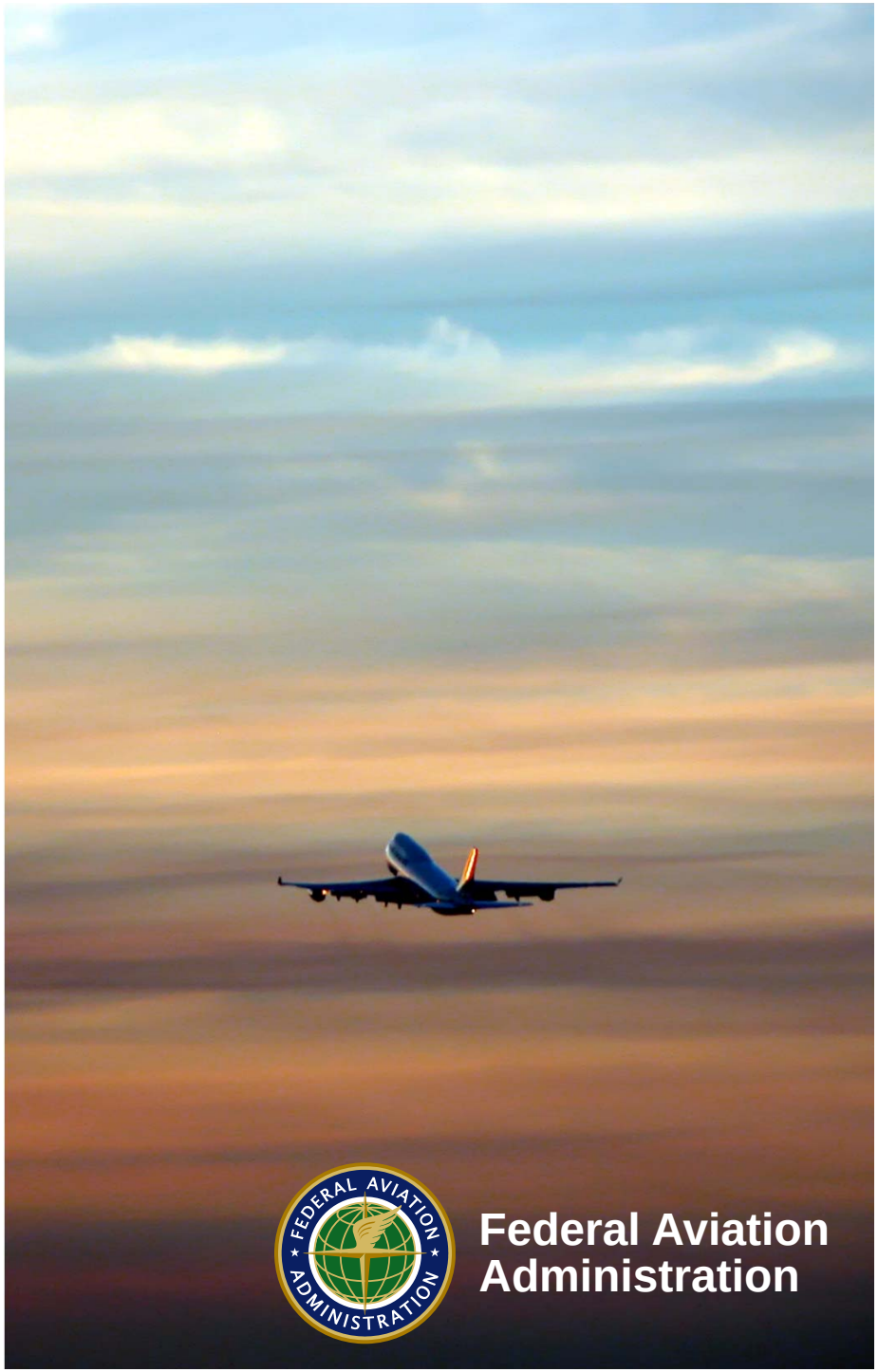
ANS/ATS Safety Inspector Workshop

Welcome and Introductions

Presented to:	ICAO NACC Region
By:	Federal Aviation Administration
Date:	February 20-24, 2017



Presenters

- **Mr. Tony Ferrante,** Director, Air Traffic Safety Oversight, U.S. Federal Aviation Administration

- **Ms. Rebecca Barthel,** International Strategies Specialist, FAA

Workshop Guidelines

- **Participants are requested to:**
  - Sign in
  - Turn off or silence cell phones
  - Arrive on-time and return promptly from breaks
  - Wear name badges
  - Respect the views and ideas of other participants
  - Ask questions
  - Be engaged in discussions and activities

- **Mr. Luis Sanchez,** ICAO NACC Regional Office, can assist with support questions

Why Are We Here?

- Support the Effective Implementation (EI) in ANS and Aerodromes, Air Routes, and Ground Aids (AGA) globally[1]
- In 2014, ICAO adopted the target set by African States to attain 60% EI of the critical elements of a State safety oversight system by 2017
  - 60% EI corresponds to the minimum level necessary for a State to perform effective safety oversight

[1] Improving Effective Implementation in Areas of ANS and AGA, presented by the UAE, ICAO HLSC 2015

The Importance of ANS

- **Air Navigation Services** support capacity building and efficient civil aviation operations
  - The number of aircraft movements within the Central America/Caribbean region is projected to increase at an annual average rate of 7.2% through 2031*
  - The number of movements between South America and Central America/Caribbean is projected to increase at an annual average growth rate of 8% through 2031*
- Aviation is an economic driver
  - **Safe** and efficient services inspire public confidence and support growth

* Caribbean/South American Regional Traffic Forecasts 2011-2031, Report of CAR/SAM/TFG/9

Workshop Goals

- **Review safety oversight responsibilities and the USOAP Critical Elements of State Safety Oversight**
- **Discuss strategies for applying the Critical Elements to the oversight of air navigation services**
- **Identify focus areas to target for measurable improvement**
- **Encourage knowledge and resource sharing among safety professionals in the NACC region**

Workshop Curriculum

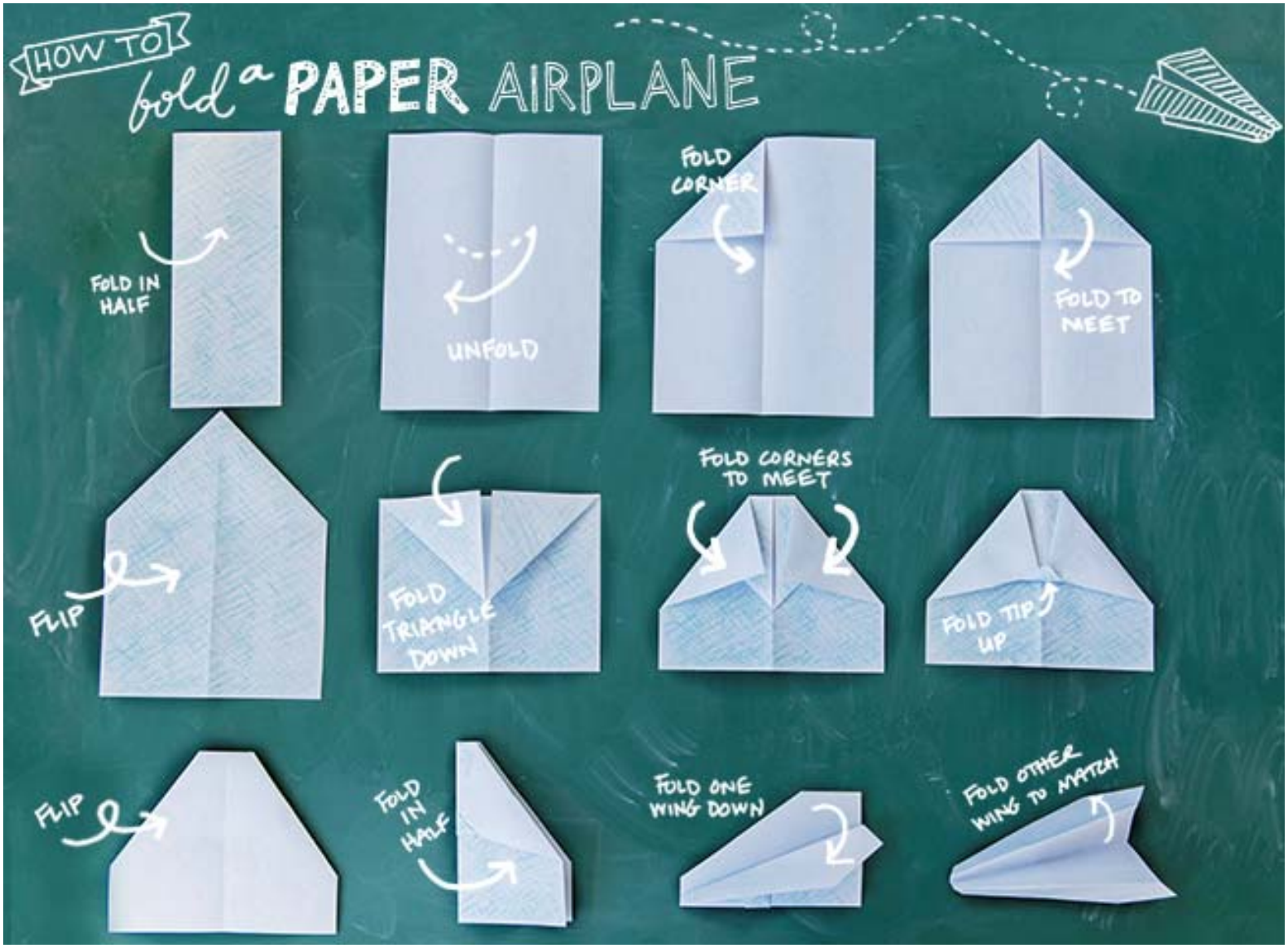
- **Discuss strategies to apply the Eight Critical Elements of State Safety Oversight to the oversight of ANS/ATS**
- **Workshop sessions:**
  - SWOT Analysis game
  - Developing an air traffic safety audit
- **Self-Assessment and Action Plan activity and discussion**

Introductions

Activity

TAKE FLIGHT[1]…

[1] www.womensministrytoolbox.com



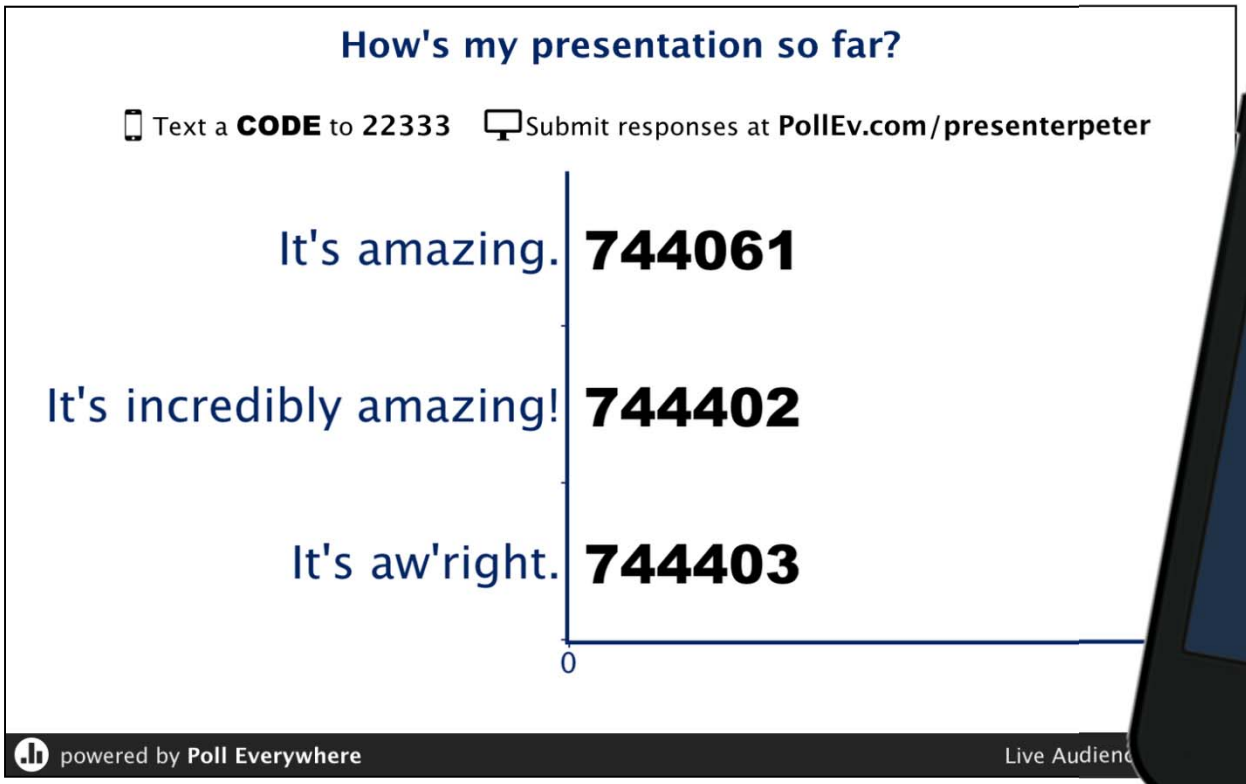
http://www.chasingsaturdays.com/home/2015/7/21/how-to-fold-a-paper-airplane

