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FEDERAL AVIATION ADMINISTRATION
National Policy

ORDER
AM 1100.3K

Effective Date:
11/01/18

SUBJ: Office of Aerospace Medicine Organization

This order describes the Office of Aerospace Medicine's (AAM) mission, functions, and organizational structure. The organizational structure and functions at the division level and above are documented in Federal Aviation Administration (FAA) Order 1100.1B, FAA Organization-Policies and Standards and is approved by the Administrator. Mission, organizational structure and functions at the branch level and below are documented in this order.

A handwritten signature in cursive script that reads "Michael A. Berry, M.D." with a stylized flourish at the end.

Michael A. Berry, M.D.
Federal Air Surgeon

Table of Contents

Chapter 1. General Information

1. Purpose of This Order	5
2. Audience	5
3. Where Can I Find This Order.....	5
4. What This Order Cancels.....	5
5. Explanation of Policy Changes	5
6. Organization Approval Authorities.....	5
7. Vision, Mission, Goals and Values.....	5

Chapter 2. Office of Aerospace Medicine

1. Structure.....	7
2. Functions.....	7
3. Special Delegations	8
4. Special Relations.....	9
5. Federal Air Surgeon	9
6. Deputy Federal Air Surgeon.....	10
7. Director, Civil Aerospace Medical Institute (CAMI)	10
<i>Organizational Chart Figure 2-1</i>	<i>11</i>

Chapter 3. Program Management Division

1. Structure.....	12
2. Functions.....	12
3. Responsibilities	12
4. Systems Analysis Branch	14
5. Management and Personnel Systems Branch.....	15
6. Finance and Quality Systems Branch	17
<i>Organizational Chart Figure 3-1</i>	<i>19</i>

Chapter 4. Medical Specialties Division

1. Structure.....	20
2. Functions.....	20
3. Responsibilities	20
4. Deputy Director	21
5. FAA Headquarters Health Unit Staff	21
6. Internal Substance Abuse Program Branch	22
7. Medical Appeals Branch.....	22
8. Aeromedical Standards and Policy Branch	23
9. Chief Psychiatrist	24
10. Clinical Psychologists	24
<i>Organizational Chart Figure 4-1</i>	<i>25</i>

Table of Contents (continued)

Chapter 5. Drug Abatement Division

1. Structure 26
 2. Director 26
 3. Program Administration Branch 27
 4. Program Policy Branch 28
 5. Special Investigations Branch 29
 6. Compliance and Enforcement Centers 29
Organizational Chart Figure 5-1 30

Chapter 6. Regional Aerospace Medicine Divisions

1. Structure 31
 2. Functions 31
 3. Special Relations 32
 4. Medical Field Offices 32
Organizational Chart Figure 6-1 33

Chapter 7. Civil Aerospace Medical Institute

1. Structure 34
 2. Functions 34
 3. Responsibilities 34
 4. Program Management Staff 36
Organizational Chart Figure 7-1 38

Chapter 8. Aerospace Medical Certification Division

1. Structure 39
 2. Functions 39
 3. Responsibilities 39
 4. Medical Review and Appeals Branch 40
 5. Medical Officer Branch 40
 6. Medical Systems Branch 41
Organizational Chart Figure 8-1 42

Chapter 9. Aerospace Medical Education Division

1. Functions 43
 2. Responsibilities 43

Table of Contents (continued)

Chapter 10. Aerospace Human Factors Research Division

1. Structure	46
2. Functions	46
3. Flight Deck Human Factors Research Laboratory	46
4. NAS Human Factors Safety Research Laboratory	46
<i>Organizational Chart Figure 10-1</i>	47

Chapter 11. Aerospace Medical Research Division

1. Structure	48
2. Functions	48
3. Responsibilities	48
4. Bioaeronautical Sciences Research Laboratory	48
5. Aeromedical Protection and Survival Research Laboratory	49
<i>Organizational Chart Figure 11-1</i>	51

Chapter 12. Occupational Health Division

1. Functions	52
2. Responsibilities	52

Chapter 1. General Information

- 1. Purpose of This Order.** This order documents the Office of Aerospace Medicine's mission and functions to the branch level.
- 2. Audience.** This order is distributed to the Associate Administrator for Aviation Safety (AVS-1) and AAM employees.
- 3. Where Can I Find This Order.** You can find this order on the MYFAA Employee website: https://employees.faa.gov/tools_resources/orders_notices/.
- 4. What This Order Cancels.** This order cancels Order AM 1100.3J.
- 5. Explanation of Policy Changes.** This order updates the organizational structure of AAM, and incorporates the Federal Aviation Administration (FAA) approved format for long orders.
- 6. Organization Approval Authorities.**
 - a. Organization and functions at division level and above are described in FAA Order 1100.1B, FAA Organization – Policies and Standards.
 - b. Authority to make changes in structure, authority, or responsibility at the branch level and below in AAM, is delegated to the Federal Air Surgeon (AAM-1) by FAA Order 1100.1B, FAA Organization – Policies and Standards.
 - c. The Program Management Division, AAM-100, maintains this order and prepares changes as necessary.
- 7. Vision, Mission, Goals, and Values.**
 - a. *Vision.* Global leadership in aerospace medicine.
 - b. *Mission.* Enhance aerospace safety through aeromedical standards, certification, surveillance, education and research.
 - c. *Goals.*
 - (1) Safety: Enhance aerospace safety through aeromedical standards, certification, surveillance, education, and research;
 - (2) Organizational Excellence: Develop people, manage for results, and provide efficient and effective services;

(3) International Leadership: Improve the level of global aerospace safety and health by promoting international relationships, harmonizing medical standards, coordinating research, and sharing knowledge;

(4) Capacity: Achieve the highest level of customer satisfaction by valuing our customers and providing services in the most effective and efficient manner.

d. Values.

(1) Safety is our passion. We work so all air and space travelers arrive safely at their destinations.

(2) Excellence is our promise. We seek results that embody professionalism, transparency and accountability.

(3) Integrity is our touchstone. We perform our duties honestly, with moral soundness, and with the highest level of ethics.

(4) People are our strength. Our success depends on the respect, diversity, collaboration, and commitment of our workforce.

(5) Innovation is our signature. We foster creativity and vision to provide solutions beyond today's boundaries.

Chapter 2. Office of Aerospace Medicine

1. Structure. AAM's organizational structure is illustrated in Figure 2-1.

2. Functions.

a. AAM is the principle staff element of the FAA for:

(1) Medical certification/qualification of airmen and other persons associated with safety in flight;

(2) Airman medical regulations, standards, policies, and procedures;

(3) FAA employee medical standards, policies, and procedures;

(4) Designated Aviation Medical Examiner (AME) system;

(5) Occupational health and preventive health limited to the tenancy agreement with the FAA Mike Monroney Aeronautical Center (MMAC);

(6) Aerospace medical research;

(7) Aerospace medical and human factors in civil aircraft accident investigations;

(8) Biometric and biostatistical data for use in human factors evaluations;

(9) Aerospace medical education;

(10) Agency health awareness;

(11) Regulation and oversight of industry drug and alcohol testing programs;

(12) Medical review of all positive drug cases involving Department of Transportation (DOT) employees; and

(13) FAA employee substance abuse testing programs.

b. The Office of Aerospace Medicine has the following responsibilities:

(1) Develops, recommends, and coordinates national policies for issuance by the Administrator;

(2) Develops and prescribes technical standards, systems, and procedures consistent with national policies;

(3) Prescribes national aerospace medicine program goals and priorities for field guidance and execution;

(4) Maintains liaison with other governmental agencies and private, professional, and technical organizations to ensure maximum support of the national aerospace medicine effort;

(5) Evaluates the adequacy of, and coordinates policies, rules, regulations, procedures, and program execution in meeting agency goals and priorities.

c. Develops, prescribes, recommends, and evaluates aerospace medicine regulations, standards, policies, and procedures for airmen and agency employees.

d. Coordinates with the National Transportation Safety Board (NTSB) and Office of Accident Investigation and Prevention (AVP-1) in providing professional medical services to investigate civil aircraft accidents.

e. Ensures that FAA medical certification standards and policies conform to international standards and recommended practices.

f. Provides professional and technical medical advice and assistance to the Administrator and other officials and participates in all intra-agency deliberations that concern medical determinations.

g. Determines the medical qualifications of FAA employees in positions with medical standards, as well as applicants for these positions, and grants or denies medical clearances for employment or continued employment.

h. Exercises line authority over the Regional Aerospace Medicine Divisions.

i. Develops regulations for and oversees the aviation industry's FAA-regulated drug and alcohol testing programs.

j. Establishes policies that ensure safety responsibilities are carried out in accordance with the Aviation Safety (AVS) Safety Management System (SMS).

k. Facilitates the open communication and sharing of safety information.

l. Promotes a positive safety culture.

m. Complies with Occupational Safety and Health Administration regulations and Agency Order activities for all AAM employees.

3. Special Delegations. The Federal Air Surgeon is delegated authority to:

a. Determine the medical qualifications of applicants for airman medical certificates and issue certificates to qualified applicants, bearing such limitations as may be required in the interest of safety.

- b. Request additional medical information from applicants.
- c. Deny applications for airman medical certificates.
- d. Require medical reexamination or other investigation of the medical qualifications of holders of airman medical certificates as provided in 49 U.S.C. 44702.
- e. Designate or terminate the designation of AMEs under the authority provided in 49 U.S.C. 44702.
- f. Reconsider, reverse, or modify the medical certificate actions of designated AMEs under the provisions of 49 U.S.C. 44702.
- g. Ensure that all agency medical officers, scientists, and professional persons engaged in FAA aerospace medical activities comply with medical standards, rules, regulations, and agency orders.
- h. Issue notices of proposed rulemaking and hold public hearings in rulemaking proceedings pertaining to establishing medical rules and regulations.
- i. Grant, deny, or terminate authorization for special issuance of airman medical certificates to applicants who do not meet standards prescribed in Part 67 of the Federal Aviation Regulations (FAR).
- j. Review and authorize all aerospace medicine research projects or tasks.

4. Special Relations.

- a. Aerospace medicine research projects may be recommended by any FAA element and shall be approved by, and performed under the program guidance of AAM-1.
- b. The Federal Air Surgeon shall work closely with AVS-1 on matters of medical standards for airmen and airmen certification and records.

5. Federal Air Surgeon. In matters related to aerospace medicine:

- a. Provides professional advice and assistance to AVS-1 and the Administrator in making and implementing executive decisions, in formulating and presenting budget and program plans, and in developing and maintaining productive relationships with the public, the aviation community, and other Government agencies.
- b. Develops, coordinates, executes, and is accountable to AVS-1 for the adequacy of: agency policies, standards, systems, and procedures; airman rules, regulations, and standards; and program plans issued by or on behalf of the Administrator.
- c. Provides for program evaluation and undertakes action to correct deficiencies.

