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**Maintenance**

**MAINTENANCE MANAGEMENT—  
MAINTENANCE CONTRACT SURVEILLANCE**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFD 21-1, *Managing Aerospace Equipment Maintenance*. It establishes procedures for surveilling aircraft and trainer maintenance contracts within AETC. The surveillance procedures outlined in this instruction are based on the guidance contained in AFI 63-124, *Performance-Based Service Contracts (PBSC)*. This instruction applies to all AETC organizations responsible for surveilling aircraft maintenance and trainer maintenance contract activities including aircraft supported by "full" or "partial" contractor logistic support (CLS) activities (as defined in Section D), and aircraft or trainer maintenance contracts administered by organizations other than AETC. It does not apply to aircrew training device contracts of any type. Further, it does not apply to contract field teams (CFT) surveilled by AETC personnel. This instruction does not apply to Air Force Reserve or Air National Guard units. The reporting requirement in this directive (Section A, paragraph 3.9) is exempt from licensing in accordance with AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*, paragraph 2.11.12.

Annotate recommendations for change, improvement, or waivers to this instruction on AETC Form 1236, **Request for Improving/Changing AETC Maintenance Regulations/Instructions**. Requests must be approved by the appropriate group commander prior to forwarding to HQ AETC/LGM, 555 E Street East, Randolph AFB TX 78150-4440 for action by HQ AETC/LGMMP. Maintain and dispose of records created as a result of processes prescribed in this publication in accordance with AFMAN 37-139, *Records Disposition Schedule*. Attachment 1 contains a glossary of references and supporting information.

**★SUMMARY OF REVISIONS**

This revision incorporates IC 2003-1, which changes the documentation procedures for technical inspections (paragraph 8.2) and reduces the monthly frequencies for certain inspections (Table A4.1). See the last attachment of this publication (IC 2003-1) for the complete IC. A star (★) indicates revision from the previous edition.

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## ***Section A—Responsibilities and Training***

### **1. General Information:**

1.1. The functional director or commander (FC or FD) of a contractor-operated functional area (as defined in AFI 63-124) is responsible for ensuring the quality assurance surveillance requirements of AFI 63-124 and this instruction are met. At certain AETC contracted aircraft maintenance units, maintenance directorates have been established and the functional commander or director also serves as the Chief QAE. The functional area includes all maintenance activities as defined in the statement of work.

1.2. For the purpose of this instruction, the term QAE is used to describe all government personnel appointed to surveil maintenance contracts and is synonymous with any other term used in specific weapons system contracts; for example, quality assurance representative (QAR).

1.3. The QAE function is responsible for a wide range of surveillance requirements related to the surveillance of maintenance contracts. Observations are reported to the FC or FD, CO, 19 AF/LG or 2 AF/LR, as applicable, and HQ AETC/LGP (HQ AETC/LGMA for CLS contracts). The chief QAE acts as an adviser to the CO and FC or FD for technical issues. The QAE evaluates and recommends contract modification, contract recompetition, award fee criteria, and evaluates the effectiveness of the contractor's quality control (QC) or quality assurance (QA) program. The QAE evaluates the overall performance of the contractor without duplicating or augmenting the contractor's QC/QA function. The QAE is not the contractor's QC/QA function. Additionally, the QAE provides technical support to the contracting officer, and may participate in the business requirements and advisory group (BRAG) that manages the service contract as outlined in AFI 63-124.

1.4. Successful contract performance is dependent upon positive open communication between the CO, the FC or FD, the QAE, and the contractor. All parties must strive to achieve and maintain an atmosphere of mutual understanding and cooperation. Successful strategies may include regularly scheduled meetings between the chief QAE and the contractor to discuss inspection results, trends, and other items of mutual interest. The QAE and the contractor are not adversaries; rather, they are partners who share the same goal--successful contract performance and mission accomplishment.

1.5. Section D of this instruction contains specific guidance applicable to the surveillance of CLS contracts that is in addition to the guidance in the rest of this instruction.

**2. Functional Director or Commander Responsibilities.** In addition to the duties and responsibilities outlined in AFI 63-124, the director or commander will:

2.1. Keep up-to-date on mission changes that could affect the contractor's ability to perform.

2.2. Ensure the development of a quality assurance surveillance plan (QASP) that effectively measures and evaluates contractor performance throughout the life of the contract. The QASP is established and written as an operating instruction (OI). The QASP implements the requirements of AFI 63-124 and this instruction (see paragraph 6).

2.3. Review problem areas identified by the QAE, and coordinate with the CO to resolve the problems. If the problem cannot be resolved, request assistance through 19 AF/LG or 2 AF/LR, as applicable, and HQ AETC/LGP (HQ AETC/LGMA for CLS contracts).

2.4. Ensure the following actions and documents are reviewed, comments and recommendations made when applicable, and then coordinated with 19 AF/LG or 2 AF/LR, as applicable, and HQ AETC/LGP (HQ AETC/LGMA for CLS contracts) prior to approval and implementation:

2.4.1. Intent or consideration to default or recomplete the contract prior to the scheduled recompetition.

- 2.4.2. Modifications to the contract involving changes to the statement of work or scope of work requirements. Ensure cost estimates are included.
- 2.4.3. Changes to the award fee plan.
- 2.4.4. Locally procured maintenance contracts.
- 2.4.5. Statements of work (SOW) for all aircraft and trainer maintenance contracts (includes transient alert contracts).
- 2.4.6. Contractor proposals to new or revised DoD, Air Force, MAJCOM, and local directives.
- 2.5. Coordinate temporary waivers with HQ AETC/LGP (HQ AETC/LGMA for CLS contracts) when initiated by the contractor as a result of government action that significantly impairs the contractor's ability to meet established standards. Provide 19 AF/LG or 2 AF/LR, as applicable, an information copy of temporary waivers.
- 2.6. Verify that the contractor submits required reports according to the SOW, Air Force, and AETC directives.
- 2.7. Verify that the contractor performs contract requirements in an environmentally acceptable manner consistent with federal, state, and local environmental laws and Air Force directives.
- 2.8. Work with the CO to develop, update, and initiate (when applicable) the contract default plan according to AETC Plan 650, *Termination for Default Plan*.
- 2.9. Establish procedures for technical evaluation of contractor-submitted value engineering change proposals.
- 2.10. Participate as a member of the award fee board, as applicable.
- 2.11. Monitor and surveil applicable CLS, SOW, or performance requirements document (PRD) (reference Section D).
- 2.12. Select QAEs to serve on source selection teams.
- 2.13. Select and appoint a chief QAE.
- 2.14. Ensure Phase 2 training required by AFI 63-124 is provided by the applicable CO (paragraph 5.1) to QAEs at units without on-site COs. Consider using video teleconferencing technology or have the CO provide course material. If difficulty is encountered in obtaining this training, request assistance through HQ AETC/LGM.
- 2.15. Review monthly surveillance schedules.
- 2.16. Ensure QAEs are not assigned additional duties that interfere with their ability to fully meet the time requirements of contract surveillance and other QAE duties.
- 2.17. Ensure contractor regulations and/or instructions are reviewed by QAEs and accepted by the CO prior to publication.
- 2.18. Successfully complete the HQ AETC/LGMMR Functional Director's and Commander's Orientation Course within 90 days of assignment (paragraph 5).