Poll Everywhere

- **Discussion tool**
- **Live voting**
- **Participating with Poll Everywhere**
  - Vote via the web at: www.pollev.com/NACCworkshop

Participating with Poll Everywhere

How to vote via the web

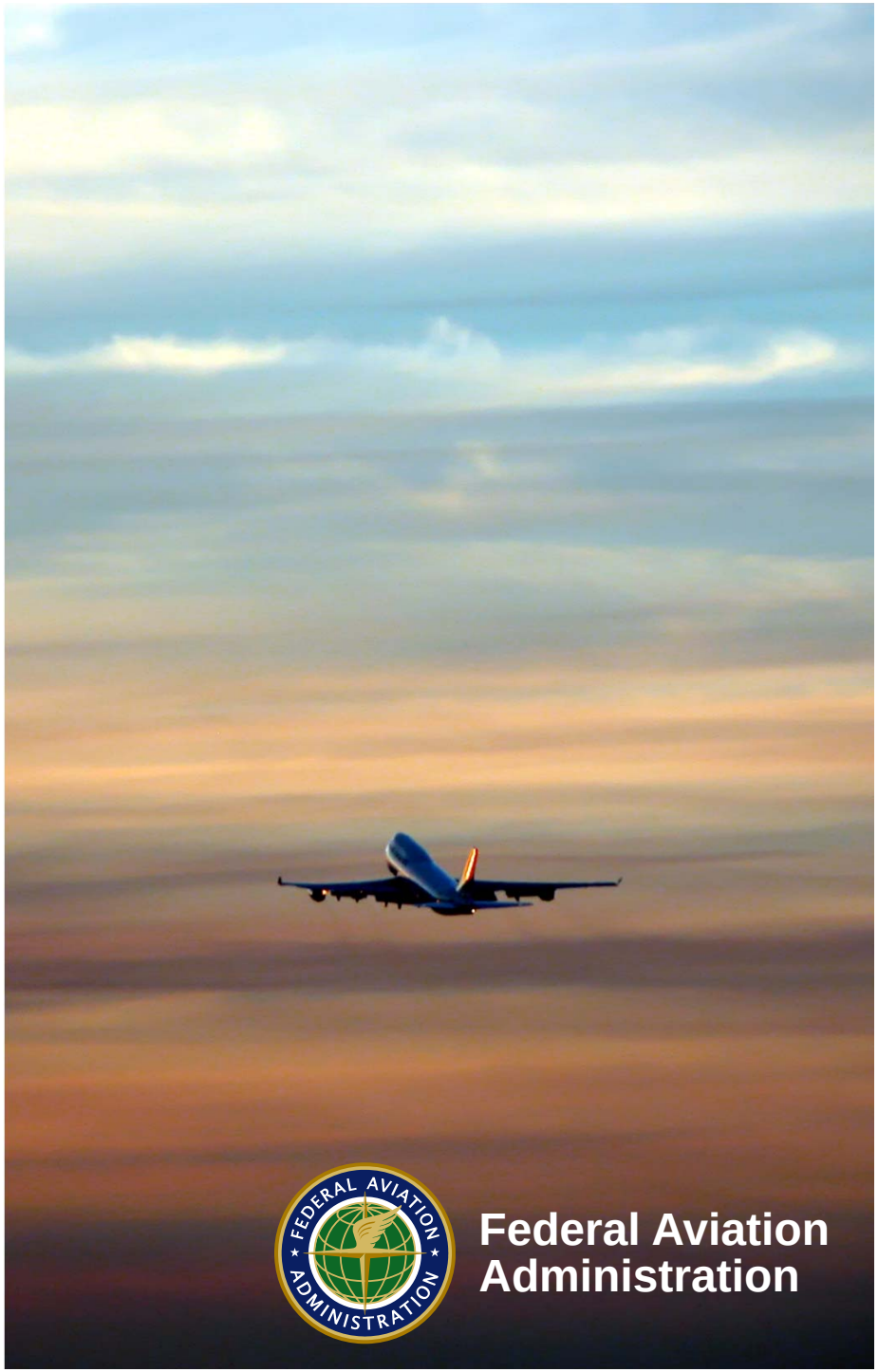


Essential Safety Oversight Responsibilities

Presented to: ICAO NACC Region

By: Federal Aviation Administration

Date: February 20-24, 2017



What Does it Mean to Regulate?

Regulators do so much more than administer laws. They also deliver services, build partnerships, solve problems, and provide guidance.

-- M. Sparrow

What is Safety Oversight?

- **The process of ensuring that aviation professionals – such as air traffic controllers, engineering/electronics personnel, and others – perform their functions *safely* and *responsibly***
  - Effective implementation of international Standards and Recommended Practices and associated procedures

Essential Responsibilities

- ✓ **Establish rules**
- ✓ **Perform surveillance**
- ✓ **Resolve safety concerns**

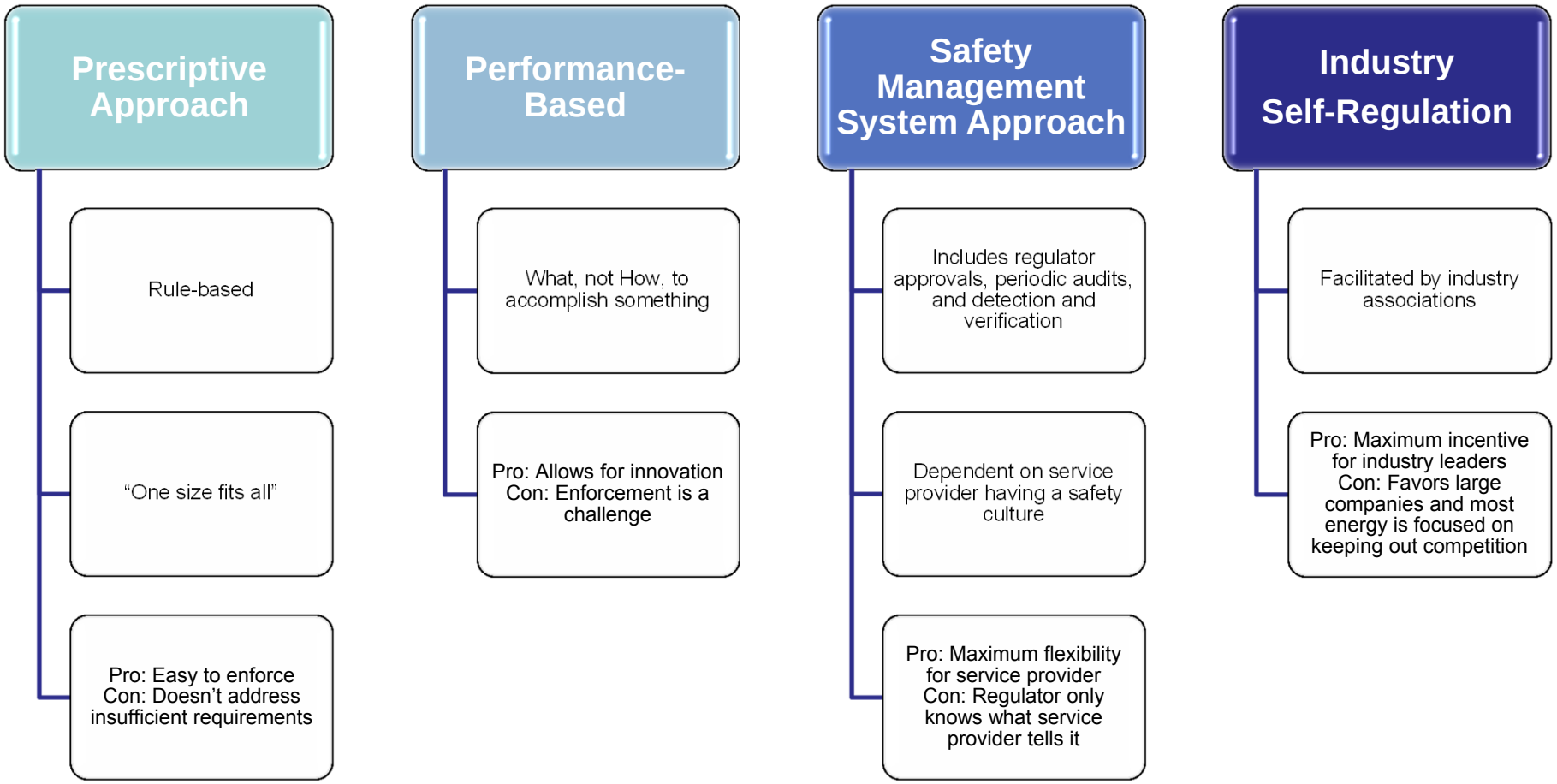
Basic Safety Oversight Activities

- **Issuing licenses and approvals**
- **Surveillance**
  - Monitoring
  - Investigations
  - Audits/Inspections
  - Assessments/Evaluations
- **Cooperation with other safety services/organizations**

