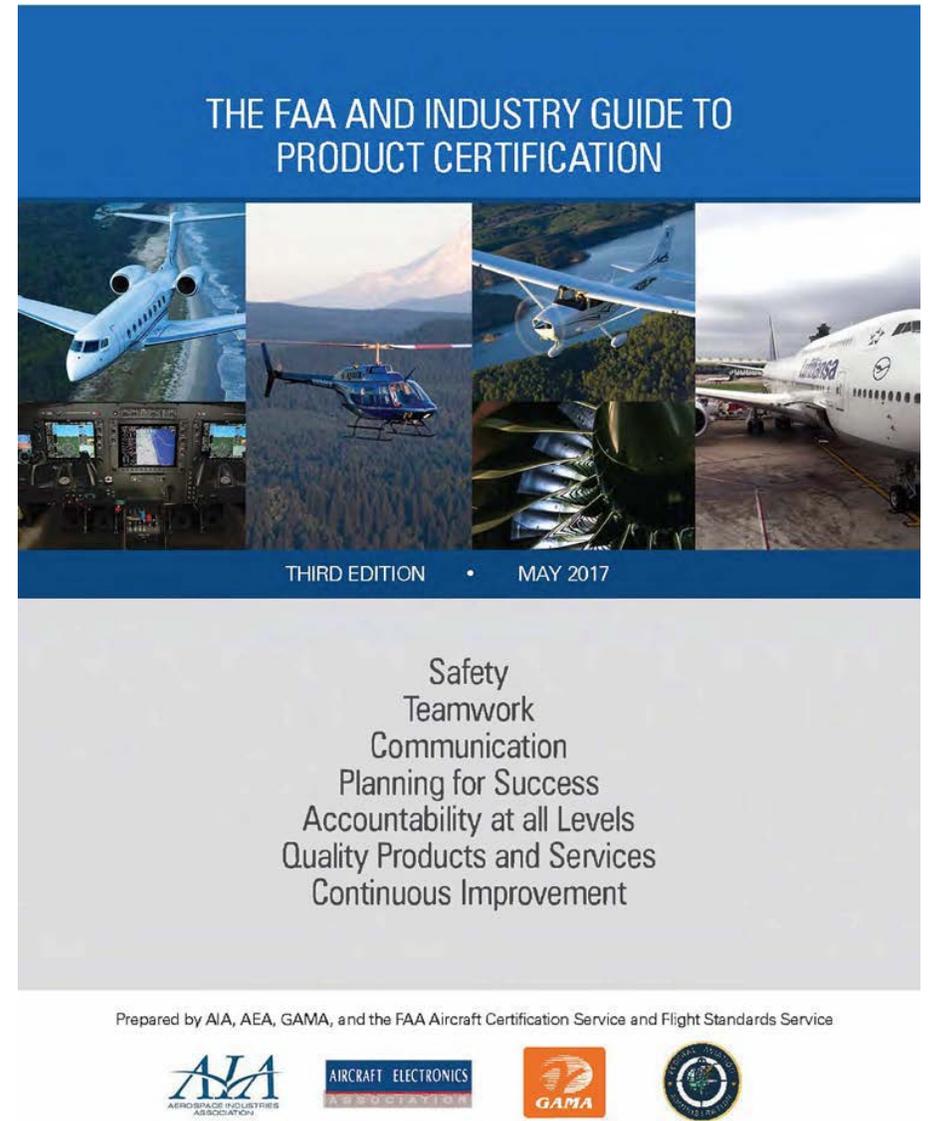


Questions?

Certification Process Guide Workshop for ODA Holders

Making PSPs work for ODA Holders

Co-presented by the FAA and Industry
Certification Product Guide Implementation Team