**3. Chief Quality Assurance Evaluator (QAE) Responsibilities.** The purpose of the chief QAE is to ensure surveillance of contractor performance, and report noncompliance or abnormalities to the FC or FD and CO. At large units with maintenance directorates, the functional commander or director is also the chief QAE. At these units or other large contract units the senior QAE may be designated as a QAE

superintendent to assist with the management of the QAE function. Specific duties for QAE superintendents will be determined locally. Specifically, the chief QAE will:

- 3.1. Notify HQ AETC/LGMMR immediately when military (blue suit) QAE positions are expected to become vacant. Military QAE authorizations will be a minimum grade of TSgt (E-6) and be manned at 100 percent. The chief of the maintenance division (HQ AETC/LGM) will advertise military QAE vacancies, coordinate with the Chief QAE, and select personnel to fill vacant military positions. Base all QAE (blue suit and civil service) selections on their experience in the career field, weapon system experience, and quality force issues. Additionally, provide HQ AETC/LGMMR with the name, grade, years of experience, and position of civil service employees when they are selected to fill vacant QAE positions.
- 3.2. Verify that the contractor meets contract obligations specified in the contract.
- 3.3. Ensure evaluation guides are developed and review them annually for adequacy (paragraph 9).
- 3.4. Review the contractor's QC/QA program for acceptable quality level in all phases of the contract, and recommend acceptability to the CO through the FC or FD.
- 3.5. Perform an initial evaluation on each QAE to determine past qualifications, experience, and ability to accomplish technical inspections and contract surveillance functions. Each evaluator must be qualified in the appropriate area before performing evaluations, inspections, or surveillance duties unsupervised. Document initial evaluations for all QAEs (primary and alternates) in the individuals' training records.
- 3.6. Perform over-the-shoulder (OTS) evaluations of each primary and alternate QAE in the performance of surveillance activities. Evaluate annually at a minimum. The purpose of this evaluation is to ensure proficiency in surveillance techniques. Document the results of the evaluation in the QAE's training records. In large units, this responsibility may be delegated to the QAE superintendent, or equivalent.
- 3.7. Ensure a QAE training program is established and implemented (paragraph 5). For units without on-site CO, the chief QAE, FC or FD familiarizes QAEs with the Phase 2 training required by paragraph 5.1 while the QAE is awaiting formal training.
- 3.8. Assist the CO in managing the applicable government-furnished equipment clause of the contract.
- 3.9. Develop a monthly summary of QAE surveillance activities and forward a copy to HQ AETC/LGP (HQ AETC/LGMA for CLS contracts) not later than the 15th workday of the month. Send a copy of the summary to the CO, the FC or FD, and 19 AF/LG or 2 AF/LR, as applicable. Maintain copies of all summaries on file for the life of the contract. Compute individual inspections, technical area, observation area, and overall results as follows: *Total number of inspections rated acceptable divided by the total number of inspections multiplied by the 100-percent rate.*
- 3.10. Ensure copies of modifications and amendments to the contract are forwarded through the FC or FD, CO, and 19 AF/LG or 2 AF/LR, as applicable, and to HQ AETC/LGP (HQ AETC/LGMA for CLS contracts).
- 3.11. Assist HQ AETC/LGM, HQ AETC/LGP, the FC or FD, and the CO in determining contract cost estimates, if requested.
- 3.12. Calculate award fee data at the end of each quarterly award fee period, using monthly cumulative figures versus monthly percentages, if applicable. In other words, do not calculate averages using averages; use the raw data for the entire period.
- 3.13. Perform surveillance activities as required.

- 3.14. Develop and maintain the QASP in coordination with the FC or FD, CO, and HQ AETC/LGP (HQ AETC/LGMA for CLS contracts). Provide an information copy to 19 AF/LG or 2 AF/LR, as applicable.
- 3.15. Ensure monthly surveillance schedules are developed as required in paragraph 7.
- 3.16. Provide assistance to the wing safety office, or equivalent, in mishap and incident reporting, if required.
- 3.17. Review contractor regulations and/or instructions prior to acceptance and publication. Careful reviews are critical to ensure they meet all contractual requirements and do not conflict with AF, MAJCOM, and local requirements.
- 3.18. Verify statistical information provided by the contractor that concerns the standards specified in TE-1, the service delivery summary (SDS) or the applicable appendix of the contract to ensure accuracy, completeness, and adequacy, and coordinate this information with supply and operations prior to final validation when applicable. For award fee contracts, the chief QAE forwards the applicable information to the FC or FD. (**EXCEPTION:** The senior functional check flight (FCF) pilot validates FCF release rates, if applicable.)
- 3.19. Ensure that discrepancies discovered by QAEs are documented in the appropriate aircraft or equipment forms, and in the automated Maintenance Information System (MIS) (where applicable, the contractor will make the MIS entries). QAEs will followup to ensure the contractor takes corrective action.
- 3.20. Evaluate contractor proposals and provide comments and recommendations to the CO and, when applicable, HQ AETC staff functions.

**4. Quality Assurance Evaluator Responsibilities.** QAEs are the eyes and ears of the FC or FD and CO relative to the actual application of the contract; however, they are not a quality control/assurance function. *QAEs will not direct work or the reaccomplishment of work, change the contract, or formally interpret the contract.* The CO resolves these types of issues. Specifically, the QAE will:

- 4.1. Know and understand the specifications and requirements of the contract.
- 4.2. Know and maintain proficiency in contract surveillance procedures and requirements.
- 4.3. Know and apply the procedures for documenting surveillance.
- 4.4. Perform surveillance according to the QASP.
- 4.5. Maintain technical competency in their assigned surveillance area.
- 4.6. Attain qualification in the appropriate areas before performing evaluations, inspections, or surveillance duties unsupervised.
- 4.7. Review incoming and outgoing official government and contractor correspondence, as applicable.
- 4.8. Review deficiencies, time compliance technical orders (TCTO), and mishap contractor reports for accuracy, adverse trends, and mission accomplishment. Additionally, review contractor logistics reports to higher headquarters for possible indicators of performance trends.
- 4.9. Evaluate the effectiveness of the contractor's involvement in mishap investigations (AFI 91-204, *Safety Investigations and Reports*).
- 4.10. Serve as a member of the source selection team when required.
- 4.11. Develop monthly surveillance schedules as required in paragraph 7.
- 4.12. Perform munitions accountable systems officer (MASO) duties, if required.