ANS Oversight Required by ICAO

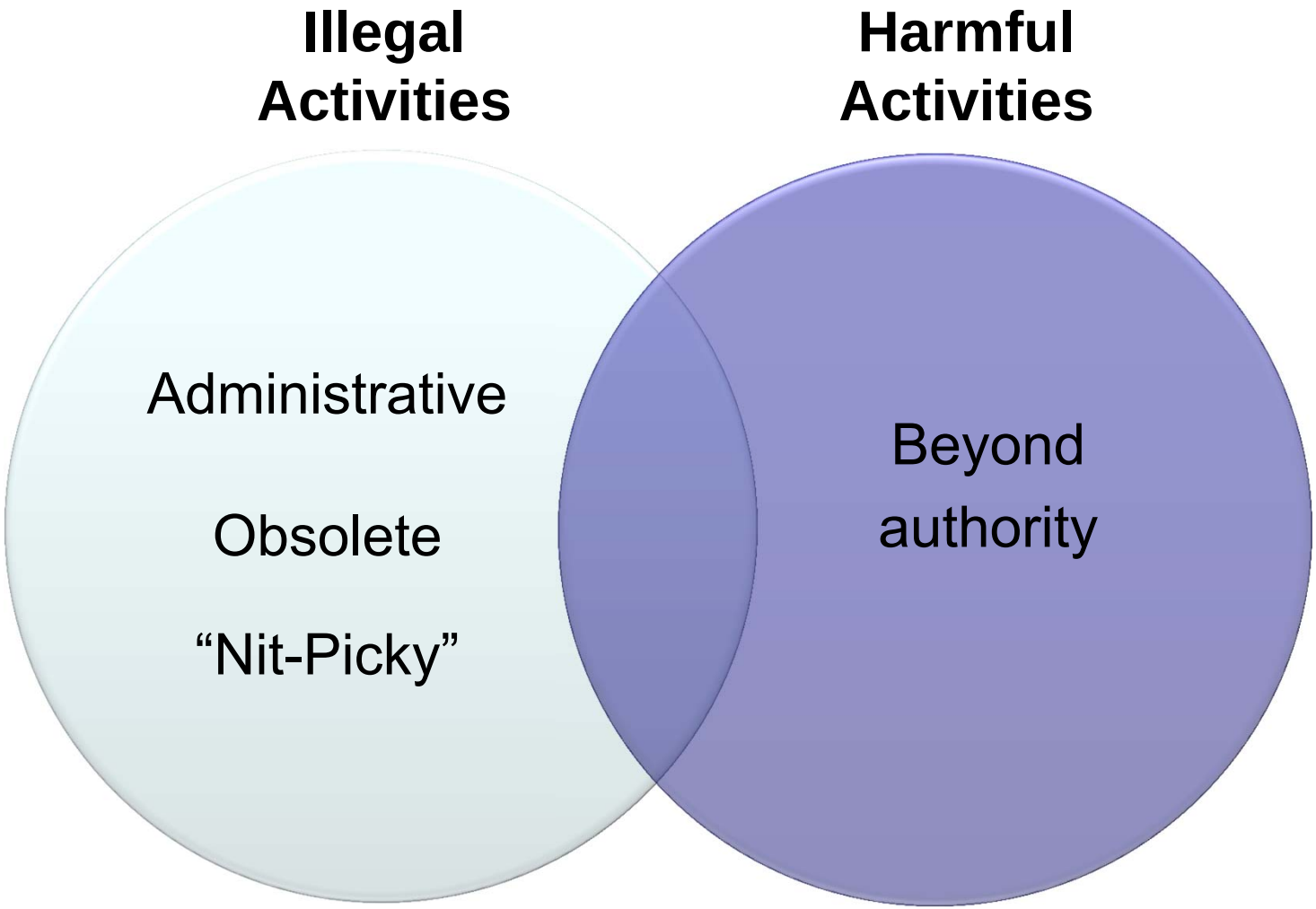
- Air traffic control services
- Safety personnel (air traffic controllers)
- Flight procedures and flight inspection
- Communication, Navigation, and Surveillance services
- Aeronautical Telecommunication services
- Meteorological services
- Aeronautical Information Services and Aeronautical Information Management
- Cartographic services
- Search and rescue

Regulatory Models



[1] Based on models discussed by Malcolm Sparrow

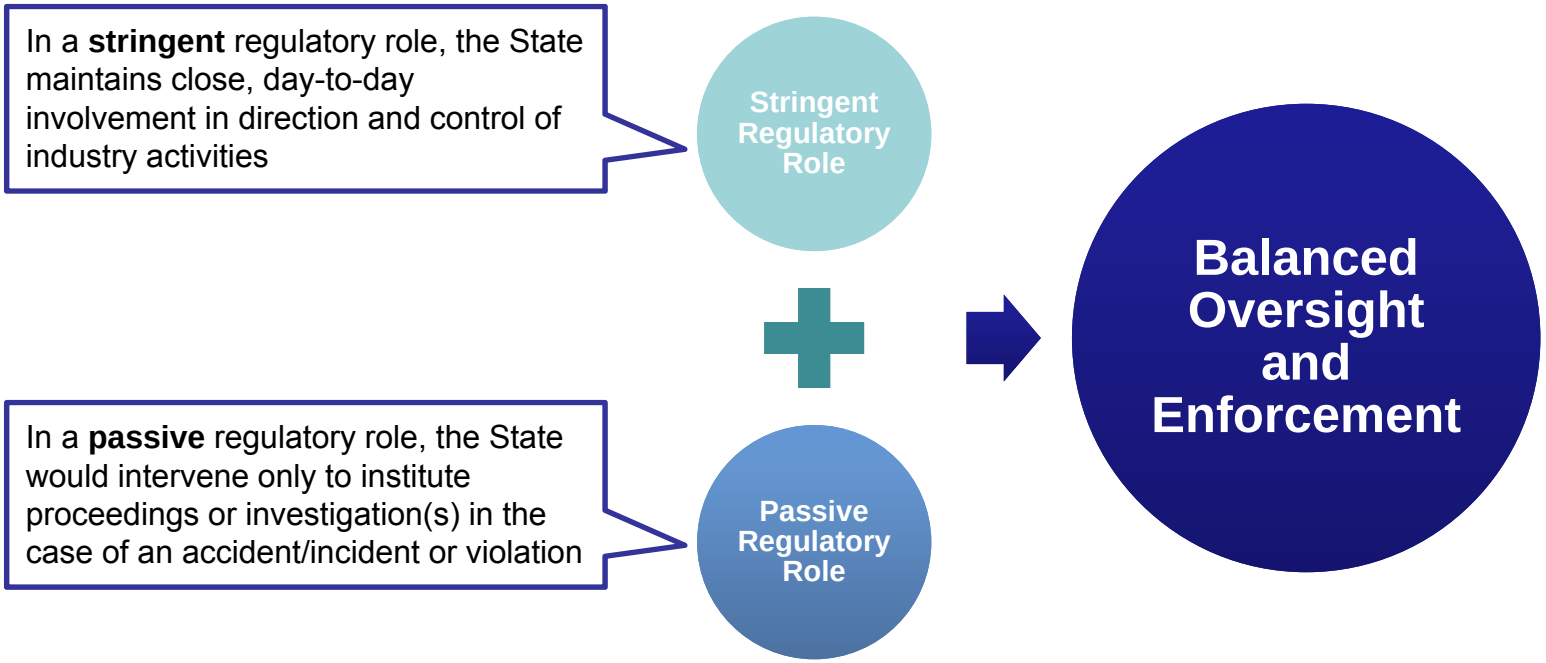
Consider the Regulatory Objective



Challenges

Achieving Balance

- In a balanced regulatory environment, the State and the aviation community share responsibility for the safe, regular and efficient conduct of civil aviation activities



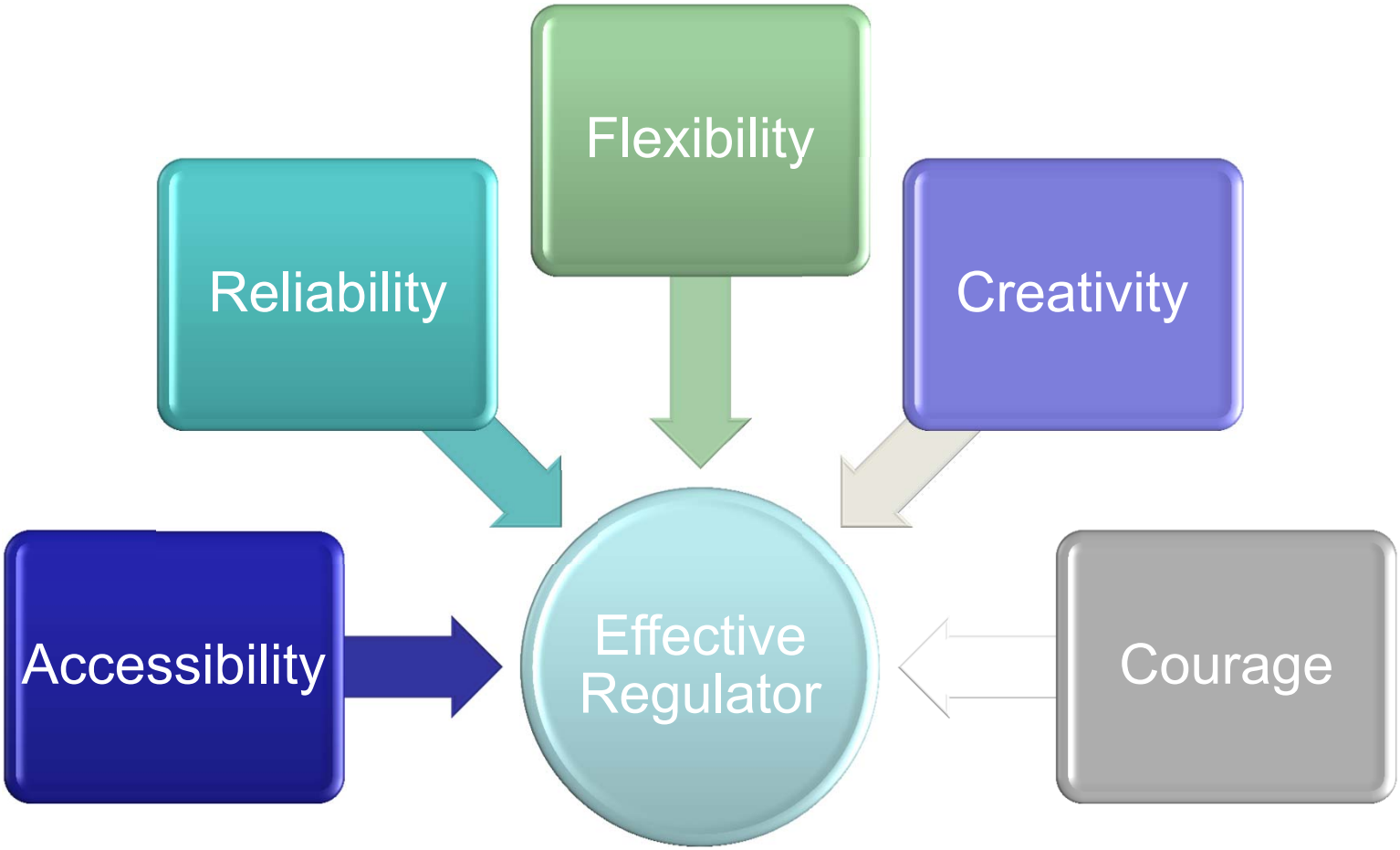
Strategies for Risk-Based Regulation

- Consider whether it is more effective to focus on identifying and reducing “bads” (risks/harms), or on defining and promoting “goods”
- Use risk mitigation as the foundation for partnerships (shared responsibility)
- Fit different regulatory structures to different classes of risk (structural versatility)
- Understand types of risk that pose special challenges

[1] Based on concepts discussed by Malcolm Sparrow

The Regulatory Continuum

Characteristics of Effective Regulators



Characteristics of Effective Regulators, Robert Eric Borgström

References

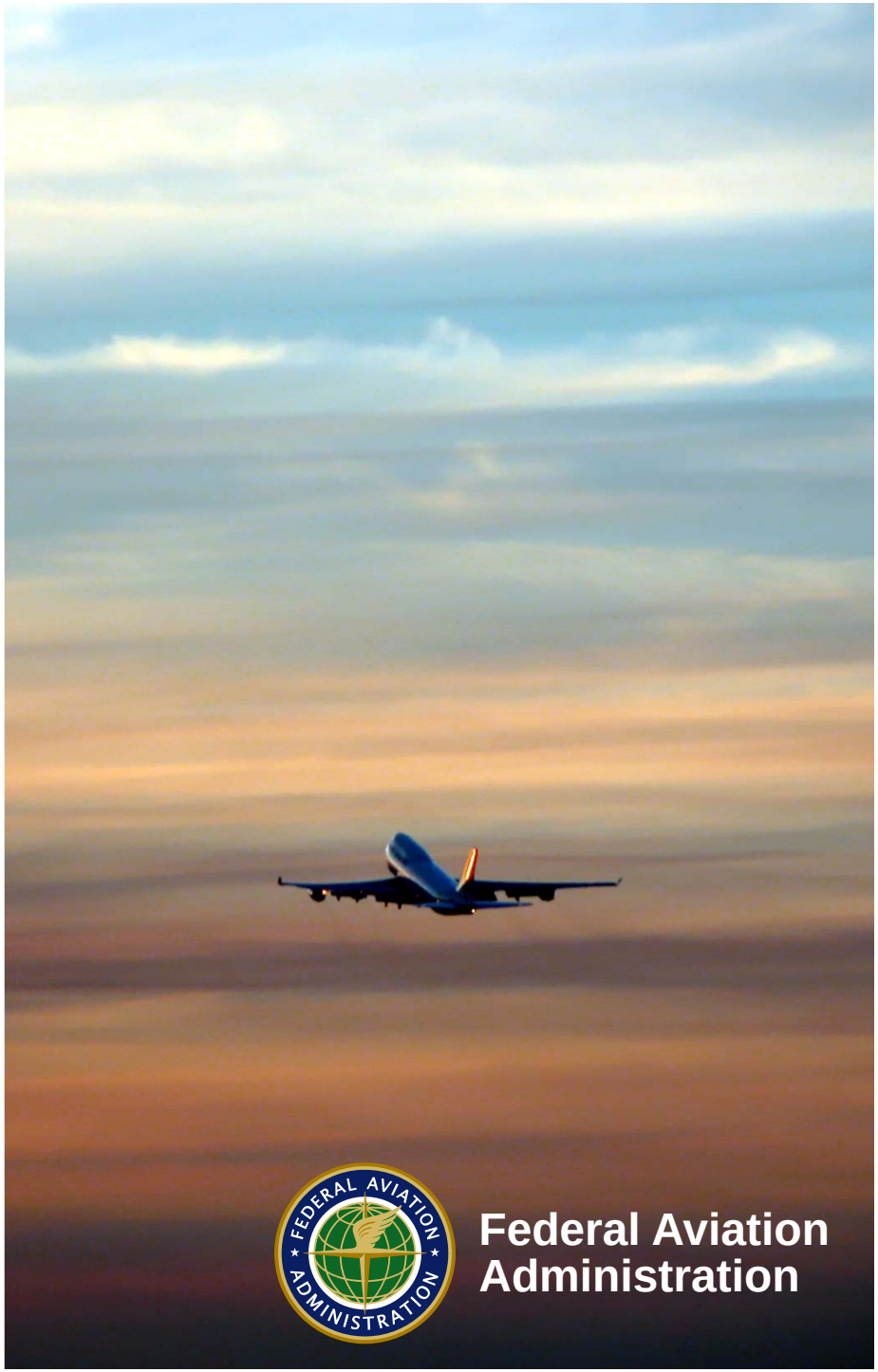
- ***Characteristics of Effective Regulators*, by Robert Eric Borgström**
- **List of ICAO ANS Reference Documents**
- **ICAO Safety Oversight Manual, Doc 9734**
- **The Regulatory Craft, by Malcolm Sparrow**

