

U.S. Department of Transportation
Federal Aviation Administration
Flight Standard Service



Regulatory Support Division
AFS-600

Quality Management System
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AFS-600 Quality Management System

Introduction

The Regulatory Support Division, (AFS-600), is located at the Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma. The Division reports directly to the Director of Flight Standards (AFS-1) in Washington, D.C.

The Division is composed of three branch offices that promote safety by providing the aviation community with the highest level of services and systems. We educate, advise, enlighten and empower users to save lives through the development, implementation, analysis and dissemination of technical information. This encompasses the management of aviation safety data systems, airman testing, and designee standardization. Our customers include Flight Standards Service, Aircraft Certification Service, private industry as well as the general public.

The Regulatory Support Division of Flight Standards enhances safety by providing the aviation community with quality services and information through safety data systems, airman testing, and designee standardization (See Appendix 1). The Division is organized into three branch offices to administer these diverse functions.

- The Aviation Data Systems Branch, (AFS-620), is an agency leader in providing critical aviation safety information to the aviation community. The branch's primary systems serve internal FAA offices, external agencies and the general public.
- The Airman Testing Standards Branch, (AFS-630), ensures that newly certified airman have the knowledge and skills to operate safely in the National Airspace (NAS). The branch develops practical test standards, airman training handbooks, knowledge test guides, and airman knowledge tests.
- The Designee Standardization Branch, (AFS-640), ensures that agency designees have the technical knowledge and administrative skills needed to perform expanding certification functions in support of the aviation community

We have implemented this quality management system (QMS) to better satisfy the needs of our customers and to improve management of our organization. This quality management system complies with the international standard ISO 9001:2000. This system covers the design, production, installation, and servicing of the division's services and products.

This manual is divided into nine sections. The first eight sections correspond to quality system requirements of ISO 9001:2000. The ninth section is an Appendix containing specific exhibits referenced in the previous eight sections. Sections 4.0 through 8.0 begin with a general statement expressing our commitment to implement the basic principles of the quality system clause that is the subject of the section. The general statement is followed by more specific procedural policies outlining how the general policy is implemented and referencing the applicable operational procedures.

This manual defines and describes the quality management system, defines authorities and responsibilities of the management personnel affected by the system and provides general procedures for all activities comprising the quality system. In addition, the manual is provided to share our quality system with our customers and other interested parties. This document describes how we implement specific controls to ensure product and service quality.

The Regulatory Support Division ISO 9001:2000 Quality Management System Manual was implemented on May 1st, 2003, and will be revised as changes are made to the QMS.

1 General

1.1 Purpose & Scope

The Quality Management System (QMS) outlined in this manual covers systems and processes within the Regulatory Support Division, AFS-600, of the Flight Standards Service of the Federal Aviation Administration. Specifically, the QMS applies to systems, processes and products pertaining to:

(1) Aviation Data Systems.

- Issuance of Air Operator & Air Agency Numbers
- Privacy Act Responses
- Technical Responses (Non-PA issues)
- Pilot Record Improvement Act (PRIA) Requests
- Freedom of Information Act (FOIA) Requests
- Service Difficulty Report & Accident/Incident Data System

(2) Airman Testing Standards

- Airman Knowledge Testing
- FAA Publications
- FAA Publications with Contractual Support
- Airman Certification Technical Support

(3) Designee Standardization

- Designee Seminars
- National Examiner Board (NEB)

The Regulatory Support Division relies on contract employees from various companies (Datacom, Advancia, Lockheed Martin, etc.) to deliver services. These employees are aware of our QMS but are not legally required to abide by the QMS. AFS-600 is working with the MMAC Acquisitions office (AMQ) to make changes to contracts that will allow the AFS-600 QMS to cover contract employees in FY04. This is an ambitious undertaking as all other groups within the FAA here in Oklahoma have elected to exclude contractors from their certification. Although this is an ambitious effort, we are determined to find a solution to include the contract organizations since they play a vital role in producing our products and delivering our services.

This manual specifies the requirements of the AFS-600 QMS and describes how AFS-600 will:

- a. demonstrate its ability to consistently provide product that meets customer and applicable regulatory requirements, and
- b. enhance customer satisfaction through the effective application of the system,

including processes for continual improvement of the system and the assurance of conformity to customer and applicable regulatory requirements.

1.2 Applicable standards and regulations

This QMS manual is based upon the current ISO standard for a QMS:
ISO 9001:2000, *Quality Management Systems - Requirements*.

1.2.1 Exclusions:

All clauses and requirements of the Standard apply to AFS-600 except:

(ISO 9001:2000 Ref. 7.3) Design and development

The Regulatory Support Division does not design the products and services they administer.

(ISO 9001:2000 Ref. 7.5.2) Validation of processes for production and service provision. The Regulatory Support Division does not validate processes for production.

(ISO 9001:2000 Ref. 7.5.4) Customer Property

The Regulatory Support Division does not handle customer property.

(ISO 9001:2000 Ref 7.6) Control of Monitoring and Measuring Devices

The Regulatory Support Division does not employ any monitoring devices in the delivery of its products and services.

1.3 Organizational Facility

The AFS-600 office is located at the FAA's Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma. The organization is located on the third floor of the Aviation Records Building (ARB). The processes and procedures described in this manual apply to all employees at this location, as well as remote employees and contractors associated with the activities defined in the Purpose and Scope section of this document.

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2 Normative References

The AFS-600 Quality Management System is written to comply with ISO 9000:2000 and ISO 9001:2000. Additionally, we will incorporate and comply with all applicable Federal, DOT and/or FAA guidelines, standards, and policies. We strive to apply the latest revisions of all normative documents. For undated references, the most applicable or latest edition of the reference will apply.

3 Terms and definitions

For the purposes of this manual, the terms and definitions given in ISO 9000 apply. The following terms, used to describe the supply chain, will be used throughout the manual.

supplier → organization → customer

In addition, wherever the term “product” is used it can also mean “service”. The ISO Standard was first applied to manufacturing organizations; however, it is widely recognized that the standard can be applied to service organizations such as the Regulatory Support Division.