4.13. Maintain proficiency in the use of automated MIS (for example, CAMS) for use in surveillance activities.

**5. Quality Assurance Evaluator Training.** The FC or FD and chief QAE are responsible for ensuring QAEs receive required training. The following training requirements apply to all QAEs:

5.1. The CO provides orientation and training to QAEs on general and specific requirements of contracts to which they are assigned (AFI 63-124). The AETC QAE orientation and training program consists of formal classroom instruction conducted at the base contracting office in two phases identified below. QAEs will complete this training prior to performing surveillance duties. (**NOTE:** Completion of Course 393AET0066-002, *AETC Quality Assurance Evaluator Course* and/or the AETC Functional Commander or Director's course may be used to fulfill the Phase 1 requirement. For units without on-site COs the chief QAE, or FC or FD, familiarizes QAEs with the requirements of Phase 2 training while the QAEs are waiting to attend the applicable formal course. Furthermore, the FC or FD ensures the applicable CO provides Phase 2 training to all QAEs. As previously mentioned, if difficulty is encountered in obtaining this training, request assistance through HQ AETC/LGM. **NOTE:** Consider the use of video teleconferencing or CO-provided course material if the CO is not on-site.

**5.1.1. Phase I, General QAE Training.** The Quality Assurance Program Coordinator (QAPC) provides the training at the unit level contracting office regardless of who administers the contract. If difficulty is encountered in obtaining this training, request assistance through HQ AETC/LGP (HQ AETC/LGMA for CLS contracts).

**5.1.2. Phase II, Contract Specific Training.** Training must be completed for each contract to which the functional commander or director and QAE is assigned. Training will include a detailed review and discussion of the contract and will ensure QAEs have proper understanding of necessary surveillance requirements for respective contracts. As previously stated, the FC or FD ensures the QAPC or CO provides this training.

5.2. All QAEs monitoring aircraft and trainer maintenance contracts (to include CLS COMBS, C-21 QAEs, etc.) must successfully complete Course 393AET0066-002 within 90 days of assignment to QAE duties. Further, all Chief QAEs and QAE superintendents must successfully complete the 1 1/2 day follow-on class held in conjunction with the course. The functional director, commander, or chief QAE coordinates with HQ AETC/LGMMR to obtain course dates and quotas. **NOTE:** Chief/superintendent QAEs who have successfully completed course 393AET0066-002 prior to Aug 2002, are not required to complete the 1 1/2 day follow-on course. All chief/superintendent QAEs assigned or appointed to these positions after Aug 2002 will be required to complete the 1 1/2 day follow-on course regardless of prior course (393AET0066-002) completion.

5.3. All functional directors and commanders must successfully complete the Functional Director's and Commander's Orientation Course provided by HQ AETC/LGMMR within 90 days of assignment.

5.4. The FC or FD and/or chief QAE are responsible for ensuring specialty training and cross-utilization training (CUT) requirements are met.

5.4.1. Specialty training is received through schools and experience throughout a career, and is commonly referred to as Air Force Specialty Code (AFSC) training. CUT is training provided outside the individual's primary AFSC that is needed to accomplish the QAE surveillance requirements (for example, training a crew chief to surveil engine maintenance).

5.4.2. The FC or FD and/or chief QAE ensures:

5.4.2.1. CUT of QAE personnel in related AFSCs consists of practical training in a formal training environment and/or on-the-job training.

5.4.2.2. Initial orientations and evaluations are accomplished.

5.4.2.3. Each area surveilled has a primary and alternate QAE assigned to ensure contract surveillance is accomplished. **NOTE:** Alternate QAEs must possess a maintenance-related AFSC, or applicable civilian series, if they are responsible for surveilling aircraft or aircraft trainer maintenance functions or tasks.

5.4.2.4. QAEs are familiar with surveillance and documentation methods and procedures and surveillance schedules.

5.4.2.5. QAEs are familiar with emergency procedures to be implemented if contractor performance is interrupted by default or strike.

5.4.2.6. QAEs maintain training records if required by AFI 36-2201, *Developing, Managing, and Conducting Training*, and the Career Field Education and Training Plan (CFETP) applicable to their AFSC. As a minimum, all QAEs must maintain an AF Form 797, **Job Qualification Standard Continuation/Command JQS**, regardless of grade or skill level that identifies specific responsibilities required by this instruction or other applicable directives. File and maintain the AF Form 797 in the QAE work center. Units may elect to use a locally developed automated product in place of the AF Form 797. If this option is used, the product must contain, as a minimum, all the same data elements as the AF Form 797.

5.4.2.7. QAEs are knowledgeable of the tasks they surveil. QAEs are not required to be certified on specific tasks; rather, they are duty-position qualified to inspect, surveil, and observe according to the requirements in this instruction and other applicable directives. (**NOTE:** Special emphasis will be placed on knowledge and surveillance requirements for tasks requiring special certification according to AFI 21-101, and other applicable directives.)

5.4.2.8. QAEs requiring special certification authority (red X, etc.) are authorized and designated in writing, either by memorandum (signed by the functional director or unit commander) or AETC Form 666, **Change to Inspector/Special Certification Listing**. Regardless of the method used, file a copy of the certification with the individual's AF Form 797.

5.4.2.9. QAEs performing surveillance on fuel systems or fuel maintenance facilities are familiar with all associated safety requirements prior to performing the surveillance (TO 1-1-3, *Inspection and Repair of Aircraft, Integral Tanks, and Fuel Cells*).

5.4.2.10. QAEs performing surveillance of munitions activities are familiar with the requirements of AFI 21-201, *Management And Maintenance of Non-Nuclear Munitions*, prior to performing munitions activity surveillance. QAEs are encouraged to utilize the inspector general checklist located on the AETC/IG website in the development of inspection criteria for munitions activities.

5.4.2.11. QAEs responsible for surveilling egress operations at contract organizations receive familiarization training per AFI 21-112, *Aircraft Egress Systems Maintenance*.

5.4.2.12. QAE sections coordinate with HQ AETC/LGMMR to obtain formal school training quotas.

### **Section B—Quality Assurance Surveillance**

**6. The Quality Assurance Surveillance Plan (QASP).** The QASP is developed as an OI that implements the requirements of AFI 63-124 and this instruction. The purpose of a QASP is to provide a planned process for surveilling the contractor's actual performance, and comparing that performance against the contractual requirements to determine conformity with the technical requirements of the contract. The QASP provides the QAE with information to identify acceptable performance and potential reasons for any nonconforming performance. QASPs incorporate guidance contained in the contract, including the contractor's QC program, contractor directives, required (mandatory) publications

listed in the contract, applicable portions of advisory publications (Air Force, AETC, and local), and applicable TOs. **NOTE:** Successful contract administration is dependent upon open positive communication between the CO, the FC or FD, the QAE, and the contractor. Write the QASP so that all understand it.