Basic Safety Oversight of an ANSP

Presented to: ICAO NACC Region

By: Federal Aviation Administration

Date: February 20-24, 2017



Establishing a Safety Oversight Program

- **Key Questions to Consider:**
  - Who provides ANS/ATS?
  - What are their responsibilities?
  - What are the applicable requirements?
  - How will you determine whether requirements are met?
  - How will you resolve safety concerns?

ANSP Responsibilities

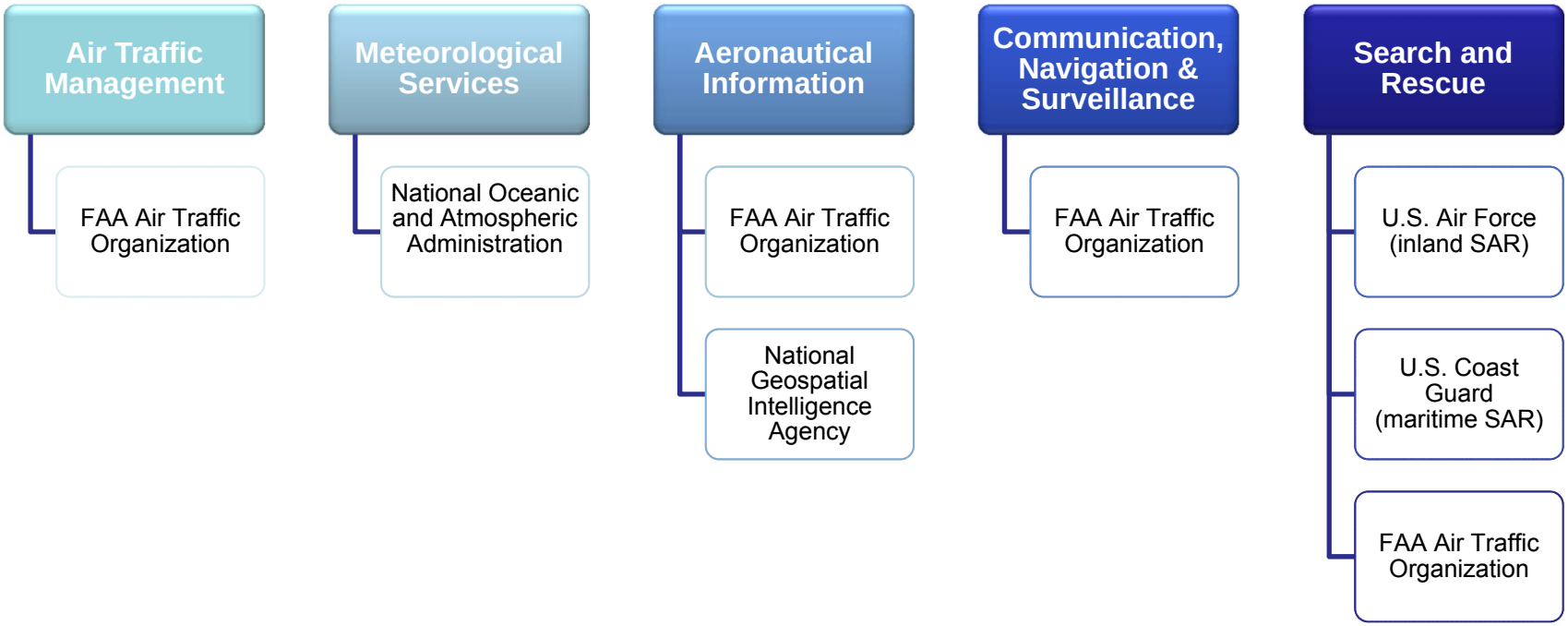
- **Promote a safe and orderly flow of air traffic**
  - Prevent collisions between aircraft operating within the system
  - Conduct and maintain an orderly flow of traffic
  - Notify concerned organizations of and assist in search and rescue operations
- **Provide Air Traffic Services**
  - Air Traffic Control
  - Air Traffic Advisory
  - Flight Information
  - Alerting

ANSP Responsibilities

- **Acquire and maintain communications, navigation, and surveillance equipment and infrastructure**
- **Provide Aeronautical Information Services/Aeronautical Information Management**
- **Provide meteorological services**
- **Design routes and procedures**
- **Plan and manage airspace**
  - Cooperate with military aviation authorities

FAA Example: ANS Responsibilities

- **The following U.S. entities have ANS responsibilities:**



Components of a Successful Safety Oversight Program

- **Requirements**
  - Regulations
  - Implementing Rules
  - Directives
- **Personnel Licensing Program**
- **Surveillance Program**
  - Monitoring
  - Investigations/Inspections/Audits/Assessments
- **Enforcement Program**
- **Regulator-ANSP Safety Information Exchange**

USOAP Critical Elements

- ICAO's Critical Elements of a safety oversight system encompass the whole spectrum of civil aviation activities
- They are the building blocks upon which an effective safety oversight system is based
- The level of effective implementation of the USOAP CEs is an indication of a State's capability for safety oversight

USOAP Critical Elements

- **The USOAP Critical Elements of a State's safety oversight system are described in Annex 19 and the ICAO Safety Oversight Manual (Doc 9374-A):**
  - CE 1 – Primary Aviation Legislation
  - CE 2 – Specific Operating Regulations
  - CE 3 – State Aviation System and Safety Oversight Functions
  - CE 4 – Qualified Technical Personnel and Training
  - CE 5 – Technical Guidance, Tools and Provision of Safety Critical Information
  - CE 6 – Licensing, Certification, Authorization and Approval Obligations
  - CE 7 – Surveillance Obligations
  - CE 8 – Resolution of Safety Concerns

Amendment 1 to Annex 19

- **Integration of USOAP Critical Elements and SSP provisions**
  - Effective July 2016, applicable November 2019
  - Amendment 1 to Annex 19 (Chapter 3) integrates all of the State's safety management responsibilities into a new set of SARPs
    - State safety policy, objectives, and resources
    - State safety risk management
    - State safety assurance
    - State safety promotion
  - USOAP CEs remain visible in Appendix 1

USOAP Protocol Questions

- **Protocol questions (PQs) are the main tool used during ICAO USOAP CSA audits and continuous monitoring to assess a State's safety oversight capability**

- **Each PQ is linked to one of the USOAP Critical Elements**

Effective Implementation

- **Measurement used to determine USOAP results is a State's Effective Implementation (EI) score**
  - Most favorable USOAP results are those having the highest EI percentage

Most favorable	Moderate	Least favorable
• EI of 70% and above	• EI between 50% and 70%	• EI below 50%

ANS EI Scores

ICAO iSTARS 2.0 SPACE

- **Web-based system on the ICAO Secure Portal**
  - Access must be requested through the ICAO Portal, which requires an ICAO Portal user account
- **iSTARS contains safety information and statistics, available through a catalogue of individual applications**
  - View the list of USOAP CSA PQs
  - Check implementation (EI) of the Critical Elements and functional areas (e.g., ANS) for a single State or group of States
  - View Significant Safety Concerns

References

- **SKYbrary Articles:**
  - Safety Oversight
  - ICAO USOAP and Safety Performance

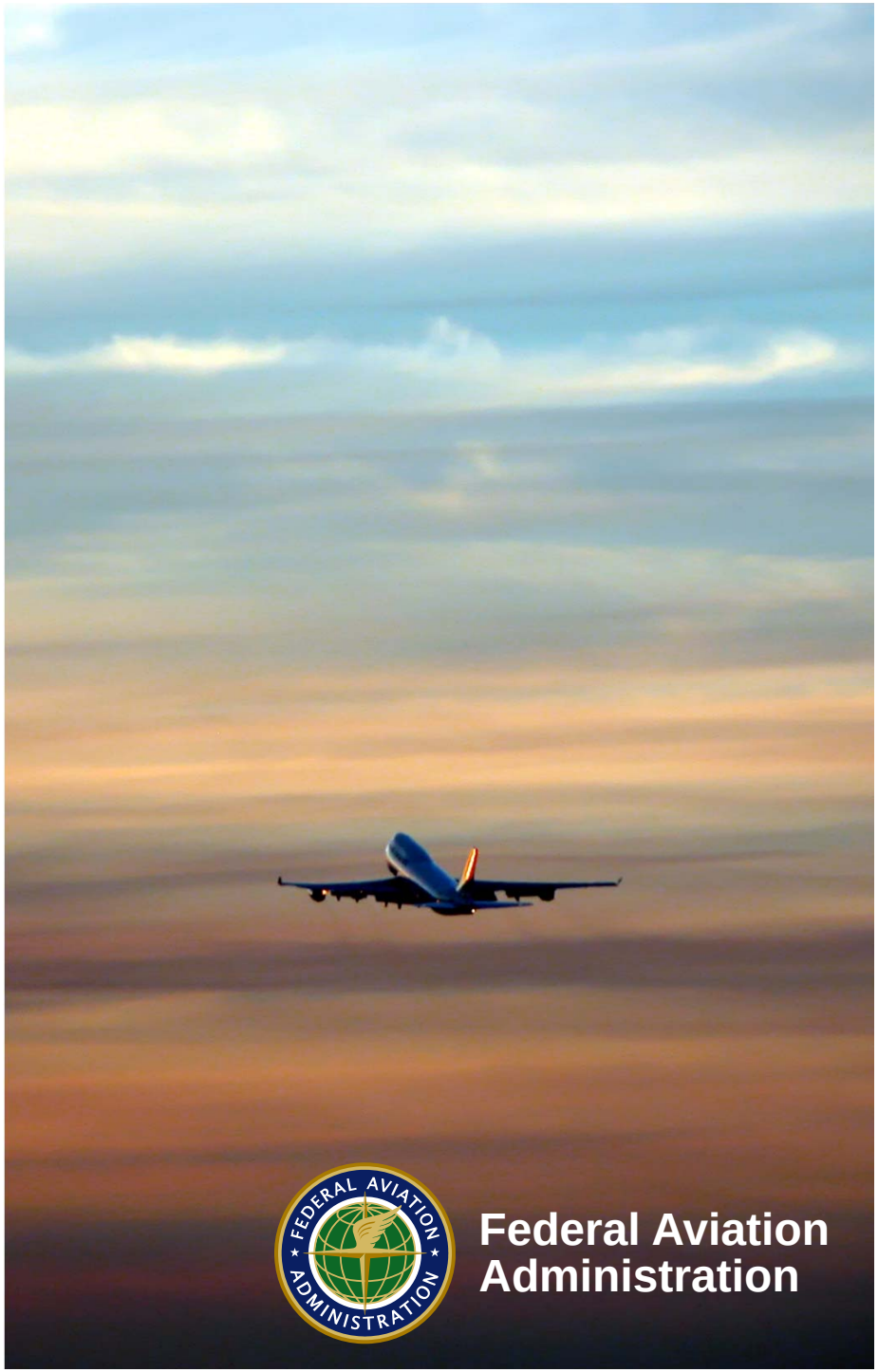
USOAP Critical Elements 1 and 2

Primary Aviation Legislation and Specific Operating Regulations

Presented to: ICAO NACC Region

By: Federal Aviation Administration

Date: February 20-24, 2017



Critical Element 1

- **Primary Aviation Legislation**
  - The provision of a comprehensive and effective aviation law consistent with the environment and complexity of the State's aviation activity and compliant with the requirements contained in the Convention on International Civil Aviation (Chicago Convention).
- **Primary aviation legislation for air traffic oversight should establish an oversight organization *independent* from ANSPs**

