U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Aircraft Certification Policy

ORDER 8100.5B

Effective Date:
11/22/2016

SUBJ: Aircraft Certification Service – Mission, Vision, Organizational Structure and Functions

This order defines the mission and vision of the Aircraft Certification Service (AIR) and clarifies its functions.

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Director, Aircraft Certification Service

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Chapter 1. General Information

1-1. Purpose of this Order. This order defines the mission and vision of AIR and clarifies its functions. It also defines AIR's organizational structure.

1-2. Audience. The audience for this order is employees of all AIR offices, divisions, directorates, and delegated organizations and designees.

1-3. Where Can I Find this Order. You can find this order on the MyFAA Employee website, under Orders and Notices at https://employees.faa.gov/tools_resources/orders_notices, or on the FAA's Regulatory and Guidance Library website at http://rgl.faa.gov.

1-4. Cancellation. FAA Order 8100.5A, *Aircraft Certification Service – Mission, Structure, Responsibilities, and Relationships*, dated September 30, 2003, is cancelled.

1-5. Effective Date. This order is effective on November 22, 2016.

1-6. Explanation of Changes. This revision incorporates updated organizational information and limits its focus to organizational structure and clarification of the functions of AIR. This revision also renames the order.

Chapter 2. Mission, Vision, and Core Values

2-1. FAA's Mission. The mission of the FAA is to provide the safest, most efficient aerospace system in the world.

2-2. AIR's Vision. AIR's vision is to remain a world-class organization advancing aircraft safety throughout the global aviation system. AIR's vision will be achieved through the FAA's Strategic Initiatives, listed below.

a. Risk-Based Decision Making.

b. Workforce of the Future.

c. National Airspace System.

d. Global Leadership.

2-3. FAA Core Values. AIR is committed to its vision through incorporating and building upon the following FAA core values, listed below.

a. Safety – Our Passion. We work hard to ensure that all air and space travelers arrive safely at their destinations.

b. Excellence – Our Promise. We seek operational efficiencies and results that embody professionalism, transparency, and accountability.

c. Integrity – Our Touchstone. AIR employees perform their duties honestly, with moral soundness, and with the highest ethical conduct.

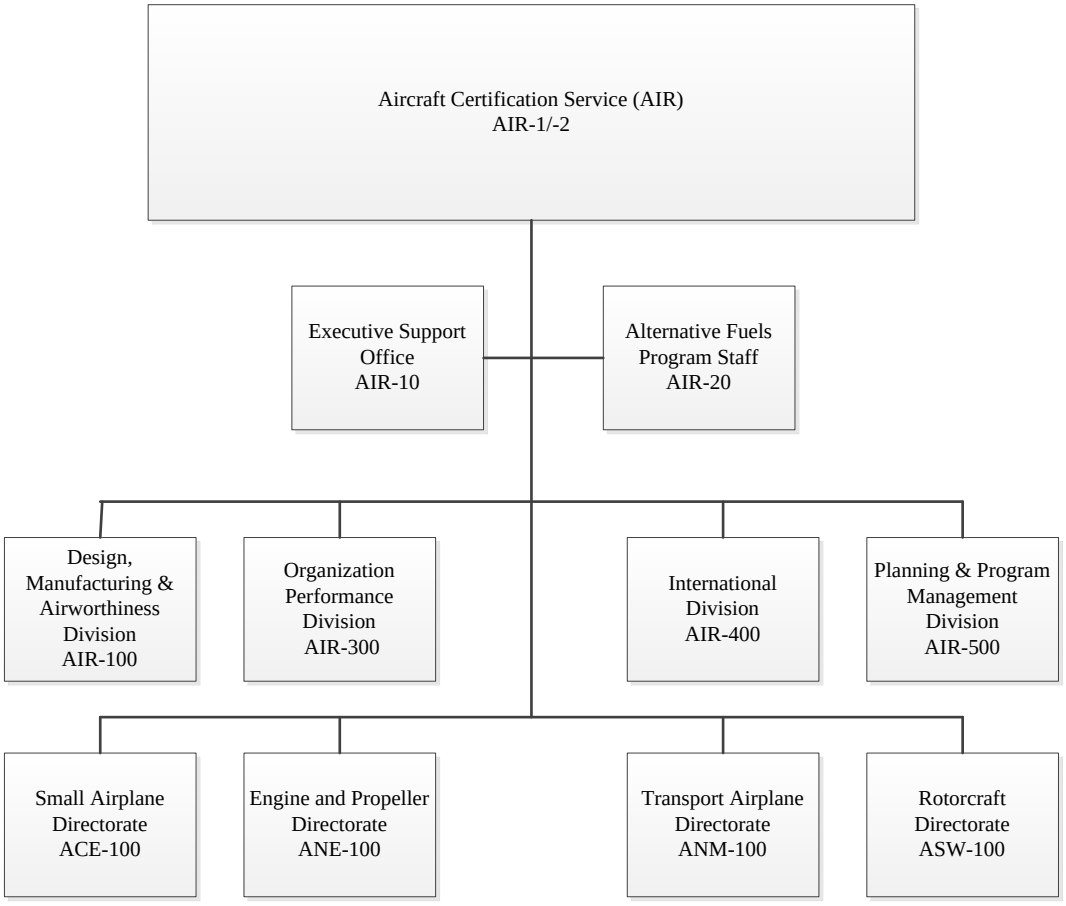
d. People – Our Strength. Our success depends on the respect, diversity, collaboration, and commitment of our workforce.

