

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 63-501**

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**AIR FORCE SPACE COMMAND  
Supplement 1**

**1 MAY 1998**

**Acquisition**

**AIR FORCE ACQUISITION QUALITY  
PROGRAM**

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**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFR 63-5, *Quality Assurance*. Personnel engaged in acquisition must follow this instruction to ensure that products delivered to the Air Force meet or exceed quality requirements. It applies to service contracts when Federal Acquisition Regulation (FAR) higher-level contract quality requirements are applicable.

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**(AFSPC) This supplement implements and extends the guidance of Air Force Instruction (AFI) 63-501, *Air Force Acquisition Quality Program*. The AFI is published word-for-word without editorial review. Air Force Space Command (AFSPC) supplemental material is indicated in bold face. This supplement describes AFSPC's procedures for use in conjunction with the basic AFI. It applies to AFSPC, subordinate units and all functional areas involved in performing insight of contractor performance. It does not apply to the Air Force Reserve Command nor Air National Guard units. It establishes procedures and responsibilities for performing quality assurance evaluation on major service contracts (other than operational service contracts) and launch service contracts, written or administered by AFSPC. Base operational service contracts are evaluated using AFMAN64-108, *Service Contracts*. Subordinate units are encouraged to provide recommendations to this supplement. Upon receipt of this integrated supplement discard the Air Force basic publication.**

**SUMMARY OF REVISIONS**

This is the initial publication of AFI 63-501. It implements AFR 63-5, substantially revising AFR 74-1; incorporates new concepts for performing acquisition quality functions and updates organizational functions and responsibilities for quality due to major reorganizations in the Air Force, including the forma-

tion of Air Force Materiel Command, and the Air Force acquisition system defined in AFPD 63-1, *Acquisition System*.

**(AFSPC) Added duties of the Wing Quality Assurance Director (QAD) and Program/Project Manager (PM). Clarified duties of the Contracting Officer (CO), Functional Area Chief (FAC), Quality Assurance Specialists (QAS) and Quality Assurance Evaluator (QAE). Eliminated operational contract surveillance, covered in AFMAN64-108. Included delegated launch service contracts. A bar (|) indicates a revision from the previous edition.**

## **1. Process Overview:**

1.1. The Air Force Acquisition Executive (AFAE), Program Executive officers (PEO), Designated Acquisition commanders (DAC), System Program Directors (SPD), Product Group managers (PGM), Materiel Group managers (MGM), Program managers (PM), and other Air Force acquisition officials are responsible for assuring superior quality of their assigned products during all acquisition phases.

1.2. The Air Force Acquisition System relies on an integrated approach to ensure products meet or exceed user quality requirements. All personnel involved in the acquisition process are responsible for performing quality functions inherent in their assigned duties. These functions include identifying quality requirements; translating them to contractual documentation; monitoring quality of contractor performance; and performing product verification and acceptance activities.

1.3. Using commands identify essential quality requirements for their products.

1.4. Using and acquisition activities use the product quality deficiency reporting and correction system (TO 00-35D-54) to provide visibility of overall product quality.

1.5. Users of this instruction should refer to [Attachment 1](#), section A for additional information on acquisition quality functions.

## **2. Quality in Acquisition Program Management:**

2.1. The AFAE, PEOs, and DACs provide quality management oversight of their assigned products.

2.2. SPDs, PGMs, MGMs, PMs and other Air Force acquisition officials develop and manage effective and efficient quality programs for their assigned products that:

- Provide for open and clear lines of communication between the acquisition activity, the using command, the Contract Administration Office (CAO), and the contractor.
- Incorporate user product quality requirements into contractual requirements (e.g., product specifications and drawings).
- Define and quantify essential quality requirements; emphasize quality improvement of both products and processes; and verify products meet or exceed essential quality requirements for each acquisition phase.
- Give suppliers the flexibility to efficiently achieve quality requirements commensurate with user requirements.
- Focus on designing robust products and capable manufacturing processes that minimize variability around target values traceable to significant quality characteristics.

- Integrate quality requirements and strategies into all acquisition strategies and plans throughout all phases of a product's life cycle.
- Link quality assessments to contractual commitments.
- Assess quality of design, quality of conformance, suitability of manufacturing quality systems, and fitness for use in program and contract reviews during each acquisition phase.
- Tailor quality requirements for use in the specific solicitation or contract.
- Use quality audits and product-oriented surveys and evaluations, as necessary, to assure the adequacy of technical requirements relating to quality and product conformance with design intent.

2.3. Acquisition officials and supervisors of acquisition personnel ensure personnel performing acquisition quality functions meet applicable requirements for acquisition professional development and certification (reference DoD Directive 5000.52, *Defense Acquisition Education, Training and Career Development Program*, October 25, 1991).

### **3. Quality Requirements Management Process:**

3.1. The using activity teams with the acquisition activity to identify objective quality criteria for products.

3.2. The acquisition activity responsible for design, development, production or logistical support during deployment translates user requirements into plans and procedures to provide quality products to the user. It specifies, measures, and assesses product quality, based on user requirements, for each phase of the system acquisition and sustainment process.

3.2.1. For products acquired through contracting, the acquisition activity, in coordination with using command and commands and CAO and CAOs, translates user requirements into effective and efficient contract quality requirements and specifications.

3.2.2. For products provided from Government sources, the acquisition activity develops procedures and quality assurance plans to ensure the user receives quality products.

### **4. Quality in Design, Development, Production, and Deployment:**

**4.1. Quality in the Systems Engineering Process.** Personnel responsible for systems engineering:

- Identify product characteristics and critical manufacturing processes that have a significant influence on performance, producibility, supportability, and service life to focus quality efforts.
- Identify quality requirements (e.g., process controls, specifications, tests, standards, training and certification, and evaluations) for products and validate them as part of the design review process.
- Ensure that product designs are robust so they will withstand variations in the manufacturing, operating, and environmental conditions.
- Use technical analysis techniques and quality engineering tools (e.g., Quality Function Deployment (QFD), Design of Experiments (DOE)) to optimize each product's design, producibility, and "first pass" yield for production processes.