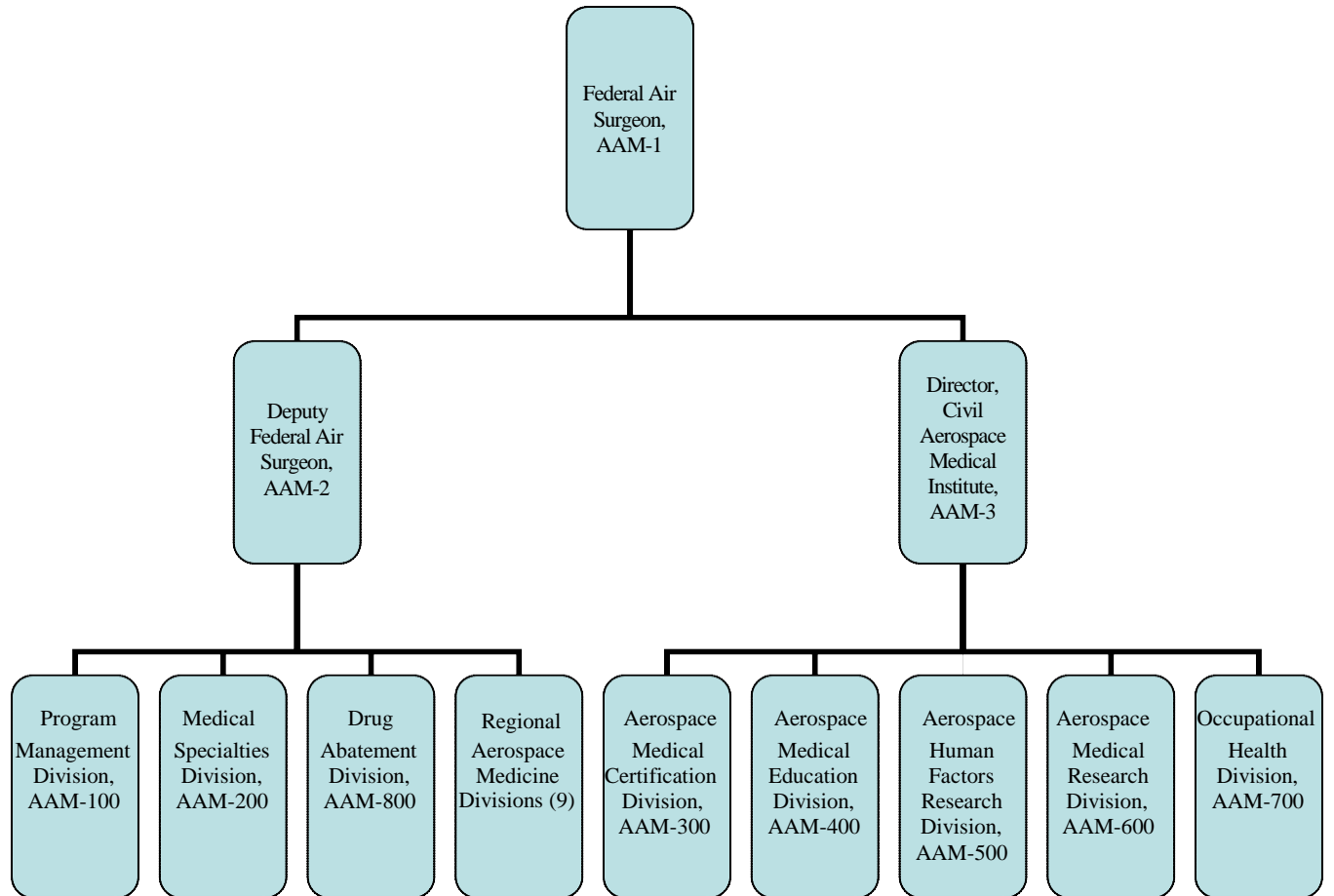
- d. Manages and evaluates the agency's employee substance abuse testing programs.
- e. Manages oversight of the aviation industry's FAA-regulated drug and alcohol testing programs.
- f. Assures that all elements of AAM participate constructively in equal employment opportunity in FAA employment and in equal employment opportunity planning for the future.
- g. Provides leadership and direction in planning, management, and control of office activities.

6. Deputy Federal Air Surgeon. In the absence of the Federal Air Surgeon, the Deputy Federal Air Surgeon (AAM-2) assumes the duties and responsibilities of the Federal Air Surgeon. In addition, AAM-2 oversees the daily operations of the Program Management Division, the Medical Specialties Division, the Drug Abatement Division, and the Regional Aerospace Medicine Divisions.

7. Director, Civil Aerospace Medical Institute. The Director of the Civil Aerospace Medical Institute (CAMI) oversees the daily operation of the Aerospace Medical Certification Division, the Aerospace Medical Education Division, the Aerospace Human Factors Research Division, the Aerospace Medical Research Division, and the Occupational Health Division, all located at the MMAC in Oklahoma City, Oklahoma. The director develops, maintains, and administers a system for the medical examination and certification of U.S. civil airmen; develops, maintains, and administers aviation medical education programs to meet the needs of the agency; conducts human factors and medical research projects applicable to the FAA's mission; conducts research services related to measuring the performance of aviation personnel; and develops, maintains, and administers an occupational health program that includes occupational medicine and clinical activities. As noted specifically in the tenancy agreement with the Aeronautical Center, CAMI:

- a. Provides emergency medical advice for all agency personnel at the MMAC.
- b. Provides consultation advice, emergency treatment for on-the-job illness or injury, and medical services required to support the personnel and emergency operations program located at the MMAC.

Figure 2-1. AAM Organization Chart



Chapter 3. Program Management Division

1. Structure. The organizational structure of the Program Management Division is shown in Figure 3.1.

2. Functions. This division is the principle AAM element responsible for finance, human resources, business systems, and all management and administration programs and activities. The division also has primary responsibility for Quality and Safety Management programs.

3. Responsibilities. The division has the following responsibilities:

a. Evaluates, recommends, develops, coordinates, administers, and continuously improves national guidance to accomplish AAM program goals.

b. Evaluates, recommends, develops, coordinates, administers, and continuously improves AAM programs through management analyses, evaluations, audits, studies, and special projects at the request of Congress, DOT, FAA, and AAM management.

c. Coordinates international activities and assists in the management of International Civil Aviation (ICAO) standards and regulations.

d. Coordinates responses and responds to Office of Inspector General (OIG), General Accounting Office (GAO), Whistle blower, Hotline, Accountability Board and other management initiated investigations, audits, complaints, and inquiries.

e. Supports other projects and programs identified by AAM level management to enhance the AAM mission.

f. Ensures that the division meets all AVS/AAM SMS and QMS policy requirements.

g. Supports the promotion of a positive quality and safety culture in AAM.

h. Develops, advises, coordinates, administers, and continuously improves AAM policies, projects, and procedures for:

- (1) Safety Management Systems (SMS);
- (2) Information technology and business intelligence systems;
- (3) Geographic Information Systems (GIS);
- (4) Strategic and business performance planning;
- (5) Emergency readiness and Continuity of Operations (COOP);

- (6) Personnel resource management;
- (7) Equal Employment Opportunity programs and requirements;
- (8) Awards Program;
- (9) Training;
- (10) Directives and Records Management;
- (11) Headquarters logistics, workspace management; and physical security;
- (12) Freedom of Information Act (FOIA);
- (13) Budget formulation and execution;
- (14) Resource and financial management;
- (15) Internal controls;
- (16) Organization and staffing;
- (17) Quality Management Systems (QMS);
- (18) Environmental Management Systems (EMS);
- (19) OIG, GAO, and OMB audit liaison, and
- (20) Organizational development and other efforts to promote effective work force utilization and productivity improvements.

4. Systems Analysis Branch.

- a. Recommends, develops, coordinates, administers, and continuously improves AAM policies, projects, and procedures for the AAM Safety Management System (SMS).
- b. Conducts evaluations, studies and analyses related to SMS issues and provides project management support for safety risk management projects.
- c. Represents AAM on AVS and FAA level SMS teams and groups.
- d. Administers the AAM SMS hazard reporting, safety council, and safety risk management processes.
- e. Supports and participates in the Federal Air Surgeon's Safety council to monitor, review, and initiate actions related to safety risk management and activities in AAM.

- f. Serves as the liaison for activities related to AAM major systems acquisitions within the FAA's Acquisition Management System (AMS).
- g. Provides Information Technology Businesses Liaison support to the CIO's office.
- h. Coordinates AAM requirements for information technology and resources within AAM.
- i. Manages the AAM SharePoint and represents AAM on AVS and FAA SharePoint teams and groups.
- j. Serves as the AAM lead for AAM Business Intelligence (BI) and Geospatial Information Systems (GIS) implementation and use throughout AAM.
- k. Manages the AAM Quality Management System (QMS).
- l. Recommends, develops, coordinates, administers, and continuously improves AAM policies, projects, and procedures for AAM, AVS and agency strategic and organizational performance plans.
- m. Develops, coordinates, and prepares AAM performance plans and AAM responses for AVS and FAA performance plans.
- n. Provides performance measurement and project support services to AAM.
- o. Supports the AAM performance-budgeting process in cooperation with the Finance Systems Branch to ensure the budget is based on senior management's goals and objectives.
- p. Recommends, develops, coordinates, administers, and continuously improves AAM policies, projects, and procedures for emergency readiness and COOP.

5. Management and Personnel Systems Branch.

- a. Develops Human Resource programs within the framework of the agency Human Resource policies, and provides leadership in the development and implementation of a national program for AAM.
- b. Develops business processes to implement human resource related policies and programs in AAM, nationally, including;
 - (1) Staffing
 - (2) Compensation
 - (3) Collective Bargaining
 - (4) Training

(5) Awards

c. Advises and supports management in determining and classifying positions, advertising and recruiting to fill vacancies, and taking appropriate actions to recognize, promote and retain employees to meet AAM program goals.

d. Represents AAM in the review, coordination, and development of standards; administration of incentive awards program, equal employment opportunity programs, the personnel security program, labor and employee relations matters; and other agency personnel programs/projects.

e. Reviews compensation action requests for regulatory and policy compliance and provides recommendations to Deputy Federal Air Surgeon and Federal Surgeon regarding approval/disapproval.

f. Develops executive performance plans, consults with AAM management on development of employee performance plans, and implements performance management system in AAM.

g. Implements and administers FAA compensation and performance incentive systems for AAM nationwide.

h. Provides advice and assistance to the Federal Air Surgeon, Deputy Federal Air Surgeon and the AAM Management Team on a variety of complex administrative matters (e.g., Employee Relations, Labor Relations, EEO, etc.).

i. Provides assistance to the Departmental Office of Civil Rights and the FAA Office of Human Resources, as needed.

j. Represents management in Alternative Dispute Resolution (ADR) processes and conducts workplace interventions to bring early resolution to office conflicts.

k. Provides support to the Office of General Counsel (AGC) and Human Resources Office (HRO) on matters involving third party litigation, e.g., Equal Employment Opportunity complaints, appeals to the Merit Systems Protection Board, matters before the Federal Labor Relations Authority, and arbitration.

l. Collaborates with AGC and AHR in resolving internal litigation issues in third party forums.

m. Researches, prepares, and/or coordinates preparation of AAM responses to multiple complaint processes, e.g. Office of Inspector (OIG) and Administrator's Hotline complaints.

n. Recommends national training objectives and programs for AAM within the framework of agency training policies. Reviews AAM training plans to ensure consistency with national training objectives.