e. Innovation – Our Signature. AIR's managers, engineers, inspectors, and safety support personnel work to foster creativity and vision to provide solutions beyond today's boundaries.

Chapter 3. AIR Organizational Structure

3-1. AIR Organizational Structure. AIR is organized into the Office of the Director, the Executive Support Office, the Alternative Fuels Program Staff, four divisions, and four directorates. The offices and divisions are based in Washington, DC at FAA's Headquarters offices. The four directorates are located throughout the United States (U.S.). AIR's organizational structure is illustrated in Figure 3-1-1.

Figure 3-1-1. Aircraft Certification Service Organizational Structure



Chapter 4. AIR Functions

4-1. AIR Functions. The AIR headquarters offices, divisions and directorates share responsibility for the design and production approval, airworthiness certification, and continued airworthiness programs of U.S. civil aviation products. AIR has the following functions:

a. Administer safety standards governing the design, production, and airworthiness of civil aeronautical products;

b. Oversee the design, production, and airworthiness certification programs to assure compliance with prescribed safety standards;

c. Provide a safety performance management system to ensure continued operational safety (COS) of aircraft;

d. Develop policy on and oversee AIR designees;

e. Develop regulatory standards and policy on design and production approval, airworthiness certification, and continued airworthiness programs; and

f. Collaborate with other FAA organizations, other U.S. government agencies, the International Civil Aviation Organization (ICAO), and other Civil Aviation Authorities (CAA) to maintain and further the safety of the international air transportation system.

4-2. Headquarters Offices.

a. Office of the Director (AIR-1, AIR-2). The Director, AIR-1 and the Deputy Director, AIR-2 are responsible for managing AIR. AIR-1 reports to the Associate Administrator for Aviation Safety (AVS). AIR-1 and AIR-2 have the following functions:

(1) Provide advice and assistance to the Associate Administrator in support of strategic planning; operational mission accomplishment; resource management; the administration of executive decisions; and the development and maintenance of productive relationships with the public, the aviation industry and community, and other government agencies;

(2) Provide executive direction, vision, and leadership to AIR employees.

b. Executive Support Office (AIR-10). AIR-10 is responsible for managing the executive support functions for the Office of the Director, facilitating daily operations, managing workflow by assigning tasks and reviewing work products, and participating in policy implementation through review and integration of initiatives. AIR-10 reports to AIR-1 and has the following functions:

(1) Provide office management and administrative support to AIR-1 and AIR-2;

(2) Provide direction, guidance, and oversight for work assigned to AIR;

(3) Assign tasks to AIR divisions and directorates, monitor progress, and review completed work products for quality, consistency, and technical accuracy;

(4) Facilitate meetings for the Aircraft Certification Management Team (ACMT) (refer to paragraph 4-5(a));

(5) Provide consultation and coordination in complex matters related to aircraft certification, production and airworthiness and continued operational safety within the FAA, other government departments/agencies, and industry organizations.

c. Alternative Fuels Program Staff (AIR-20). AIR-20 is the advocate and focal point for regulations, policies, and certification programs for fuel related activities. AIR-20 reports to AIR-1 and has the following functions:

(1) Ensure a common, efficient, and standardized approach to certification of unleaded aviation gasolines that supports centralized test and certification of engines, as well as aircraft with unleaded fuels; and,

(2) Provide expert technical consultation on fuels, lubricants, and additives in complex matters requiring coordination within the FAA, other government departments/agencies, and organizations in the aviation industry.

d. Design, Manufacturing, and Airworthiness Division (AIR-100). AIR-100 is the national policy focal point for Title 14 of the Code of Federal Regulations (14 CFR) part 21, part 183 and part 39 as they relate to design, manufacturing, and airworthiness certification. AIR-100 reports to AIR-1 and has the following functions:

(1) Develop and standardize regulations, national directives, policy, procedures, and advisory material for COS, design approval, production approvals, and airworthiness certification;

(2) Develop and standardize the application of technical standards, deviations, policies, and regulations for equipment that spans 14 CFR parts 23, 25, 27, and 29;

(3) Develop regulations, policies and procedures related to representatives of the Administrator for civil aeronautical products (14 CFR part 183);