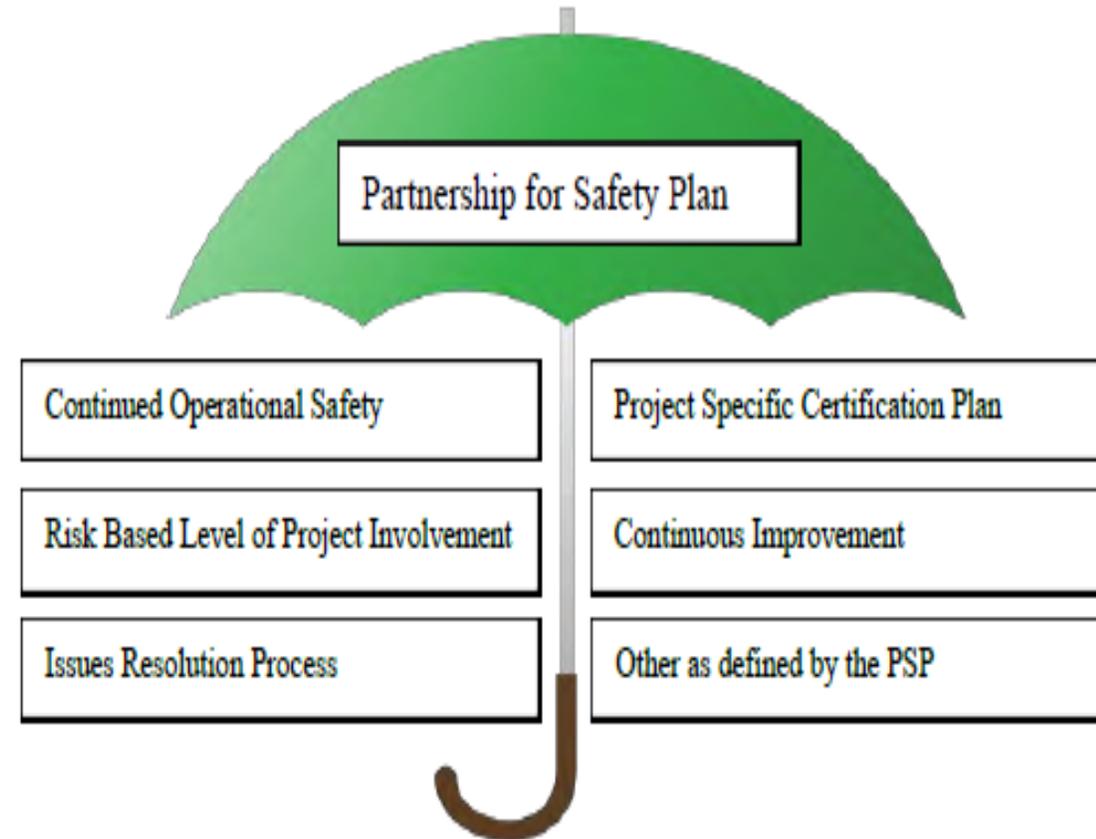


Outcomes of the PSP discussion

- What is a PSP
- Why have a PSP?
- When does it make sense to develop a PSP?
- Past experience with PSPs? What's different now?
- Best practices – how to develop and maintain a PSP

What is a Partnership for Safety Plan (PSP)?

- **Defines working relationship** between the Applicant (ODA Holder) and the FAA
- **Establishes agreement on how to improve certification processes** to provide mutual benefits
 - Document operating norms
 - Define an issue resolution process
 - Act on lessons learned
 - Develop improvement plans
 - Determine performance measures





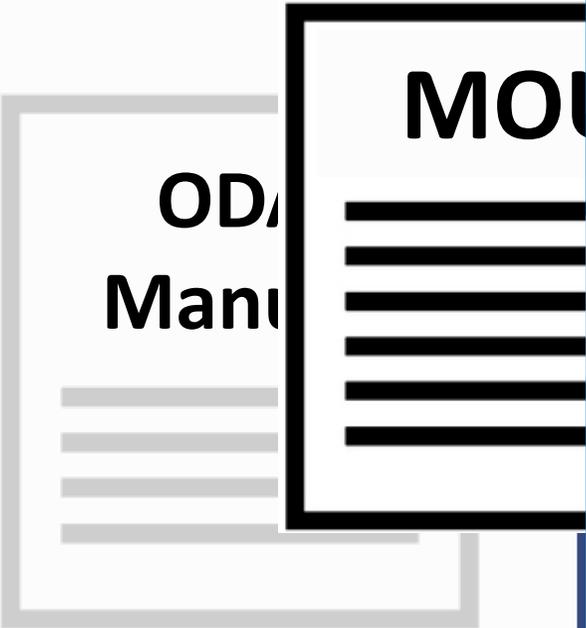
Benefits of having a PSP

Supports safety through increasing proficiency of certification processes

- **Provides a framework to gauge the relationship**
 - Can prevent Erosion of Partnership
 - Can improve Fractured Partnership
- **Increases Trust**
 - Applicant - More Control over Schedule
 - FAA - More efficient use of resources
- **Minimizes impact of personnel changes**



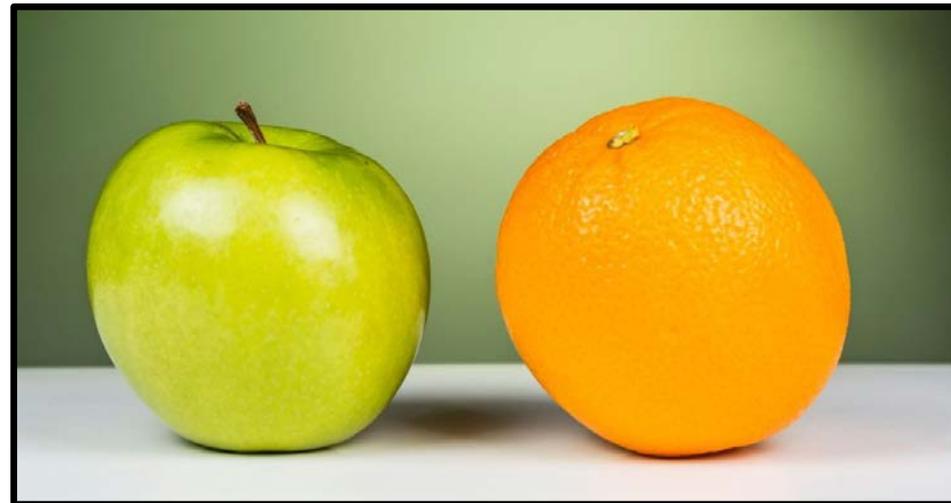
Why Another Document?



PSP BRIDGES
THE GAP



Let's Compare and Contrast the MOU, the ODA Procedures Manual and the PSP



Elements of an ODA Holder's MOU

- “Memorandum of Understanding (MOU)”
 - Really an acknowledgement of responsibilities
 - Not signed by the FAA
 - Signed by the ODA administrator and accountable executive
- Acknowledgment that ODA is a privilege, not a right
- Executive commitment to:
 - Sufficiently resource and staff
 - Keep responsible staff free from conflicts of interest
 - Follow approved Procedures Manual
 - Comply with FAA procedures, standards and interpretations
 - Etc.