6.1. QASP development is mandatory for all AETC units that fall under the purview of this instruction.

6.2. Identify surveillance requirements in the QASP. Categorize as either technical or observation work area inspections.

6.2.1. Minimum technical area surveillance requirements and frequencies for T-6, T-37, T-38 (all models), and T-1 aircraft are identified in Attachment 2. Minimum surveillance technical area inspection requirements and frequencies for training wings (TRW) are in Attachment 3. The CO, chief QAE, and the FC or FD, using the contract as a guide, jointly determines any additional surveillance requirements associated with maintenance contracts for flying or training units, such as transient maintenance or weekend work.

6.2.1.1. Minimum technical area surveillance requirements for stand-alone transient maintenance activities are identified in Attachment 4. Stand-alone transient maintenance functions are defined as those contracts where the primary function is to perform transient maintenance services. QAEs surveilling stand-alone transient maintenance functions with additional maintenance requirements such as AGE/SE inspection and maintenance, or fabrication responsibilities, etc., will review their contract requirements (to include the contractor's quality control/assurance requirements) and establish technical inspections as required. As a minimum, include an adequate percentage of each contractor quality control/assurance inspection requirements.

6.2.1.2. CLS contracts follow the applicable technical surveillance guidance identified in Section D of this instruction. QAEs surveilling CLS contract may use the technical inspection criteria in paragraph 8.

6.2.1.3. QAE activities surveilling AETC maintenance contracts not specifically addressed in this section will use their SOW to determine technical area surveillance requirements. As a minimum, include a percentage of each technical inspection in the contractor's quality control/assurance program requirements outlined in the SOW.

6.2.1.4. QAEs at units operating from a SOW with a service delivery summary (SDS) will ensure that applicable standards identified in the SDS are considered during the development of technical inspection requirements.

6.2.2. Minimum observation work area surveillance requirements for flying units are found in Attachment 5. TRW minimum requirements are found in Attachment 6.

6.2.2.1. Minimum observation work area surveillance requirements for stand-alone transient maintenance contracts are found in Attachment 7. Stand-alone transient maintenance functions are defined as those contracts where the primary function will perform transient maintenance services. QAEs surveilling stand-alone transient maintenance functions with additional maintenance requirements such as AGE/SE inspection and maintenance, or fabrication responsibilities, etc., will review their contract requirements (to include the contractor's quality control/assurance requirements) and establish any additional observation work area inspections that may be required.

6.2.2.2. CLS contracts follow the applicable observation work area surveillance guidance identified in Section D. CLS QAEs identify inspection requirements, which meet the criteria of observation work areas and develop evaluation guides for each area using the guidance in paragraph 9.

6.2.2.3. QAE activities surveilling AETC maintenance contracts not specifically addressed in this section use Attachments 4 and 5 as guides, the information in paragraph 9, and their applicable SOW to identify observation work area surveillance requirements.

6.2.2.4. QAEs at units operating from a SOW with a SDS will ensure that applicable performance thresholds identified in the SDS are considered during the development of observation work area inspection requirements. Evaluations guides are developed for each observation area per the guidance in paragraph 9.

6.3. In addition to the requirements in the preceding paragraphs, the QASP will:

6.3.1. Clearly identify the QAE's responsibilities.

6.3.2. Identify surveillance techniques and their application, and explain how to document and report unacceptable performance. The four methods of surveillance available to the QAE include customer complaints, random sampling, periodic surveillance, and 100 percent inspection. The sources of information available include management information systems, observation of task attributes, and observation of performance.

6.3.3. Establish and assign responsibilities in the QASP for verifying costs of reimbursable items, to include items purchased through the micro-purchase program, when applicable.

6.3.4. Establish procedures to review, evaluate, and provide comments and recommendations to contractor proposals.

6.3.5. Include procedures for development, and coordination of monthly surveillance schedules (paragraph 7).

6.3.6. Ensure all contractor performance hours are surveilled on a random basis to include all shifts, weekends, nights, and holidays, as applicable.

**7. Surveillance Schedules.** The QAE will develop a monthly schedule of surveillance activities based on QASP requirements. The schedule must be completed not later than 7 calendar days prior to the beginning of the period it covers. The FC or FD must review and return the schedule to the QAE no later than the last day of the month preceding the scheduled month. The QAE must provide a copy of the schedule to the contract administrator before the start of the surveillance period. *The surveillance schedule is FOR OFFICIAL USE ONLY. Do not release to anyone other than authorized government personnel. These records are exempt from release under FOIA Exemption High b2.* Post changes to scheduled observations as they occur, and send copies to the CO and FC or FD, as requested.

7.1. If minimum monthly surveillance requirements cannot be met due to equipment nonavailability or special circumstances, include an explanation on the summary for each missed area and/or inspection category. In such cases, a statement from the FC or FD and CO approval for the variance is required.

7.2. There may be times when the chief QAE determines surveillance is not required in an observation area based on a continuing record of acceptable performance by the contractor. When this is determined to be appropriate, the chief QAE, with FC or FD and CO approval, will make note of this in the monthly summary. Never skip surveillance of an observation area for more than one prescribed period (month, quarter, etc.). **NOTE:** This is not applicable to technical inspection requirements.

7.3. Inspections (observation or technical) may be either scheduled, unscheduled, or as observed; however, only scheduled inspections required by the QASP may be used to determine or apply a rating for acceptable performance according to contract standards in TE-1 or the applicable appendix of the contract.

7.4. Unscheduled inspections are specific inspections QAEs perform outside or above the inspections listed in the schedule.

7.5. As-observed inspections are also considered as unscheduled inspections. They are discrepancies that are observed by QAEs but are not part of the specific inspection performed, whether it is scheduled or unscheduled. They occur when discrepancies or deficiencies are observed or discovered that are not directly associated with another inspection. Document and report as-observed deficiencies.

**8. Technical Inspections.** Technical requirements are surveilled by performing technical inspections. Inspections may be performed while maintenance is being performed (concurrently) or after the fact. They may also be performed concurrently or after contractor quality control/assurance inspections. Technical inspections are limited to the same inspection work card or TO required for the job. QAEs surveilling contracts that do not have technical inspections specifically addressed in the attachments of this instruction will use the procedures in this paragraph to perform technical inspections included in the QASP.