(4) Authorize and oversee certain Designated Representatives of the Administrator;

(5) Manage the Chief Scientific and Technical Advisors (CSTA) and Senior Technical Specialists (STS) program (for additional information on the functions of the CSTA and STS program, refer to FAA Order 8000.80A, *Aviation Safety (AVS) Chief Scientific and Technical Advisor (CSTA) and Senior Technical Specialist (STS) Program*);

(6) Lead efforts related to the establishment and maintenance of AIR's Safety Management Systems; and

e. Organizational Performance Division (AIR-300). AIR-300 supports continuous improvement of AIR operations through partnership with AIR management and employees. AIR-300 reports to AIR-1 and has the following functions:

(1) Develop, track, and analyze metrics for AIR performance, organizational health, and stakeholder satisfaction;

(2) Develop and convey AIR's key messages to internal and external stakeholders;

(3) Monitor and support the implementation of AIR national initiatives;

(4) Coordinate AIR audit activities related to Office of Inspector General, General Accounting Office, and Office of Management and Budget inquiries;

(5) Coordinate and track AIR responses to National Transportation Safety Board Safety Recommendations;

(6) Manage AIR rulemaking activities and maintain Quality Management System certificate;

(7) Facilitate the distribution of best practices to all stakeholders; and

(8) Promote a culture of leadership for change management within AIR.

f. International Division (AIR-400). AIR-400 is responsible for policy on international airworthiness agreements, issues, programs, and procedures. AIR-400 has offices in Washington, DC, Brussels, Belgium and Singapore. AIR-400 reports to AIR-1 and has the following functions:

(1) Provide liaison support to other FAA organizations, other U.S. government organizations, the International Civil Aviation Organization, and other civil aviation authorities (CAA);

(2) Develop policy and guidance for on Bilateral Airworthiness Agreements, Bilateral Aviation Safety Agreements with Implementation Procedures for Airworthiness, and other international issues, programs and procedures;

(3) Lead technical assessment teams to develop new, or amend existing, bilateral agreements;

(4) Lead efforts for maintenance of our bilateral relationships around the world; and

(5) Coordinate requests for AIR technical assistance from other CAAs and international organizations.

(6) Assist field offices with validation activities.

g. Planning and Program Management Division (AIR-500). AIR-500 manages a full range of national program and administrative activities. AIR-500 reports to AIR-1 and has the following functions:

(1) Manage human capital initiatives and programs, emergency planning activities, and national labor management activities;

(2) Manage AIR's technical training program to include design, development, and delivery, in coordination with the FAA Academy, Aircraft Certification Branch, AMA-220; and

(3) Provide the primary interface between AIR and external organizations on information technology-related programs, issues, and requirements.

4-3. Directorates. AIR directorates are responsible for oversight of certification and production activities within their assigned geographic region. There are four directorates in AIR located throughout the United States. Each directorate is assigned to, and responsible for one of the following product types: transport airplanes, small airplanes, rotorcraft, and engines and propellers. Each directorate develops and implements national regulatory requirements, policy and procedures for COS and type, production, and airworthiness certificates for their designated products. The manager of each directorate reports to AIR-1.

a. Each directorate has an assigned Standards Staff that has the following functions: develops, interprets and standardizes rules and policy, administers and monitors existing policy, provides policy guidance, and ensures standardization with regard to their assigned product across AIR.

b. Each directorate also has an assigned Technical and Administrative Support staff that supports the directorate and its respective field offices and has the following functions: budget management, staffing, records management, business planning, performance management, training, correspondence, Occupational Safety and Health, Continuity of Operations Plan, emergency planning activities, and national labor management activities.

c. Each directorate also has responsibility for overseeing certification and production activities within its geographic area carried out by the Aircraft Certification Offices (ACO) and Manufacturing Inspection Offices (MIO).

4-4. Directorate Offices.

a. Small Airplane Directorate (ACE-100). ACE-100 is located in Kansas City, Missouri and serves the following geographic service areas: Alabama, Alaska, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, and Wisconsin. ACE-100's organizational structure is illustrated in Figure 4-4-1. ACE-100 has the following functions:

(1) Oversee and administer the airworthiness standards for normal, utility, acrobatic, and commuter category airplanes (14 CFR part 23), manned free balloons (14 CFR part 31), gliders, airships, and unmanned aircraft systems (UAS);

(2) Develop type certification policies and regulations for small airplanes, airships and balloons and ensures standardized application of the policies and regulations;

(3) Monitor COS and process airworthiness actions for small airplanes, airships, and balloons;