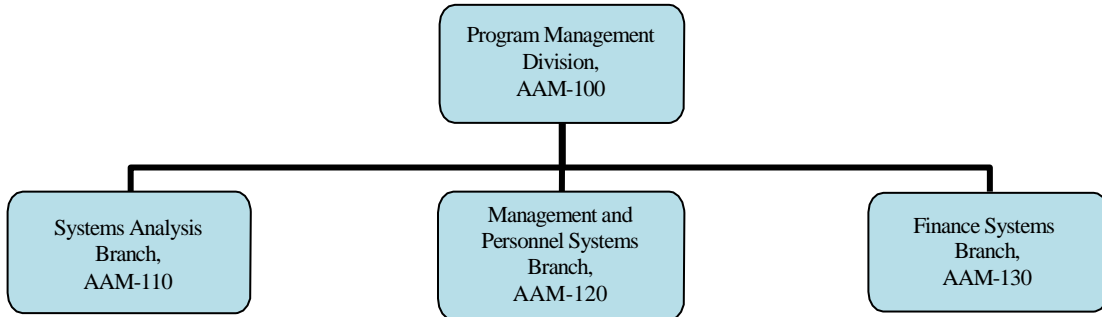
- o. Manages the office directives program ensuring timely review and revision of AAM directives and coordination of Agency directives.
- p. Directs the Records Management program, providing control and coordination of publications, forms, reports, and records.
- q. Maintains accountability records of assigned property and equipment throughout AAM headquarters and conducts annual inventory of the records.
- r. Coordinates AAM international activities.
- s. Coordinates FOIA requests.
- t. Represents AAM on Occupational Safety and Health matters.
- u. Provides guidance and facilitates agency requirements for administrative programs, e.g., financial disclosure, credit card abuse, and security clearance review.

6. Finance Systems Branch.

- a. Develops and disseminates AAM's financial policies and guidance to ensure effective administration of the budget and financial programs for the Operations, Facilities and Equipment (F&E) appropriations.
- b. Manages budget formulation and execution for AAM.
- c. Provides financial management advice, guidance, and updates to AAM managers and leadership.
- d. Allocates funds for national programs, holds quarterly reviews, and adjusts plans based on changes to allocations and spending rates.
- e. Provides advice, guidance, and enforces national policies in the areas of budget, procurement, contracts, and travel.
- f. Develops spending plans and reviews and approves all requests outside of the approved plans.
- g. Analyzes risk elements outlined in the Federal Manager's Financial Integrity Act (FMFIA).
- h. Oversees AAM activities to ensure there are no violations of the Anti-deficiency Act and provides advice and guidance to management if ratification is required.
- i. Conducts internal control audits to ensure AAM resources are managed correctly, to eliminate waste, fraud and abuse and comply with the requirements of the FMFIA.
- j. Conducts program evaluations to promote effective work force utilization and productivity improvements, including:

- (1) Systems for using labor measurement techniques.
 - (2) Analysis of program and organizational resource requirements, including workload and complexity.
 - (3) Recommends appropriate resource allocation and maintains resource allocation plans.
 - (4) Prepares discretionary resource justification requests based upon resource analyses.
 - (5) Recommends internal resource reallocation as necessary to meet program needs.
 - (6) Analyzes new and proposed program activities and functions to determine resource requirements.
- k. Provides financial advice, guidance and training to regional and CAMI administrative employees.
- l. Serves as liaison to OIG, GAO, and OMB audit liaisons.

Figure 3-1. Program Management Division



Chapter 4. Medical Specialties Division

- 1. Structure.** The organizational structure of the Medical Specialties Division is shown in Figure 4.1
- 2. Functions.** This division provides professional advice and technical support to AAM-1, other AAM divisions, agency and DOT elements with respect to medical policies and standards, medical rulemaking, psychiatry, airman medical certification appeals, agency employee medical clearance appeals, FAA employee substance abuse program, employee health awareness activities, and ATCS health.
- 3. Responsibilities.** The division has the following responsibilities:
 - a. Provides professional advice and technical support to AAM-1.
 - b. Develops, recommends and promulgates medical policies, standards and regulations for airmen as well as medical elements of rules, orders, policies, and procedures for airman medical certification programs.
 - c. Develops, recommends, and promulgates medical standards for ATCS personnel; and develops, recommends, and promulgates agency orders, policies, and procedures for the ATCS health program.
 - d. Develops, recommends, and coordinates national goals, directives, plans, policies, and procedures as they relate to the implementation of the FAA Employee Substance Abuse program and provides guidance and policy direction to nine regional and one center drug program coordinators.
 - e. Develops, recommends, and promulgates standards, rules, policies, and procedures for agency non-employees related medical programs.
 - f. Represents AAM-1 in Aerospace Medicine Seminar programs and in other forums when requested.
 - g. Participates with the Aerospace Medical Education Division (AAM-400) in the development and implementation of airman medical certification standards, policies, and procedures.
 - h. Operates the FAA headquarters health unit.
 - i. Participates with the Aerospace Medical Certification Division (AAM-300) in the development and implementation of airman medical certification standards, policies, and procedures.
 - j. Ensures that the division meets all requirements established by the AVS/AAM SMS policy.
 - k. Supports the promotion of a positive safety culture.

4. Deputy Director. The Deputy Director supports the Director and provides professional advice and technical support to AAM-1. In addition, the Deputy Director serves as the Departmental Medical Review Officer (DMRO) and provides oversight and management of the FAA Headquarters Health Unit. The DMRO is responsible for the following functions:

- a. Assumes the duties and responsibilities of the Division Directors responsibilities in his or her absence.
- b. Provides medical review of all drug test cases involving DOT, Transportation Security Administration (TSA) and U.S. Coast Guard (USCG) employees.
- c. Reviews determinations by Field Medical Review Officers (FMRO) and provides feedback.
- d. Performs same duties as FMRO for FAA Headquarters employees and employees of the other operating administrations of the DOT and any other government agency supported by the DOT.
- e. Provides general oversight and coordination with the Employee Assistance Program (EAP) to assure that any DOT employee required to enter into a substance abuse rehabilitation program has the opportunity to receive appropriate treatment.
- f. Monitors rehabilitation status of agency employees in safety-and-security-sensitive positions.
- g. Provides guidance, policy direction, and oversight of FMRO, Drug Program Coordinators (DPC). Collaborates with EAP managers, and service providers in areas of recognition, diagnosis, intervention, treatment, and medical practice factors in substance abuse.
- h. Provides advice and assistance for management in planning and overseeing the substance abuse program.
- i. Serves as a Contracting Officers Technical Representative for all Medical Specialties Division contracts.

5. FAA Headquarters Health Unit Staff is responsible for the following functions:

- a. Provides emergency first aid to sick and injured employees and arranges transfers of sick or injured employees to hospitals when indicated.
- b. Organizes medical screening and educational programs for HQ FAA employees.
- c. Coordinates blood drives at FAA headquarters.

6. Internal Substance Abuse Program Branch. The FAA Employee Substance Abuse Branch is responsible for the following in the development, implementation, administration and management of the FAA employee substance abuse program:

- a. Develops, recommends, and coordinates national goals, directives, plans, policies, and procedures as they relate to the implementation of the FAA employee substance abuse program.
- b. Develops, recommends, and coordinates new program initiatives to deter drug/alcohol abuse.
- c. Provides guidance and policy direction to regional and center DPCs.
- d. Develops, analyzes, and reports on FAA employee substance abuse statistics.
- e. Serves as the FAA liaison to the DOT in matters related to the FAA employee substance abuse program.
- f. Develops, conducts, and monitors training of managers and supervisors, and promotes and implements employer awareness events related to the agency's employee substance abuse program.
- g. Evaluates employee substance abuse program implementation for operational efficacy standardization.

7. Medical Appeals Branch. The Medical Appeals Branch has primary responsibility to manage, evaluate and recommend action on appeals to the Federal Air Surgeon regarding airman medical certification under Title 14, Code of Federal Regulations, Part 67 (14 CFR Part 67) and FAA Order series "Airman Medical Certification – Disqualification Procedures," and regarding Air Traffic Control Specialist (ATCS) medical qualification under FAA Order 3930.3 series "Air Traffic Control Specialist Health Program." The Branch also has many additional related responsibilities and functions as follows:

- a. Manages the overall medical appeals process, to include tracking in the CASES database all appeals cases, requests for specialist consultation from AMCD or the Regions to the Chief Psychiatrist and Chief Psychologist, and related correspondence.
- b. Evaluates and recommends disposition regarding airmen medical certification appeals cases.
- c. Evaluates and recommends disposition regarding Air Traffic Controller Specialist (ATCS) medical qualification appeals cases.
- d. Evaluates and recommends disposition regarding airman cases referred from the Drug Abatement Division (AAM-800) for alleged violation of Department of Transportation (DOT) regulations on drugs and alcohol under 14 CFR Parts 61, 67 and 91 and 49 CFR Part 40.
- e. Adheres to all DOT regulations and FAA Orders regarding protection of sensitive personally identifiable information.

- f. Responds to public inquiries and related correspondence on airmen medical certification and ATCS medical qualification.
- g. Consults with medical experts regarding airmen medical certification and ATCS medical qualification as needed.
- h. Provides professional advice, technical support and consultation to the General Counsel Office (AGC) and Regional Counsel Offices. Supports case development and arranges for and/or provides expert testimony concerning the relationship between an individual's medical condition and aviation safety, and supports the agency position in medical-legal matters.
- i. Provides professional advice and technical support to the Federal Air Surgeon and the Director, Medical Specialties Division.
- j. Provides expert consultation to the Aerospace Medical Certification Division, the Regional Flight Surgeon offices, other organizations within Aviation Safety, and other FAA lines of business.
- k. Provides technical editing and review for AAM reports and presentations.
- l. Provides input to and coordinates with the Aeromedical Standards and Policy Branch (AAM-220) regarding medical conditions, and submits medication issues for consultative opinion from the Pharmacy and Therapeutics Committee.
- m. Represents the Federal Air Surgeon in Aviation Medical Seminar Programs and other forums when requested.
- n. Participates in and supports the AVS Quality Management System through the development and execution of standard procedures according to ISO 9000 and evaluating process metrics through analysis of data.
- o. Serves (i.e., the Branch Manager) as the point of contact for the AVS Consistency and Standardization Initiative Process under AVS-001-013.