Throughout this manual there are references to “AFS-600” and “the division”. These terms are interchangeable and refer to our organization, the Regulatory Support Division.

There are numerous references to the “Branch Manager” within this manual and the associated appendices. The reader should be advised that this is understood within the organization to mean “Branch Manager or his/her designate”. A “Designation of Authority” memo, which identifies these individuals, is on file for the Division and each branch.

A comprehensive list of all the common government, industry, FAA and AFS acronyms used in this manual is located in Section 9 Appendix 03.

4.0 Quality Management System

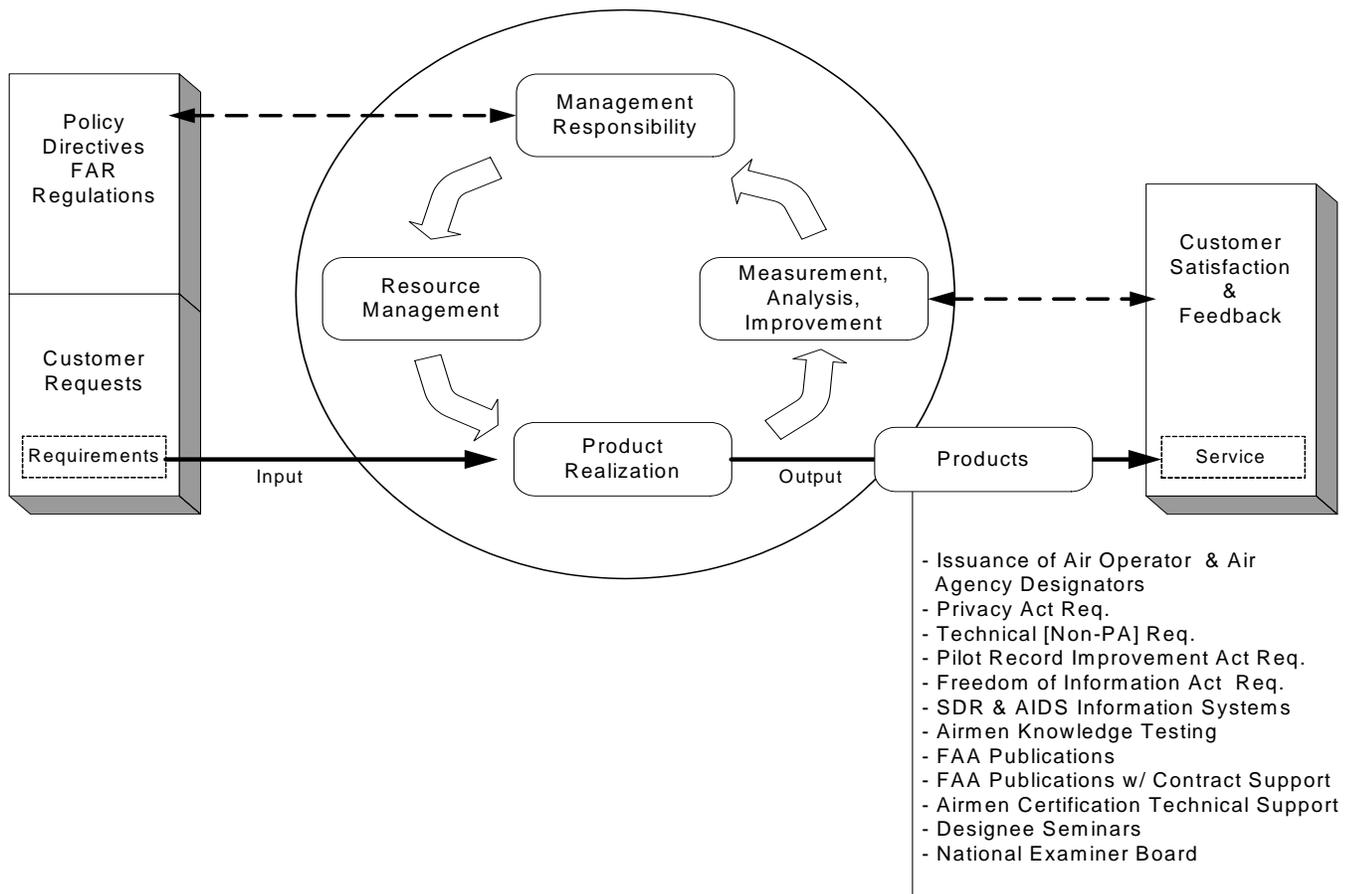
General Statement

AFS-600 maintains a documented quality management system designed and implemented to fulfill ISO 9001:2000 requirements. The quality system is documented in this Quality Manual, Operational Procedures, Work Instructions, Form Records and other related documents such as FAA and U.S. Government Policies, Orders, Regulations and Procedures. The purpose of the quality system is to ensure that design, production, and servicing of AFS-600's products and services are planned and performed in a well-defined and controlled environment.

4.1 General requirements

AFS-600 is committed to the Plan-Do-Check-Act methodology to ensure continuous improvement of the QMS. The diagram below shows the high level view of the interrelations of processes that AFS-600 is committed to. Other quality processes are documented in the Branch SOP and in AFS-600 procedure documents.

Continual Improvement of the Quality Management System



4.2 Documentation requirements

4.2.1 General

The AFS-600 Quality Management System is documented and maintained in electronic format at: <http://afs600.faa.gov/documents.htm>. This is a secure Intranet site maintained by the FAA. The master copy at this site provides a secure way for us to share the information with all AFS-600 employees.

Each Branch also maintains quality procedures and work instructions related to their products and services on the AFS-600 Local Area Network on a shared network drive.