- Use quality engineering test evaluations to establish manufacturing process capability and provide feed-back to improve both the product design and manufacture.
- Emphasize use of manufacturing processes that minimize variability around target values for critical product characteristics.
- Monitor development of manufacturing and assembly processes and test and evaluation (developmental and operational) results for early identification of design, manufacturing, or quality assurance deficiencies.
- Monitor design and manufacture of critical subsystems, especially those crucial to personnel and flight safety, environmental protection, and prevention of system loss or damage.
- Analyze available quality information on parts, materials or components before approving their use in proposed systems or equipment. ( *Note: Exploit available sources of this information, including the Defective Parts and Components Control Program and the Government-Industry Data Exchange Program.* )

#### **4.2. Quality in the Production Process:**

- 4.2.1. Before start of production, personnel responsible for manufacturing and quality assurance:
- Ensure completion of all specifications, standards, inspections, tests, training and certification requirements and evaluations required to control quality.
  - Identify quality control requirements for critical manufacturing processes (e.g., statistical process control).
  - Emphasize defect prevention activities over defect detection and correction activities.
  - Evaluate manufacturing and assembly operations for ability to perform appropriate examination and testing.
  - Ensure availability of any special acceptance inspection equipment and that test equipment calibration procedures and metrology and calibration plans are ready.
- 4.2.2. For initial production, personnel responsible for manufacturing and quality assurance assess the capability to achieve product quality requirements through:
- First article testing of preproduction samples.
  - Initial production evaluations.
  - Product-oriented surveys and evaluations.
- 4.2.3. During production, personnel responsible for manufacturing and quality assurance verify whether product quality requirements are being met through:
- Contractor objective evidence of product quality.
  - Quality audits.
  - Product-oriented surveys and evaluations.

#### **4.3. Quality in Logistics.** Personnel responsible for logistics requirements and initial product support:

- Identify quality requirements for logistical support early in the acquisition life cycle.
- Identify, throughout the development and production phases, processes and materials that require special verification procedures and quality controls.

- Tailor logistic quality requirements according to product and process complexity, criticality, and maturity.
- Document quality information that affects the re-acquisition of materiel (including inspection and testing requirements, and quality requirements) for the designated support management organization.
- Ensure that Commercial Off-The-Shelf (COTS) and Non-Developmental Items (NDI) meet the operational quality and supportability requirements.

**4.4. Quality in Contracting and Purchasing.** Personnel responsible for contracting and purchasing:

- Apply quality assurance requirements on contracts per FAR, Part 46 and DFARS, Part 246.
- Define contract quality requirements and provisions that are practical, enforceable, necessary, and verifiable. Do not use requirements that amount to or imply that a fixed level of defects is acceptable, such as "acceptable quality levels" (AQL), as acceptance criteria in specifications, standards, or other contractual documents for products.
- Tailor contract quality requirements to the specific product or products being acquired. This includes tailoring of quality and related specifications and standards to their application based on design complexity, design maturity, manufacturing process complexity and maturity, required performance, safety, and economics.
- Develop product verification requirements for each phase of the acquisition.
- Maximize flexibility for contractors to tailor quality plans and programs to meet product quality requirements.
- As appropriate, use contractual incentives linked to actual performance of the product in the field to encourage the highest level of contract performance.
- Provide enough information to ensure offerors understand quality requirements during contract negotiations.
- Award contracts only to contractors that have the capability to comply with quality requirements.
- Coordinate any unique contractual quality provisions or delegations with the contract administration activity as soon as possible.
- Maintain data about unsatisfactory supplies or services provided by contractors and review this information prior to contract award. Use contractor product quality data, when available, in all contract award decisions.

**4.5. Quality in Contract Administration.** Ensuring contractor compliance with contractual quality assurance requirements is a normal contract administration function per FAR, Subpart 42.302, *Contract Administration Functions*. The acquisition activity normally delegates this function to the cognizant CAO when it delegates contract administration responsibility per FAR, Subpart 42.202, *Assignment of Contract Administration*.

4.5.1. When the acquisition activity retains responsibility for ensuring that the contractor complies with contractual quality assurance requirements by either retaining responsibility for contract administration or specifically withholding responsibility for quality assurance from the cognizant CAO per FAR, Subpart 42.202, the acquisition activity is responsible for conducting Government Quality Assurance (GQA) per FAR, Part 46 and DFARS 246.

**4.5.1.1. (Added-AFSPC) AFSPC Quality Management:**

**4.5.1.1.1. (AFSPC) HQ AFSPC Directorate of Logistics, Contracting Division (LGC), is the office of primary responsibility for AFSPC. The Quality Assurance Manager (QAM) assigned to HQ AFSPC/LGCM is the command focal point for all contract quality matters. The QAM assigns responsibilities, provides management guidance and monitors the effectiveness of wing and field activities concerning the contract quality program.**

**4.5.1.1.2. (AFSPC) AFSPC QAM (HQ AFSPC/LGCM) reviews acquisition documentation and contracts to ensure proper consideration and inclusion of quality assurance (QA) strategies and program guidance. QAM conducts functional reviews and program management reviews as necessary to ensure compliance with AFSPC guidance and higher level prescribing documents.**

**4.5.1.1.3. (AFSPC) AFSPC QAM establishes, plans and manages the QA mandatory training and the professional development career program in accordance with AFI36-601, *Air Force Civilian Career Program Management*.**

**4.5.1.1.4. (AFSPC) Wing Quality Assurance Director (QAD) is the wing QA focal point and is responsible for the establishment and enforcement of local implementing instructions to assure the compliance with AFI63-501, this instruction and the referenced quality documents. The Wing QAD assists the contracting organization to plan, establish and manage quality requirements throughout the acquisition process. Wing QAD is the Chief of the Quality Assurance Office.**

**4.5.1.1.5. (AFSPC) An AFSPC Contract Quality Council will be formed to discuss contract quality issues and exchange information between HQ AFSPC and the AFSPC field activities. AFSPC QAM chairs the council. The council may develop and staff initiatives to address quality issues. Wing QADs are the council members. The council establishes its charter within the scope of this instruction and annual meetings are desirable when necessary.**

**4.5.1.1.6. (AFSPC) Quality organization utilizes contractor quality programs, to the maximum extent possible, as the primary method for determining product and service acceptability.**

4.5.2. When the acquisition activity delegates responsibility for ensuring that the contractor complies with contractual quality assurance requirements, the cognizant CAO conducts GQA per FAR, Subpart 46.104, *Contract Administration Office Responsibilities*, and DFARS, Subpart 246.104, unless otherwise specified in the assignment of the contract or supplemental written instructions from the acquisition activity. The SPD, PGM, MGM, PM or other acquisition official, in coordination with the contracting officer, develops a written memorandum of agreement with the cognizant CAO or provides a quality assurance letter of instruction (QALI) to the CAO, as required, to identify specific or unusual quality requirements or make modifications to the normal GQA provided by the cognizant CAO. In the memorandum of agreement or QALI, request that the CAO develop an appropriate GQA surveillance plan tailored to the specific acquisition.