ODA Procedures Manual

- Contains all required ODA holder processes
- Its not an “ODA unit” procedures manual, although many of the processes define “ODA unit” procedures....
- Has “ODA holder” requirements not directly related to FAA function/approvals
 - Submittal of applications
 - Development and coordination of certification plans, etc.



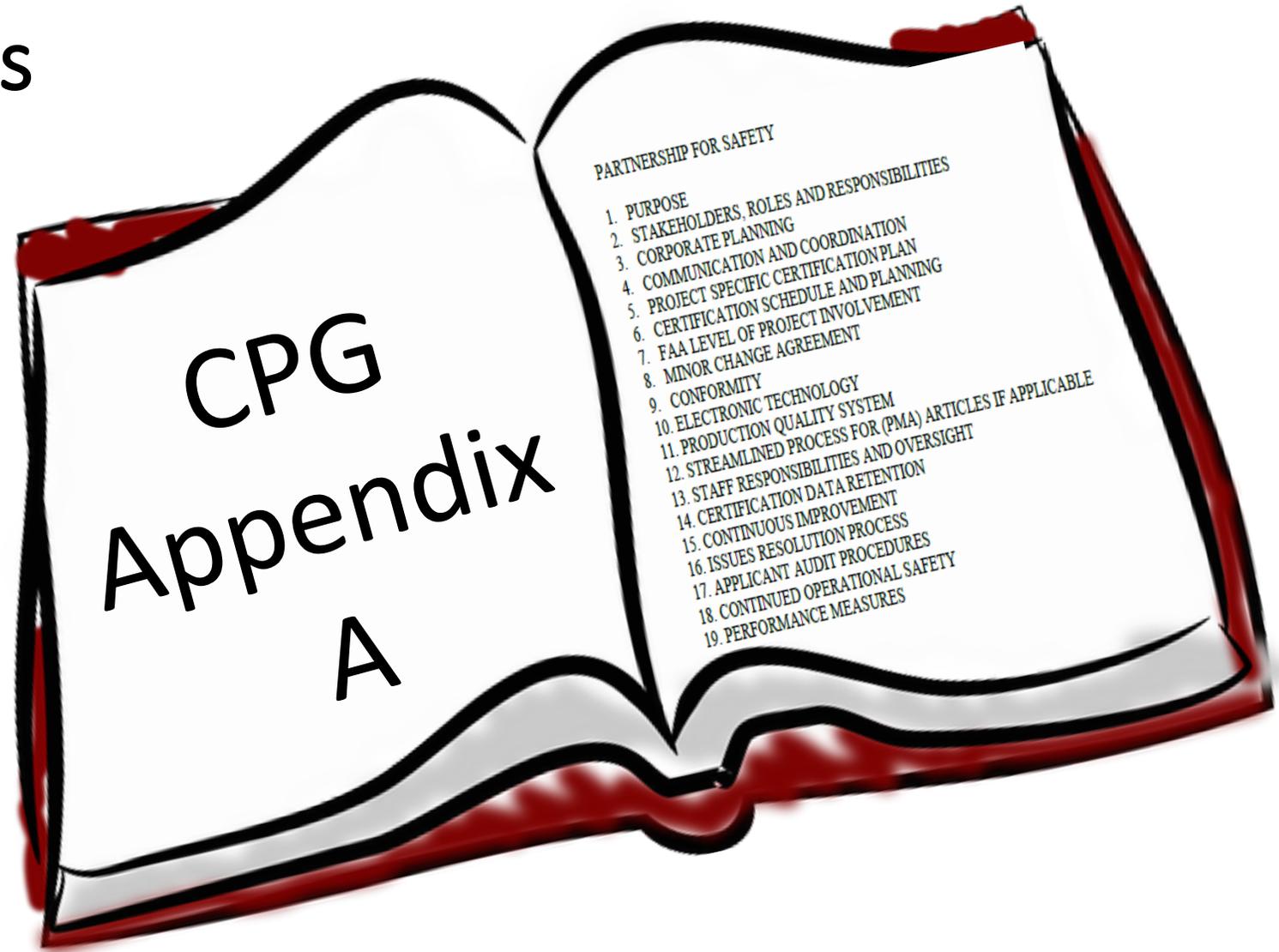
Key Elements of a ODA Procedures Manual

- Authorized Functions and Limitations
- Procedures for Performing Authorized Functions
- Organizational Structure and Responsibilities
- Facilities Description
- Self-Audits, Corrective Actions, and Communicating with the FAA
- Keeping Current on FAA Policy
- Record Keeping
- Unit Member Selection and Training
- Procedures for Making Revisions

All are Regulatory Requirements!