AFS-620 Documents are located on:

Servename: AVRAACOKCAC Share: S:/AFS620/AFS-620-ISO

AFS-630 Documents are located on Shared Network Drive:

Servename: AVRAACOKCAC Share: K:/ISO

R:/AKTPROGRAM

AFS-640 Documents are located on Shared Network Drive:

Servename: AVRAACOKCAC Share: K:/AFS640ISO

The QMS focal point in each branch is responsible for the control of these documents.

4.2.2 Quality Manual

AFS-600 maintains a Quality Manual and three levels of documents within the QMS:

- a) The Quality Manual defines in general terms, the scope of our QMS.
- b) Quality procedures explain who is responsible for a specific process and outline a process.
- c) Standard Operating Procedures (SOP) and Work Instructions give detailed instructions on how to complete a task or process.
- d) AFS-600 Forms and Records are used to show evidence that the quality management system is operating effectively and efficiently.

Where AFS-600 chooses to outsource any process that affects product, AFS-600 will ensure control over such processes. Control of such outsourced processes will be identified within the quality management system. Outsourced processes are described in each Branch SOP.

4.2.3 Control of documents

Documents required by the quality management system and those required by AFS-600 for various processes, procedures and work instructions are maintained according to *Procedure QP-01 Document and Data Control*. (See Appendix 06). This procedure establishes the controls needed:

- a) to approve documents for adequacy prior to issue,
- b) to review and update as necessary and re-approve documents,
- c) to ensure that changes and the current revision status of documents are identified,
- d) to ensure that relevant versions of applicable documents are available at points of use,
- e) to ensure that documents remain legible and readily identifiable,
- f) to ensure that documents of external origin are identified and their distribution controlled, and
- g) to prevent the unintended use of obsolete documents, and to apply suitable identification to them, if they are retained for any purpose.

4.2.4 Control of records

Records that are established and maintained to provide evidence of conformity to QMS requirements are maintained according to *Procedure QP-02 Control of Records*. (See Appendix 07). This procedure identifies the controls that AFS-600 employs to ensure that records remain legible, readily identifiable and are retrievable. The procedure also defines the controls for record storage, protection, retrieval, retention time and disposition of records.

AFS-600 also follows FAA Order 1350.14, Records Management, for the management of records associated with work activities and database systems.

5 Management Responsibility

General Statement

Top management is ultimately responsible for establishing, implementing, and maintaining the quality system. Specific responsibilities comprise: formulating the quality policy, defining the organizational structure, assigning authorities and responsibilities, appointing the management representative, periodically reviewing the quality system, and making available the resources and personnel necessary to maintain the system.

5.1 Management commitment

Top management in AFS-600 (the Division Management Team) is committed to the development and continual improvement of the quality management system by:

- a) establishing, maintaining and reviewing the quality policy;
- b) appointing an ISO management representative and Lead Internal Auditor;
- c) committing resources to train all employees on quality management;
- d) communicating to the employees the importance of meeting customer, legal and regulatory requirements through DMT meetings, electronic correspondence, All-Hands meetings and the Division Newsletter;
- e) maintaining a positive work environment free of harassment and discrimination;
- f) ensuring that quality objectives are established for key processes and products;
- g) holding regularly scheduled management reviews of the QMS, and
- h) ensuring the availability of resources.

5.2 Customer focus

AFS-600 is committed to meeting the expectations and requirements of our customers. Top management provides the proper resources to ensure appropriate communication processes are established within the organization as well as with our customers, suppliers and other interested parties. These processes are established to encourage communication that will continually improve our products and services.

5.3 Quality policy

The AFS-600 Division maintains the following Quality Policy Statement:

We are committed to the safety of the aviation community and the general public. We focus on quality by involving our employees to continually improve our processes and services.

This policy statement is reviewed at each Management Review meeting for continued suitability.

5.4 Planning

5.4.1 Quality objectives

AFS-600 supports the FAA mission for Aviation Safety and the AFS Strategic Plan through an AFS-600 Strategic Plan and an annual AFS-600 Performance Plan. These two plans are located on the AFS-600 Local Area Network (S:/Division Plans) and include a number of strategies and measurable quality objectives generated by management to help AFS, AVR and the FAA to achieve near term and long term goals. (Also see Appendix 14 Current Performance Plan and Appendix 15 Current Strategic Plan).

In order to maintain the plans (AFS-600 Strategic Plan and AFS-600 Performance Plan) the AFS-600 Management Team participates in Quarterly planning meetings to review milestones and make adjustments as necessary. Some of these adjustments are necessary to keep up with changing conditions, while others are made to continually improve the way that we support AFS goals, AVR Goals and the FAA and DOT mission. There are several diagrams at the end of this section, which describe the alignment of AFS, AVR, FAA and DOT goals.

In addition, each Branch maintains its own quality objectives and strategies related to its specific products and services. The list of these objectives is in each branch SOP document.

5.4.2 Quality management system planning

AFS-600 top management established a Planning Methodology for the organization in fiscal year 2002. The methodology involves the following activities:

- a) development and maintenance of a 5 year Strategic Plan for the Division;
- b) development and maintenance of an annual Performance Plan for the Division;
- c) Quarterly Planning meetings with full participation of the DMT to evaluate current trends and situations within the FAA Organization and within the Aviation Industry;
- d) An evaluation of goals and strategies defined in the Strategic Plan;
- e) An evaluation of performance measures and milestones in the Performance Plan;
- f) An evaluation of the current budgetary status and its impact on goals, strategies, measures, and established milestones;
- g) A review of current staffing levels, as well as near term and long term personnel requirements to the Human Capital Plan;
- h) A review the QMS to ensure its integrity. This includes a review of the Quality objectives, processes, and measures outlined in the system. (See Section 5.6 Management Review for additional specifics covered Quarterly by the Division Management Team).
- i) Updating of the Strategic, Performance, and Quality Management Plans as required by decisions reached during the Quarterly meetings.
- j) Posting of these changes to the Local Area Network (LAN) shared drive and/or Web Page so that changes are available to all Division employees.

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

The Division Management Team within AFS-600 ensures that responsibilities and authorities are defined and communicated within the organization.