Applying CE 1 to Air Traffic Oversight

- **The legislation should also include:**
  - Authority to set standards and issue licenses, approvals, and waivers
  - Authority to review any differences proposed by the ANSP to be filed to SARPs and ICAO Doc 4444
  - Authorization for inspectors to have free, unimpeded access to facilities and records
  - Qualification and training of safety oversight personnel
  - Ability to issue technical guidance
  - Ability to receive and disseminate safety-critical information
  - Monitoring and surveillance capability
  - Enforcement and resolution authority

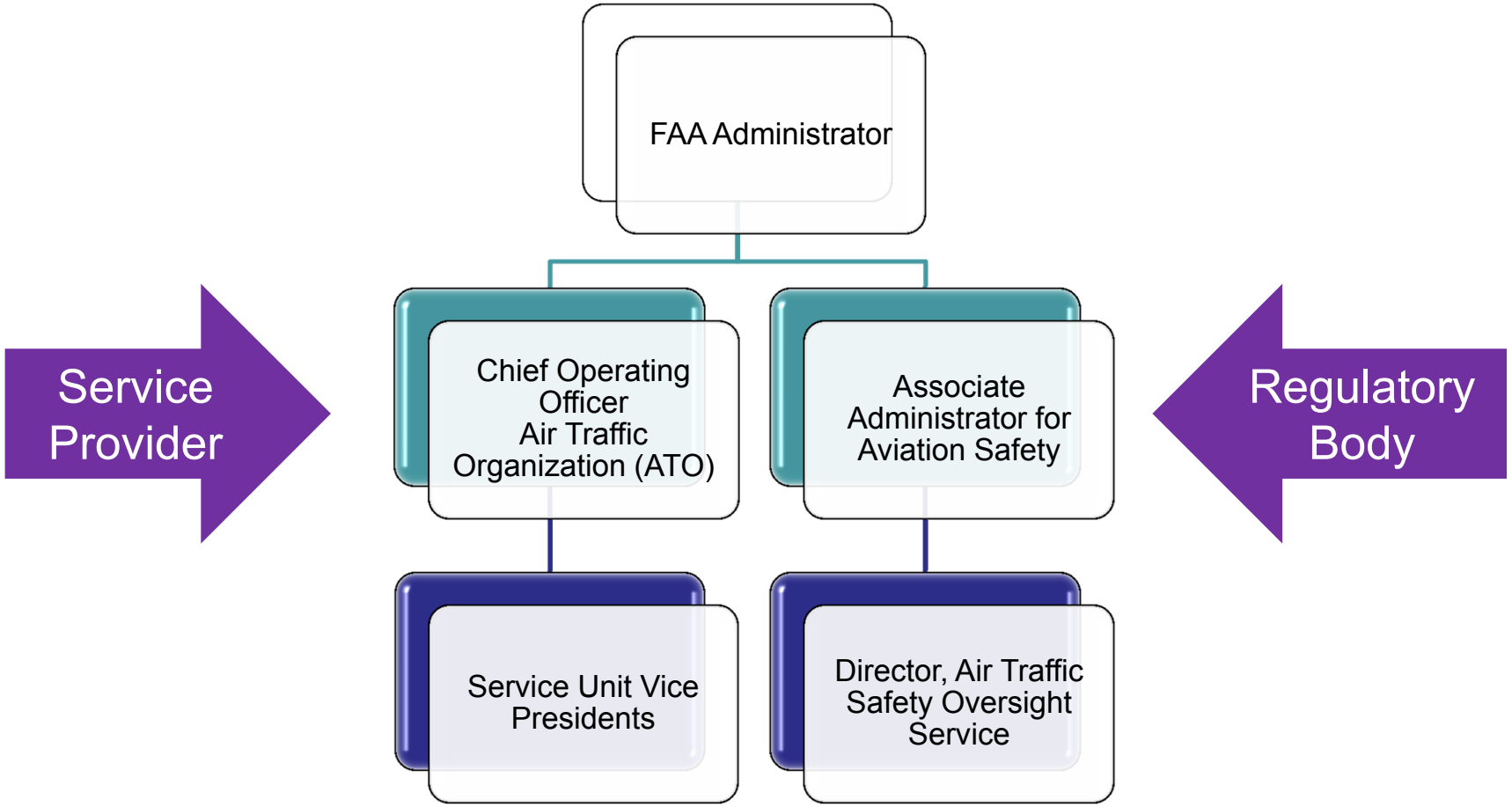
Example: FAA Authority

- The FAA's authority to prescribe regulations and minimum standards that the Administrator finds necessary for safety in air commerce is found in Title 49 of the United States Code
  - The Administrator created the Air Traffic Safety Oversight Service (AOV) in 2005 through **FAA Order 1100.161**, which established its authority and listed its functions

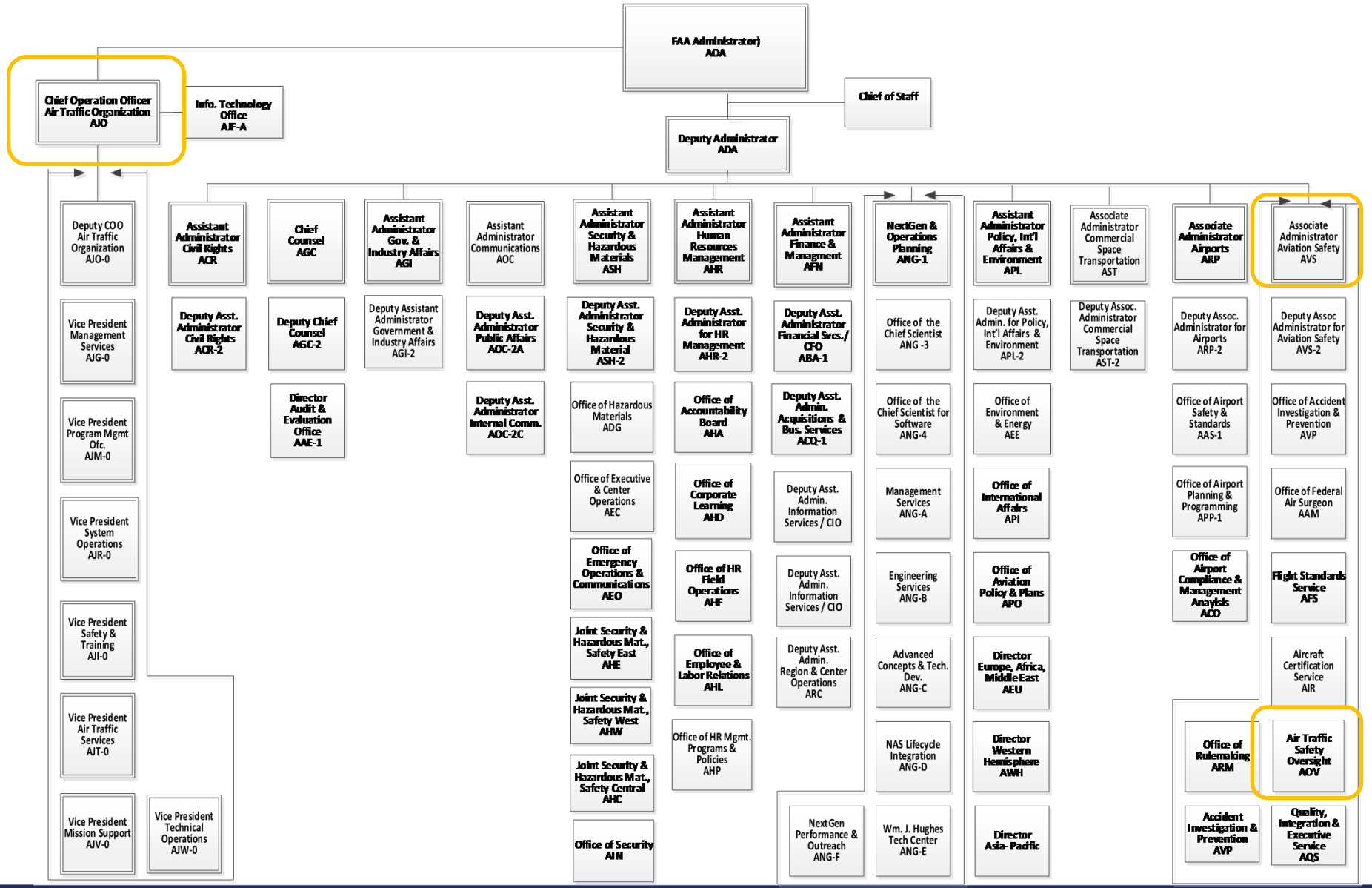
Example: FAA Authority

- **FAA Order 1100.161** separates oversight functions from the Air Traffic Organization (ATO – service provider), and grants authority to the Air Traffic Safety Oversight Service for the independent safety oversight of the ATO
- The Air Traffic Safety Oversight Service also has the authority to train and credential Air Traffic Safety Inspectors

Example: FAA Regulator-Service Provider Relationship



Federal Aviation Administration



Establishing a New Oversight Organization

- **Determine a system baseline to begin oversight**
  - Accept documented legacy processes as part of the baseline
  - Set a starting point from which to begin deliberately tracking and documenting changes to the system
- **Transfer responsibilities from the existing service provider(s) to the oversight organization to avoid disruption**
- **Train personnel on new requirements and responsibilities**

Example: FAA Baseline

- **FAA Order 1100.161 accepted the status of the U.S. National Airspace System (NAS) as the baseline as of March 2005.**
  - This means that the existing system was accepted as the starting point for oversight of safety in the NAS
  - Further guidance is provided in FAA Safety Oversight Circular 07-01

Critical Element 2

- **Specific Operating Regulations**
  - The provision of adequate regulations to address, at a minimum, national requirements emanating from the primary aviation legislation and providing for standardized operational procedures, equipment and infrastructures (including safety management and training systems), in conformance with the Standards and Recommended Practices (SARPs) contained in the Annexes to the Chicago Convention.