8. Aeromedical Standards and Policy Branch. Aeromedical Standards and Policy Branch provides professional advice and technical support to Director, AAM-1, Aerospace Medicine Divisions, and other agency elements regarding airman medical standards, and certification policies. Regulatory and policy activity responsibilities include the following:

- a. Develops, recommends, and promulgates medical standards for airmen certificate holders and non-FAA ATCS personnel as well as rules, regulations, agency orders, policies, and procedures relative to medical programs of the FAA.
- b. Develops, recommends, and promulgates medical standards for FAA ATCS personnel as well as orders, policies, and procedures relative to the ATCS health program of the agency.
- c. Reviews all medical regulation standards, orders, policies, procedures, and related activities of the AAM.

- d. Serves as the AAM liaison to the Federal or State agencies in matters related to medical standards.
- e. Provides management for, and support to, AAM-1 on one-time special projects (e.g., forms, contract management, instructional manual revision, presentations, briefings, and issue papers).
- f. Oversees Pharmacy and Therapeutics Committee activity.

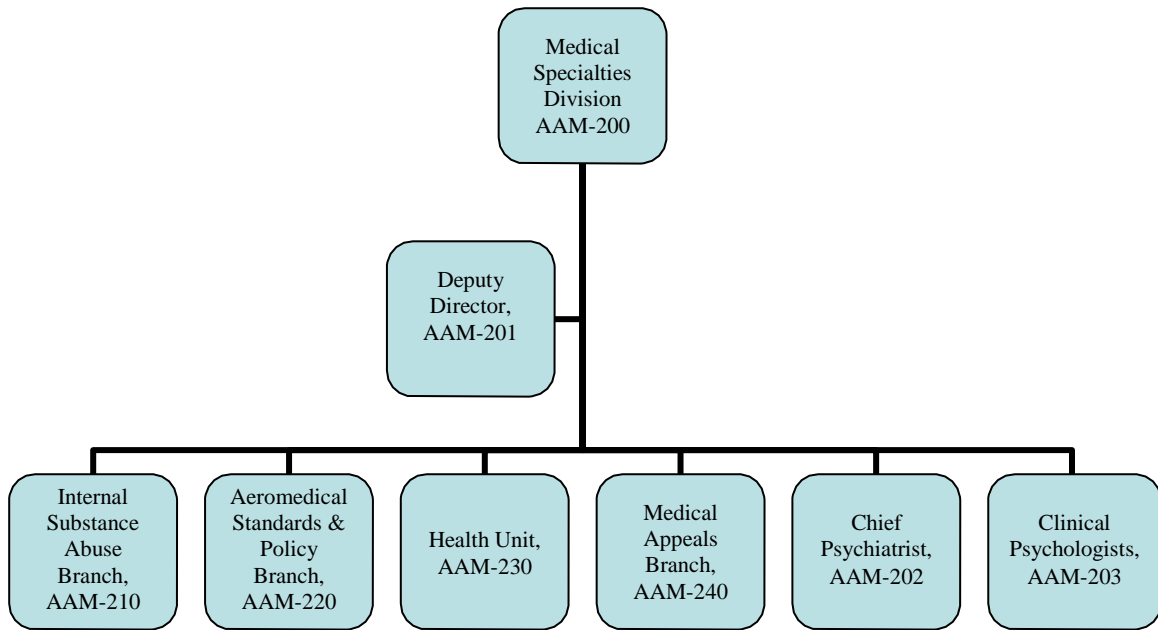
9. Chief Psychiatrist is responsible for the following functions:

- a. Develops and coordinates responses to issues involving psychiatric and addiction situations related to aviation safety.
- b. Provides expert advice and support in the area of addiction diagnosis and treatment as it relates to aviation safety.
- c. Reviews results of psychiatric and psychological evaluations performed outside AAM and makes recommendations to Director and AAM-1.
- d. Performs or evaluates psychiatric examinations of selected airmen, ATCSs, and other agency employees as required and recommends action on individual cases.
- e. Supports agency legal counsel in case development, arranging for, and/or providing expert testimony concerning the relationship between an individual's psychiatric-medical condition and aviation safety, and supports the agency position in medical-legal matters.
- f. Provides clinical psychiatric advice and assistance to other FAA organizational units as needed.

10. Clinical Psychologists are responsible for the following functions:

- a. Reviews results of all ATCS psychological test results and determines the need for second tier psychology evaluations.
- b. Reviews results of all second tier psychology evaluations, prepares reports, and recommendations regarding psychological clearance of ATCS candidates.
- c. Provides psychology consultations to Aeromedical Certification elements within AAM (AMCD, Regional Flight Surgeons, etc.).
- d. Develops and coordinates responses to questions involving psychological issues and makes recommendations to the Chief Psychiatrist, Director, and AAM-1.

Figure 4-1. Medical Specialties Division



Chapter 5. Drug Abatement Division

1. Structure. The organizational structure of the Drug Abatement Division is shown in Figure 5-1, page 27.

2. Director. The Drug Abatement Director is responsible for the following:

a. Principle element of AAM responsible for the development, implementation, administration, and compliance monitoring of the aviation industry drug and alcohol testing programs as set forth in 14 CFR Part 120 and other relevant regulations. Part 120 applies to part 121 and 135 air operators, sightseeing operators (defined in § 91.147), and non-FAA and military air traffic control towers.

b. Plans, manages, and directs the division's activities.

c. Determines the need for and develops national policies, standards, systems, and programs; new or amended Code of Federal Regulations; operations specifications; and advisory materials governing the certification and operational aspects of the aviation industry drug and alcohol testing programs.

d. Provides staff assistance to the Federal Air Surgeon and Deputy Federal Air Surgeon, as needed.

e. Serves as the central point of contact and liaison with the OST, DOT modal administrations, the Substance Abuse and Mental Health Services Administration, the Office of National Drug Control Policy, FAA Office of Chief Counsel and other Federal agencies on all matters relating to the aviation industry's drug and alcohol testing programs.

f. Represents the FAA on committees and at meetings with the air carrier industry, other government agencies, and national and international aviation organizations.

g. Creates and maintains an atmosphere which promotes positive human relations and open communications between employees and their supervisors.

h. Relates Equal Employment Opportunity concepts to cover supervisory/managerial responsibility.

i. Identifies cost savings and operational efficiencies in accomplishing the goals of the division.

j. Ensures that the division meets all requirements established by the AVS/AAM SMS policy.

k. Ensures that product/service providers regulated by AAM develop and maintain effective management programs for the identification of hazards and the control of safety risks.

l. Supports the promotion of a positive safety culture.

3. Program Administration Branch. The Program Administration Branch is responsible for the following:

- a. Develops and coordinates program strategies, goals, and objectives as required for AAM, FAA, and DOT planning efforts in coordination with other elements in the division.
- b. Coordinates strategic program and project planning and workload tracking, and assists with administrative/staff functions (i.e., budget requests, business plans, emergency preparedness, personnel and staffing, logistics, computer support).
- c. Processes registrations and addresses any A049 & A449 Operations Specification paragraph issues with AFS.
- d. Develops and maintains the division's compliance and enforcement tracking database.
- e. Develops and coordinates training for new and experienced Drug Abatement Division personnel.
- f. Processes and analyzes the annual Management Information System (MIS) reports from the aviation industry.
- g. Represents the Division on all matters related to the Quality Management System, Safety Management System, and organizational performance.
- h. Serves as the focal point for the Inspector/Investigator Credentialing Program, between the Division and the Flight Standards Service.
- i. Conducts program analysis and project planning for all field activities.
- j. Manages the development of the inspection schedules to reflect national strategic plans for aviation industry monitoring.
- k. Participates in the development of Drug Abatement Division compliance and enforcement policies and procedures governing inspections and regulations.
- l. Ensures the implementation of DOT and FAA compliance and enforcement policies and procedures.
- m. Conducts special studies and analysis to support development of Program Administrative strategies and initiatives.
- n. Reviews Drug Abatement legal enforcement actions for determination and recommendation of civil penalties. Forwards civil penalty memorandum to Center Manager for transmittal to Regional Counsel.

- o. Assists Compliance and Enforcement Center at informal conferences and with counsel between the Regional Counsel and aviation employers.
- p. Manages the voluntary disclosure reporting program (VDRP), which includes evaluation and investigation of reported noncompliance.
- q. Provides assistance to the Director in accomplishing the division's goals.

4. Program Policy Branch. The Program Policy Branch is responsible for the following:

- a. Serves as the division focal point for review and coordination of FAA regulations, orders, and policies that may affect the division or its regulations.
- b. Develops and coordinates all division rulemaking activities within the timeframes set by DOT, FAA, and the director, or as needed to meet program objectives.
- c. Evaluates existing policy and rule interpretations and develops and recommends policy initiatives.
- d. Serves as the division's focal point for Congressional inquiries, FOIA, and Privacy Act requests.
- e. Provides guidance to the aviation industry and internal staff on drug and alcohol regulations and policies through documents, internet web site, conferences, employee training, and responses to policy questions.
- f. Prepares analysis and recommendations concerning all petitions for exemption submitted by aviation industry employers.
- g. Develops enforcement policies and inspection/investigation procedures in cooperation with other elements of the division.
- h. Serves as the focal point for international program issues, and serves as liaison on such issues with other agencies and international organizations.
- i. Manages the information available on the Division's web site, including the frequently asked questions and guidance material.
- j. Provides assistance to the Director in accomplishing the division's goals.

5. Special Investigations Branch. The Special Investigations Branch is responsible for the following:

- a. Investigates industry employees who test positive for drugs/alcohol and/or refuse to submit to testing. Coordinates actions with the Federal Air Surgeon, Office of the Chief Counsel, and the Regional Counsel.

b. Investigates aviation industry employee complaints, hotline complaints, and Whistleblower complaints.

c. Participates in the development of national policies, standards, systems and regulations.

d. Provides assistance to the Director in accomplishing the division's goals.

6. Compliance and Enforcement Centers. Each Compliance and Enforcement Center is responsible for the following:

a. Oversees and conducts inspections and investigations of regulated companies to determine compliance with applicable regulations, and monitors effectiveness of the compliance and enforcement program.

b. Implements DOT and FAA compliance and enforcement policies and procedures.

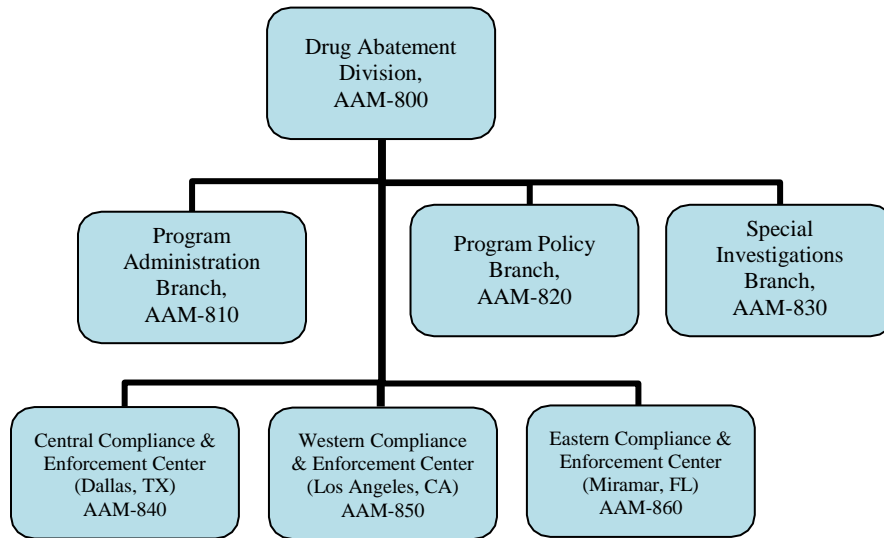
c. Participates in the development of national policies, standards, systems, and regulations.

d. Assists in the development of the inspection schedules to reflect national strategic plans for aviation industry monitoring.

e. Provides on-the-job training and mentoring on the regulations, inspection process and enforcement policies.

f. Provides assistance to the Director in accomplishing the division's goals.