5.5.2 Management representative

The Deputy Division Manager serves as the Management Representative. Irrespective of other responsibilities, the Management Representative is responsible for:

- a) Ensuring that processes needed for the quality management system are established, implemented and maintained,
- b) Reporting to the DMT on the performance of the quality management system and any need for improvement through the Quarterly Management Review process;
- c) Ensuring the promotion of awareness of customer requirements throughout the organization.
- d) Serving as the top Quality Management authority within the Division;
- e) Ensuring that Division Internal Audit Plan is maintained by the Lead Internal Auditor; and

- f) Ensuring the Quality system documentation and forms are maintained by the Quality Control Officer.

5.5.3 Internal communication

The Division Management Team ensures that appropriate communication processes are established to disseminate information on matters within the organization. This is done in a variety of ways including:

- a) Distribution of Organizational charts, agency policy, procedures, orders, position descriptions, flowcharts, and a quarterly newsletter.
- b) DMT meetings, Branch meetings, web pages, shared documents on the LAN, broadcast email messages.

Records of meetings and communication that address product quality or process improvement will be maintained.

The Management Representative and other members of the DMT are responsible for assuring that communication takes place to ensure the effectiveness of the QMS.

5.6 Management review

5.6.1 General

This quarterly meeting is dedicated to a review of the Division Quality Management System (QMS) for continuing suitability, adequacy, and effectiveness. This review will include assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives.

The AFS-600 Management Representative is responsible for scheduling the meeting and notifying all participants via email. Someone attending the meeting will be designated to take meeting minutes. In most cases an administrative person will attend for the sole purpose of recording the minutes. Minutes are distributed to all attendees after the meeting for an accuracy review. The “final version” of the meeting minutes will be distributed by the Management representative and placed on the shared LAN drive.

The following individuals must be available to attend the Quarterly Management Review:

- AFS-600 Division Manager
- AFS-600 Management Representative
- All AFS-600 Branch Managers
- The AFS-600 Lead Internal Auditor and Quality Control Officer

Other members of the DMT are expected to attend this quarterly meeting. In addition, other division employees may be called to the meeting by the Division Manager or by the Management Representative.

5.6.2 Review Input

The Management Representative conducts the management review with support from the Lead Internal Auditor and Quality Control Officer. The following items are covered during every review:

- a) results from any internal as well as external audit performed since the last review;
- b) customer feedback including complaints,
- c) process performance and product conformity,
- d) the status of any corrective actions and preventive actions,
- e) follow-up actions from previous management reviews,
- f) a review of any changes that could affect the quality management system, and
- g) review of any recommendations for improvement to our quality management system including any processes or products and services.

5.6.3 Review output

In addition to those items outlined in 5.6.2, the management review will include any decisions and actions related to:

- a) improvement of the effectiveness of the quality management system and its processes,
- b) improvement of product related to customer requirements, and
- c) resource needs identified during the meeting.

Meeting minutes are generated from the quarterly meeting. The minutes must include:

- A list of attendees
- All items listed in 5.6.2 (a-g)
- All items listed in 5.6.3 (a-c)
- A statement about whether the Quality policy remains appropriate for the division or needs modification based on actions taken or events that have transpired.
- Any new action items identified during the meeting.

Section 5: Description of Organizational Structure and Alignment of Goals

Charts and Diagrams

1. U.S. Department of Transportation – Listing of DOT Agencies (reference <http://www.dot.gov/DOTagencies.htm>)
2. Federal Aviation Administration Organizational Chart (reference FAA Organizational Directory July 2003, Page xvi)
3. Federal Aviation Administration Organizational Chart PDF format (reference June 2003, <http://www1.faa.gov/index.cfm/apa/1119>).
4. Federal Aviation Administration Organizational Chart HTML format (reference June 2003, <http://www1.faa.gov/index.cfm/apa/1339>) .
5. Flight Standards Service Functional Organization Chart (reference Order FS 1100.1 Chg 13 Page 9).
6. Mike Munroney Aeronautical Center Organizational Chart (reference FAA Organizational Directory July 2003, Page 30).
7. AFS-600 Divisional Interfaces and Inputs Diagram
8. Alignment of Goals Diagram – Cascading Goals: Government Wide, DOT, FAA, AVR and AFS.

6 Resource management

General Statement

The Division Management Team (DMT) is responsible for identifying and providing the resources, including qualified personnel, equipment and processes needed to establish and continually improve the quality management system.

The DMT also supports the full involvement of AFS-600 employees to develop and improve Division products/services. This helps the employees to grow professionally and it allows the division to achieve its goals.

6.1 Provision of resources

Through the division quarterly planning process and the continual review of its product/services, AFS-600 determines and provides the resources needed to:

- a) Implement, maintain and continually improve the quality management system.
- b) Enhance customer satisfaction by meeting customer requirements.

6.2 Human resources

6.2.1 General

All AFS-600 personnel will be competent to perform their duties through the identification and provisioning of the appropriate education, training, skills and experience.

6.2.2 Competence, awareness and training

The FAA uses position descriptions to define the education, skills and abilities required by each position. These attributes are addressed in the assigned duties and responsibilities of the position and further amplified by a specific list of Knowledge, Skills and Abilities (KSA). Positions within the division are continuously evaluated in regard to changing policies and technological advancements to ensure the staff is appropriately trained.

The Human Resources division at the MMAC ranks applications for posted job vacancies, and a list of most qualified candidates is forwarded to AFS-600 for final personnel selections.

Once an individual is hired, each branch determines the necessary competence needed provides the training or other actions to satisfy these needs. Each branch will evaluate the effectiveness of the actions taken and ensure that employees are aware of the importance of competence and its impact on the final product and on achieving division objectives.

Records of appropriate training are stored in the FAA Consolidated Personnel Management Information System (CPMIS) and are available to employees through the automated Training Needs Assessment (TNA) system. Education, skills and experience information on each employee is maintained in each employee's Official Personnel File (OPF) at the MMAC Personnel office.