8.1. Technical inspections are accomplished by checking a minimum of 50 percent of the required inspection items. Normally, disassembly of a part, removal of a stress panel, or similar actions are not necessary to accomplish a technical inspection.

★8.2. Technical inspections include a review of the aircraft or equipment forms and the automated maintenance information system (MIS) for proper documentation (applicable to the job being surveilled); checking for proper and current technical data usage; proper tool usage; and after maintenance foreign object (FO) checks of the area in which the task was performed. Discrepancies found in these categories are normally applied to the technical inspection; however, if the QAE's judgment and experience determines it is inappropriate to include them, they may be documented separately as an "as-observed" unscheduled inspection.

8.3. Assign technical rating inspections as either acceptable or unacceptable. Assign unacceptable ratings when one of the following conditions occurs:

8.3.1. A step serious enough to adversely affect the performance of the equipment involved is omitted or improperly completed.

8.3.2. A major or red X discrepancy is detected.

8.3.3. The number of minor discrepancies exceeds the baseline or acceptable quality level (AQL) of a like inspection contained in the quality control/assurance baselines or AQLs outlined in the contract. If no like inspection exists then assign an unacceptable rating when the number of minor discrepancies exceeds 3. (**NOTE:** If the baseline for a like inspection is 3 or less then the like inspection baseline or AQL will apply.)

8.4. Assign a technical rating inspection as acceptable when the total number of minor discrepancies does not exceed the applicable baseline or AQL contained in the quality control/assurance requirements of the contract.

8.5. All units, to include CLS contracts, will identify select technical inspections contained in their QASP for inspection of the contractor's quality control/assurance program. The chief QAE selects a sufficient percentage of scheduled technical inspections as followup or concurrent QC inspections to ensure the contractor is fully meeting their QC plan. These inspections may be performed in conjunction with other inspection requirements. If this option is used, document each inspection independently. Include these requirements in the QASP and the monthly surveillance schedule. **NOTE:** The chief QAE may elect to do QC followup inspection on observation work areas as well.

**9. Observation Area Inspections.** Surveil observation work areas by performing inspections in specific work areas. Rate them either acceptable or unacceptable.

9.1. Assign an acceptable rating when no major discrepancies are identified, and the number of minor discrepancies found is less than seven. Assign an unacceptable rating when a major discrepancy is identified or seven or more minor discrepancies are identified. The chief QAE may consider it appropriate to adjust the baseline up or down, based on the size of the observation work area or because functions have been combined. If adjustments are made they must be reflected in the QASP.

9.2. Develop a separate evaluation guide for each observation area. The chief QAE reviews evaluation guides annually, and documents the review on a memorandum or locally approved form that is filed in the QAE office. Evaluation guides may be included as part of the QASP.

9.2.1. Use evaluation guides for the inspection of a particular area; however, area inspections are not limited to the evaluation guide content. Annotate evaluation guides with the following statement: "Area inspection is not limited to the content of evaluation guide."

9.2.2. If functions have been combined within an organization, develop a single evaluation guide that encompasses the combined functions. Combined functions normally share common elements such as composite tool kit (CTK), TOs, etc. Functions that are just collocated in the same facility are not considered combined. The chief QAE will determine if an increase to the inspection baseline for minor discrepancies is appropriate.

9.3. As a minimum, each work area inspection will include the following critical items, as applicable:

9.3.1. Tool and equipment management, FO prevention, and housekeeping procedures. Ensure all applicable areas and facilities are included, such as flight line, hangar, maintenance facilities, and jet engine operating areas.

9.3.2. Supply procedures (see paragraph 12); TO maintenance; AFTO forms documentation; and recording of information in automated MIS such as Core Automated Maintenance System (CAMS) (includes all subsystems), Precision Measurement Equipment Laboratory (PMEL) Automated Management System (PAMS), Automated Oil Analysis, and any other automated MIS that includes aircraft or equipment information.

9.3.3. Physical security, conservation of utilities, fire prevention, environmental protection, and facilities management.

9.4. Chief QAEs will place these minimum requirements into a single general guide. General guides are used with the applicable observation work area evaluation guide for the work area being inspected. Evaluation guides should contain minimum inspection areas or items and not include overwhelming requirements that may cause an over inspection of a particular shop.

9.5. QAEs surveilling contracts with an SDS must ensure that observation area evaluation guides are developed with consideration of the performance thresholds in the SDS, and that the minimum requirements listed above are included. Additionally, review Attachments 5 and 6 for possible addition of observation areas to the surveillance program.

9.6. All units, to include CLS are encouraged, but not required, to perform followup inspections on contractor QC inspections of observation work areas. If performed, these inspections may be followup or concurrent with QC inspections. The intent is to ensure the contractor is complying with the requirements of the QC program. These inspections may be performed in conjunction with other inspection requirements. If this option is used, document each inspection independently. Include these requirements in the QASP, and the monthly surveillance schedule.

**10. Discrepancy Categories.** To ensure consistency when determining severity of discrepancies, the following definitions and criteria apply to technical and observation area inspections:

**10.1. Major Discrepancy.** A condition that endangers personnel, jeopardizes equipment or system reliability, affects safety of flight, or warrants discontinuing a process or equipment operation. QAEs will utilize judgment and experience in determining major discrepancies. Categorize as a major discrepancy a discovery of any of the following conditions:

10.1.1. Improper or untimely documentation of red X discrepancies on aircraft, trainer, or equipment AFTO forms (to include automated system entries).

10.1.2. A FO within 50 feet of an aircraft flight line parking or engine operating area, or within 10 feet of an aircraft or engine in a maintenance area (for example, hangars, phase dock, wash rack, etc.). **NOTE:** FO found in toolboxes or in support equipment is not considered a major discrepancy.

10.1.3. Test, measurement, diagnostic equipment (TMDE) overdue calibration or when calibration status cannot be verified.

10.1.4. Violation of federal, state, or local laws and/or Department of Defense or Air Force environmental protection policies and directives.

10.1.5. Overdue time change and inspection items (-6 TO asterisk items), and unauthorized engine over-flies.

10.1.6. Any errors in cartridge actuated device (CAD) and/or propellant actuated device (PAD) verification documents, or data errors in the automated MIS that could affect the airworthiness or safety of flight for aircraft. All due time errors for CAD/PAD, grounding inspections, grounding time changes, due time errors on nongrounding -6 inspections and nongrounding time changes that can or will result in the item going overdue. (Due time errors, nongrounding -6 inspections and nongrounding time changes that does NOT result in the inspection [or time change] going overdue [that is, short-cycled], are considered minor discrepancies.)

10.1.7. Any inspection not loaded (except those specifically exempted by Air Force technical data) and improperly loaded aircraft, and engine low cycle fatigue cycle items.