4.5.3. For administration of contract quality assurance requirements by the cognizant CAO, the SPD, PGM, MGM, PM or other Air Force acquisition official:

- Provides the contract GQA activity with the product information needed to perform contract quality assurance. This includes identification of critical parts and processes and unique product quality requirements.
- Requests that the contract GQA activity provide the buying office with quality assurance information needed for evaluating contractor performance.
- Specifies inspection and acceptance at source or destination in accordance with the risks involved in verifying compliance with quality requirements.
- Ensures that the GQA surveillance plan is appropriate to the acquisition and that the plan includes the product quality objectives for the acquisition.
- Takes action on product quality deficiencies identified by the contract GQA activity.

#### **4.5.3.1. (Added-AFSPC) Contracting Officers (CO):**

**4.5.3.1.1. (AFSPC) Determine, in consultation with the Quality Assurance Director (QAD) and the customer, whether responsibility for FAR 42.302(a)(38) Contractor Compliance with Contractual Quality Assurance Requirements, should be retained by the CO or delegated to Defense Contract Management Command (DCMC). Prior to delegating this responsibility the CO must determine that DCMC has the resources to accomplish surveillance at a level that will give adequate confidence of performance. Determinations will have QAD coordination and be approved by the Contracting Squadron Commander. When responsibility is retained COs will:**

**4.5.3.1.1.1. (AFSPC) Pursuant to FAR 42.302(a)(38), delegate to the QAD specific tasks and authorities under the terms of the contract by formal letter of delegation.**

**4.5.3.1.1.2. (AFSPC) Ensure a surveillance team, consisting of the FAC(s), PM and appropriate quality personnel (may be QAE or mix of QAE and QAS), is established to ascertain if the contractor is delivering contract-compliant services. Notify the FAC in writing of their contract quality assurance duties. After nomination by the FAC, appoint QAEs in writing and inform them of their contract quality assurance duties. Provide a copy of these letters to the QAD. Sample Appointment Letters are at [Attachment 2 \(Added-AFSPC\)](#) and [Attachment 3 \(Added-AFSPC\)](#).**

**4.5.3.1.1.3. (AFSPC) Ensure that a MSP is developed by the FAC and QAD. Approve the MSP.**

**4.5.3.1.1.4. (AFSPC) When new or changed contract requirements are established, provide orientation to the FAC(s) on appropriate aspects of contract requirements, past or present problems, and nature of authorities delegated.**

**4.5.3.1.1.5. (AFSPC) Approve alternate surveillance approaches when the contractor has a commercial surveillance system regardless of whether the contract meets FAR Part 12.**

**4.5.4. Air Force activities performing contract quality assurance functions for an acquisition activity:**

- Provide contractors maximum flexibility in setting up efficient and effective quality systems to meet user product quality requirements specified under the terms and conditions of the contract.

- Evaluate contractor compliance with contract quality requirements, including the maintenance of contractor quality systems, using objective evidence of product quality and quality audits of contractor processes and data.
- Monitor performance of prime contractor control over purchased materials and subcontractors.
- Focus GQA surveillance on significant product characteristics and processes.
- Analyze contractor and government data to assure that contractor systems provide necessary visibility to identify process improvements and potential to reduce product variability.
- Establish a system to assure that the contractor takes corrective and preventive action to minimize or eliminate the recurrence of defective products.
- Maintain quality assurance surveillance and corrective and preventive action records to support contract administration requirements.
- Use contractor data to the maximum extent practicable for quality audits and objective evidence of product quality.
- Reduce and eliminate GQA surveillance, including quality audits, when the contractor demonstrates effective and efficient quality control.

**4.5.4.1. (Added-AFSPC) Quality System. Major service contracts (as defined in [Attachment 1](#)) and launch service contracts used by the AFSPC are unique, complex and demanding instruments. It is important that an effective system of quality assurance evaluation be established to ensure that the Government receives the services for which it has contracted.**

**4.5.4.1.1. (AFSPC) These contracts are administered and monitored, according to Federal Acquisition Regulation (FAR) Parts 42 and 46, by a team of qualified personnel.**

**4.5.4.2. (Added-AFSPC) Wing Quality Assurance Director (QAD):**

**4.5.4.2.1. (AFSPC) Manage all aspects of the Wing Quality Assurance Program. Provide advice to contracting officers and their customers on appropriate methods of surveillance for contracted services. Keep abreast of changing philosophies, techniques and procedures for quality assurance and instruct contracting officers, FACs, Quality Assurance Evaluators (QAE) and Quality Assurance Specialists (QAS) in the changes. Participate in market research conducted by the contracting officer and his/her customers to ascertain what the commercial or industry segment approach is to quality assurance of the particular service being purchased. Lead the wings migration from traditional “over-the-shoulder” inspection of contractor performance of services to evaluation of contractor’s quality systems and the effectiveness of the contractor’s quality system to deliver contract-compliant services. Quality Assurance Specialists should play a key role in training and mentoring QAEs in this migration. Evaluate contractor quality systems or plans when that is part of the approach to contract quality assurance as described in the MSP.**

**4.5.4.2.2. (AFSPC) Provide management of the Master Surveillance Plan (MSP) development, implementation and surveillance performance on Major Service or delegated launch service contracts. Assist the CO in obtaining nominations for QAEs from FACs. Prepare the MSP for the CO approval. Maintain the MSP contract surveillance file. Assist the FACs in documenting their functional area surveillance plan if required by the MSP and assist in obtaining the CO approval. Provide summary of surveillance results to the CO per the MSP on a periodic basis.**

**4.5.4.2.3. (AFSPC) Ensure designated FACs, QAEs and QAS' are sufficiently trained in their quality duties.**

**4.5.4.2.4. (AFSPC) Ensure QAE or QAS personnel participate in acquisition planning to ensure proper consideration and inclusion of quality assurance strategies.**

**4.5.4.2.5. (AFSPC) Designate a QAS to work with the QAE when a portion of the surveillance approach in the MSP is to evaluate a contractor's quality system.**

**4.5.4.2.6. (AFSPC) Ensure QASs do not have additional duties that interfere or conflict with their contract surveillance responsibilities.**

**4.5.4.2.7. (AFSPC) Periodically audit each functional area's surveillance to assure that surveillance is being performed and documented in accordance with this instruction and the MSP.**

**4.5.4.2.8. (AFSPC) Manage the QA stamp program if one exists.**

**4.5.4.3. (Added-AFSPC) The QAEs and QAS':**

**4.5.4.3.1. (AFSPC) Will be knowledgeable of the contract terms and conditions, SOW requirements, technical and management proposals, surveillance plan requirements, and any contractor operating procedures for their assigned surveillance areas.**

**4.5.4.3.2. (AFSPC) Evaluate and document the contractor's performance in accordance with the approved surveillance plan. QAS' evaluate contractor quality systems.**