Applying CE 2 to Air Traffic Oversight

- **ICAO has developed Sample Civil Aviation Regulations for Air Navigation Services, which address the following:**
  - Air Traffic Services
  - Safety Management Systems
  - Instrument Flight Procedure Design Service
  - Aeronautical Information Service
  - Aeronautical Telecommunication
  - Aeronautical Meteorology Services
- **The Sample Regulations are based on ICAO Standards**

Establishing Operating Regulations

- **Key topics to consider when developing operating regulations for service providers:**
  - Exemptions, take into account safety considerations
  - Safety Management System requirements, subject to approval by the oversight authority
  - Civil-military coordination
  - Service provision requirements, such as airspace classification and high seas airspace
  - Search and rescue responsibilities
  - Other applicable requirements, such as ICAO Doc 4444
  - Changes to service provision or procedures
  - Safety reporting

FAA Example: Operating Regulations

- **FAA Order 1100.161 assigns the Air Traffic Organization the following responsibility:**
  - Maintain and adhere to a system of FAA directives, manuals, and orders that document the specifications, processes, and procedures that are used to operate and maintain the National Airspace System
- **AOV has delegated the responsibility to maintain operating regulations to the ATO**
  - AOV must approve any proposed changes
- **Operating regulations include:**
  - Air Traffic Control (FAA Order JO 7110.65)
  - Facility operation and administration (FAA Order JO 7210.3)
  - Technical training (FAA Order JO 3120.4)

Example: FAA Exemptions

- **The U.S. Code of Federal Regulations contains specific requirements for requesting exemptions to regulations, including:**
  - Why granting the request would be in the public interest (how it would benefit the public as a whole)
  - Why granting the exemption would not adversely affect safety, or provide a level of safety at least equal to that provided by the existing rule
  - Any additional information, views or arguments available to support the request
- **The FAA invites public comment on petitions for exemptions on new topics (no prior precedent)**

FAA Example: Civil-Military Relationship

- **The Federal Aviation Act of 1958 created the Federal Aviation Administration**
  - FAA is charged with regulating and managing the U.S. National Airspace System (NAS)
- **FAA has delegated portions of the NAS to the U.S. Department of Defense for military airfields and training areas**
  - Several airfields are considered “Joint Use”, where both civil traffic and military traffic operate from the same airfield

FAA Example: Civil-Military ATM/ATS Standards

- **Air traffic control services may be provided by:**
  - Department of Defense (DoD) military air traffic controllers
  - DoD civilian air traffic controllers
  - FAA air traffic controllers
  - Contract air traffic controllers
- **DoD military or civilian air traffic controllers are required to meet FAA standards to control civil traffic**

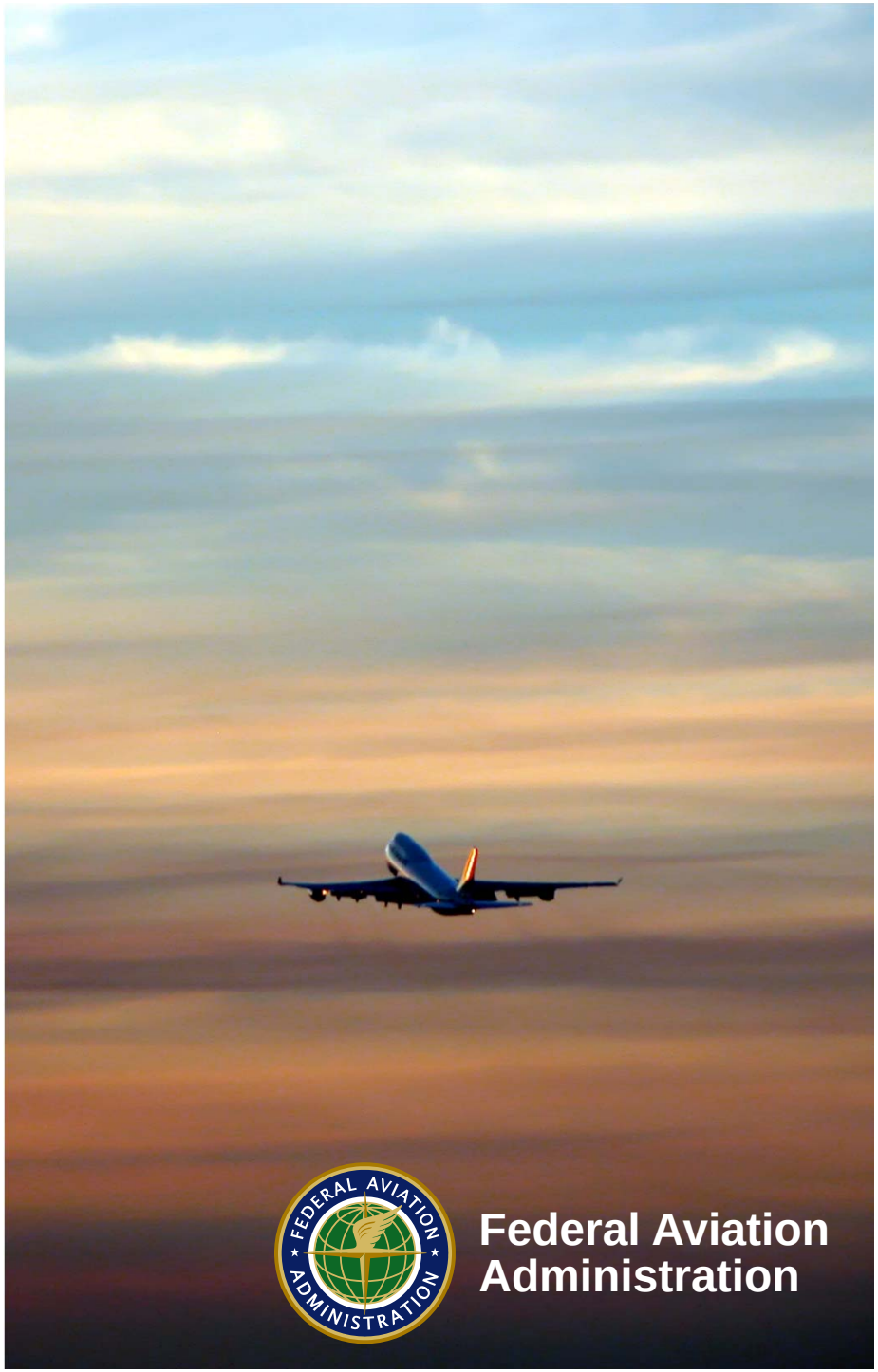
References

- **ICAO Sample Civil Aviation Regulations for Air Navigation Services (ANS)**
- **FAA Order 1100.161**
- **FAA Safety Oversight Circular 07-01**
- **FAA Order VS 8000.366**

USOAP Critical Element 3

Safety Oversight System and Functions

Presented to:	ICAO NACC Region
By:	Federal Aviation Administration
Date:	February 20-24, 2017



Critical Element 3

- **State Civil Aviation System and Safety Oversight Functions**
  - The establishment of a Civil Aviation Authority (CAA) and/or other relevant authorities or government agencies, headed by a Chief Executive Officer, supported by the appropriate and adequate technical and non-technical staff and provided with adequate financial resources.
  - The State authority must have stated safety regulatory functions, objectives, and safety policies.

Applying CE 3 to Air Traffic Oversight

- **Consider size and complexity of aviation activity in the organization structure**
  - No “one size fits all” approach
  - Create regional offices as needed
- **Structure the organization around essential responsibilities**
- **Implement processes to ensure effective management and communication between regional offices and the main/headquarters office**
- **Determine the ideal ratio of oversight personnel to service provider personnel**
- **Ensure inspectors are appropriately credentialed**

What is Organization Structure?

- **Structure ensures an organization will function as intended**
- **Points to consider:**
  - Organization structure should grow and change as the organization grows and changes
  - Structure should support the organization in achieving its objectives
  - Structure should facilitate decision-making

Community Tool Box (http://ctb.ku.edu/en/table-of-contents/structure/organizational-structure/overview/main)

Strategies for Structuring an Oversight Organization

- Consider the service provider's organization in designing the oversight authority's organization structure
- Document roles and responsibilities – regulator and service provider
- Use standardized methodologies and tools as guides
  - Look for examples from other States
- Assess staffing needs

Strategies for Structuring an Oversight Organization

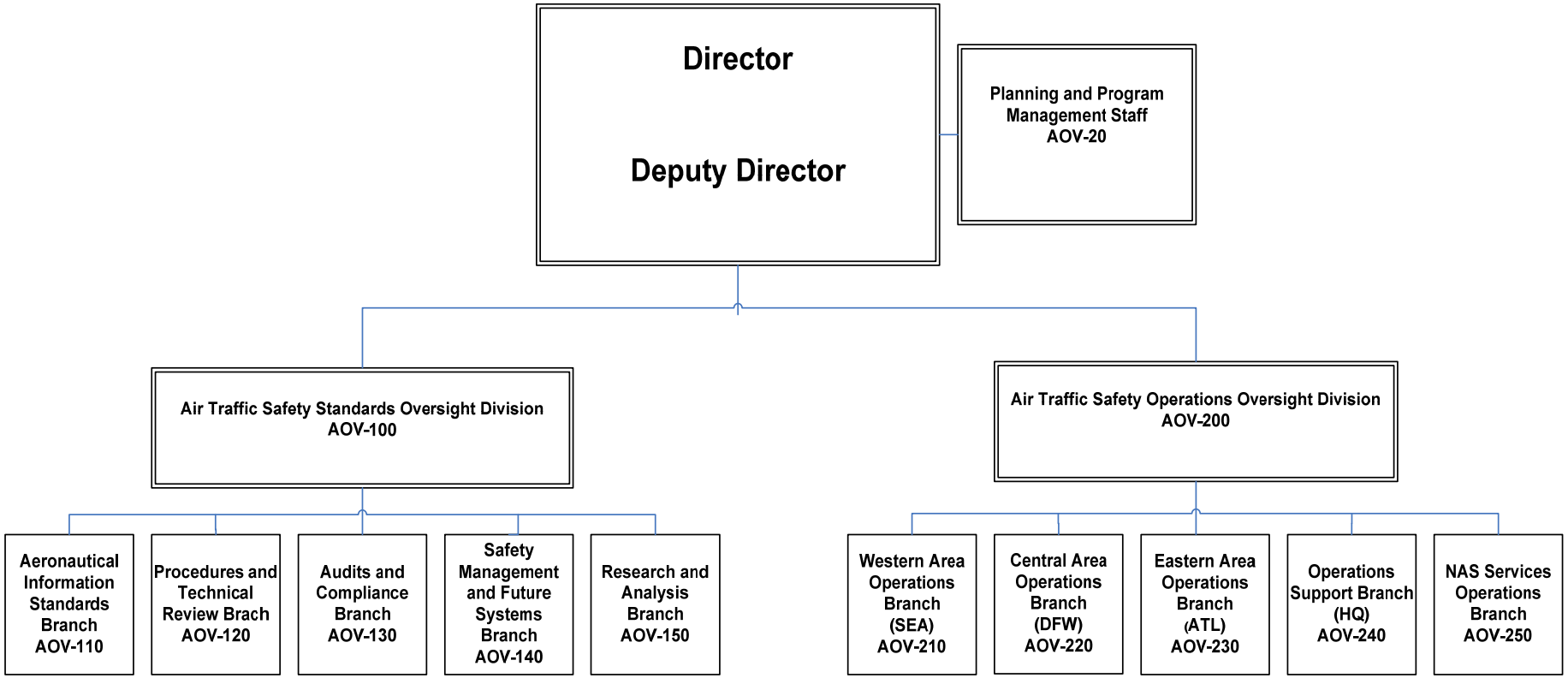
- Leverage regional and bilateral relationships with other oversight authorities
  - Consider developing agreements with other national authorities within the State and with other States for data exchange, availability of resources, conduct of studies and other services, and reimbursement for services rendered
  - Contribute occurrence reports to the ICAO Regional Monitoring Agency
  - Participate in ICAO PIRGs and RASGs
- Make improvements to processes and tools on a regular, recurring basis*

* Discussed in CE 5

Organizational Constructs

- **Consider cooperative inspection arrangements with neighboring States**
  - Part-time personnel from other States to perform specialized tasks
- **Use personnel (designees) from the service provider to carry out certain responsibilities**
  - Licensing, inspections, evaluations, etc.
  - These personnel must be kept under the technical and supervisory control of the oversight authority
- **Employ a contractor to supply personnel for inspection functions**
- **Commercialize regulatory functions (fee-for-service model)**