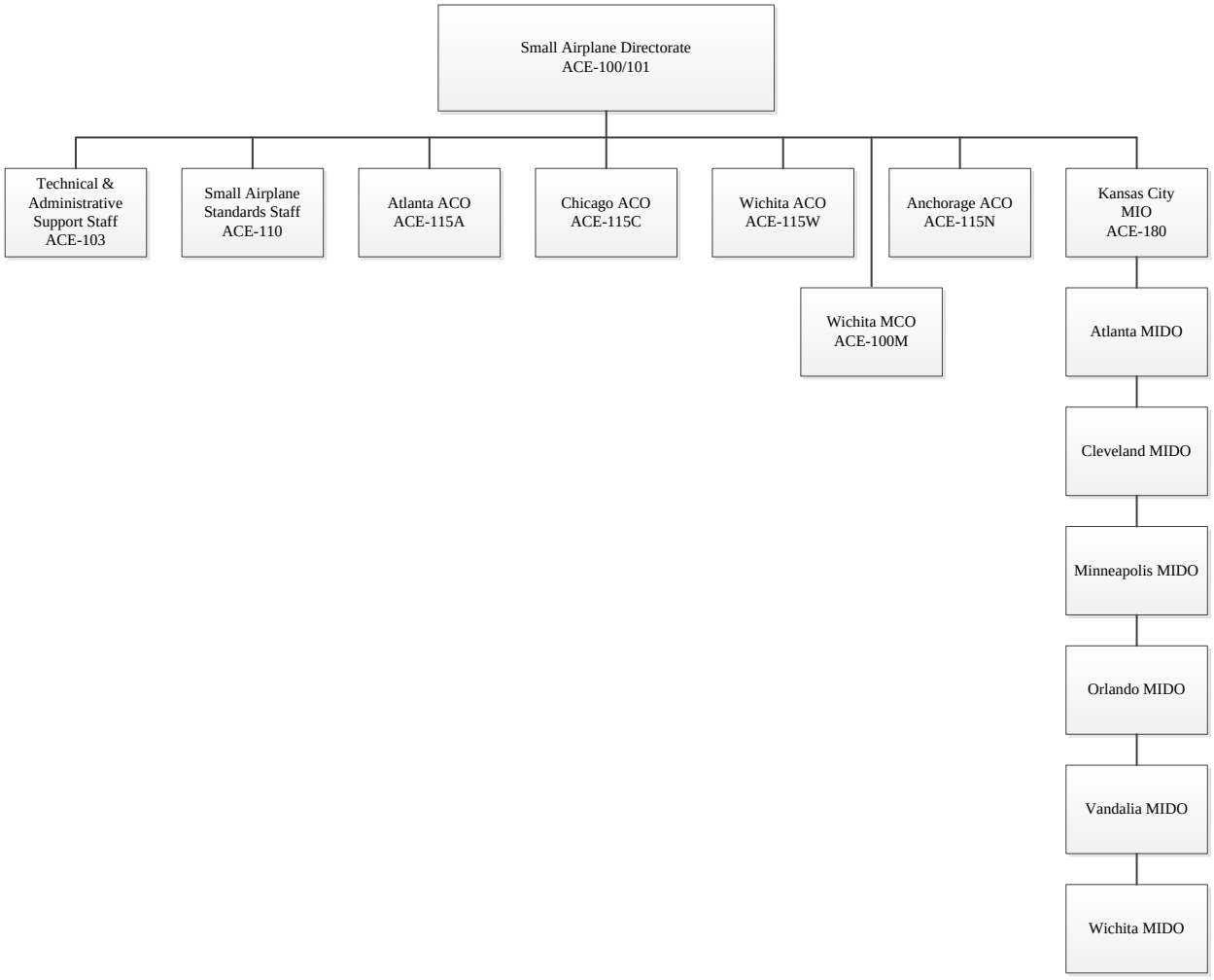
(4) Provide guidance for validation and COS of imported small airplanes, airships, and balloons;

(5) Oversee all airworthiness functions within its geographic region;

(6) Provide administrative support and resource management; and

(7) Manage the Light-Sport Aircraft and UAS programs.

Figure 4-4-1. Small Airplane Directorate Organizational Structure



b. Engine and Propeller Directorate (ANE-100). ANE-100 is located in Burlington, Massachusetts and serves the following geographic areas: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. ANE-100's organizational structure is illustrated in Figure 4-4-2. ANE-100 has the following functions:

(1) Oversee and administer the airworthiness standards for aircraft engines (14 CFR part 33) and propellers (14 CFR part 35) and ensure standardized application of the policies and regulations;

(2) Develop type certification policies and regulations for aircraft engines, propellers, and auxiliary power units (APU);

(3) Monitor COS and process airworthiness actions for aircraft engines, propellers, and APU;