6.2.2.1 Identification of Training Needs

- a) Top management is responsible for identifying training needs for organization-wide programs such as: general orientation, rules and regulations, quality system, safety, and other agency wide or service wide systems and issues.
- b) Branch managers are responsible for identifying training needs in their branches and for establishing branch training methods. Branch training is primarily focused on increasing the level of skills to improve critical processes, conducting inspections and testing and using analytical and statistical techniques.
- c) Training needs may be identified within the framework of the corrective and preventive action system. The analysis of a specific corrective action may identify training as a possible solution to the identified problem.

The Division gathers training requirements each year for input into the Flight Standards Service's Training Needs Assessment (TNA) system. The TNA system prioritizes training requests based upon the Flight Standards priorities. (See BP-02 Appendix 17 TNA Procedure). Therefore, not all training required at the Division level is funded through the TNA system. Through the quarterly planning process, the DMT addresses the need for training requirements that were not met through the TNA.

6.2.2.2 Training Program

- a) AFS-600 employees receive Agency wide training sponsored directly by the FAA as well as Service level training sponsored by AVR and/or AFS. This type of training involves orientation sessions and seminars related to new initiatives or programs from FAA, AVR or AFS. (Model Work Environment, Labor Distribution System, Security briefings, Performance Management System, Systems Safety, etc).
- b) The Division also establishes training methods and allocates resources for Division initiatives (example: Quality Management) to ensure that all employees

are trained. The Division also has periodic All-Hands meetings to disseminate information and ensure awareness of certain critical issues.

- c) Branch level training is accomplished through the TNA process, through pop-up requests for specific training and through Branch managers requesting the training through the quarterly planning process. In addition, branch managers utilize mentoring, rotating assignments, and detail assignments to assure employee competence.

6.3 Infrastructure

The AFS-600 organization is a tenant organization of the FAA's Mike Monroney Aeronautical Center (MMAC) in Oklahoma City, Oklahoma. The Services Charter delineates the arrangements between the MMAC Director, (AMC-1) and AFS-600. (See Appendix 21 of this document).

- a) The MMAC provides and maintains office space, and heating, lighting and utility services to AFS-600. Specific issues related to Infrastructure are addressed by the Division Manager and/or the Deputy Division Manager and forwarded to the appropriate MMAC contact. Additionally, the Division Manager or Deputy can address concerns or unresolved issues at the MMAC Center Management Team (CMT) meetings each month.
- b) Computer equipment for the AFS-600 office is provided through the Associate Director for Regulation and Certification (AVR-100). The AVR-100 office provides for maintenance of the Division's software and hardware through a Configuration Management Plan. In addition, a Life Cycle plan is maintained to ensure that all AVR offices including AFS-600 have the same computing capability. AFS-600 determines the need for other "non-computer" equipment through the planning methodology outlined in 5.4.2 of this document. Types of equipment that would fit this description are: copiers, facsimile equipment, overhead projectors, white-boards, office calculators, etc.
- c) Support Services (moving and transport of equipment and furniture, mail services, security, telephone system, conference room facilities, child care facility, health facility, etc.) are provided by the Mike Monroney Aeronautical Center.

6.4 Work environment

Each branch will determine and manage the work environment needed to achieve conformity to product requirements. This includes ergonomic considerations for furniture, workplace/cubicle layout, consolidation of work team members, and communicating to division management and/or MMAC issues related to MMAC services (see 6.3a and 6.3c).

AFS-600 also subscribes to the ideals outlined in the FAA's Model Work Environment (MWE) Vision Statement. This statement describes the social characteristics that each employee should expect in a professional work environment.

FAA Model Work Environment Vision Statement
A Vision of Fairness, Accountability and Respect.

A Model Work environment is a productive and hospitable environment with at least four characteristics:

- All employees have the opportunity to develop to their potential and contribute fully to the organization;
- The contributions of all employees are supported and encouraged;
- Discrimination and harassment in the workplace have been eliminated; and
- The Nation's diversity is reflected.

It's not a program, It's the FAA Way.

Information about the Agency's MWE commitment is located on the National Office of Civil Rights Web site: <http://www.faa.gov/acr/acrhome.htm>

7 Product realization

General Statement

The AFS-600 quality management system begins with the identification and implementation of controlled processes and the appropriation of resources for the successful realization of our products/services.

For each product/service we also perform monitoring, measurement and analysis of the processes that create the product/service. We continually look for ways to improve our products and processes by: 1) Planning for product realization; 2) determination, review and protection of customer's product requirements; 3) product design and development; 4) clear communication with our suppliers and customers throughout the development; and 5) provision of resources to assure proper identification, preservation, production and servicing of our products.

General:

AFS-600 offers a variety of services (Airman Testing, Designee Standardization, Systems Management & Reporting, Airman Education, and Policy Support) to a diverse customer base. Each service requires a different set of planning requirements and processes for product realization. The program manager working with his/her respective branch manager is responsible for the service's product realization. In some cases an Agency Order or policy document directly determines the processes that make up product realization.

The processes, requirements gathering techniques, checklists, and customer contact methods and other product realization items are outlined in each branch SOP and/or each product/service procedure.

7.1 Planning of product realization

AFS-600 plans and develops the processes needed for product realization based upon the complexity and unique requirements of each product. Planning of product realization is consistent with the requirements of the other processes of the quality management system. In planning product realization, the division determines the following, as appropriate:

- a) quality objectives and requirements for the product;
- b) the need to establish processes, documents, and provide resources specific to the product;

- c) required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance;
- d) records needed to provide evidence that the realization processes and resulting product meet requirements outlined in section 4.2.4 of this QMS.

The output of this planning is in a form suitable for the AFS-600's method of operations.