FAA Air Traffic Safety Oversight Service



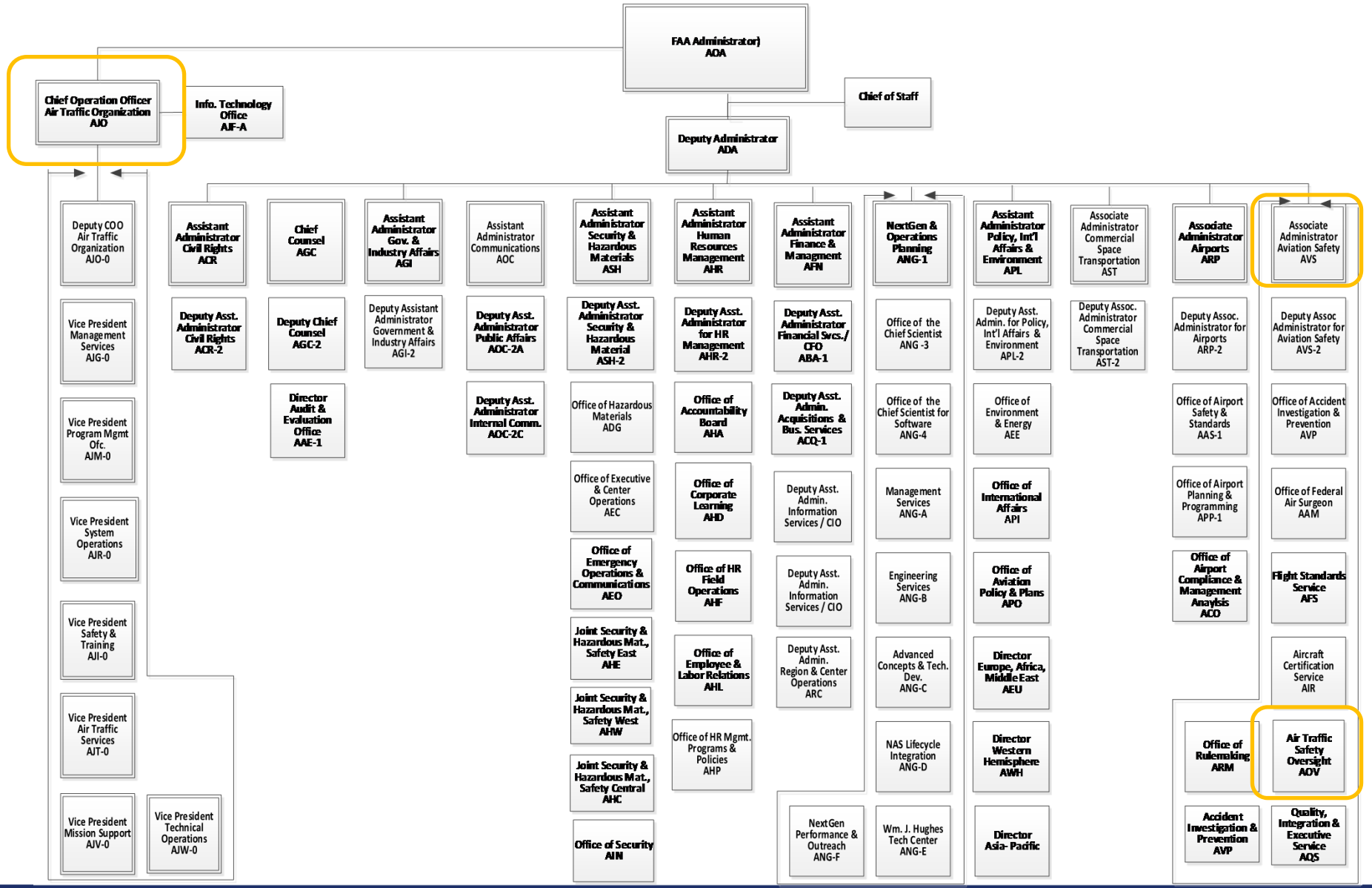
FAA AOV Safety Standards Oversight Division

- **Responsibilities:**
  - Review and approve FAA Air Traffic Organization Safety Risk Management strategies for future systems
  - Review and approve changes to ATC and facility management directives
  - Conduct research and analysis supporting AOV oversight functions
  - Manage surveillance, compliance, and verification programs

FAA AOV Safety Operations Oversight Division

- **Responsibilities:**
  - Carry out continuous monitoring of FAA Air Traffic Organization facilities and operations
    - Maintain in-depth knowledge of local procedures and operations
    - Facilitate compliance and continued operational safety
    - Develop long-term professional relationships with FAA Air Traffic Organization counterparts at the Service Area and Field levels
    - Promote adherence to SMS requirements and principles
  - Participate in surveillance and compliance activities
  - Manage Credentialing and Control Tower Operator Certification Programs (personnel licensing)

Federal Aviation Administration



FAA Example: Roles and Responsibilities

- **The FAA Air Traffic Organization (ANSP) is responsible for operating a safe and efficient airspace system**
- **The FAA Air Traffic Safety Oversight Service (regulator) is responsible for the independent safety oversight of the ATO (U.S. ANSP)**

FAA Example: ATO Responsibilities

- **Operate the U.S. National Airspace System (NAS) at the highest practicable level of safety**
  - The *primary responsibility* for the safety of the NAS rests with the ATO!
- **Develop an internal safety culture to ensure accountability for safety**
- **Develop and maintain an SMS and submit any changes to AOV for approval**
- **Comply with established safety standards, the SMS, and personnel licensing requirements**
- **Maintain and adhere to a system of FAA directives, manuals, and orders that document the specifications, processes, and procedures that are used to operate and maintain the NAS and train personnel**
- **Develop and maintain a hazard tracking database *and provide AOV access to this database***
- **Report safety data to AOV**

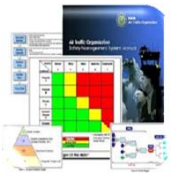
FAA Example: AOV Responsibilities

- **Establish, approve, and accept standards for Air Traffic Services and safety personnel (air traffic controllers and ATSEP/maintenance technicians)**
- **License personnel**
- **Issue safety directives and guidance**
- **Conduct surveillance and enforcement activities**
- **Share safety data with the ATO**

FAA Example: AOV Functions

Independent Oversight of FAA ATO's Provision of Air Traffic Services

Establish, Approve, Accept Safety Standards

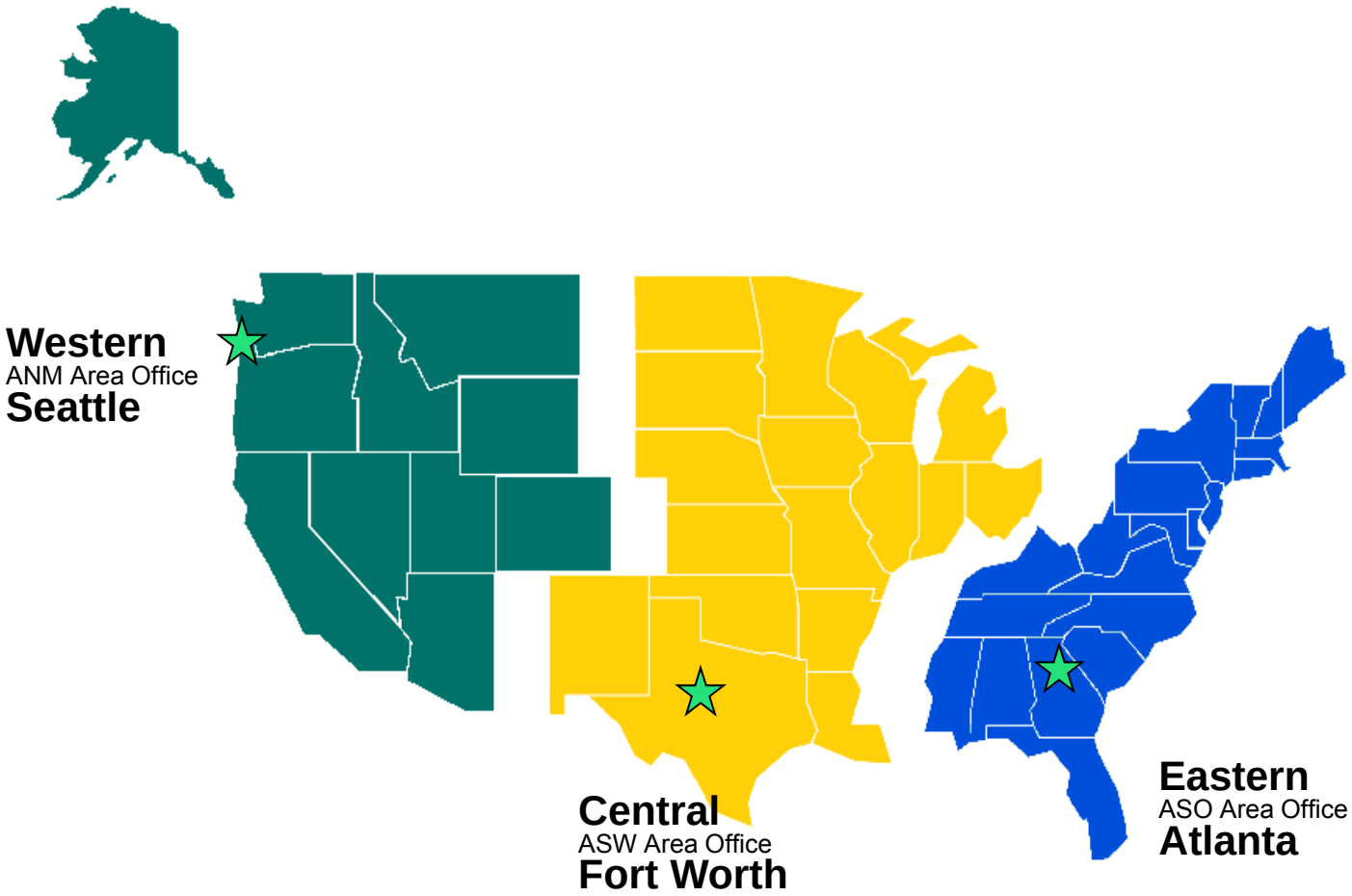


Establish Requirements for ATO Safety Management System

Monitor ATO Compliance with Safety Standards

Approve High Risk Mitigations, Changes Pertaining to Separation Minima and NAS Equipment Availability Program

FAA Example: Area Office Locations



Staffing Strategies

- **Strategies for successful staffing:**
  - Develop a workforce plan
  - Calculate staffing needs
  - Create a recruitment and retention plan*

* Discussed in CE 4

Develop a Workforce Plan[1]

- **Identify critical job roles**
- **Establish a baseline staffing level**
  - Absence of which staff members would have a significant impact?
- **Perform a gap analysis**
  - Are critical needs not being met?
  - Can gaps be filled with internal personnel transfers?
- **Forecast future staffing needs**
  - Compare staffing plan to strategic plan
  - Analyze industry characteristics and trends
  - Plan for attrition, retirement, and external fiscal pressures
- **Develop recruitment plans**

[1] How to Create a Staffing Model Plan (http://smallbusiness.chron.com/create-staffing-model-plan-14521.html)

Calculate Staffing Needs

- **Key questions to consider:**
  - How many inspectors?
  - What types of inspectors?
    - Operations – Tower, En-route, Radar
    - Maintenance
  - How many safety engineers?
  - Can you rely on your neighbor for expertise to fill gaps?
  - How many support staff?
  - What types of support staff?
    - Training
    - Administrative
    - Strategic planning
    - Technical writer(s)
  - Can you employ contract support services?
  - How many managers?
    - Manager – staff ratio?

Calculate Staffing Needs

- **Methods to calculate staffing needs[1]:**
  - "Rule of Thumb": based on general organizational structure
    - Maintain ratio of management to staff in short and long-term
  - Delphi Technique: forecasting based on expert analysis
    - Facilitator-led panel of anonymous experts answer questionnaires and review response data
    - Experts can be senior managers, outside consultants, etc.