PSP Identifies Agreements/Processes Not Part of an ODA Procedures Manual

FAA and applicant
customize the
content





Communication & ordination



- Commitment to Open and Regular Communication
- Reviewing Performance and Lessons Learned
- Continuous Improvement Opportunities
- Identifies Focals

PSP Contents



Corporate Planning

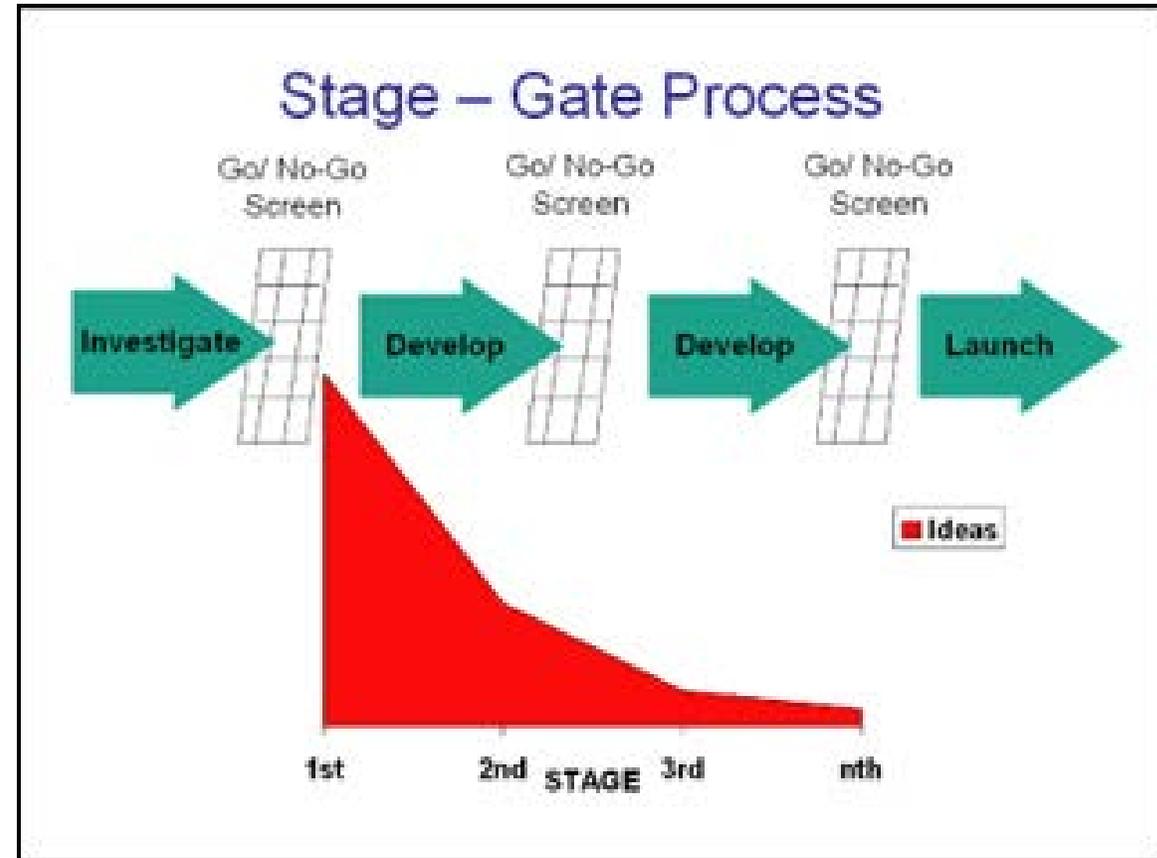
- Early planning for potential projects
- New & novel technologies
- Emerging FAA initiatives
- New/revised Orders and Policy
- ODA: expansion plans, ODA Scorecard

PSP Contents



Certification Schedule & Planning

- Schedule with defined gates
- Operating Norms defining expected response times
- Track project status versus agreed schedule (review meetings)



PSP Contents



Issue Resolution

PSP Contents



- PSP should contain a documented process to resolve disagreements between the Applicant (ODA Holder) and the FAA
- CPG encourages:
 - Resolution at the lowest level
 - Prescribed steps for escalation
- May reference procedures and processes in the ODA manual

Continued Operational Safety

- Applicant (ODA Holder) Commitment to Continued Operational Safety
 - Timely responses
 - Dedication of resources
 - Periodic reviews to discuss open issues and trends
Note: SDR processes required in ODA PM
- Applicant-FAA agreement to work collaboratively
- Accident/Incident investigation protocols



PSP Contents



What would you measure to assess the relationship between the FAA and applicant?

Performance Measures

Example of how a PSP Scorecard review could be conducted:

Satisfactory	Discussion/ Action Needed	Item
PSP Scorecard (FAA Considerations in Evaluating Company XYZ)		
		1. General
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Company and FAA conduct periodic leadership and management reviews to provide early insight into safety and regulatory compliance matters. Reviews include appropriate company personnel.
		2. ODA Stakeholder Roles & Responsibilities
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Company operates within the limitations prescribed within the FAA approved ODA Procedures Manual, latest revision.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Company performs a robust self-audit of the ODA Unit.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Company recommends properly qualified personnel to the ODA Lead Administrator for consideration in ODA Unit membership.

Satisfactory	Discussion/Action Needed	Item
PSP Scorecard (Company XYZ Considerations in Evaluating FAA)		
<input type="checkbox"/>	<input type="checkbox"/>	1. General
<input type="checkbox"/>	<input type="checkbox"/>	<i>Deliberately Left Blank</i>
<input type="checkbox"/>	<input type="checkbox"/>	2. ODA Stakeholder Roles & Responsibilities
<input type="checkbox"/>	<input type="checkbox"/>	FAA maximizes utilization of the company (ODA or Designees) within the limits of the designee's authorizations.
<input type="checkbox"/>	<input type="checkbox"/>	FAA maximizes delegation to the greatest extent possible within Title 14, Code of Federal Regulations (14 CFR) part 183 subpart D considering Company XYZ's capability as an applicant, Type Certificate (TC) holder, Production Certificate (PC) holder, and ODA holder.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FAA is transparent in assessing the company's capability when considering advanced delegation opportunities.