10.1.8. TO violations, not using required TOs to perform tasks, or violations of mandatory directives and supplements *when such may cause damage to government property or injury to government personnel.*

10.1.9. Improper use of tools or use of out-of-date technical data *when such may cause damage to government property or injury to government personnel* (reference TO 00-5-1, *Air Force Technical Order System*).

10.1.10. Performance of maintenance without training or qualification on the task.

**10.2. Minor Discrepancy.** An unsatisfactory condition that requires repair or correction but does not endanger personnel, affect safety of flight, jeopardize equipment reliability, or warrant discontinuing a process or equipment operation. (**NOTE:** If the QAE determines it is appropriate, minor discrepancies that consist of a grouping of like deficiencies; for example, a bench stock with 6 commingled bins, 10 bins not flagged, and 4 bins with torn labels may be documented as one discrepancy against the observation guide.)

**11. Documentation File Inspections.** Rate documentation file inspections for aircraft, support equipment, and engines. The inspections include review of the status and historical documents (include documents in the automated MIS). Send discrepancies found in the historical documents file to the contractor for corrective action. Actual discrepancies are not corrected except for items of a historical nature, including automated documents that can be verified from other sources. Specifically:

11.1. Each incorrect clearing of a red X symbol, erasures of symbols, overdue time change items, and overdue inspections caused by improper documentation are considered major discrepancies. The correct use and clearance of red X symbols are items of special attention during documentation file inspections. QAEs must ensure unsafe or unfit for operation conditions are represented by red X entries and these entries are properly cleared.

11.2. Do not charge against the contractor documentation errors on forms initiated at other than the home station or generated by nonmaintenance personnel, but correct if the deficiency affects historical or automated information.

11.3. A major discrepancy or more than three minor discrepancies will result in an unacceptable rating. Rate all other conditions as acceptable. (The chief QAE may lower the baseline for minor discrepancies on support equipment if appropriate.)

**12. Supply.** QAEs sample supply and Air Force Repair Enhancement (AFREP) management products/aids quarterly during applicable observation work area inspections. Products may include the D04, M30, D23, R49, D18, D19, R35, M04, S04, Q13, and micro-purchase summaries for signs of waste, abuse, or poor supply discipline.

**13. Environmental Plans and Programs.** Establish an observation work area guide to effectively monitor the contractor's compliance with federal, state, and local laws as well as Department of Defense (DoD) and Air Force (AF) directives, and the installation's applicable environmental plans and programs. Ensure hazardous waste collection points and storage areas that are the contractor's responsibilities are included in surveillance requirements as applicable. **NOTE:** QAEs are not professional environmental inspectors; they surveil to ensure compliance with contract requirements. If required, QAEs will seek assistance from the base environmental function (through the CO).

**14. Contractor Training.** Include surveillance requirements in the QASP to effectively monitor compliance with the contractor's training plan as prescribed in the contract. QAEs will place special emphasis on the adequacy of the training provided by the contractor.

14.1. Surveillance will include random monthly observance of task qualification, and certification training accomplished by the contractor, to include training associated with special certification tasks.

14.2. Surveillance will include random quarterly observance of recurring maintenance-training requirements.

14.3. In addition to actually observing the training as it takes place, the surveillance will include a review of training documentation, individual training records, and plans of instruction, if applicable.

14.4. QAEs will assign an acceptable or unacceptable rating to contractor training observations based on whether or not the training observed meets contract requirements, the standards and intent of the contractor's training plan, and the objectives of the training being provided.

**15. Documentation of Safety Violations.** Document violations of Occupational Safety and Health Administration (OSHA) or Air Force Occupational Safety and Health (AFOSH) standards that clearly present a potential to damage or injure government resources as part of the inspection being performed or, if appropriate, "as observed." The documentation should clearly indicate the potential to damage or injure government resources. QAEs do not document violations of OSHA or AFOSH standards that do not present the potential to damage or injure government resources; rather they will informally notify the site supervisor and CO.

**16. Functional Check Flight (FCF) Pilot Responsibilities.** FCF pilots assigned to the QAE activity may assist the FC or FD and chief QAE as necessary. Additionally, FCF pilots, after completing QAE training requirements (paragraph 5.1), may perform no-notice installed engine operation inspections (as

prescribed in Attachment 2) and training according to AFI 21-101. FCF pilots will inform the chief QAE of problems or adverse trends in contractor performance noted when performing FCFs.

### ***Section C—Surveillance Documentation***

**17. Documentation of Contractor Performance.** The following documentation procedures apply (**NOTE:** QAEs surveilling C-21 CLS contracts use the forms prescribed by MCR 66-4, *Contract Quality Assurance*).

17.1. Use AETC Form 447, **Routing and Review of QAE Reports** (or use the form specifically prescribed in the contract) or a locally approved form to document discrepancies. Document the discrepancy as soon as it is discovered, notify the contractor as soon as the surveillance is completed, and request the contractor representative to initial the document on which the observation is recorded. If the contractor representative refuses to initial, it is so noted by the QAE. A date and time the discrepancy is discovered is also annotated, and the contract representative is asked to correct the problem. Document and bring to the attention of the contractor errors found in services not scheduled for observation, but do not use unscheduled or as observed inspections to determine performance acceptability.

17.2. If at any time during the surveillance period, the results of surveillance required by the QASP show that the number of unacceptable observations do not meet contract standards or performance requirements, and the QAE determines it is not government caused, the QAE initiates an AF Form 802, **Contract Discrepancy Report (CDR)**, or form specified by the applicable contract.

17.2.1. Forward the report to the CO for evaluation. If the CO determines it is appropriate, send the report to the contractor, with return receipt requested. The contractor normally has 15 calendar days from date of receipt to return the report to the CO with a response as to cause, corrective action, and actions taken to prevent recurrence.

17.2.2. The CO, in consultation with the QAE, evaluates the contractor's response and takes appropriate action.

17.3. Use AF Form 714, **Customer Complaint Record**, or a locally approved form to document customer complaints.

**18. Surveillance Reviews.** Forward all surveillance documentation to the CO for review within 15 workdays after the end of each month.

### ***Section D—Contract Logistic Support (CLS) Surveillance***

**19. Contents and Applicability.** This section describes the additional and/or particular duties, responsibilities, and specific surveillance requirements of FC or FDs, and QAEs appointed to surveil CLS contracts within AETC. AETC has a variety of contracts associated with aircraft and trainer support. This section addresses contracts that are awarded by Air Force Materiel Command (AFMC).