[1] Formula for Calculating Staffing Needs (http://smallbusiness.chron.com/formula-calculating-staffing-needs-12759.html)

Calculate Staffing Needs

- **Methods to calculate staffing needs:**
  - Ratio: predict hiring needs based on staffing or productivity ratios
    - Staffing ratio is used to predict hiring need based on organizational form
    - Productivity ratios use estimates of units produced per employee to forecast hiring needs
  - Statistical Regression Analysis: compare historical data to forecast staffing needs
    - Example: analyze gross sales per year over the past five years and staffing during that time

Formula for Calculating Staffing Needs (http://smallbusiness.chron.com/formula-calculating-staffing-needs-12759.html)

ICAO Example: Productivity Ratio

- **ICAO references a staffing model similar to the productivity ratio calculation:**
  - Identify inspector tasks (e.g., number of inspections/audits to be performed, reports written, etc.)
    - Use identifiers to describe tasks, e.g. A-K
  - Calculate number of hours it will take an inspector to complete each task

TASK C-Audits for 6 stations

Station	No. of audits	No. of days/audit	Hours	Total
JKIA	1	3	24	24
MIA	1	2	16	16
EIA	1	2	16	16
KIA	1	2	16	16
WILSON	1	2	16	16
MALINDI	1	2	16	16
TOTAL	6	13	80	104

ICAO Example: Productivity Ratio

- Add the number of hours required to complete each task
  - A+B+C….+K = **3313 hours**
- Calculate the number of hours available to an inspector per year
  - 52 weeks X 5 days X 8 hours = **2080 hours**
- Calculate number of inspectors needed
  - Divide total number of hours to complete tasks by number of inspector hours available in one year
  - 3313 / 2080 = **2 Inspectors** (1.59278846)

FAA Example: Aviation Safety Staffing Model

- **Aviation Safety (AVS) Staffing Tool and Reporting System – ASTARS**
  - Safety critical operational positions are determined by the ASTARS model
    - Forecasts generated by applying projected growth of specific demand (for example: fleet, repair station personnel)
  - Macro-level resource guidance
    - Final staffing decisions also reflect expertise and judgment from managers, executive management, and subject matter experts
  - Safety technical specialist and operational support workforce are forecast using historic staffing ratios that compare managers and administrative support personnel to safety critical staff requirements
    - Ratio driven based on ASTARS outputs

FAA Example: Air Traffic Safety Oversight Staffing

- **The Air Traffic Safety Oversight Service compared the ANSP to a major certificate holder (airline) regulated by the Flight Standards Service**
  - Considered number of facilities within responsibility (600) and analyzed risk factors associated with those facilities
    - 55 airports and associated facilities handled approximately 95% of passenger traffic
  - Developed an optimum audit schedule to visit each of the 600 facilities at least once per four-year period
    - This approach requires 150 people
    - Optimum staffing level of 200 personnel allows sufficient resources for oversight duties in addition to audits

FAA Example: Aviation Safety Workforce

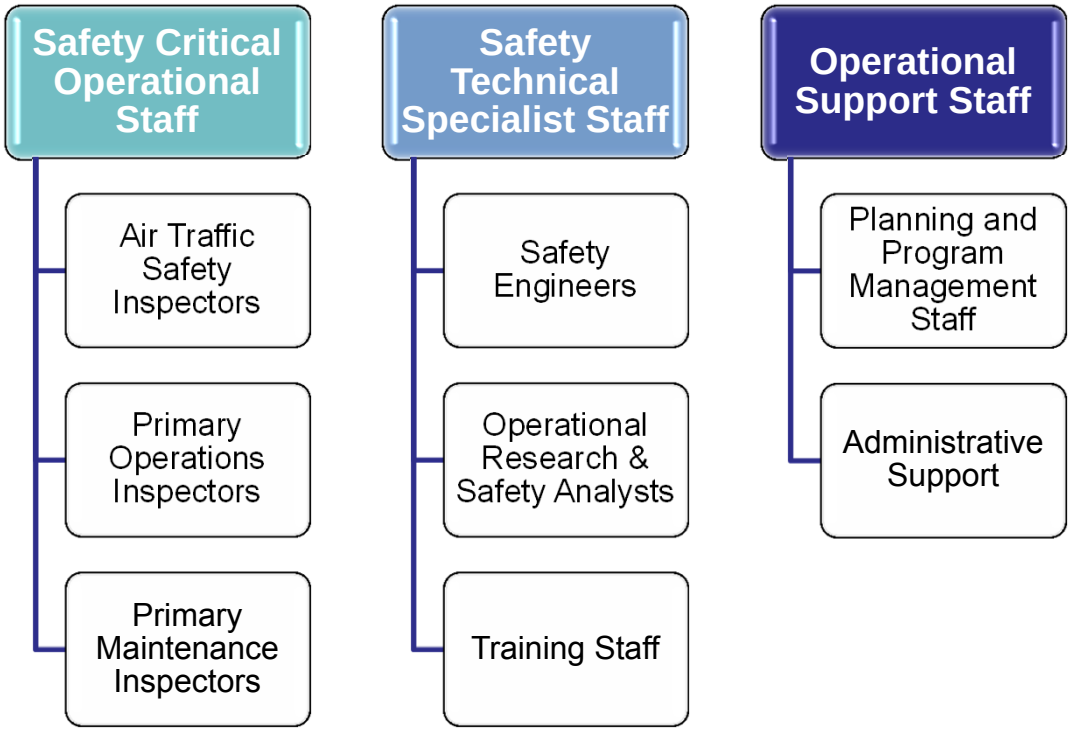
- **The FAA Aviation Safety Workforce Plan identifies three staffing categories:**

FAA Example: Aviation Safety Workforce

- **Safety Critical Operational Staff** have a direct operational impact on the safety mission
  - Certification, monitoring, enforcement, and accident investigation
- **Safety Technical Specialist Staff** provide support for safety critical operational staff to efficiently and effectively do their jobs
  - Maintain aircraft/airman registries, design technical training for safety personnel, oversee designee programs
- **Operational Support Staff** perform planning, finance, and administration functions
  - All functions *not* classified as safety critical operational staff or safety technical specialist staff

FAA Example: Air Traffic Safety Oversight Staff

- **Air Traffic Safety Oversight Service staff include:**



Credentialing Safety Inspectors

- All State technical personnel authorized to ensure the maintenance of competency and to conduct a surveillance or safety oversight function, as applicable, must possess appropriate credentials identifying them as technical experts employed by the State authorities, with the right to unhindered access to inspect aircraft, documents, aerodromes, **air traffic services and other relevant facilities, as well as normally restricted civil aviation-related sites**.

Credentialing Safety Inspectors

- **Issuing credentials to Air Traffic Safety Inspectors:**
  - Authorizes the holder to perform inspections, investigations, and audits
  - Guarantees free and uninterrupted access to facilities, records, data, and restricted areas
  - Documents successful completion of required inspector training and evaluation*
  - Supports oversight and supervision of designees responsible for credentialing ANSP personnel

* Discussed in CE 4

Strategies for Successful Credentialing

- **Document rules related to credentialing inspectors**
- **Implement an assessment and approval process for issuing credentials**
- **Ensure that credentialed inspectors understand the authorities and limitations associated with the credential**
  - Require inspectors to sign acknowledgment before receiving credential

FAA Example: ATSI Credential

- **Air Traffic Safety Inspector credentialing requirements are documented in FAA Orders**
  - Available to all FAA employees for reference
  - Air Traffic Safety Oversight Service managers determine when a credential can be issued to an Air Traffic Safety Inspector
  - Credentials are issued by the Director of the Air Traffic Safety Oversight Service
- **Candidate inspectors must meet eligibility criteria to receive a credential**
- **Inspectors must carry the credential during inspections, investigations, and audits**
  - Inspectors must also comply with basic guidance on the use of credentials

FAA Example: ATSI Credential

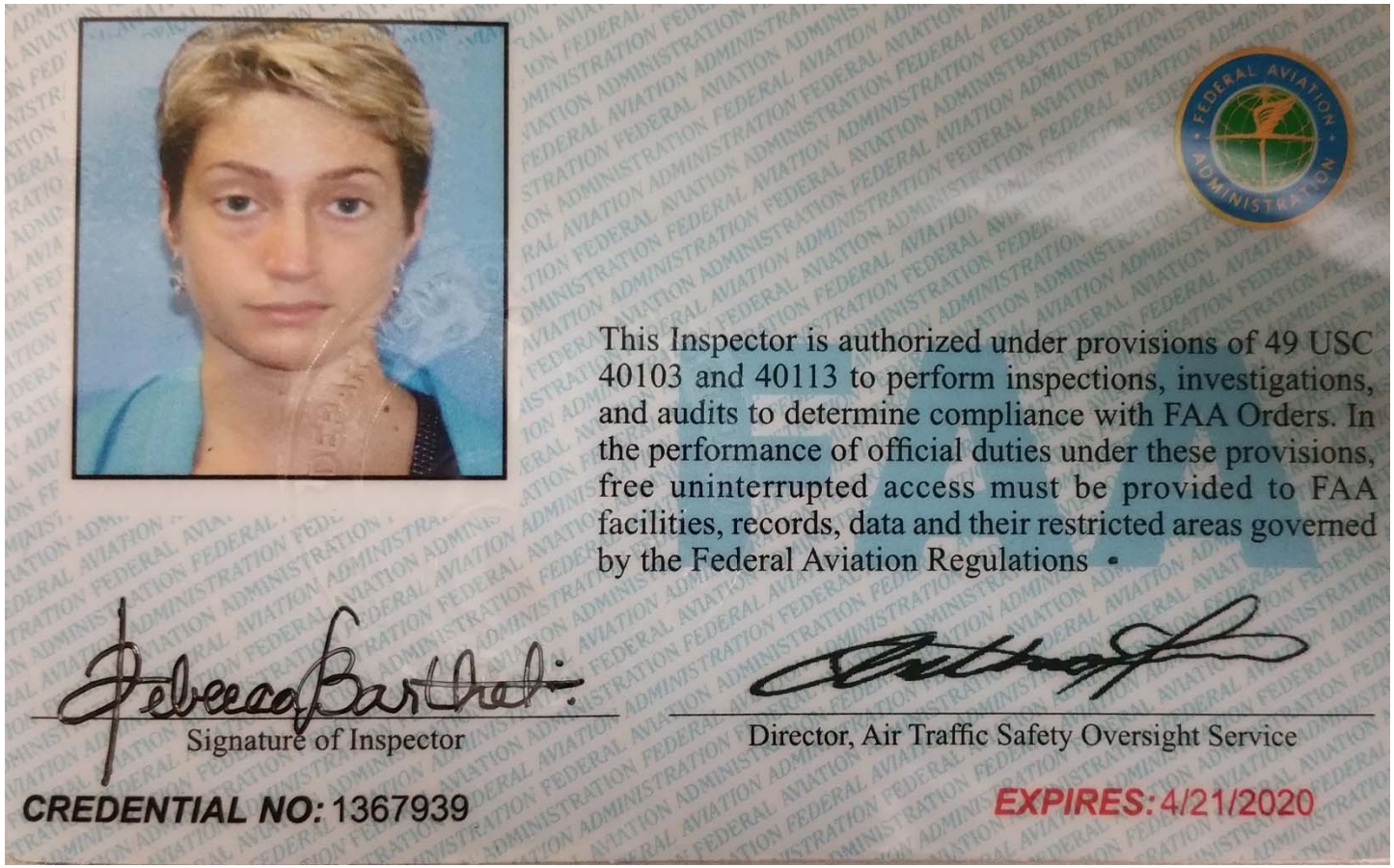
- **Credential eligibility requirements:**
  - Satisfactorily complete initial training
    - Formal audit training (Audit Skills course)
    - Quality Management System training
  - Complete recurring training every 24 calendar months
    - Review of previous audits, investigations inspections, results, recommendations, and documentation procedures
    - Review of Air Traffic Safety Oversight Service compliance process as it pertains to findings during an audit, investigation, and inspection
    - Review of FAA Order VS 8000.366, Facility Access Identification Credentials for Air Traffic Safety Inspectors

FAA Example: Credential Holder Responsibilities

- **Individual Air Traffic Safety Inspector responsibilities:**
  - Become familiar with FAA Order VS 8000.366 and Air Traffic Safety Oversight Service guidance regarding authorization and conduct of inspections, audits, and investigations
  - Complete required training
  - Verify that the credential contains the correct information
  - Ensure that the Air Traffic Safety Inspector Program Manager has a copy of the credential

FAA ATSI Credential

FAA ATSI Credential



References

- **ICAO Safety Oversight Manual**
- **FAA Order 1100.161**
- **FAA Aviation Safety Workforce Plan**
- **FAA Order VS 8000.366**