Figure 5-1. Drug Abatement Division



Chapter 6. Regional Aerospace Medicine Divisions

1. Structure. The organizational structure of the Regional Aerospace Medicine Divisions is shown in Figure 6-1.

2. Functions. These divisions manage and direct regional aerospace medicine programs. The Senior Regional Flight Surgeon (SRFS) and all Regional Flight Surgeons (RFS) receive direction from, and report directly to, the Deputy Federal Air Surgeon, AAM-2. The SRFS is responsible for working with the RFS to develop and communicate regional positions on Aerospace Medicine policy and operational issues, as well as ensuring consistency in regional program standards, policies, and operations. The SRFS has the authority to assign tasks pertaining to regional standards, policies, and operations to members of the Regional Flight Surgeons Working Group (RFSWG), of which the SRFS is Chair. The RFSs administer and direct the airmen medical certification, occupational health, and AME programs throughout the regions as well as provides medical advice to agency lines of business as needed. The RFS conducts and participates in medical education programs for airmen and agency employees, and administers the FAA employee substance abuse program. The RFS, including the SRFS, are members of the Federal Air Surgeon's Management Team (FASMT). As members of the FASMT, they attend the regularly scheduled FASMT meetings, are participating members of various sub-groups and participate in the development of aerospace medicine program policies, practices, and procedures. The RFSs represent the Federal Air Surgeon on all medical matters within their geographic area or responsibility. The regional aerospace medicine divisions are responsible for the following:

- a. Plans and administers a medical certification program for airmen, including professional review and adjudication of cases involving medical pathology and other problems requiring resolution at the regional level.
- b. Administer and operate regional programs, which determine the clearance status of agency employees subject to medical standards (e.g., ATCS Health Program).
- c. Administer the regional AME/AME Surveillance programs including selection, training, designation, re-designation, termination or non-renewal of designation. Performs other Quality Assurance functions to monitor and decrease errors. Conducts periodic site visits as needed.
- d. Provide limited medical services (e.g., agency required medical examinations, emergency medical assistance) to agency field employees who are within commuting distance of FAA medical field offices (normally located in Air Route Traffic Control Centers).
- e. Provide professional advice and guidance to the regional administrators and other officials in all aerospace medical matters. Communicates with external aerospace organizations and other agencies as needed.
- f. Conduct periodic visits to field offices and facilities to advise and assist on medical matters.
- g. Support selected aerospace medicine research and medical standards validation efforts.

h. Participate in aerospace and medical education programs for airmen and agency employees and participate in international airmen medical education programs, as opportunities arise.

i. Exercise line authority over the medical field offices.

j. Oversees the management of the FAA Employee Substance Abuse Program in the region.

k. Provide health and medical advice to regional occupational health and safety personnel for the evaluation and monitoring of agency personnel under the Occupational Safety and Health Administration (OSHA) rules and regulations (e.g., asbestos abatement, hazardous noise areas).

l. Implement QMS and SMS at the regional level.

m. Ensures that the division meets all requirements established by the AVS/AAM SMS policy.

n. Supports the promotion of a positive safety culture.

o. Ensures compliance of Occupational Health and Safety for AAM regional employees.

3. Special Relations. Keep their respective regional administrators informed of the significant issues within their purview and participate on the regional management team in support of the Region's input to the agency's mission and goals.

4. Medical Field Offices. The Flight Surgeon shall perform all of the functions assigned to the Aerospace Medicine Division except those formally restricted or reserved to the RFS. The medical program responsibilities delegated to the flight surgeon shall include:

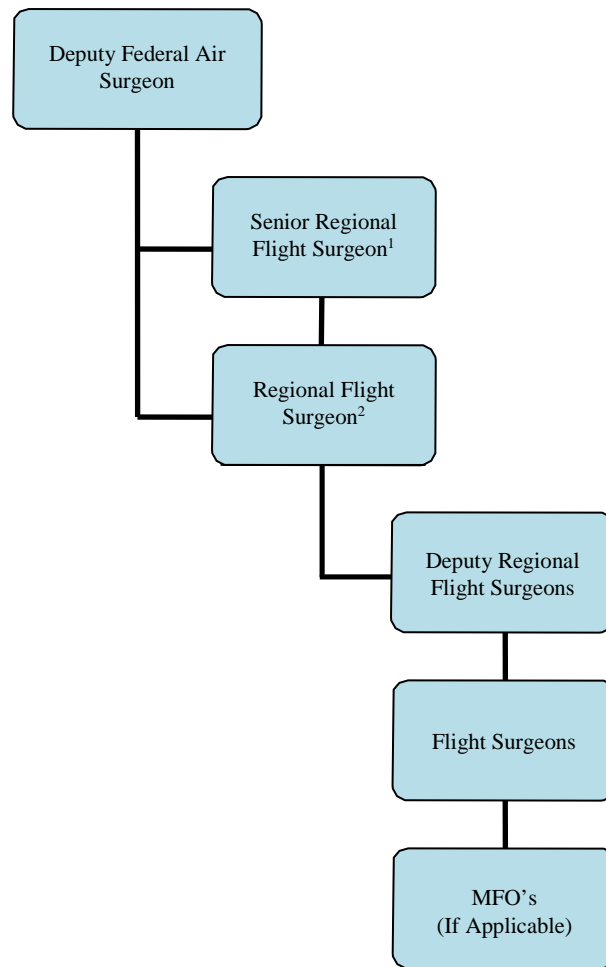
a. The ATCS health program;

b. Airmen medical certification;

c. Airmen and employee health education;

d. Assist as needed in compliance with OSHA program requirements; and

e. Health awareness and education programs.

Figure 6-1. Regional Aerospace Medicine Division

¹The Senior Regional Flight Surgeon is the Chair of the Regional Flight Surgeons Working Group (RFSWG).

²All Regional Flight Surgeons are members of the RFSWG. There is 1 Senior Regional Flight Surgeon and 8 Regional Flight Surgeons located in the 9 FAA Regional Offices.

Chapter 7. Civil Aerospace Medical Institute

- 1. Structure.** The functional organization of the Civil Aerospace Medical Institute (CAMI) is shown in Figure 7-1.
- 2. Functions.** CAMI develops, maintains, and manages a system for the medical examination and certification of U.S. civil airmen; conducts medical and related human factors research projects applicable to the FAA's mission; develops, maintains, and administers aerospace medicine education programs to meet the needs of the agency; provides professional advice and technical knowledge to AAM-1 and other agency elements; provides occupational health programs limited to MMAC employees; and operates a medical clinic for the MMAC.
- 3. Responsibilities.** CAMI is responsible for the following:
 - a. Conducts aerospace medical certification, research, education, and occupational health activities.
 - b. Administers a program for the selection, training, and management of physicians designated to conduct aviation medical examinations of civil airmen throughout the United States and abroad.
 - c. Administers a review system for the processing, professional, evaluation, and disposition of applications for medical certification.
 - d. Manages a national repository of airmen medical records.
 - e. Develops and publishes biostatistical data from airman medical records.
 - f. Develops and maintains data from a centralized Autopsy database.
 - g. Evaluates and recommends to AAM-1 appropriate revisions of the airman medical certification standards.
 - h. Evaluates human performance in aviation, air traffic control and aerospace environments, both simulated and actual, by conducting and applying the results of multidisciplinary medical, psychophysiological, biochemical, human factors, and psychological studies; initiates both in-house and contractual research related to improving performance and safety; and participates in select on-site investigations to analyze major problem areas.
 - i. Participates in national and international research programs in support of assessing human factors issues for aerospace personnel. This includes conducting job-task analyses, developing valid job performance measures, and assessing the effects of new technologies and procedures on operator performance.

- j. Conducts research into the pharmacological, biochemical, and psychological aspects of human interactions of operators in civil aerospace environments.
- k. Plans and executes in-flight studies to determine the effects of the national aerospace environment, flight procedures, and equipment upon the human body and human performance.
- l. Utilizes general aviation simulators to conduct research that assesses the human factors associated with pilot performance and provides recommendations regarding enhancements to procedures, displays, and controls to reduce error prone conditions and improve aviation safety.
- m. Conducts research into the capabilities and limitations relating to the effectiveness and reliability of personnel in the NAS.
- n. Investigates the effects of drugs, toxic chemicals, and certain practices peculiar to civil aerospace flights on the human body and normal functions.
- o. Monitors cabin safety problems and conducts research into on-board equipment and procedures to identify potential safety and efficiency improvements.
- p. Investigates select general aviation and air carrier accidents and searches for biomedical, environmental, organizational, psychological, and human factors causes of the accidents, including evidence of disease and chemical abuse; analyze the accident data for select aviation populations; and studies accident survival.
- q. Studies survivability factors in aircraft accidents.
- r. Serves as the agency central repository and data warehouse for information concerning the medical, human factors, and human engineering design aspects of specific aviation accidents.
- s. Disseminates medical education information through reports, booklets, films, and lectures to FAA components and the aviation public.
- t. Administers programs of professional seminars and training for FAA pilots, inspectors, and medical personnel in aviation physiology, global survival, and medical aspects of aircraft accident investigation.
- u. Administers a centralized national medical education program for airmen, including medical exhibits, in support of the FAA National Aviation Safety Program and the National High-Altitude Indoctrination Program under agreements between the FAA and the United States Air Force.
- v. Plans, develops, and delivers professional seminars for the AME program and other FAA programs as required.
- w. Serves the civil aviation community as a centralized national resource for aeromedical and scientific data.