**20. Contractor Logistics Support (CLS) Contract Management.** CLS contracts outline QAE duties and responsibilities that are in addition to the requirements contained in this instruction. These duties and responsibilities are further defined by the individual contract principal contracting officer (PCO) and CO, and are delegated to senior Air Force representatives at each main operating base that utilizes the weapon system. Aircraft CLS contracts vary slightly between weapon systems, depending on the supplies and services provided by the CLS contractor. For the purposes of this instruction, CLS contracts are identified as full or partial CLS. A weapon system using full CLS is where a single contractor provides both on- and off-equipment maintenance support. A partial CLS contract provides only off-equipment maintenance support through a contractor-operated and managed base supply (COMBS).

**21. Responsibilities.** The FC or FD and QAE must have a thorough understanding of the CLS concept to fulfill their duties. As a minimum, they must have a copy of the contract and the applicable statement of work. They must also understand the differences between site services maintenance contracts and CLS contracts, and the interface of the two when they support one weapon systems at one location.

**22. Surveillance Requirements.** This paragraph identifies specific surveillance requirements particular to CLS contracts.

22.1. Air Mobility Command (AMC) is the lead command for the C-21. The C-21 is supported by full CLS contracts. MCR 66-4 contains guidance applicable to those specific contracts that are in addition to the requirements of this instruction. QAEs should identify any conflicts between MCR 66-4 and this instruction to HQ AETC/LGMMP. Specific technical and observation work area surveillance requirements for C-21 contracts are in the applicable CO approved QASP. Additionally, QAEs use the forms prescribed by these publications to document surveillance. (**NOTE:** Observation work area surveillance guidance for full CLS contracts are in paragraph 6.)

22.2. The T-1 aircraft at Pensacola NAS are also supported by a full CLS contract. QAEs surveilling this contract or any other full CLS contract will use the SOW, the contractor's quality control/assurance program and Attachments 2 and 5 of this instruction to determine technical and observation work area inspection requirements. As a minimum, QAEs will include a percentage of each technical inspection included in the contractor's quality assurance/control program, and all applicable technical and observation work area inspection requirements in Attachments 2 and 5.

22.3. Some aircraft are supported by partial CLS contracts such as the T-1 (except for T-1 operations at Pensacola NAS which are full CLS), T-6, T-38C, and T-43. The QAE surveilling these contracts will:

22.3.1. Be thoroughly familiar with the CLS concept and the applicable CLS SOW.

22.3.2. Review CLS contract amendments and airworthiness directives, service bulletins, safety communiqués, service information letters, and service instructions received for the weapons system. The air logistics center system program director (SPD), in coordination with the using command headquarters, determines the implementation of technical directives.

22.3.3. Attempt to resolve technical problems at the lowest level possible. If problem resolution is beyond local capability or has contractual implications, elevate the problems through the applicable HQ AETC functional manager to the PCO for the contract. The FC or FD and QAE are not empowered to make contractual decisions.

22.3.4. Attend program management review and technical interchange meetings as scheduled by the CO, PCO, or SPD, as applicable.

22.4. For partial CLS COMBS contracts, the FC or FD and QAE will develop a tailored QASP to meet the surveillance and documentation procedures for a partial CLS contract. Forward a copy of this plan to HQ AETC/LGMA. As a minimum, the following will be accomplished:

22.4.1. Submit a monthly verification of not-mission-capable supply time to the CO or SPD.

22.4.2. Verify work requests and over and above actions submitted by the CLS contractor.

22.4.3. Investigate cannot-duplicate discrepancies reported by the COMBS manager.

22.4.4. Perform periodic safety, environmental, and housekeeping inspections of the COMBS facility.

22.4.5. Review and monitor the contractor support equipment maintenance schedule.

22.4.6. Monitor the depot maintenance schedule, if applicable, for aircraft and engines paying particular attention to timely inputs.

*Section E—Forms*

**23. Form Prescribed.** AETC Form 447.

**24. Forms Adopted.** AF Form 372, AF Form 714, AF Form 797, AF Form 799, AF Form 802, and AETC Form 666.

JOE F. HARRISON, Colonel, USAF  
Deputy Director of Logistics

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 21-1, *Managing Aerospace Equipment Maintenance*

AFI 21-101, *Aerospace Equipment Maintenance Management*

AFI 21-112, *Aircraft Egress Systems Maintenance*

AFI 33-324, *The Information Collections and Reports Management Program, Controlling Internal, Public, and Interagency Air Force Information Collections*

AFI 36-2201, *Developing, Managing, and Conducting Training*

AFMAN 37-139, *Records Disposition Schedule*

AFI 63-124, *Performance-Based Service Contracts (PBSC)*

AFI 91-204, *Safety Investigations and Reports*

MCR 66-4, *Contract Quality Assurance*

AETC Plan 650, *Termination for Default Plan*

TO 00-5-1, *Air Force Technical Order System*

TO 1-1-3, *Inspection and Repair of Aircraft, Integral Tanks, and Fuel Cells*

***Abbreviations and Acronyms***

**AF**—Air Force

**AFOSH**—Air Force Occupational Safety and Health

**AFSC**—Air Force specialty code

**AGE**—aerospace ground equipment

**AQL**—acceptable quality level

**BPO**—basic post flight inspection

**BRAG**—business requirements and advisory group

**CAD**—cartridge actuated device

**CAMS**—Core Automated Maintenance System

**CASS**—Centralized Aircraft Support System

**CFETP**—Career Field Education and Training Plan

**CFT**—contract field team

**CLS**—contractor logistics support

**CO**—contracting officer

**COMBS**—contractor operated and maintained base supply

**CTK**—composite tool kit

**CUT**—cross-utilization training

**DoD**—Department of Defense  
**FCF**—functional check flight  
**FO**—foreign object  
**FOD**—foreign object damage  
**HPO**—hourly post flight  
**IBL**—inspection baseline  
**MASO**—munitions accountable systems officer  
**MIS**—maintenance information system  
**MDS**—mission, design, series  
**NDI**—non-destructive inspection  
**OI**—operating instruction  
**OSHA**—Occupational Safety and Health Administration  
**OTS**—over-the-shoulder  
**PAD**—propellant activated device  
**PAMS**—PMEL automated management system  
**PBSC**—performance-based service contract  
**PCO**—principle contracting officer  
**PE**—periodic  
**PMEL**—precision measurement equipment laboratory  
**QA**—quality assurance  
**QAE**—quality assurance evaluator  
**QAEP**—quality assurance evaluation program  
**QAR**—quality assurance representative  
**QASP**—quality assurance surveillance plan  
**QC**—quality control  
**SDS**—service delivery summary  
**SPD**—system program director  
**TCTO**—time compliance technical order  
**TMDE**—test, measurement, and diagnostic equipment  
**TO**—technical order  
**TRW**—training wing

## Attachment 2

**T-6, T-37, T-38 (ALL MODELS), T-43, AND T-1 TECHNICAL INSPECTION REQUIREMENTS**

The requirements listed in Table A2.1 are minimum requirements. Inspections and evaluations in the areas and quantities listed are monthly requirements unless otherwise noted. When computing frequency, round off requirements to the next whole number. Inspection requirements are for each mission, design, series (MDS) assigned. Schedule quarterly surveillance requirements on a random, yet adequately distributed, basis. For example, an inspection completed in the last week of a quarter should not be scheduled for inspection again during the first week of the new quarter.