**4.5.4.3.3. (AFSPC) Promptly notify the CO, QAD, PM and FAC of any significant performance deficiencies. Documentation of deficiencies are important in selection of future contractors.**

**4.5.4.3.4. (AFSPC) Develop an area surveillance plan for assigned portions of the contract when the CO, QAD, PM or FAC determine that one is necessary.**

**4.5.4.3.5. (AFSPC) Maintain a surveillance file as defined in [Attachment 1](#).**

**4.5.4.4. (Added-AFSPC) Master Surveillance Plan Development:**

**4.5.4.4.1. (AFSPC) A Master Surveillance Plan (MSP) is required for every major service contract, and every launch services contract delegated to an AFSPC wing for QA in accordance with FAR Part 42.**

**4.5.4.4.1.1. (AFSPC) Development of the MSP starts as early as possible, preferably at the time of requirements definition. MSPs are revised as circumstances and requirements change.**

**4.5.4.4.1.2. (AFSPC) Development of the master surveillance plan (MSP) is the responsibility of the QAD or his/her representative, with assistance from the PM, FAC and CO. Consideration must be given to the contract's performance requirements, the risks of contractor non-performance and the CO's and customer's need to assure various areas of contract performance results are monitored, evaluated and reported. Just as contract quality requirements are tailored to meet the needs of each acquisition, the MSP (and area surveillance plans) should be constructed to ensure that the correct balance of contractor quality control and Government insight is obtained. This requires detailed analysis of the performance and cost risks of the contract, taking into consideration any repeat performance requirements or special warranties. The MSP and area surveillance plans should indicate that the degrees of government surveillance will change in reaction to any change in quality of the contractor's performance.**

**4.5.4.4.2. (AFSPC) MSP Development Point. The MSP and supporting area surveillance plans should be developed concurrently with the SOW, Acquisition Plan and Source Selection Plan, preferably by the same individuals. Any changes in the SOW or contractor's quality control system resulting from negotiations are reflected by revising the surveillance plan(s) prior to contract start. At any time following contract award, the CO may revise the surveillance plan to reflect changes in the contractor's performance.**

**4.5.4.4.3. (AFSPC) MSP Contents. As a minimum, each MSP should contain the following:**

**4.5.4.4.3.1. (AFSPC) Description of the contract services to be evaluated.**

**4.5.4.4.3.2. (AFSPC) Identification of contract performance and quality requirements (e.g., standard inspection clauses; ISO; contractor submitted, government approved quality plans; statement of work standards; etc.).**

**4.5.4.4.3.3. (AFSPC) An organizational chart showing the program surveillance team structure. (QAD, PM, FACs, QAEs and QAS', etc.).**

**4.5.4.4.3.4. (AFSPC) Description of the surveillance approach to be used. Include a description of specific surveillance techniques to be employed (e.g., sampling, process evaluation, management reviews, final acceptance). If there are area surveillance plans, list and attach them to the master surveillance plan. When multiple functional areas are involved in surveillance, indicate which functional area will do what surveillance. Example: If a Space Launch Squadron, the Quality Assurance Flight and Safety are to monitor contractor launch services, the MSP would delineate which office will do each aspect of surveillance.**

**4.5.4.4.3.5. (AFSPC) Description of the documentation required to report the contractor's performance. This section details the requirements for QAEs and QAS' to maintain records, prescribes form(s) to use for reporting purposes, establishes whether a checklist is required and prescribes the format and frequency for the**

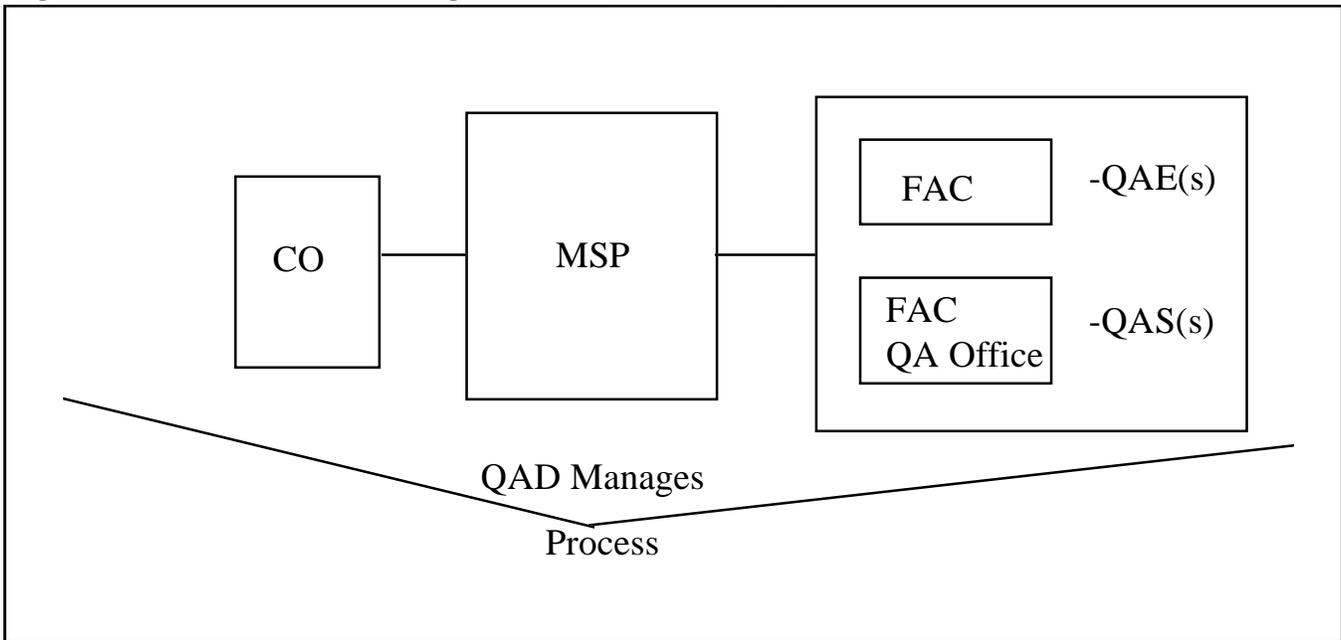
**Certificate of Services if one is required by the CO. This section would also describe any special record keeping for input to the award fee process.**

**4.5.4.4.3.6. (AFSPC) If the contract has an award fee provision, the MSP should include or reference the award fee evaluation criteria and the documentation gathering and reporting needs of the Award Review Board. An award fee plan is not a substitute for the MSP. It should however be built on contract performance standards which are the objective of our quality assurance efforts. Quality assurance documentation should form the foundation of award fee documentation to avoid unnecessary duplication of effort and ensure consistency in contractor evaluation.**