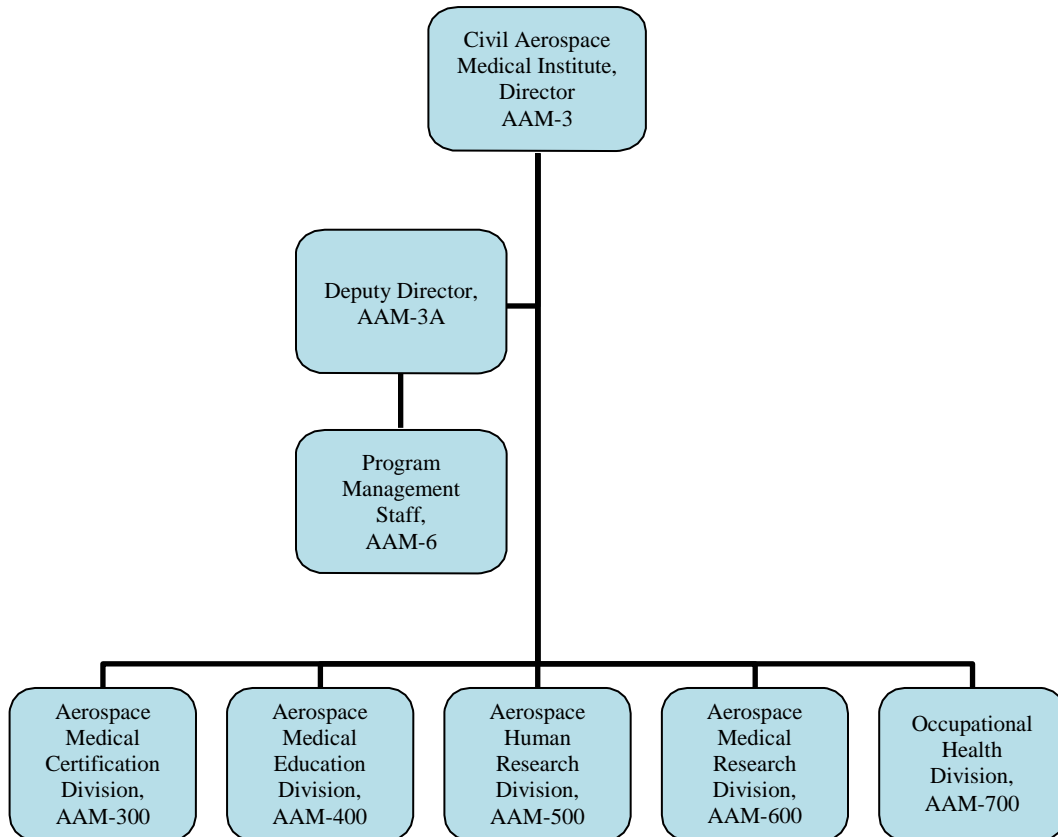
- x. Develops, recommends, administers, and evaluates policies, standards, regulations, and procedures for all FAA occupational health activities for agency employees.
- y. Manages assigned portions of the agency ATCS Health Program, including the ATCS Health Information System.
- z. Provides a Health Awareness Program for Federal employees at MMAC.
- aa. Provides a medical clinic in support of the MMAC and its tenants.
- bb. Conducts pre-employment, pre-appointment, and pilot medical examinations and provides industrial hygiene services for personnel located at the MMAC.
- cc. Conducts a Hearing Conservation Program for the MMAC.
- dd. Ensures that the division meets all requirements established by the AVS/SSM SMS policy.
- ee. Supports the promotion of a positive safety culture.

4. Program Management Staff. The staff provides budget/financial, procurement, quality management, and administers/management services for all elements of CAMI. The staff is responsible for the following functions:

- a. Develops and coordinates local guidance and ensures implementation of AAM's policies to accomplish program goals.
- b. Develops, consolidates, and coordinates information required for budget submissions and other reports. Provides guidance, analyses, and preparation of assigned fiscal requirements on issues pertaining to staffing and funds.
- c. Develops, recommends, and implements policies and procedures for CAMI in the area of:
 - (1) Program planning;
 - (2) Budget execution and financial management of the direct and reimbursable program activities;
 - (3) Management information;
 - (4) Organization and staffing;
 - (5) Human resource management, training, utilization, and security;
 - (6) Management analysis, communication, and facility support operations;
 - (7) Centralized oversight of the QMS and the ISO 9000 program for CAMI;

- (8) All procurement action for supplies, equipment, and contracted services;
- (9) Monitoring of contractual services for equipment maintenance, research support, contract research studies, personal services, and reimbursable agreement for CAMI.

Figure 7-1. Civil Aerospace Medical Institute



Chapter 8. Aerospace Medical Certification Division

1. **Structure.** The organizational structure of the Aerospace Medical Certification Division is shown in Figure 8-1.
2. **Functions.** This division administers the national medical certification program.
3. **Responsibilities.** The division is responsible for the following:
 - a. Develops, recommends, administers, and evaluates standards and procedures for all FAA airmen medical certification activities and associated recordkeeping systems, and provides professional and technical guidance to all elements of the agency engaged in such certification and recordkeeping activities.
 - b. Manages a national repository of airmen medical records and a system for processing medical applications and issuing or denying medical certification.
 - c. Administers review systems for the professional evaluation and disposition of applications for medical certification.
 - d. Makes recommendations to AAM-1 on the disposition of referred airman medical qualification cases and operates a system for the processing and disposition of requests for special issuance.
 - e. Provides evaluation data and recommendations to AAM-200 and AAM-1 in the development of airman certification regulations, standards, rules, orders, policies, and procedures.
 - f. Evaluates the effectiveness of national, international, and field administration of medical certification and related aeromedical activities.
 - g. Provides evaluation data and recommendations to AAM-1 in the development of minimum medical standards for airmen, for certain (non-FAA) ATCSs, and others concerned with flight activities.
 - h. Develops and furnishes biostatistical data from airman medical records.
 - i. Recommends rules, orders, policies, and procedures necessary to administer the medical certification program.
 - j. Establishes and maintains operating standards and procedures to ensure an effective and efficient medical certification automated processing system.

k. Provides statistical data to the Aerospace Medical Education Division (AAM-400) for efficient management of the AME program.

l. Establishes, administers, and maintains standards and procedures to ensure an effective and efficient system for the electronic transmission of FAA Form 8500-8, Application for Airman Medical Certificate or Airmen Medical and Student Pilot Certificate, medical data, and required electrocardiograms (EKG).

m. Develops and administers the medical elements of the Driving Under the Influence/Driving While Intoxicated (DUI/DWI) Program. Under the program, AAM determines whether an airman who has a DUI/DWI conviction or administrative action is eligible for medical certification.

n. Develops and administers internal operating directives and procedures for the industry drug and alcohol testing programs, as they pertain to holder of medical certificates issued under Part 67 of the regulations.

o. Participates with AAM-400 in the development and delivery of training for AMEs and FAA personnel.

p. Ensures that the division meets all requirements established by the AVS/AAM SMS policy.

q. Supports the promotion of a positive safety culture.

4. Medical Review and Appeals Branch. The Medical Review and Appeals Branch determines the medical qualifications of airmen based on available information and initiates appropriate action; reviews controversial cases regarding issuance or denial of certification; determines the disposition of special issuance and appeal cases; manages the medical elements of the DUI/DWI Program; and develops national program guidance on matters regarding airman medical certification.

a. *Review, Qualifications, and Evaluation Section A and B.* Analyzes and identifies incomplete or problematic applications for airman medical certification and initiates appropriate resolution action(s). Evaluates medical information and reports as they relate to medical applications, determines their responsiveness and relevance under established certification policies and procedures, and takes appropriate action.

b. *Medical Appeals Section.* Analyzes and processes new and recertification special issuance and appeal cases. Evaluates the follow up reports, and issues medical certificate when appropriate. Schedules the bimonthly Federal Air Surgeon's Cardiology Panel, which reviews all first- and second-class airmen cases with certain cardiac conditions.

5. Medical Officer Branch. Medical Officer Branch determines medical qualifications of airmen with complex medical conditions who are referred by legal instrument examiners for further review. Supports Federal Air Surgeon specialty panels with case review, pre-screening and follow-up. Responds to incoming phone calls/e-mails from AMEs and may grant verbal authorizations to issue medical certificates. Supports the Aerospace Medical Education Division by teaching at AME basic and theme seminars. Assists the Medical Specialties Division in aeromedical policy development.

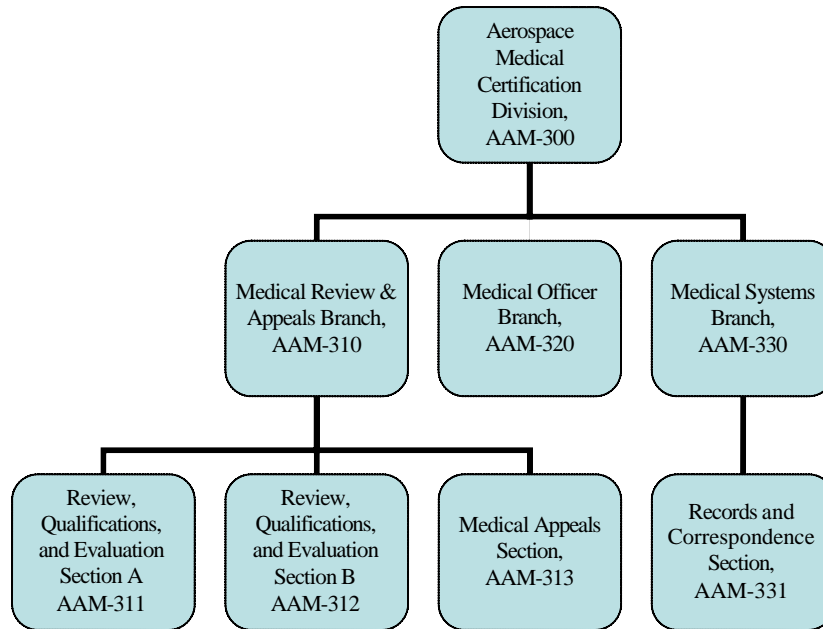
Supports the FAA chief counsel by providing fact/expert witnesses for NTSB hearings. Supports the EKG section by reviewing/clearing EKGs as requested. Assists Regional Flight Surgeons in disposition of difficult cases. Participates in ongoing process improvement efforts.

a. *Aeromedical Expediter Section Analyzes medical applications and determines qualifications of airmen.* Triages and responds to requests and inquiries from a wide spectrum of airman advocacy groups. Intervenes at all stages of medical processing to expedite decision and issuance of medical certificate if appropriate. Coordinates with phone desk, physicians and other legal instrument examiners. Only section in the Division which works certification process from start to finish.

6. Medical Systems Branch. The Medical Systems Branch provides clerical, statistical, and automation support for the division; manages the automated system for collection and dissemination of medical data for the aeromedical certification program and international repository of airmen medical certification records; and manages the international repository of EKG and the automated EKG system.

a. *Records and Correspondence Section.* Maintains medical certification records and provides search, retrieval, and duplication services in support of the airman medical certification program. Provides clerical support to the division, including composing and preparing correspondence to airmen regarding aeromedical certification.

Figure 8-1. Aerospace Medical Certification Division



Chapter 9. Aerospace Medical Education Division

1. Functions. This division develops policies, procedures, and practices with respect to aerospace medical education, and administers these education programs to meet the needs of the agency and the civil aviation community.