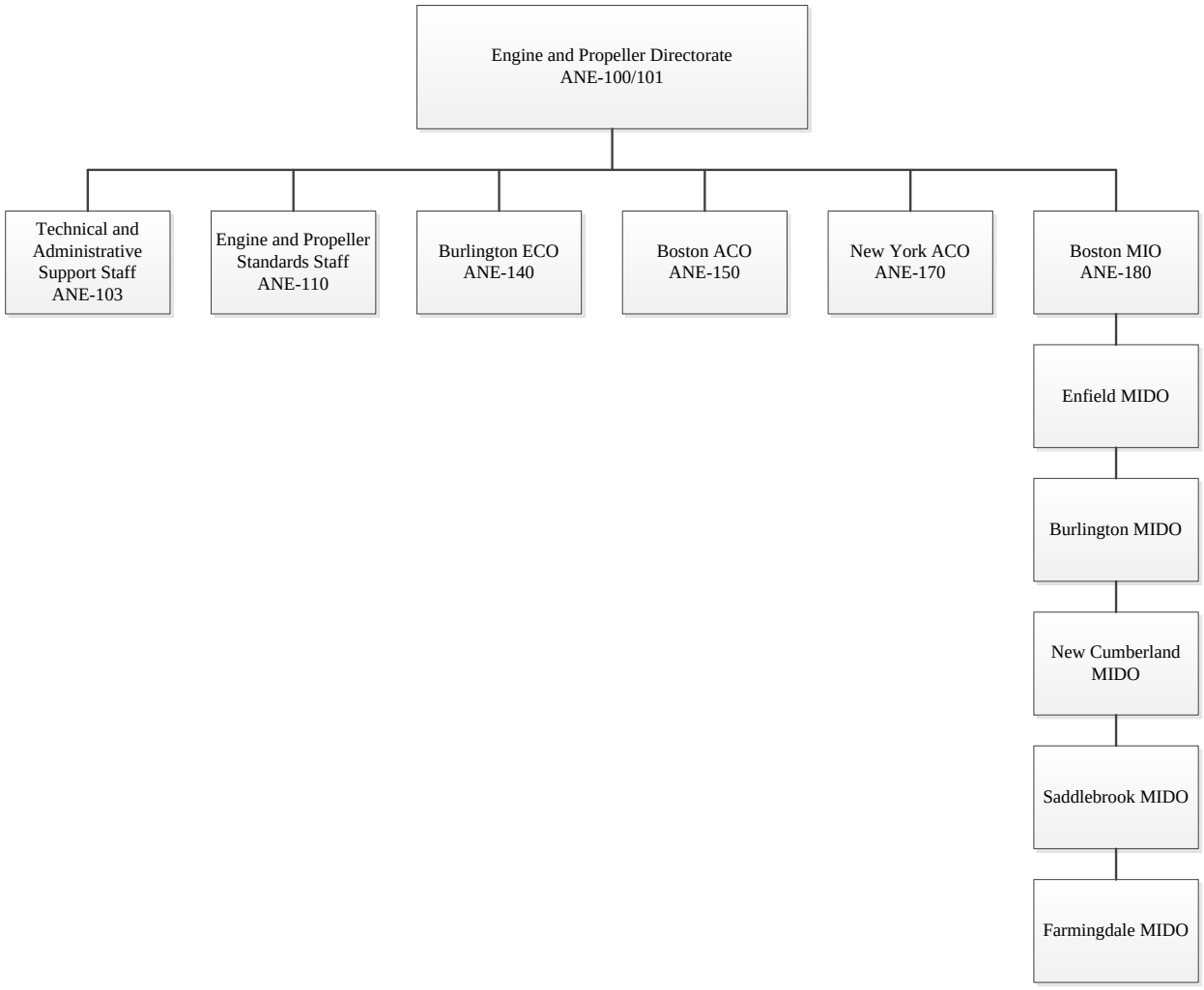
(4) Provide guidance for validation and COS of imported aircraft engines, propellers, and APU;

(5) Oversee all airworthiness functions within its geographic region;

(6) Provide administrative support and resource management; and

(7) Serve as the primary interface between AIR and the Office of Environment and Energy (AEE-300) for the application of the regulatory requirements of Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplane under 14 CFR part 34.

Figure 4-4-2. Engine and Propeller Directorate Organizational Structure



c. Transport Airplane Directorate (ANM-100). ANM-100 is located Renton, Washington and serves the following geographic service areas: Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, and the Pacific Rim countries. ANM-100's organizational structure is illustrated in Figure 4-4-3.
ANM-100 has the following functions:

(1) Oversee and administer the airworthiness standards for transport category airplanes (14 CFR part 25);

(2) Develop type certification policies and regulations for transport category airplanes;