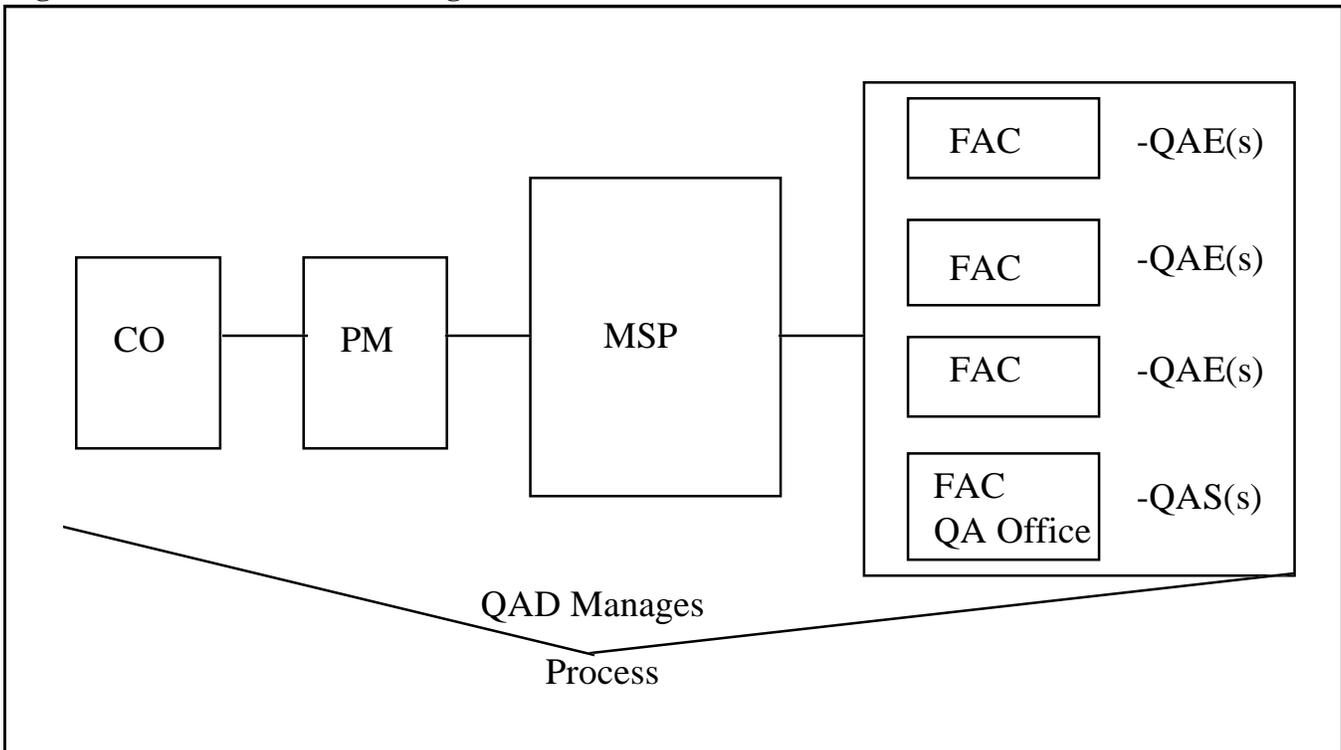
**4.5.4.5. (Added-AFSPC) Surveillance Team Composition. The composition of the surveillance team is dependent upon the size and complexity of the contract, as well as the number of functional areas represented in the SOW. If the contract has only one major functional area to be evaluated, a FAC and a minimal number of QAEs and/or QAS' may be adequate to provide surveillance.**

**4.5.4.5.1. (AFSPC) Contract Quality Assurance Organization. [Figure 1.](#) and [Figure 2.](#) depict the lines of contract QA authority described by this instruction.**

**Figure 1. Surveillance Team Organization (Without PM).**



**Figure 2. Surveillance Team Organization (With PM).**



**5. Quality Assurance for International Acquisitions:**

**5.1. North Atlantic Treaty Organization (NATO) Acquisitions.** Acquisition activities and quality assurance activities involved in NATO acquisitions:

- Upon request, perform GQA actions on NATO contracts for military materiel and services in accordance with NATO Standardization Agreement (STANAG) 4107, *Mutual Acceptance of Government Quality Assurance*.
- For contracts awarded to other NATO countries, specify the NATO quality requirements outlined in STANAG 4108, *Allied Quality Assurance Publications (AQAP)* and AQAP 100, *General Guidance on NATO Quality Assurance*.
- Delegate GQA services to the host Government whenever satisfactory services are available as specified in STANAG 4107.
- Keep Government personnel and contractors involved in the acquisition informed on the use of NATO quality assurance publications.

**5.2. Military Assistance Program (MAP) Acquisitions.** Acquisition activities and quality assurance activities handle GQA requirements on MAP acquisitions the same as for US Air Force acquisitions.

**5.3. Foreign Military Sales (FMS).** On FMS acquisitions, acquisition activities and quality assurance activities perform GQA under the conditions of the FMS Letter of Offer and Acceptance (LOA). Unless otherwise agreed to in the LOA, the Air Force uses the same procedures as would be used in contracting for itself.

**5.4. Direct Acquisition by Foreign Governments and International Organizations.** On these acquisitions, quality assurance activities provide GQA as an FMS service under an FMS LOA. When a Memorandum of Understanding (MOU) exists with a foreign country, quality assurance activities check the MOU for applicable quality guidance and reciprocal performance of quality assurance for reference or incorporation in the FMS LOA. Refer to DFARS, Subpart 225.801, *International Agreements*, for specific information on current international agreements.

## 6. MAJCOM Responsibilities:

6.1. MAJCOMs develop and publish additional guidance, as needed, to define and allocate specific internal responsibility for ensuring compliance with this instruction. Within 30 calendar days after issuing any additional guidance, provide a copy to SAF/AQX.

### 6.1.1. (Added-AFSPC) HQ AFSPC/LGCM QAM:

**6.1.1.1 (AFSPC) Is the Major Command (MAJCOM) focal point for the quality assurance program.**

**6.1.1.2. (AFSPC) Provides guidance for the AFSPC quality assurance/evaluation program.**

**6.1.1.3. (AFSPC) Assesses field activities' compliance with the direction set forth in this instruction.**

6.2. Each MAJCOM establishes a central management focal point to:

- Serve as the command office of primary responsibility for monitoring compliance with the provisions of this instruction.
- Evaluate the quality of products at regular intervals. In this evaluation, review the degree of compliance with quality requirements in the various functional areas. MAJCOMs may accomplish this review as part of other scheduled reviews.