2. Responsibilities. The division is responsible for the following:

a. Plans, develops, and administers the AME Program and serves as a principal in AVS designee management activities.

b. Plans and develops standard criteria, and administers a centralized program for the selection, designation, training, and management of AMEs who are authorized to conduct aviation medical examinations of civil airmen throughout the United States and abroad. Ensures that the approved standard criteria for selection, designation, and training are applied equitably in all areas.

c. Determines in coordination with the RFS, the geographical distribution of designated AMEs (including senior AMEs) to ensure adequate coverage to serve the needs of the pilot population. Takes action to correct any existing discrepancies nationally and internationally.

d. Plans, develops, and administers a uniform AME performance evaluation program that provides information as to the quality of examinations conducted and medical certification decisions made by each AME. Ensures the accuracy and timeliness of the computerized AME performance evaluation reports, which provide the RFSs a meaningful statistical analysis for their consideration of the AMEs re-designation.

e. Administers the process to renew the designation of all active AMEs by issuing a current ID card and recording in the AME Records System the signed IDs.

f. Selects, designates, re-designates, and terminates designation of military/federal (Department of Defense (DoD), USCG, National Aeronautics and Space Administration (NASA), and other federal agencies), and international (foreign) AMEs.

g. Coordinates with the offices of the Surgeons General of the Armed Forces, and with appropriate representatives of the USCG, NASA, and other federal agencies, in the designation of flight surgeons and federal civilian physicians as AMEs to conduct aviation medical examinations and issue airman medical certifications to government personnel needing FAA medical certifications.

h. Coordinates with the State Department (through the FAA Office of International Aviation) in the designation of international AMEs to conduct aviation medical examinations and issue FAA medical certificates to United States airmen in foreign countries in accordance with Title 14 of the Code of Federal Regulations Section 67.5, Certification of Foreign Airmen.

- i. Distributes FAA medical forms, stationary, and aerospace medical publications to all AMEs. Initial supplies (upon AME designation) are provided by regional personnel and subsequent supplies are provided by AAM-400.
- j. Operates and maintains the computerized Designee Management System (DMS), which is the central repository of information on the AMEs. Maintains electronic images of master files for all AMEs. Coordinates with regional personnel the timely reporting of relevant AME information to update the DMS. Publishes the AME directory via the internet-based information from the DMS. Provides management data for evaluation of the AME program.
- k. Ensures that all medical education programs comply with the essentials, guidelines, and standards of the Accreditation Council for Continuing Medical Education (ACCME) in order to maintain CAMI's ACCME accreditation.
- l. Analyzes, designs, develops, conducts, evaluates, and administers nationwide AME education programs (existing and new) required to fulfill the aerospace medical training needs of all AMEs as outlined in FAA Order 8520.2G, Aviation Medical Examiners System. Interprets policies and regulations to ensure that AME education programs are designed to enable AMEs to take the correct aerospace medical certification decisions and to communicate their findings appropriately. Optimizes procedures and/or methodologies to evaluate AMEs' knowledge and understanding of aerospace medical certification standards and procedures and how to effectively apply them in the certification of airmen.
- m. Advises, plans, designs, develops, conducts, evaluates, and administers professional technical training for FAA personnel including pilots, inspectors, accident prevention program personnel, and medical personnel in the areas of aviation physiology, global survival, medical and human factors aspects of aircraft accident investigation, aerospace medicine, cardiopulmonary resuscitation, and first aid.
- n. Advises, plans, designs, develops, conducts, evaluates, and administers nationwide aerospace medical education programs for airmen focused on aviation safety in support of the FAA National Accident Prevention Program. Coordinates the development of aerospace medical training agreements (existing and new) between the FAA and the U.S. Air Force, Navy, and Army.
- o. Develops physiological and global survival training standards for FAA flight crews. Reviews existing standards periodically and, when necessary, recommends updates for publication in FAA Order 4040.9D, FAA Aircraft Management Program.
- p. Plans, designs, develops, conducts, evaluates, and administers altitude chamber training for FAA flight crews (to meet regulatory requirements) and civilian airmen at CAMI and at military installations across the country based on availability of facilities and resources. Optimizes procedures and/or methodologies to evaluate FAA flight crew's knowledge and understanding of aviation physiology and global survival and how to effectively apply this knowledge to their day-to-day job-related activities.
- q. Operates and maintains CAMI's altitude chambers, fixed and portable hypoxia trainers, thermal chamber, portable spatial disorientation trainers, fixed and portable night vision imaging

system trainers, and emergency ditching simulators. This equipment is used in support of physiological and global survival training programs as well as research projects.

r. Develops and maintains a database on altitude (hypobaric) chamber operations for the purpose of assessing the prevalence of adverse individual reactions to chamber flights, evaluating the long-term effects of repeated chamber flight exposures among instructors, and monitoring chamber workload or usage.

s. Plans, develops, and conducts nationwide education/training activities (using all available delivery media and/or methods) to disseminate aerospace medical information and scientific data to FAA personnel, AMEs, airmen, aviation industry, aviation organizations, and the general public in support of the agency's mission of promoting aviation safety. Provides educational expertise and support to other OAM educational initiatives as requested (i.e. HIMs program, neuropsychologist refresher training, and toxicology symposia).

t. Designs, develops, and distributes didactic audiovisual materials (video, handouts, multimedia presentations, etc.) and publications used in support of all aerospace medical education programs. These educational aids are designed to support the dissemination of aerospace medical information that promotes aviation safety.

u. Serves as a centralized national resource of aerospace medical information and scientific data for the civil aviation community. Manages and maintains the CAMI Aeromedical (Aerospace Medical) Library. Establishes and maintains close liaison with other government and private organizations (national and international) that represent the interest of the civil aviation pilot population in order to disseminate aerospace medical information that promotes aviation safety.

v. Supports international exchange programs, such as the International Exchange Visitor Program, that facilitate interaction between aerospace medicine professionals, enable the exchange of scientific information, and promote the FAA's international leading role in aerospace medicine.

w. Plans, designs, develops, and conducts training, including initial and refresher education/training activities for all Office of Aerospace Medicine safety programs and safety program personnel, including medical officers, program analysts, inspectors, drug program coordinators, etc.

x. Provides graduate medical education in civil aerospace medicine to residents in aerospace, occupational, and preventive medicine in accordance with the American College of Graduate Medical Education and the American Board of Preventive Medicine standards. The education promotes the FAA's national and international role in aerospace medicine and provides future leaders in the profession with knowledge of the FAA's research and international role in developing aerospace medicine.

y. Ensures that the division meets all requirements established by the AVS/AAM SMS policy and promotes a positive safety culture.

Chapter 10. Aerospace Human Factors Research Division

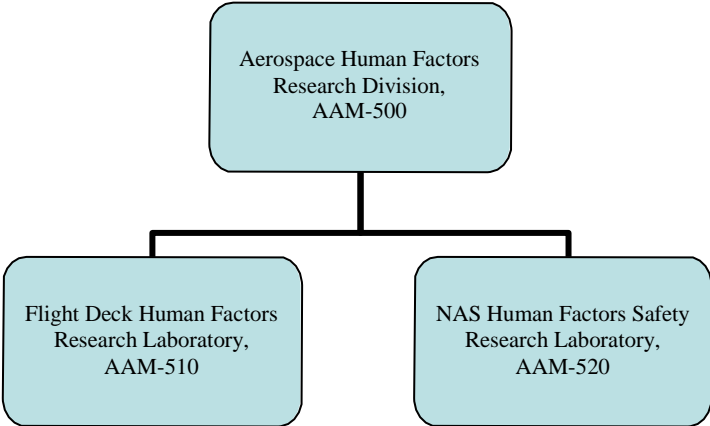
1. Structure. The organizational structure of the Aerospace Human Factors Research Division is shown in Figure 10-1.

2. Functions. The division conducts an integrated program of field and laboratory research in human factors aspects of aviation work environments. Research includes, but is not limited to, assessments of human performance under various conditions of impairment, human error analysis and remediation, agency work force optimization, assessing the impact of advanced automated systems on personnel requirements and performance, human factors evaluations of performance changes associated with advanced multifunction displays and controls in general aviation and air traffic control, and the psycho physiological effects of workload and shift work on job proficiency and safety in aviation-related human-machine systems. This research is accomplished within two research laboratories, the Flight Deck Human Factors Research Laboratory and the NAS Human Factors Safety Research Laboratory.

3. Flight Deck Human Factors Research Laboratory. This laboratory conducts applied human factors research on causal factors associated with aviation accidents and issues involving the design, operation, and maintenance of flight deck equipment in the National Aerospace System (NAS). Research includes assessing advanced technologies, measuring flight performance and risk, evaluating pilot/controller information transfer, determining the effects of stressors on human performance, identifying human factors involved in accidents and incidents, and quantifying the effects of advanced displays, procedures, and task design on pilot performance.

4. NAS Human Factors Safety Research Laboratory. This laboratory conducts an integrated program of research on the relationship of factors concerning individuals, work groups, and organizations as employees perform their jobs. Research is focused on improved person-job fit through training and changes to technology. Employees in this laboratory may conduct job analyses, develop or evaluate human factors assessment methods such as tests and questionnaires, and develop individual and group job performance metrics. They also perform research on the impacts of advanced technologies on ATCS performance, information transfer and human/machine design by utilizing real-time ATC simulation capabilities to investigate human factors operations concepts.

Figure 10-1. Aerospace Human Factors Research Division



Chapter 11. Aerospace Medical Research Division

1. Structure. The organizational structure of the Aerospace Medical Research Division is shown in Figure 11-1.

2. Functions. This Aerospace Medical Research Division has mutually supportive laboratories that evaluate human performance and safety (including safety, security, and health) in aerospace environments, both simulated and actual, by applying multidisciplinary medical, physiological, pharmacological, bioengineering, and biochemical/molecular studies. The division conducts protection and survival research, initiates in-house research related to improving performance, and may participate in select on site visits to investigate and analyze major problem areas associated with the human in the aerospace environment. The division also supports SMS by the following:

- a. Ensures that the division meets all requirements established by the AVS/AAM SMS policy.
- b. Supports the safety risk management and safety assurance functions in the SMS through the analysis of hazards and other data to identify existing or potential safety risks.
- c. Supports the promotion of a positive safety culture.

3. Responsibilities. The division is responsible for the following:

- a. Plans and executes studies to determine the effects of the civil aerospace environment, flight procedures, and equipment upon the human body, and conducts research into the clinical and biomedical capabilities and limitations relating to the effectiveness and reliability of personnel and passengers in the NAS.
- b. Investigates selected general aviation and air carrier accidents and searches for biomedical and clinical causes of the accidents, including evidence of disease and chemical abuse; analyzes accident and incident data for selected aviation populations, and studies incidents and accident survival. Maintains a central repository for reports and data concerning the medical and bioaeronautical factors of specific accidents/incidents.