7.2 Customer-related processes

7.2.1 Determination of requirements related to the product

The Regulatory Support Division determines:

- a) requirements specified by the customer, including the requirements for delivery and post-delivery activities,
- b) requirements not stated by the customer but necessary for specified or intended use, where known,
- c) statutory and regulatory requirements related to the product which are outlined as references, and
- d) any additional requirements determined by the division.

7.2.2 Review of requirements related to the product

AFS-600 reviews the requirements related to the product prior to the organization's commitment to supply a product to the customer. In some cases, customer requirements are fairly well defined and narrow in scope (example - PRIA request). In other products, there is a more elaborate review process designed to ensure that:

- a) product requirements are defined,
- b) contract or order requirements differing from those previously expressed are resolved, and
- c) the division has the ability to meet the defined requirements.

Records of the results of the review and actions arising from the review are maintained by the program manager for each product in a variety of methods (written reports, email messages, completion of forms).

Where the customer provides no documented statement of requirement, the customer requirements will be confirmed by the division before acceptance except in cases where it is not practical (FAX request for a standard PRIA request).

Where product requirements are changed, the division will ensure that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

7.2.3 Customer communication

AFS-600 has determined and implemented effective arrangements for communicating with customers in relation to:

- a) product information,
- b) inquiries, contracts or order handling, including amendments, and
- c) customer feedback, including customer complaints.

7.3 Design and development

Excluded: The Regulatory Support Division does not design the products and services they administer.

7.4 Purchasing

7.4.1 Purchasing process

AFS-600 uses the FAA ACQUIRE system to manage the procurement process for large purchases and for service contracts. This system requires the user to define the required product, give the specification, estimate the price and define the funding source. The request is then routed to each approving official in the process for review and signature. Records of purchase orders are generated by the system and are maintained in paper form by the division and each branch office.

In addition, AFS-600 also makes small purchases using the Federal Government's Credit Card Purchase Program. Credit card purchase requests are generated by PROTIS. Records for credit card purchases are maintained in paper copy and in the Business Oversight Status System (BOSS).

AFS-600 ensures that purchased product conforms to specified purchase requirements through the FAA Inspection and Acceptance process. For yearly service contracts or long term (multi-year) contracts, there is a monthly approval of invoices.

The type and extent of control applied to the supplier and the purchased product depends on the effect of the purchased product on subsequent product realization or the final product.

The division evaluates and selects suppliers based on past experience and/or a supplier's ability to supply product in accordance with the division's requirements. However, being a part of the federal government we cannot base our selection criteria on these factors alone. We are bound by federal procurement regulations and by AMQ implementation of those regulations on many purchases. (Occasionally, suppliers for certain services are provided to the division through a FAA-wide negotiated contract or an MMAC-wide negotiated contract. In other cases, our purchases must abide by regulation for Small and Disadvantaged Businesses, Sole Source, etc.).

Each Contracting Officer' Technical Representative (COTR) establishes criteria for selection, evaluation and re-evaluation. These activities are coordinated with the AMQ Contracting Officer (CO) and the AFS-600 program manager. Records of the results of evaluations and any necessary actions arising from the evaluations are maintained by the COTR and shared with the program manager and the CO.

7.4.2 Purchasing Information

Purchasing Information describes the product to be purchased, including where appropriate:

- a) requirements for approval of product, procedures, processes and equipment,
- b) requirements for qualification of personnel, and
- c) quality management system requirements.

The division ensures the adequacy of specified purchase requirements prior to their communication to the supplier. In some cases a requirements document or statement of work is attached to the *Purchase Request* form to specifically define the division's need.

7.4.3 Verification of purchased product

AFS-600 follows the Inspection and Acceptance methods defined by the MMAC Purchasing Office (AMQ). AFS-600 communicates to the supplier and AMQ as necessary to ensure that purchased product meets specified purchase requirements.

Where the division or its customer intends to perform verification at the supplier's premises, the division communicates the intended verification arrangements and method of product release in the Purchase Request or the attached requirements document.

7.5 Production and service provision

7.5.1 Control of production and service provision

The division plans and implements production and service provision under managed conditions. Controlled conditions include, as applicable, the:

- a) availability of information that describes the characteristics of the product,
- b) availability of work instructions, as necessary,
- c) use of suitable equipment,
- d) implementation of monitoring and measurement, and
- e) implementation of release, delivery and post-delivery activities.

7.5.2 Validation of processes for production and service provision

Excluded: The Regulatory Support Division does not validate processes for production

7.5.3 Identification and traceability

Where appropriate AFS-600 identifies the product by suitable means throughout product realization. The division also identifies the product status with respect to monitoring and measurement requirements.

Where traceability is a requirement, the division establishes means and records the unique identification of the product.

7.5.4 Customer property

Excluded: AFS-600 does not handle customer property.

7.5.5 Preservation of product

AFS-600 preserves the conformity of product during internal processing and delivery to the intended destination. This preservation will include identification, handling, packaging, storage and protection. Preservation will also apply to the constituent parts of a product.

7.6 Control of monitoring and measuring devices

Excluded: The Regulatory Support Division does not employ any monitoring devices in the delivery of its products and services.

8 Measurement, analysis and improvement

8.1 General

AFS-600 plans and implements the monitoring, measurement, analysis and improvement processes per the *Analysis of Data Procedure*, to:

- a) demonstrate conformity of the product,
- b) ensure conformity of the quality management system, and
- c) continually improve the effectiveness of the quality management system.

This includes determination of applicable methods, including statistical techniques, and the extent of their use. (See APPENDIX 12 (QP-07) Analysis of Data Procedure)

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

The Division will monitor information related to customer perception. In particular, we will focus on whether we have met customer requirements. Each branch determines the methods for obtaining and using customer perception information. See each branch SOP as well as by division's *Corrective Action Procedure* (QP-05 – Appendix 10) and *Preventive Action Procedure* (QP-06 – Appendix 11).

8.2.2 Internal audit

AFS-600 conducts internal audits at planned intervals as outlined in the *Internal Audit Procedure* (QP-03 – Appendix –08) to determine whether the quality management system:

- a) conforms to the planned arrangements, to the requirements of the International Standard and to the quality management system requirements established by AFS-600, and
- b) is effectively implemented and maintained.