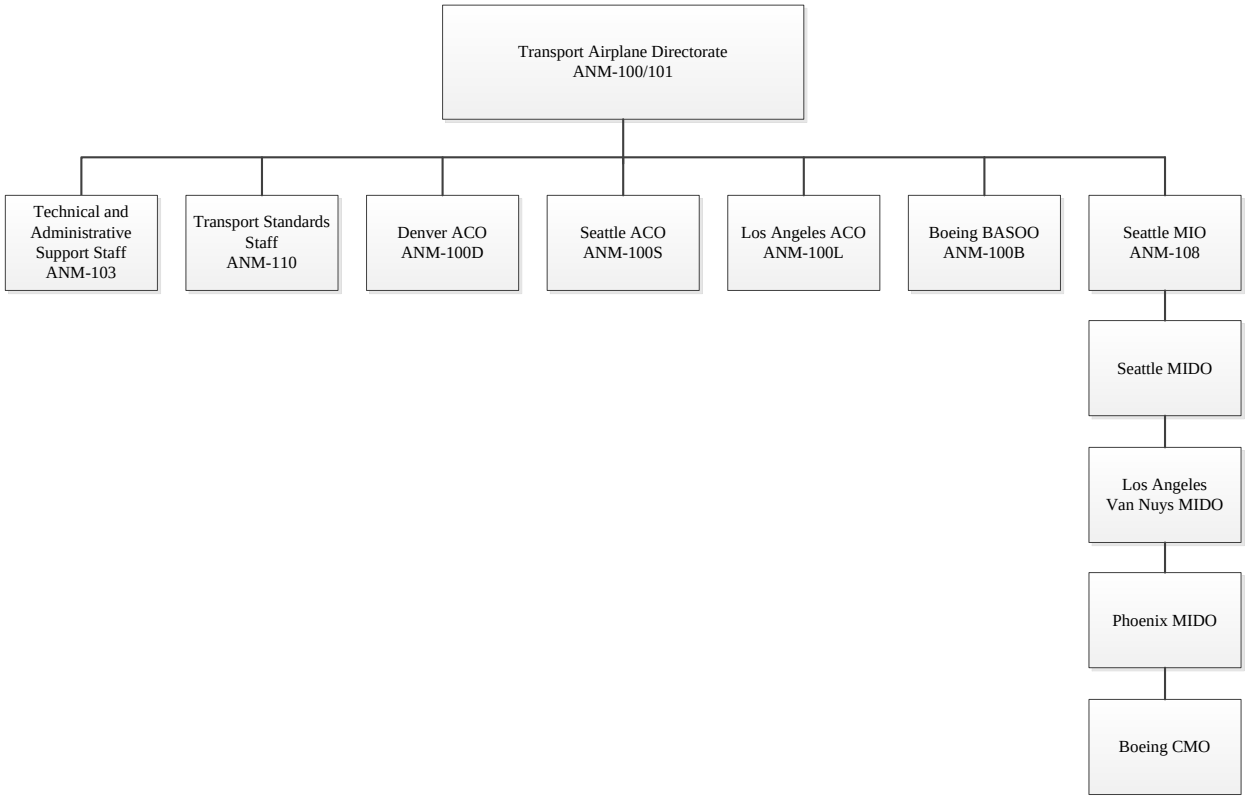
(3) Monitor COS and process airworthiness actions for transport category airplanes;

(4) Provide guidance for validation and COS of imported transport category airplanes, except Transport Canada Civil Aviation products;

(5) Oversee all airworthiness functions within its geographic region; and

(6) Provide administrative support and resource management.

Figure 4-4-3. Transport Airplane Directorate Organizational Structure



d. Rotorcraft Directorate (ASW-100). ASW-100 is located in Fort Worth, Texas and serves the following geographic service areas: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. ASW-100's organizational structure is illustrated in Figure 4-4-4. ASW-100 has the following functions:

(1) Oversee and administer the airworthiness standards for normal category rotorcraft (14 CFR part 27), transport category rotorcraft (14 CFR part 29), and powered lift aircraft;

(2) Develop type certification policies and regulations for normal and transport category rotorcraft, and primary category rotorcraft;

(3) Monitor COS and process airworthiness actions for normal and transport category rotorcraft, and primary category rotorcraft;