4. Bioaeronautical Sciences Research Branch. Personnel perform research activities regarding pilot certification and performance, aircrew health, and other factors important to aerospace safety.

a. *Forensic Sciences Section.* Develops biochemical laboratory methods, conducts research on accident fatalities, and serves as the primary national site for toxicology-testing for federal agencies, including the FAA and the National Transportation Safety Board (NTSB).

i. *Forensic Toxicology Research Team (TOX).* Measures drugs, alcohol, toxic gases, and toxic industrial chemicals detected in biological specimens collected from victims of fatal aircraft accidents to make it possible for researchers to “proactively address emerging safety risk by using

consistent, data-informed approaches to make smarter, system-level, risk-based decisions” (FAA Strategic Initiatives - Make aviation safer and smarter). This team also studies the conditions that affect the accuracy and validity of such measurements, and adapts or develops improved methods for making such measurements. They also obtain and analyze clinical chemical parameters to determine significant health trends in aviation personnel. The team investigates postmortem alcohol production and the differentiation of ingested vs. microbial produced alcohol in postmortem fluids and tissues.

ii. *Biochemistry Research Team (CHE)*. Works in collaboration with the TOX team and conducts research to identify biochemical factors that affect humans, studies toxicity of combustion gases and pharmaceuticals, and focuses on the development of new and sensitive analytical procedures. Additionally, the team oversees quality assurance of the Functional Genomics Research Team (GEN), CHE, and TOX laboratories. Research personnel develop novel analytical methodologies in areas of aerospace medicine and administer the Division’s quality assurance /quality control (QA/QC) programs. From 1991 to present, the team has been administering a national postmortem forensic toxicology proficiency-testing program. Since 2003, both the CHE and TOX laboratories have been accredited by the American Board of Forensic Toxicology (ABFT), the world's primary private sector certifying agency for laboratories performing forensic testing.

b. *Biomedical Sciences Section*. Conducts biomarker research pertinent to aviation safety. Collects, manages, and maintains all autopsy records proceeding from the investigation of U.S. fatal aircraft accidents and support the aeromedical review of said accidents. Supports all research efforts involving information technology.

i. *Functional Genomics Research Team*. Conducts gene expression research that involves the functional analysis of environmentally responsive genes and their protein products in the context of normal and abnormal physiological states including sleep deprivation and hypoxia. This approach combines information from messenger ribonucleic acid (mRNA) and protein expression with computational methods in examining networks of responsive genes that signal physiological fatigue and performance impairment following exposure to aerospace stressors. The primary focus of the group is the determination of molecular expression changes in response to factors that affect aviation safety. Other research efforts focus on determining molecular stability in aviation accident victims with the goal of translating marker assays developed in live subject studies to accident investigation. There is potential for markers to be further leveraged in regulatory and educational efforts to improve aviation safety.

ii. *Autopsy Program Team*. Supports an operational program within the Aerospace Medical Research Division. The team is notified of every fatal accident in the United States within hours of the accident and is at the forefront of fatal accident data gathering. The team coordinates accident information with local authorities and accident investigators within hours of a fatal accident. The team is also tasked with the coordination and acquisition of autopsy data and the subsequent distribution of autopsy data to accident investigators and aerospace medical researchers.

iii. *Knowledge Management Research Team*. Provides robust information technology (IT) tools and processes to manage and understand aeromedical data of importance to aviation and

space medicine. It supports all research efforts and personnel within the Aerospace Medical Research Division by providing timely subject matter expertise, information technology management, database management and support, accurate inventory control of assigned resources, and personal training of software and hardware as needed.

5. Protection and Survival Research Branch. Protection and Survival personnel provide state-of-the-art information, procedures, and equipment evaluations relative to aircraft accident investigation, survivability, atmospheric and radiation risk data, health, and security of passengers and crewmembers during normal operations and emergency events.

a. *Life Sciences Section.* Maintains unique information systems that facilitate the immediate aeromedical review of aircraft accidents. National source of expertise for cosmic radiation events of aeromedical concern. Maintains the only repository of integrated civil aeromedical information that predates safety management system concepts.

i. *Medical Research Team (MED).* Provides aeromedical consultations to the FAA Office of Aviation Medicine, FAA Regional Flight Surgeons, the National Transportation Safety Board, field accident investigators, academia, industry, and the public. The team maintains state-of-the-art aeromedical data resources needed to provide information for data-driven decision making by FAA policy makers and aerospace medicine managers. Research topics include in-flight incapacitation of airmen, aviation accident injury analysis, medical cause of accidents, aircraft accidents involving drugs and alcohol, and the accident experience of special groups of pilots (e.g., special issuance pilots). The team is also notified of every fatal and high profile accident in the United States within hours of the accident by the Autopsy Program Team. The team is tasked with supporting the Medical Accident Review & Hazard Analysis Program (MARHAP), which involves the review by a physician of the accident victim's medical certification records, toxicological, autopsy, and other information.

ii. *Aerospace & Environmental Physiology Research Team (ENV).* Conducts research on the environmental factors that may influence human performance, physiology, safety, and health in aerospace environments, in response to stressors such as hypoxia and biological-chemical threats. They also develop test procedures to assess environmental hazards and the adequacy of life support systems, medical devices, and other equipment at altitude.

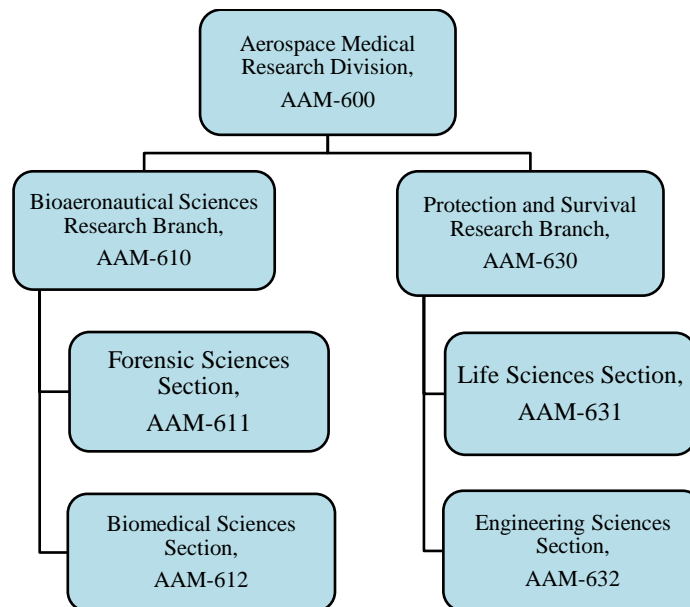
iii. *Numerical Sciences Research Team (NUM).* A multidisciplinary team that brings modern computational and analytical skills and high performance computing capability to the Aerospace Medical Research Division. The team's mission is to research novel ways for quantifying and visualizing risk within the aviation medicine environment. This application of medical informatics is a research effort to bring evidence-based medicine and risk-informed decision making to the Office of Aerospace Medicine, particularly with respect to medical certification decision making and to assess the impact of regulatory change and changes in pilot health on aviation safety. One component of risk assessment within the team deals with the effects of ionizing and non-ionizing radiation on living systems with particular attention to the characteristics of radiosensitive tissue, identification of radiation hazards within the aerospace environment, and methods of protection and warning of such hazards. Another component develops new statistical methods for use within aviation medicine and performs data-mining and analysis of FAA datasets as they relate to aviation safety.

b. *Engineering Sciences Section*. Key contributors to the development of national and international aviation safety equipment standards and survival procedures.

i. *Cabin Safety Research Team (CAB)*. Monitors aircraft cabin safety problems and conducts research studies and tests pertaining to emergency aircraft evacuation and survival. Research topics include seating density, exit size and location, passenger flow rates through exits, and flight attendant behavior are investigated using wide- and narrow-body aircraft cabin research facilities and human research subjects. The team also evaluates new designs for personal flotation devices, life vests, slide/rafts, and other emergency and rescue equipment. The team conducts cabin safety research workshops (CSRW) designed to familiarize aviation personnel with important research findings in the area of aircraft cabin safety.

ii. *Biodynamics Research Team (DYN)*. Conducts research focused on improving occupant protection during civil aviation accidents. As part of this research, aircraft seats and restraint systems are evaluated using a dynamic impact sled and component test systems. Advanced computer modeling data from these tests and analysis provide information about the capabilities of the hardware tested as well as possible means of improving the level of occupant protection. The team develops new methods, techniques, and equipment for evaluating injury potential and methods to reduce injury and enhance survival.

Figure 11-1. Aerospace Medical Research Division



Chapter 12. Occupational Health Division

1. Functions. This division administers medical elements of agency environmental, occupational, safety, and health (EOSH) programs with regional flight surgeons; all elements of CAMI EOSH programs with CAMI division collateral duty safety officers; the CAMI Medical Clinic; and the FAA Institution Review Board (IRB). Provides professional advice and technical assistance for the Federal Air Surgeon, regional flight surgeons, and other AAM and FAA members regarding EOSH, clinical medicine, and human research-subject protections. Maintains working knowledge of the Environmental Protection Agency, OSHA, and other federal, international and national consensus organizations. Manages a professional, specialized, technical, administrative, and clerical staff. Communicates policy, standards, rules, regulations, management, budget, and other resource issue with program management, medical specialties, and other AAM leaders. The division supports SMS in the following:

- a. Ensures that the division meets all requirements established by the AVS/AAM SMS policy.
- b. Supports the promotion of a positive safety culture.

2. Responsibilities. The division is responsible for the following:

- a. Environmental and Occupational Safety and Health (EOSH) Medical Activities.
 - (1) Conducts an occupational medical surveillance program for MMAC employees who are potentially exposed to recognized health hazards.
 - (2) Assists the MMAC Office of Human Resource Management with medical aspects of plans to validate and properly control OWCP chargeback payments to the Department of Labor for on-the-job medical disability cases. This includes the prevention and medical management of on-the-job injuries through the application of sound occupational medicine preventive measures.
 - (3) Performs the DPC and FMRO functions associated with all FAA Employee Internal Substance Abuse Programs at the MMAC.
 - (4) Plans and administers medical services to support the MMAC emergency operations and continuity of operations programs. Prepares contingency plans for and provides services in response to disasters and recovery from disasters. Provides CAMI obligations to MMAC. Support CAMI divisions with CAMI and MMAC readiness requirements.
 - (5) Provides professional and technical assistance for all elements of the agency concerning medical aspects of environmental and occupational safety and health. Acts as consultant to the Federal Air Surgeon, RFS, and Flight Surgeons.

b. CAMI Clinic Activities.

(1) Provides limited primary care level of medical services and assist with referrals and consultations for domestic and international students attending the FAA Academy.

(2) Provides limited services, primarily for minor care of illnesses and injuries, to improve efficiency and reduce time lost from work for MMAC employees and its tenants.

(3) Provides consultations, advice, and emergency treatment for on-the-job illness or injury of agency personnel located at the MMAC.

(4) Provides Health Awareness Program (HAP) to all Federal employees at the MMAC.

(5) Develops, conducts, and coordinates with the Aerospace Medical Research Division (AAM-600) projects involving clinical factors in aviation safety, by request.

c. FAA Institutional Review Board.

(6) Receives and reviews research protocols involving human subjects conducted at, or sponsored by the FAA.

(7) Supports and provides oversight for the local FAA Institutional Review Boards (IRB) such as FAA Technical Center Local IRB.