- PSP Scorecard includes items for FAA to consider when evaluating Company and vice versa
- Discussion points recorded during the review within each box
- Ratings: Satisfactory, Satisfactory + Discussion/Action Needed, Discussion/Action Needed
- Results reported out during annual company/FAA Executive meeting
 - Report out only on items that were ranked as "Discussion/Action Needed"

PSP Contents



Additional Possibilities for a PSP

- Use of Electronic Technology
- Company Conformity
- Data Retention Agreements
- Prioritization of activities
- Safety Management System (SMS)
- Compliance Assurance Systems (CAS)
- Minor change in type design/PMA process





PSP – How to get started?



- Start with an FAA and ODA Holder discussion
 - Identify what goals are needed in the “relationship”
 - Establish the PSP scope
- ODA Holder drafts the PSP
 - Use Appendix A in CPG as a starting point in PSP development
- FAA and ODA Holder finalize and sign the PSP

Maintaining a PSP

- PSPs are living documents
 - May be amended by mutual consent
 - CPG sets expectations of regular reviews and updates
- So when could reviews be conducted?
 - Type board meetings
 - Personnel Changes
 - Dedicated PSP review meetings (semiannually, quarterly, etc.)





- PSP documents relationship agreements for joint success
- Documents desired practices
- Keep it Real and update as needed!

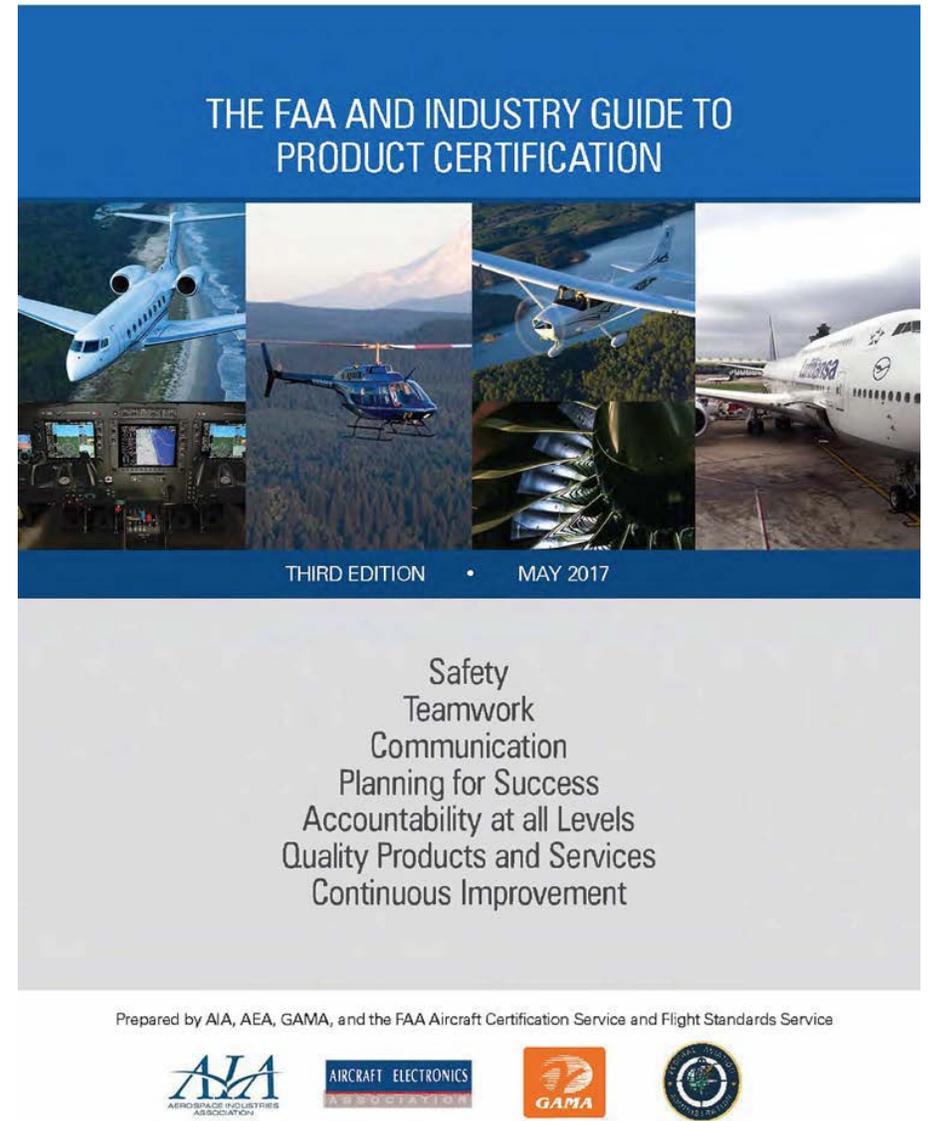
Questions?