- Perform analyses of quality information (i.e., deficiency data, audit reports, studies), as necessary, to institute appropriate corrective and preventive actions and improve procedures.
- Ensure cross-feed of quality assurance information among all management levels and to other commands, agencies, the Air Staff, and SAF/AQXM.
- Assess the training requirements and the training of assigned quality assurance personnel to ensure that they meet applicable requirements for assigned tasks and for acquisition professional development certification.
- Advise SAF/AQX of actual or potentially significant quality assurance problems involving other Air Force commands or other DoD components that may require SAF/AQX attention or coordination to resolve.

#### **6.2.1. (Added-AFSPC) Wing Commanders:**

**6.2.1.1. (AFSPC) Ensure their quality personnel have the appropriate authority, responsibility, proficiency and organizational freedom to pursue resolution of quality issues.**

**6.2.1.2. (AFSPC) Ensure a quality assurance program is established and enforced to effectively evaluate the contractor's performance for each contract issued or administered by their contracting activity.**

**6.2.1.3. (AFSPC) Designate a Quality Assurance Director (QAD) to manage all aspects of the Wing Quality Assurance Program as shown in Figures 1 and 2.**

**6.2.1.4. (AFSPC) Designate a Program/Project Manager (PM) when a major service contract provides support to two or more independent Functional Area Chiefs (FAC). For purposes of this supplement, the role of the PM is to coordinate and pull together contract quality assurance, both in preaward planning and post award execution and surveillance. PMs may reside in one of the FAC's organizations or may be independent of the FACs. The existence of a PM does not relieve the FAC of responsibility for contractor surveillance of their portion of the major service contract. The flow of contract quality assurance authority, when there is a PM, is shown in Figure 1.**

#### **6.2.2. (Added-AFSPC) Functional Area Chiefs (FAC):**

**6.2.2.1. (AFSPC) Are responsible for the surveillance of contractor's in their functional area. In consultation with the QAD, develop an area surveillance plan for assigned portions of the contract (if the CO, QAD or PM determines that one is necessary). The QAD reviews the area surveillance plan and the CO approves the area surveillance plan. Area surveillance plans should be used when: (1) multiple functions are performed under one contract or (2) multiple geographic locations are covered by one contract.**

**6.2.2.2. (AFSPC) Nominate (in writing to the CO) as many QAEs as necessary to perform surveillance of the contractor consistent with the MSP.**

**6.2.2.3. (AFSPC) Ensure each QAE and QAS develops an area surveillance plan (ASP) (if one is determined to be required by the FAC, QAD or PM).**

**6.2.2.4. (AFSPC) Ensure the QAE maintains a surveillance file as defined in [Attachment 1](#).**

**6.2.2.5. (AFSPC) Ensure QAEs do not have additional duties that interfere or conflict with their contract surveillance responsibilities.**

6.3. Headquarters, Air Force Materiel Command (HQ AFMC) establishes and maintains a product deficiency reporting and correction system (TO 00-35D-54) to provide feedback to the system developer to track and record the status of the operational quality condition of the system. Use existing data systems to report metrics prescribed in AFPD 63-5.

RICHARD E. HAWLEY, Lt General, USAF  
Principal Deputy, Assistant Secretary of the  
Air Force for Acquisition

## Attachment 1

### GLOSSARY OF REFERENCES, ABBREVIATIONS, ACRONYMS, AND TERMS EXPLAINED

#### *References*

Federal Acquisition Regulation (FAR), current edition, Part 46, *Quality Assurance*.

Defense FAR Supplement (DFARS), current edition, Part 246, *Quality Assurance*.

DoD Directive 5000.1, *Defense Acquisition*, February 23, 1991. *Policies and Procedures*, February 23, 1991, with change 1, Part 6, Section O, *Design for Manufacturing and Production* and Section P, *Quality*.

Air Force Supplement 1 to DoD Instruction 5000.2, *Acquisition Management Policies and Procedures*, August 31, 1993, Part 6, Sections O and P as supplemented.

AFPD 63-5, *Quality Assurance*, 7 September 1993.

TO 00-35D-54, *The USAF Material Deficiency Reporting and Investigating System*.

**(Added-AFSPC) AFI 36-601, Air Force Civilian Career Program**

**(Added-AFSPC) AFMAN 37-139, Records Disposition Schedule**

**(Added-AFSC) AFMAN 64-108, Service Contracts**

**(Added-AFSPC) ISO 9000 Series, International Organization of Standards Quality Systems Standards or ANSI/ASQC Equivalents**

#### *Abbreviations and Acronyms*

**AFAE**—Air Force Acquisition Executive

**AFI**—Air Force Instruction

**AFMC**—Air Force Materiel Command

**AFPD**—Air Force Policy Directive

**AFR**—Air Force Instruction

**AQAP**—Allied Quality Assurance Publication

**AQL**—Acceptable Quality Level

**CAO**—Contract Administration Office

**COTS**—Commercial Off-The-Shelf

**DAC**—Designated Acquisition Commander

**DFARS**—Defense FAR Supplement

**DOE**—Design of Experiments

**FAR**—Federal Acquisition Regulation

**FMS**—Foreign Military Sales

**GQA**—Government Quality Assurance

**LOA**—Letter of Offer and Acceptance  
**MAJCOM**—Major Command  
**MAP**—Military Assistance Program  
**MGM**—Materiel Group Manager  
**MOU**—Memorandum of Understanding  
**NATO**—North Atlantic Treaty Organization  
**NDI**—Non-Developmental Item  
**OPR**—Office of Primary Responsibility  
**PEO**—Program Executive Officer  
**PGM**—Product Group Manager  
**PM**—Program Manager  
**QA**—Quality Assurance  
**QALI**—Quality Assurance Letter of Instruction  
**QFD**—Quality Function Deployment  
**SAF**—Secretary of the Air Force  
**SPD**—System Program Director  
**STANAG**—Standardization Agreement  
**TO**—Technical Order

*Terms*

**(Added-AFSPC) Administrative Contracting Officer (ACO)** — The contracting officer assigned by the contracting activity to administer the contract after award.

**(Added-AFSPC) Area Surveillance Plan** —Is a subset of the MSP. It is used when multiple functions are performed under one contract or multiple geographic locations are covered by one contract.

**Characteristic**—A physical, chemical, visual, functional, or any other identifiable property of a product or material.

**Commercial Item**—An item regularly used in the course of normal business operations for other than Government purposes which:

1. Has been sold or licensed to the general public.
2. Has not been sold or licensed, but has been offered for sale or license to the general public.
3. Is not yet available in the commercial marketplace, but will be available for commercial delivery in a reasonable period of time.
4. Is described in paragraphs (1), (2) or (3) above and would require only minor modification in order to meet the requirements of the procuring agency.