AFS-600 plans the audit program taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods are defined. Selection of auditors and

conduct of audits ensure objectivity and impartiality of the audit process. Auditors will not be assigned to audit their own work.

The responsibilities and requirements for planning and conducting audits and for reporting results and maintaining records is also defined in the *Internal Audit Procedure*.

The manager responsible for the area being audited (may be a division manager or one of the branch managers) ensures that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results defined in the *Corrective Action Procedure* (QP-05 – Appendix 10) and the *Preventive Action Procedure* (QP-06 – Appendix 11).

8.2.3 Monitoring and measurement of processes

AFS-600 applies suitable methods for monitoring and, where applicable, measurement of the quality management system processes through the *Analysis of Data Procedure*. These methods will demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, corrective action is taken to ensure conformity of product through the *Corrective Action Procedure*.

8.2.4 Monitoring and measurement of product

AFS-600 monitors and measures the characteristics of each of its products to verify that product requirements have been met. This is conducted at appropriate stages of the product realization process in accordance with the specifics for each product as defined in the respective branch SOP & product procedure.

Evidence of conformity with the acceptance criteria will be maintained according to the division's *Control of Records Procedure* (QP-02). Records indicate the person(s) who authorize product release.

Product release and service delivery does not proceed until the planned arrangements defined by each branch have been satisfactorily completed. Deviations from the planned arrangements must be approved by the appropriate manager, or under a specific arrangement defined by customer requirements.

8.3 Control of nonconforming product

AFS-600 ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and

related responsibilities and authorities for dealing with nonconforming product are defined in the *Control of Non-conforming Product (QP-04)* procedure. (See Appendix 09).

AFS-600 will manage nonconforming product in one or more of the following ways:

- a) by taking action to eliminate the detected nonconformity;
- b) by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;
- c) by taking action to preclude its original intended use or application.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, will be maintained according to our *Control of Records* procedure. (See Appendix 07 QP-02).

When nonconforming product is corrected, it will be subject to re-verification to demonstrate conformity to the requirements. A re-inspection of the product will occur.

When nonconforming product is detected after delivery or use has started, the division will take action appropriate to the effects, or potential effects, of the nonconformity per our *Corrective Action* procedure.

8.4 Analysis of data

AFS-600 has established and maintains a Management Review process and an Analysis of Data procedure (See Appendix 12 QP-07) to determine, collect, and analyze appropriate data to demonstrate the suitability and effectiveness of the QMS and to evaluate where continual improvement of the effectiveness of the QMS can be made. This includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data will provide information relating to

- a) customer satisfaction through the use of customer contacts, surveys and the *Corrective Action procedure*,
- b) conformity to product requirements,
- c) characteristics and trends of processes and products including opportunities for preventive action, and
- d) suppliers.

8.5 Improvement

8.5.1 Continual improvement

AFS-600 continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions, and the quarterly management review.

8.5.2 Corrective action

AFS-600 established a *Corrective Action* procedure (QP-05) to eliminate the cause of nonconformities and to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

The Corrective Action procedure (QP-05) defines requirements for:

- a) reviewing nonconformities (including customer complaints),
- b) determining the causes of nonconformities,
- c) evaluating the need for action to ensure that nonconformities do not recur,
- d) determining and implementing action needed,
- e) records of the results of action taken, and
- f) reviewing corrective action taken.

8.5.3 Preventive action

AFS-600 has established the *Preventive Action* procedure (QP-06) to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions will be appropriate to the effects of the potential problems.

In addition, each product has design management features outlined in the branch SOP and/or the product procedure, which address ways to eliminate the occurrence of non-conforming product.

The *Preventive Action* procedure defines requirements for:

- a) determining potential nonconformities and their causes,
- b) evaluating the need for action to prevent occurrence of nonconformities,
- c) determining and implementing action needed,
- d) records of results of action taken, and
- e) reviewing preventive action taken.

9.0 Appendix

This section contains other specific references that were identified in earlier sections of the AFS-600 Quality Manual.

- Appendix 01 – Organizational Chart – Regulatory Support Division (AFS-600)
- Appendix 02 – Hierarchy of AFS-600 QMS Documentation (Chart)
- Appendix 03 – List of Acronyms
- Appendix 04 – Master List of Documents
- Appendix 05 – Master List of Records
- Appendix 06 – QP-01 Document and Data Control Procedure
- Appendix 07 – QP-02 Control of Records Procedure
- Appendix 08 – QP-03 Internal Audit Program
- Appendix 09 – QP-04 Control of Non-Conforming Product
- Appendix 10 – QP-05 Corrective Action Procedure
- Appendix 11 – QP-06 Preventive Action Procedure
- Appendix 12 – QP-07 Analysis of Data Procedure
- Appendix 13 – QP-08 Continual Improvement Procedure
- Appendix 14 – Current Fiscal Year AFS-600 Performance Plan
- Appendix 15 – Current AFS-600 Strategic Plan
- Appendix 16 – BP-01 Financial Management
- Appendix 17 – BP-02 Training Needs Assessment Procedure
- Appendix 18 – MOA/MOU Procedure
- Appendix 19 – Records Management
- Appendix 20 – RESERVED FOR Personnel Actions
- Appendix 21 – AMC-1/AFS-600 Services Charter

Note: Quality Procedures related to the QMS are listed above and begin with (QP). Business Procedures begin with (BP).