Certification Process Guide Workshop for ODA Holders

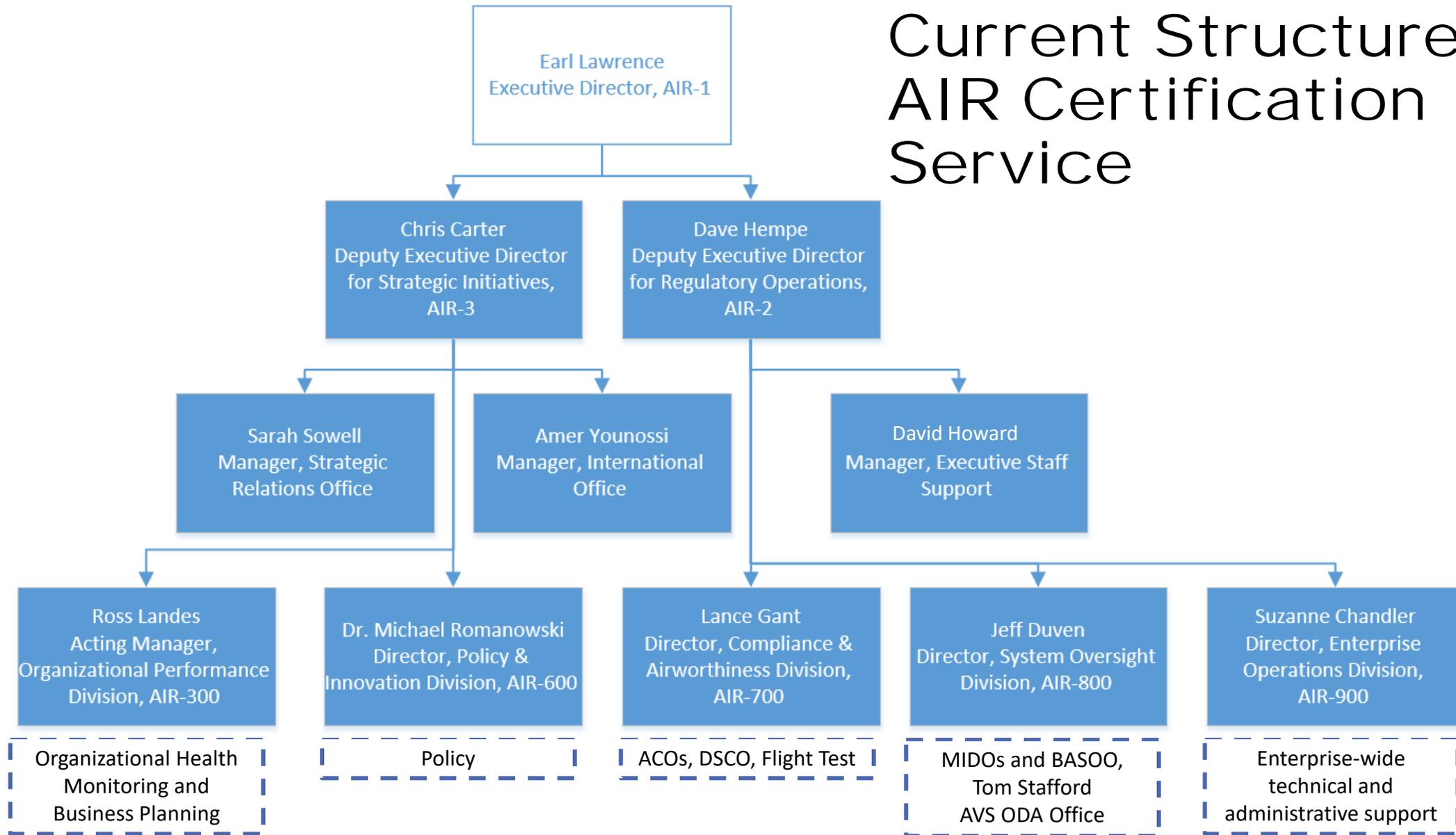
Roles Across FAA Divisions

Presented by Mazdak Hobbi
Certification Product Guide Implementation Team





Current Structure of AIR Certification Service





Current Structure of Flight Standards

Executive Director Rick Domingo, AFX-1
 Deputies
 Lawrence Fields, AFX-2A Robert Carty, AFX-2B