**(Added-AFSPC) Contracting Officer (CO)** — The contracting officer appointed by the contracting activity for procuring the service and/or administering the contract. The CO can delegate responsibilities to an ACO.

**Commercial Off-The-Shelf Item**—A commercial item that has been produced and placed in stock by a contractor, or stocked by a distributor, before receiving orders or contracts for its sale.

**Contract Quality Requirements**—The technical requirements in the contract relating to the quality of the product or products and those contract clauses prescribing inspection, and other quality controls incumbent upon the contractor, to assure that the product or products conforms to contractual requirements.

**Fitness for Use**—The effectiveness of the design, manufacturing, and support processes in delivering a system that meets operational requirements under all anticipated operational conditions.

**(Added-AFSPC) Functional Area Chief (FAC)**—The most senior government representative of the organization requiring contractor services. Examples: If a squadron requires contractor services, the squadron commander is the FAC. For Geographically Separate Units (GSU), the site commander is the FAC. For wing staff offices, the chief of the office is the FAC. A person is a FAC by virtue of their position, they are not designated by separate appointment. FACs may delegate contractor surveillance to QAEs and QAS' with the approval of the QAD but they retain the title of FAC and the ultimate responsibility for surveillance of contractor performance.

**Government Quality Assurance (GQA) Plan**—This plan describes the Government surveillance of a contractor's performance on a program, contract, or in a facility to determine whether a contractor fulfills contract obligations pertaining to quality and quantity.

**(Added-AFSPC) Major Service Contract**—A service contract issued by AFSPC, which has an annual expenditure of \$1 million or more and is not an operational contract. The surveillance procedures for major service contracts are administered IAW AFSPCI 63-50101 (exempt from AFMAN 64-108). Surveillance procedures for service contracts under \$1 million shall be IAW either AFSPCI 63-50101 or AFMAN 64-108 at the discretion of the CO.

**(Added-AFSPC) Master Surveillance Plan (MSP)**— A master planning document to prescribe the monitoring, evaluation and reporting techniques that will be implemented at contract award by QAEs or QASS to survey the contractor's performance. The plan will be prepared concurrently with the Acquisition and Source Selection Plans, and will be tailored to the specific surveillance needs of the contract, taking into consideration the variables associated with size and complexity of the contract, nature of the contractor quality control system, award fee, etc. The master surveillance plan may be supplemented with supporting area surveillance plans to prescribe specific area monitoring, evaluation, and reporting techniques.

**Metrology**—The science of weights and measures used to determine conformance to technical requirements including the development of standards and systems for absolute and relative measurements.

**Nondevelopmental Item**—An item not requiring development. Nondevelopmental items include:

1. Any item available in the commercial marketplace;
2. Any previously developed item in use by a Federal, State, or local agency of the United States or a foreign government with which the United States has a mutual defense cooperation agreement;

3. Any item described in subparagraph (1) or (2) above that requires only minor modification to meet the requirements of the procuring agency; or
4. Any item being produced that does not meet the requirements of subparagraph (1), (2), or (3) above, solely because the item is not yet in use or is not yet available in the commercial marketplace.

**Process Capability**—The measure of the output variability of a stable process, typically a manufacturing process. A process is considered "stable" when it is capable of producing conforming product and all special causes of variation (those not a normal part of the process) have been eliminated. Measures of process capability include the Process Capability Index ( $C_p$ ) and the Process Performance Index ( $C_{pk}$ ). A "capable" process is usually defined as one that is both stable and operating at a  $C_{pk}$  of 1.33 or higher.

**Product**—Supplies, services, systems or materiel. When appropriate, raw materials, components, and intermediate assemblies may also be classified as products.

**(Added-AFSPC) Program/Project Manager (PM)**—The individual assigned to pull together the contract quality assurance requirements when a contract is written to support two or more FACs. Typically PMs address more than quality assurance. The PM serves as a coordinator of multiple FAC's requirements as a service to the contracting officer and QAD. PMs are not FACs.

**Quality**—The composite of material attributes, performance features, and characteristics of a product to satisfy a given need.

**Quality Assurance (QA)**—A planned and systematic pattern of actions necessary to provide confidence that adequate technical requirements are established; products conform to established technical requirements; and satisfactory performance is achieved.

**(Added-AFSPC) Quality Assurance Director (QAD)**— The Chief of the Quality Assurance organization at the wing. Responsible for all aspects of the wing Quality Assurance Program.

**(Added-AFSPC) Quality Assurance Evaluator (QAE)**—The contracting officer's representative and a functional government representative who is nominated by the FAC and appointed by the CO, and is responsible for monitoring, evaluating, and reporting a contractor's performance on specific contract requirements. The individual selected must have a high level of expertise and training in their field due to the nature of the unique, complex and demanding nature of the contracts being monitored.

**(Added-AFSPC) Quality Assurance Manager (QAM)**— AFSPC manager responsible for all contract quality matters.

**(Added-AFSPC) Quality Assurance Specialist (QAS)**—The Contracting Officer's Representative assigned to a civilian quality assurance acquisition position, usually a GS-1910, who provides general and higher level surveillance techniques for assuring contract compliance. The QAS is trained and certified through the Acquisition Professional Development Program and is the authorized government representative performing acceptance via DD Form 250.

**Quality Audits and Product-Oriented Surveys and Evaluations**—Systematic examinations of acts and decisions with respect to quality to independently verify or evaluate the operational requirements of the quality program or the specifications and contract requirements for the product or products. It is an objective evaluation of program adequacy from a quality viewpoint independent of other program goals. It examines anything that can impact quality such as improperly specified requirements, poor design,

inadequate planning, etc. It investigates process capability and identifies problem areas to make recommendations for corrective and preventive action. Product-oriented surveys and evaluations, in particular, verify that:

- Quality characteristics are specified and designed into the product or products.
- Quality characteristics are quantified whenever possible.
- Items with critical functions are identified and controlled.
- Quality and technical requirements are achieved or adequate planning has been accomplished to assure their achievement.

**Quality Characteristics**—Those characteristics that exert a significant influence on performance, producibility, supportability and service life. They are defined as part of the systems engineering process. Process controls, specifications, standards, tests, training and certifications, requirements, and evaluations will be defined, developed, and demonstrated as part of the design review process.

**Quality Control**—Those actions that control the production of output to fulfill requirements for quality in raw or produced material and services. Quality control includes a feedback process that measures actual performance, compares it to quality requirements, and acts on the difference to minimize variation. Quality control is the measurement of a process or product by an automated process, operator or other person, with comparison to requirements and action to resolve variation from a standard.