Revision 1.1 Changes

1. Revised cover to Version 1.1 and date of release to September 15, 2003.
2. Revised Header with Revision 1.1 and date of September 15, 2003.
3. Deleted the old AFS logo on the cover page, added the new AFS logo.
4. Added Appendix 19 – Records Management Procedure, and reserved Appendix 20 for Personnel Action Procedure.
5. Modified the scope of the QMS to identify specific products and services.
6. Revised the diagram in section 4.1 of the manual for AFS-600 Quality processes.
7. Revised Appendix 8 (QP-03) Internal Audit Program (See Appendix for specific changes).
8. Cancelled use of the Change Request Form. Use CAR form for all future changes including documentation.
9. Re-format of manual so that each section is separated with hard returns. This will make adjusting each section easier while leaving the other sections intact.
10. Revised all references to the AFS-600 web site from <http://afs600.faa.gov> to the new reference <http://afs600.faa.gov/documents.htm> . The change was also made to the footer, which is displayed on each page.
11. Revised the format and content of the Master Records List (Appendix 5). The format is the same that is used by AFS-40.
12. Added Appendix 21, the Services Charter outlining the relationship between AMC-1 and AFS-600.
13. Added Alignment of Goals diagram to Clause 6. Diagram shows the alignment of DOT, FAA, AVR and AFS goals and objectives that must be considered while making resource decisions.
14. Added the following sentence to Section 6.3: “The Services Charter delineates the arrangements between the MMAC Director, (AMC-1) and AFS-600. (See Appendix 21 of this document)”.
15. Deleted the two supporting quality objectives from section 5.3.
16. Added the following sentence to section 5.4.1: (Also see Appendix 14 Current Performance Plan and Appendix 15 Current Strategic Plan).
17. Added “Alignment of Goals” chart to Section 5.
18. Added a reference to section 6.3 to the MMAC/AFS-600 Services Charter: “The Services Charter delineates the arrangements between the MMAC Director, (AMC-1) and AFS-600. (See Appendix 21 of this document).”
19. Deleted the last two sentences of section 1.2: “All clauses and requirements of the Standard apply to AFS-600. Any specific exclusions will be identified in Branch Standard Operating Procedures (SOP).” Replace with “

1.2.1 Exclusions:

All clauses and requirements of the Standard apply to AFS-600 except:

(ISO 9001:2000 Ref. 7.5.4) Customer Property

The Regulatory Support Division does not handle customer property.

(ISO 9001:2000 Ref 7.6) Control of Monitoring and Measuring Devices

The Regulatory Support Division does not employ any monitoring devices in the delivery of its products and services.

20. Section 7.5.4 - Deleted original paragraph and replaced it with "Excluded: AFS-600 does not handle customer property.
21. Section 7.6 – Deleted original paragraph and replaced it with "Excluded: The Regulatory Support Division does not employ any monitoring devices in the delivery of its products and services.
22. Section 5.5.3 b. removed the words "Division newsletter" from the list of methods used to communicate with employees.
23. Section 5.4.2i removed the words "Budget" and "Human Capital" from the list of plans.
24. Modified the scope (1.1) to add the following statement about contract employees: "The Regulatory Support Division relies on contract employees from various companies (Datacom, Advancia, Lockheed Martin, etc.) to deliver services. These employees are aware of our QMS but are not legally required to abide by the QMS. AFS-600 is working with the MMAC Acquisitions office (AMQ) to make changes to contracts that will allow the AFS-600 QMS to cover contract employees in FY04. This is an ambitious undertaking as all other groups within the FAA here in Oklahoma have elected to exclude contractors from their certification. Although this is an ambitious effort, we are determined to find a solution to include the contract organizations since they play a vital role in producing our products and delivering our services."
25. Section 4.2.1. Added the following paragraph and references:
Each Branch also maintains quality procedures and work instructions related to their products and services on the AFS-600 Local Area Network on a shared network drive.

AFS-620 Documents are located on:

Servename: AVRAACOKCAC Share: S:/AFS620/AFS-620-ISO

AFS-630 Documents are located on Shared Network Drive:

Servename: AVRAACOKCAC Share: K:/ISO
R:/AKTPROGRAM

AFS-640 Documents are located on Shared Network Drive:

Servename: AVRAACOKCAC Share: K:/AFS640ISO

The QMS focal point in each branch is responsible for the control of these documents.

26. Changed Introduction (page 1) reference to AFS-630 from “The Airman Testing Branch” to “The Airman Testing Standards Branch”.
27. Added a listing of charts and graphs referenced by Section 5. See list on page 16 of manual.
28. Changed Appendix 18 from BP-03 for Control of Official Correspondence to Appendix #18 Reserved.
29. In section 7 Product Realization, in paragraph labeled General, took out reference to Sport Light.

Revision 1.2 Changes

1. Revised cover to Version 1.2 and date of release to December 23, 2003.
2. Revised Header with Revision 1.2 and date of December 23, 2003.
3. Changed Section 1.2.1 to document exclusions:
(ISO 9001:2000 Ref. 7.3) Design and development
The Regulatory Support Division does not design the products and services they administer.

(ISO 9001:2000 Ref. 7.5.2) Validation of processes for production and service provision. The Regulatory Support Division does not validate processes for production.
4. Added AMQ/AFS-600 Diagram to Section 7.4
5. Added to Ref 3.0: [There are numerous references to the “Branch Manager” within this manual and the associated appendices. The reader should be advised that this is understood within the organization to mean “Branch Manager or his/her designate”. A “Designation of Authority” memo, which identifies these individuals, is on file for the Division and each branch].
6. Added a one-page write up on Purchasing and a two page write-up on Procurement submissions to AMQ in Appendix 16 (Financial Management). Also added a diagram, which shows AFS-600’s interaction with AMQ. Filename is (ISO-AMQ-AFS.doc).
7. Revision to the Internal Audit Procedure (Appendix 8). Changes to section 5.3.1 and the addition of section 5.1.3 and 5.3.3.
8. Added the “Delegation of Authority” letters for FY-04 to Appendix 1.
9. Revised the Master List of Records (Appendix 5) to include all Division records including branch records and databases.
10. Changed Appendix 18 reference in Section 9.0 from “Reserved” to Procedure for MOA/MOU.
11. Added MOA/MOU Procedure to QM.
12. Updated Instructions for CAR form in Appendix 10.