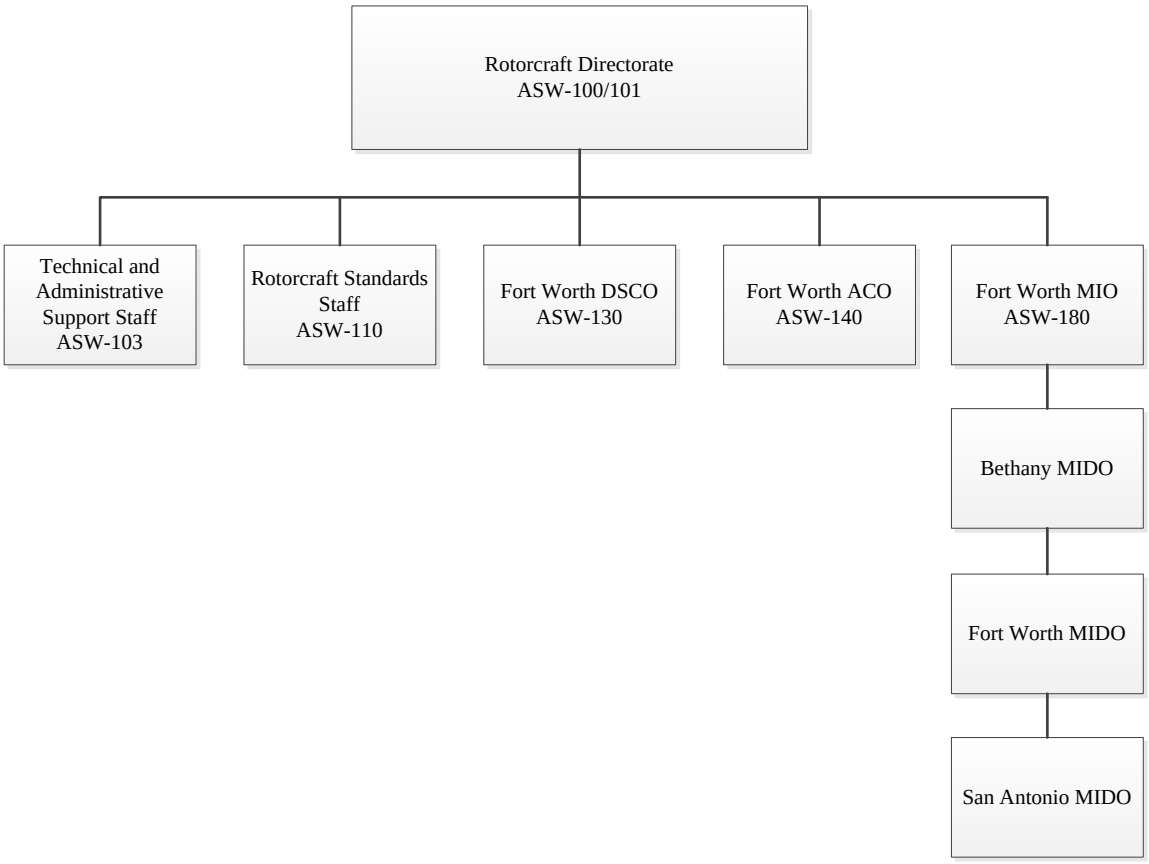
(4) Provide guidance for validation and COS of imported normal and transport category rotorcraft, and primary category rotorcraft;

(5) Oversee all airworthiness functions within its geographic region;

(6) Provide administrative support and resource management; and

(7) Manage AIR's Flight Test Program.

Figure 4-4-4. Rotorcraft Directorate Organizational Structure



e. ACO. An ACO is responsible for issuance and oversight of aircraft and product certification within its assigned geographic region. The primary functions of the ACO are as follows:

(1) Assist applicants, other FAA offices, and members of the general public in design approval, certificate management, and COS;

(2) Appoint and oversee designees (DER) and delegated organizations; and

(3) Investigate and report aircraft accidents, incidents, and service difficulties.

f. Specialized Certification Offices. The offices below are also considered ACOs.

(1) Engine Certification Office (ECO). The ECO is responsible for determining whether engine designs meet performance and certification standards. This office issues design approvals, oversees the COS of certified engines, and manages DER and delegated organizations within its assigned geographic region.

(2) Military Certification Office (MCO). The MCO is responsible for coordinating with the Department of Defense in the certification and COS of civil derivative aircraft products and programs.

(3) Boeing Aviation Safety Oversight Office (BASOO). The BASOO is responsible for overseeing the Boeing Organization Designation Authorization (ODA) and determines what may be delegated based on considerations such as project complexity, company capability, and company performance.

(4) Delegation Systems Certification Office (DSCO). The DSCO is responsible for the appointment and oversight of all ASW Organization Designation Authorization's (ODA) and determines what may be delegated based on considerations such as project complexity, company capability, and company performance.

g. MIO. Each directorate has an assigned MIO which is located in its respective directorate headquarters. The primary functions of the MIO are as follows:

(1) Provide oversight and certificate management of geographically located production facilities and designees in its assigned geographic region;

(2) Determine airworthiness of products within its assigned geographic region; and

(3) Oversee the Manufacturing Inspection District Offices (MIDO) and Certificate Management Offices (CMO) in its assigned geographic region, and provide leadership and technical guidance to these offices.

(a) Manufacturing Inspection District Office (MIDO). A MIDO is a subordinate office of the MIO. The primary functions of the MIDO are as follows:

1 Assist applicants and evaluate the quality systems of production approval holders to verify they show and maintain compliance to airworthiness standards;

2 Make airworthiness determinations of product and articles;

3 Assist ACOs during type certification; and

4 Oversee ODAs, Designated Manufacturing Inspection Representatives, and Designated Airworthiness Representatives.

5 MIDOs may be supported by a Manufacturing Inspection Satellite Office which primary function is to assist particular manufacturers in the production certification process. These offices may be co-located with a large manufacturing facility.