**Quality Engineering**—That aspect of engineering that deals with processes, products, test adequacy, quality assurance, and quality control. It focuses on Design of Experiments; clarity of requirements; measurement to demonstrate process capability and compliance; and activities to ensure that characteristics required to achieve performance requirements are producible, robust, and verifiable. It includes:

- Actions to minimize opportunities for error in manufacturing, operation, and maintenance.
- Evaluation of process capability and requirements to minimize variability, optimize technical risks and costs in testing and inspection programs commensurate with program objectives.
- Certification of testing and related software to accomplish program objectives.
- Validation of advanced metrology to ensure accuracy and consistency of results for Government acceptance.

**Quality Improvement**—Activities focused on increased productivity, manufacturing or operational efficiency, and product utility, including:

- Improvements in producibility and process capability.
- Reduced process variability and improved uniformity.
- Defect reduction during program activities such as design, manufacturing, test, and inspection; reductions in costs of waste, scrap, rework, and repair; and reductions in engineering changes, waivers and deviations.

**Quality Management**—The function of management at all levels concerned with planning, organizing activities, allocating resources, and monitoring operations to establish and conduct an effective and efficient quality program.

**Quality of Design**—The effectiveness of the design process in capturing the operational requirements and translating them into detailed design requirements that can be manufactured (or coded) in a consistent

manner.

**Quality of Conformance**—The effectiveness of design and manufacturing functions in executing product manufacturing requirements and process specifications while meeting tolerances, process control limits, and target yields for a given product group.

**Quality Plan**—The description of a supplier's program of action for managing quality of products. It describes specific quality policies, procedures, and practices. It includes organizational structure, assignment of management responsibilities and authorities, staffing, planning, technical aspects, and a description of the integration of quality system with other administration and technical programs. It also identifies and describes quality responsibilities for all operational interfaces, including those with subtier suppliers. The quality plan ensures that suitable data are available to determine compliance to product acceptance criteria established for the contract.

**Quality Program**—A program of action to effectively and efficiently manage the quality of processes and products from concept through validation, engineering and manufacturing development, production, deployment, and disposal.

**Quality Requirements**—The technical requirements relating to the quality of the product or products and the quality controls, standards, and inspections necessary to assure that the product or products satisfy those requirements.

**(Added-AFSPC) Surveillance File**— A file maintained by the QAE or Contract QA Flight. For an MSP that supports one functional area, there will be one surveillance file. For an MSP with multiple area surveillance plans (i.e. multiple FACs or GSUs supported), there will be a surveillance file for each functional area or GSU. The file will have copies of the CO's designation letter to the FAC, the CO's appointment letters of QAEs or QAS', CO's delegation to the QAD, current surveillance plan with all area surveillance plans, copy of contract including statement of work and surveillance records. The folder is maintained according to AFMAN 37-139, Records Disposition Schedule, Table 63-6, Rule 3.

**(Added-AFSPC) Surveillance Records**—A chronological record of performance evaluations of the contractor's performance results consistent with the quality requirements of the contract and the surveillance required by the MSP. Discussions with the contractor should be included. These records form the basis for reports required by the master surveillance plan. The surveillance records are forwarded to the CO at the end of the contract performance.

**Verification**—Reviewing, inspecting, testing, checking, measuring, auditing or otherwise establishing and documenting that products, processes, or documents conform to specified requirements.

**ATTACHMENT 2 (ADDED-AFSPC)**  
**SAMPLE FAC DESIGNATION LETTER**

**Figure A2.1. Sample FAC Designation Letter.**

<p>MEMORANDUM FOR (Individual)</p> <p>FROM: (Contracting Officer)</p> <p>SUBJECT: Functional Area Chief (FAC), (Program name)</p> <p>1. IAW with AFI63-501AFSPC1, you are the FAC for this contract and as such are responsible to provide the Contracting Officer (CO) with surveillance of contractor performance, to assist with the development of Master and Area Surveillance Plans, and to nominate quality assurance evaluators (QAEs), as required, to assist in your surveillance of the contractor's performance.</p> <p>2. The FAC is <u>not</u> authorized to:</p> <ul style="list-style-type: none"><li>a. Offer legal interpretations about the contract or its provisions.</li><li>b. Direct changes to the statement of work.</li><li>c. Incur an increase or decrease in the scope, price, terms, or conditions of the contract.</li><li>d. Direct the disposition of any Government property accountable under the contract.</li><li>e. Direct or authorize the contractor to acquire any property.</li><li>f. Sign any contractual document, including letters, which require the signature of a contracting officer.</li><li>g. Send letters of commendation, appreciation, or thanks to contractor personnel, as a result of contract performance.</li><li>h. Be involved in supervision, selection, or rating of contractor employees.</li></ul> <p>3. Annually the FAC shall ensure that all Government personnel concerned understand that only contracting officers can legally commit the Government.</p> <p>4. The undersigned CO may be contacted at (phone) for additional information.</p> <p style="text-align: right;">(Signature) Contracting Officer</p> <p>(Attachments) cc: (Contractor) (Wing QA Director)</p>
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## Attachment 3 (Added-AFSPC)

### SAMPLE QAE APPOINTMENT LETTER

Figure A3.1. QAE Appointment Letter.

MEMORANDUM FOR (Individual)	
FROM: (Contracting Officer)	
SUBJECT: Quality Assurance Evaluator (QAE)	
1. In accordance with AFI63-501AFSPC1, you are appointed the Quality Assurance Evaluator (QAE) for (contract number) effective (date). Your Functional Area Chief is (name).	
2. Specific QAE duties are found in AFI63-501AFSPC1, (local QA supplements), this QAE delegation letter, and the applicable master surveillance plans (inclusive of any are surveillance plans), contracting officer (CO) instructions, and information furnished by the wing training function.	
3. General QAE duties include:	
a. Monitoring and reporting the contractor's performance through the FAC to the contracting officer.	
b. Maintenance of surveillance records.	
c. Acceptance of contract specified services.	
d. Maintain current knowledge of the contract.	
4. The QAE does <u>not</u> have the authority to:	
a. Offer legal interpretations about the contract or its provisions.	
b. Direct changes to the statement of work.	
c. Incur an increase or decrease in the scope, price, terms or conditions of the contract.	
d. Direct the disposition of any Government property accountable under the contract.	
e. Direct or authorize the contractor to acquire any property.	
f. Sign any contractual document, including letters, which require the signature of a contracting officer.	
g. Send letters of commendation, appreciation or thanks to contractor personnel as a result of contract performance.	
h. Be involved in supervision, selection rating of contractor employee.	
5. The appointment of (the previous QAE) is hereby rescinded (if applicable).	
6. For additional information contact your FAC: (name, org) at (phone) or the undersigned.	
(Attachments)	(Signature)
cc:	
(Supervisor)	
(Contractor)	
(Wing QA Director)	