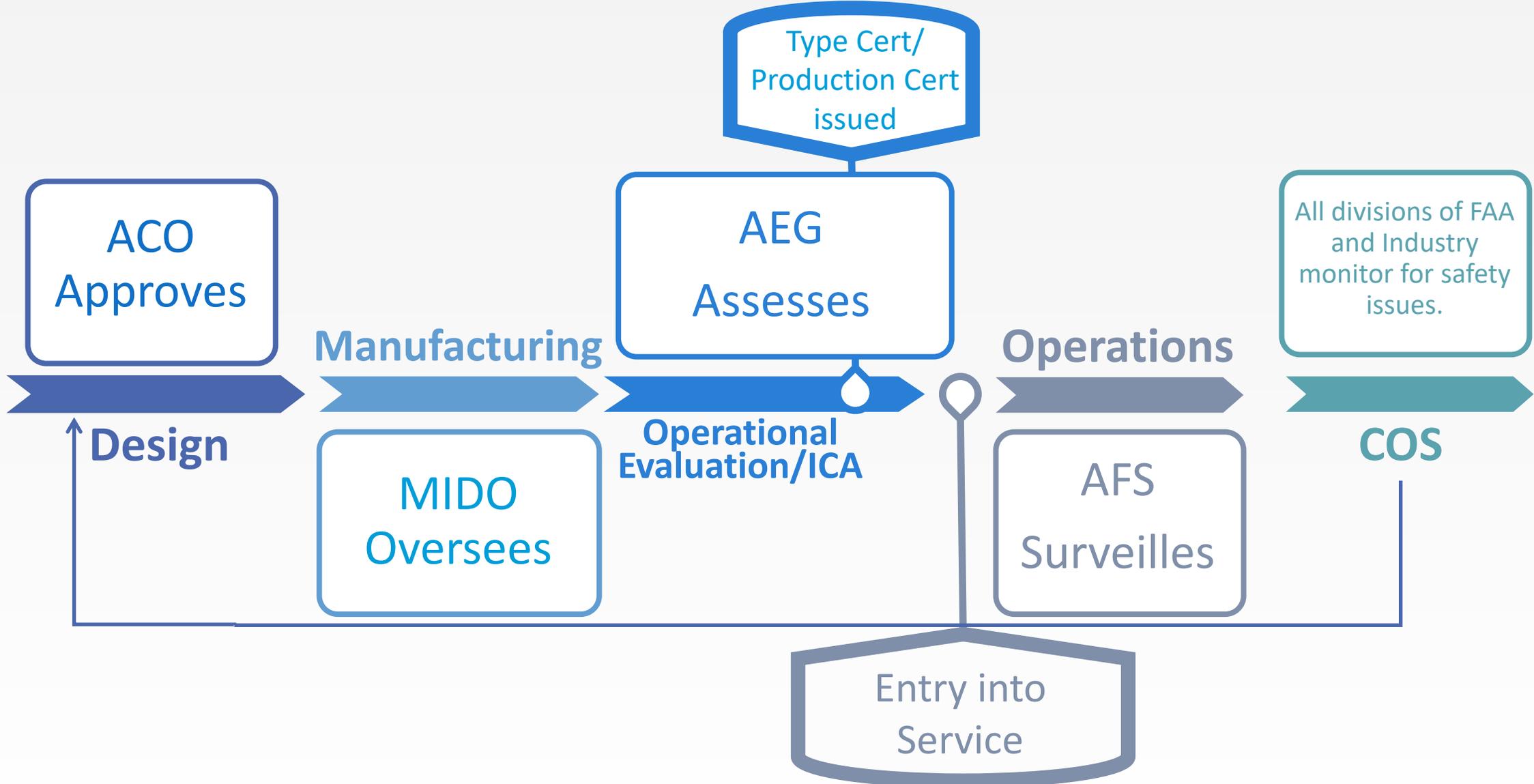


Lifecycle of Certification Project goes across AVS

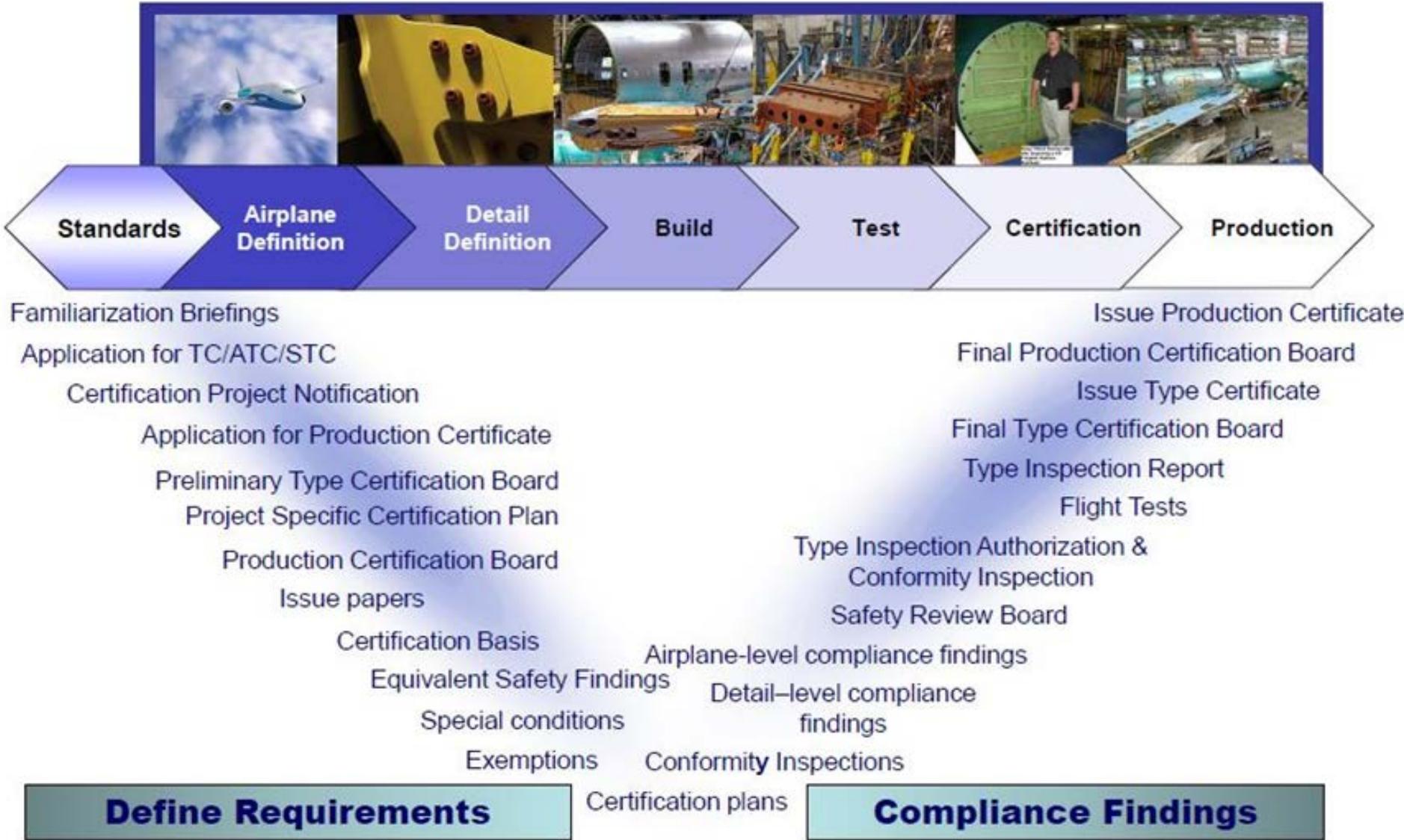
- **ACOs, Standards & Policy, MIDOs, AEG & Designees**
- **Who is Responsible for What?**
- **Engage early with MIDO**
 - Conformity
 - Airworthiness Certificates
 - Production Quality Procedures
 - Production Approval
- **Don't let operational AEG documents (MMEL, MEL, AMM, etc.) come at the last minute. Send in early!**