(b) CMO. Directorates may be supported by a CMO that is located in its respective directorate headquarters. A CMO is a subordinate office of the MIO and is responsible for management of a single, large production certificate holder within its assigned geographic region. The primary functions of the CMO are as follows:

1 Assist major manufacturers in production certification and perform surveillance and inspection activities;

2 Assist ACOs during type certification;

3 Oversee designees; and

4 Certificate Management Unit's (CMU) are responsible for overseeing a particular manufacturer's facility. CMU offices are located at Boeing plant locations throughout the state of Washington. The primary function of these offices is to manage the Boeing production certificate.

4-5. AIR Management Teams. AIR utilizes management teams to provide leadership and direction, standardize procedures and policies throughout its various offices, resolve issues and disseminate information to all offices within AIR. The AIR management teams and functions are as follows:

a. ACMT. The ACMT leads and directs AIR, shapes and supports FAA goals and objectives, and improves AIR products and services. The ACMT is composed of ten members: AIR-1, AIR-2, and the manager of AIR-100, AIR-300, AIR-400, AIR-500, ACE-100, ANE-100, ANM-100, and ASW-100. Members from the ACMT also serve as linking members to other AIR management teams.

b. Aircraft Certification Assistant Division/Directorate Managers Leadership Team (101LT). The 101LT conducts business/strategic planning, completes ad hoc and cross-division/directorate assignments that are either self-initiated by the team or are defined by the

ACMT. The 101LT is composed of assistant managers of AIR-100, ACE-100, ANE-100, ANM-100, ASW-100, and representatives from AIR-400 and AIR-500.

c. Standards Management Team (SMT). The SMT leads AIR's corporate regulatory program involving standardized regulations, policy and applications, COS, research and development, international harmonization, and emerging technologies. The SMT is composed of a linking ACMT member, four managers of the Directorate Standards Staff Offices, representing each Directorate, and the branch managers of AIR-100.

d. Aircraft Certification Office Leadership Team (ACOLT). The ACOLT identifies, standardizes, and implements improved processes for the certification and continued airworthiness of aeronautical products, standardizes national procedures and shares internal resources. The ACOLT is composed of a linking ACMT member and the managers of each ACO.

e. Manufacturing Inspection Management Team (MIMT). The MIMT identifies, standardizes, and implements improved processes for certificate management, airworthiness certification and designee management. The MIMT is composed of a linking ACMT member, an AIR-100 representative, and the MIO manager from each directorate.

f. Administrative Management Team (AMT). The AMT improves and standardizes AIR-wide administrative programs and services, ensures programs are consistent with and support FAA, AVS, and AIR goals, and leverages administrative resources to support AIR. The AMT is composed of the AIR-500 division manager, the branch managers of AIR-500, and managers from each Technical and Administrative Support Staff within the directorates and divisions.

Chapter 5. Administrative Information

5-1. Distribution. This order is distributed to the Washington Headquarters division levels of the Aircraft Certification Service; to all Aircraft Certification Offices; to the branch levels of the Aircraft Certification Service; Aircraft Certification Directorates; to the branch levels in the regional Flight Standards Divisions; to all Certificate Management Offices, and all Manufacturing Inspection District and Satellite Offices.

5-2. Authority to Change This Order. AIR-1 issues changes to this order. Changes are coordinated with the AIR directorates, divisions, and offices via coordination with AIR-500. However, changes cannot alter delegations of authority, relationships, or responsibilities set by FAA Order 1100.1B, *FAA Organization – Policies and Standards*.

5-3. Records Management. Refer to FAA Order 0000.1, *FAA Standard Subject Classification System*; FAA Order 1350.14, *Records Management*; or your office Records Management Officer/Directives Management Officer for guidance regarding retention or disposition of records.

5-4. Suggestions for Improvement. Please forward all comments on deficiencies, clarifications, or improvements regarding this order to: 9-AWA-AVS-AIR-DMO@faa.gov via email or complete the form online at https://ksn2.faa.gov/avs/dfs/Pages/Home.aspx. FAA Form 1320-19, Directive Feedback Information, is located in Appendix A to this order for your convenience. If you require an immediate interpretation, please contact AIR-10 at (202) 267-8235; however, you should also complete Form 1320-19.

Appendix A. FAA Form 1320-19, Directive Feedback Information

U.S. Department
of Transportation
**Federal Aviation
Administration**

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: Order 8100.5B

To: Directive Management Officer

(Please check all appropriate line items)

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)

☐ In a future change to this directive, please include coverage on the following subject
(briefly describe what you want added):

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (10-98)