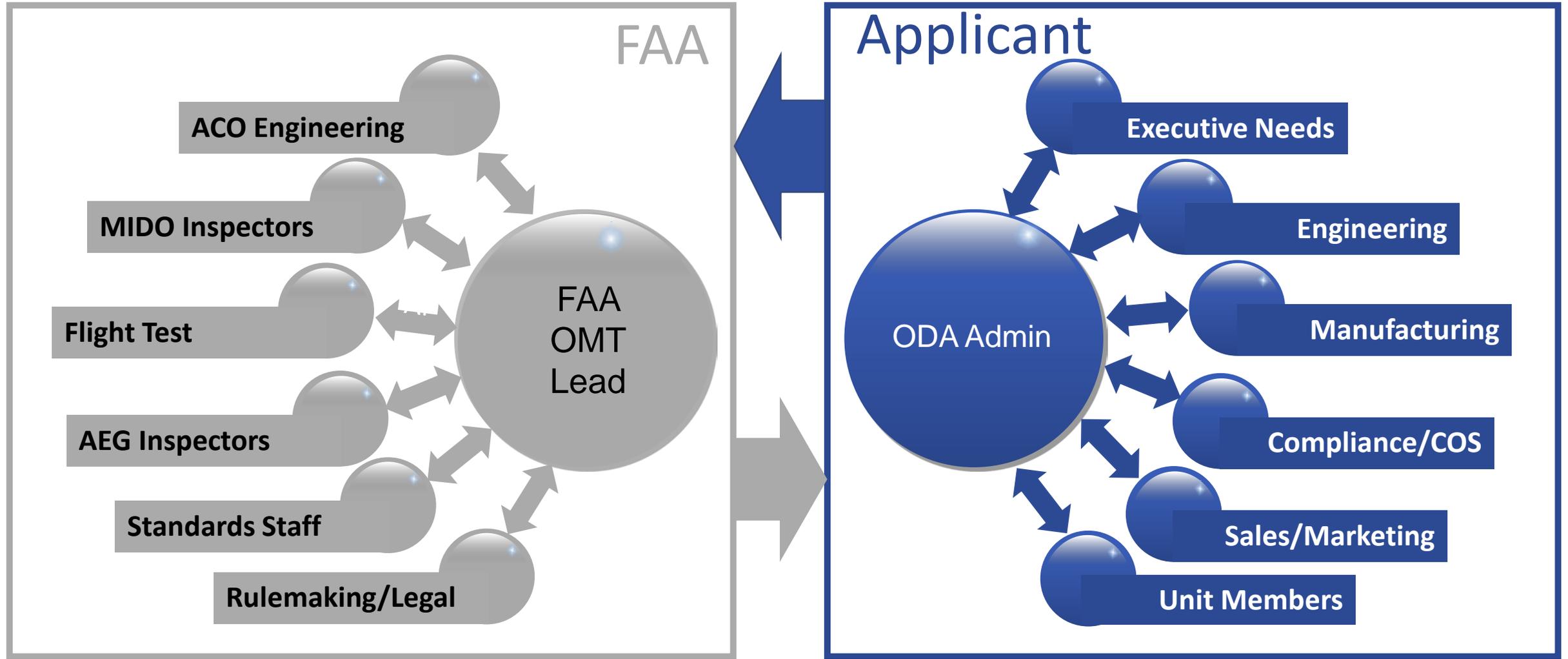
Aircraft Lifecycle Phases



Many Elements of Type Certification



Good Program Management is Key



Questions?



What commitment can you make today to improve the relationship with your FAA/Industry counterpart?



- Review the CPG Guide on the FAA Website: www.faacpg.com (Click on the CPG tab)
- Review the FAA plans for the future described in the AIR Transformation presentations:
https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/air/transformation/
- 8100.18 - Aircraft Certification Service Organizational Realignment References
https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.information/documentID/1031189
- Contact your FAA representative for more information