**Table A2.1. T-6, T-37, T-38 (All Models), T-43, and T-1 Technical Inspection Requirements.**

I T E M	A	B	C
	Categories	Frequency	Notes
<b>Inspection (Per MDS)</b>			
1	Preflight, Basic Postflight (BPO), Home Station Check, and Thrufight Inspection (includes combined preflight/post flight)	7 percent	1, 2
2	Hourly Postflight, or Isochronal Inspection	5 percent	1, 3
3	Periodic (PE) Inspection/Phase	10 percent	1, 3
4	Liquid Servicing	1	
5	Gaseous Servicing	1	
6	Ground Movement	1	
7	Flight Control Rig/Maintenance	1	
8	Landing Gear Rig/Maintenance (includes wheel and tire)	1	
9	Canopy Rig/Maintenance	1	
10	Throttle Rig/Maintenance	1	
11	Egress Maintenance	1	
12	Brake System Maintenance	1	
13	T-38/AT-38B Boat Tail Installation	2	
14	Aircraft Wash and Corrosion Control	2 percent	3
15	Environmental Systems Maintenance	1	
16	Avionics System Maintenance	1	
17	Electrical System Maintenance	1	
18	Fuel System Maintenance	1	
19	Installed Engine Run	1	
20	Structural Maintenance	1	
21	Aircraft FO Inspection	1	
22	Life Raft Repack (AT-38 only)	1	8, 9
23	Emergency Escape and Survival Equipment Inspection for T-1	1	9
24	Personnel Parachute Repack	1	
25	Survival Equipment Inspection for T-6	1	9
26	TCTOs	First 2 percent	

I T E M	A	B	C
	Categories	Frequency	Notes
27	AETC Special Inspection (if applicable)	Locally determined	
28	Transfer/Acceptance Inspections	Locally determined	
29	Document File Inspection	2 percent	1, 3
<b>Engines</b>			
30	Uninstalled Engine Run	1	
31	Engine PE/Hourly Postflight (HPO) Inspections (only if performed by unit)	10 percent	1, 4
32	Built-up Engines (only if built by the unit)	5 percent	1, 5
33	Engine Rig (if applicable)	1	
34	Engine Installation	1	
35	TCTOs	First 2 percent	
36	AETC Special Inspection (if applicable)	Locally determined	
37	Transfer/Acceptance Inspections	Locally determined	
38	Document File Inspection	2 percent	1, 4
39	Engine FO Inspection	1	
<b>Support Equipment</b>			
40	Powered Aerospace Ground Equipment (AGE) Service	2	
41	Powered AGE and Centralized Aircraft Support System (CASS) Periodic	2 percent	1, 6
42	Nonpowered AGE	1 percent	
43	TMDE	2	7
44	Industrial/Test Equipment, and Special Tools	1	
45	TCTOs	First 2 percent	
46	AETC Special Inspection (if applicable)	Locally determined	
47	Transfer/Acceptance Inspections	Locally determined	
48	AGE/SE Equipment FO Inspection	1	
49	Document File Inspections	2 percent	1, 6
<b>Other</b>			
50	Transient Maintenance Launch, Recovery, and Servicing of Transient Aircraft (all MDSs) (if applicable)	4	1, 12
51	Training (tasks and recurring) (see paragraph 14)	2	
52	Area FO Inspection (FO walks)	4	11
53	Historical Static Display	1	1, 10
<b>Weapons and Munitions</b>			
54	TCTOs	First 2 percent	

I T E M	A	B	C
	Categories	Frequency	Notes
55	AETC Special Inspection (if applicable)	Locally determined	
56	Weapons loading tasks (for example, Arm/Dearm, Loading, Immediately Prior to Launch)	4	8
57	SUU-20 End of Firing Day	1	8
58	SUU-20 180 Day Inspection	2 per quarter	8
59	MA-4 Bomb Rack Inspection/AT-38 Weapons Pylon Inspection	1	8

**NOTES:**

1. Perform an inspection of active forms and documents (to include the automated MIS) in conjunction with aircraft, engine, and support equipment inspections. This includes each periodic maintenance, isochronical inspection, and phased inspection.
2. Number of required inspections is based on percentage of aircraft possessed, or percentage of inspections scheduled monthly, whichever is less. Any combination of preflight, basic postflight, home station check, thruflight, etc., selected to meet the monthly inspection requirement may be used. Example: 55 aircraft possessed equals four inspections. One preflight, one thruflight, and two basic postflight inspections would meet the minimum requirement of four inspections. (Do not include aircraft in storage or at forward operating locations in computations for inspection requirements to be performed at home station.)
3. Number of required inspections is based on percentage of aircraft possessed or percentage of inspections, washes, TCTOs, etc., scheduled monthly, whichever is less. For T-6, T-37, T-38 (all models) PE, and T-1 aircraft the sum of all areas equal one aircraft.
4. Number of required inspections is based on a percentage of inspections scheduled for the month.
5. Number of required inspections is based on the monthly average number of engines processed through the propulsion repair facility during the previous 6 months. It consists of technical requirements that can be inspected without disassembly of the engine.
6. Number of required inspections is based on total number of inspections required for assigned support equipment, regardless of MDS. Provide equitable inspection distribution between equipment assigned to different aircraft MDSs.
7. Inspect TMDE for adequacy of user inspections, repairs, serviceability, calibrations, and corrosion control.
8. Applies to AT-38 aircraft only.
9. Units with less than 12 equipment items assigned may distribute inspections as appropriate, providing each item is inspected at least once during the calendar year.
10. Number of required inspections is based on the percentage of displays possessed or percentage of inspections, washes, etc., scheduled monthly, whichever is less. Each display must be inspected at least once every 2 years.
11. Areas include flight line, maintenance hangars, AGE yard, etc. QAEs should ensure all areas are looked at on a random basis.
12. Transient maintenance inspections can be launch, recovery, or servicing. QAEs should schedule these on a random basis to ensure each action is surveilled adequately.

## Attachment 3

## TRAINING WING (TRW) TECHNICAL INSPECTION CATEGORIES AND FREQUENCIES

The inspection categories and frequencies listed in Table A3.1 are minimum requirements. Inspections in the areas and quantities listed are monthly requirements unless otherwise noted. When computing frequency, requirements will be rounded off to the next whole number. Representative sample is defined as at least one inspection.

Table A3.1. TRW Technical Inspection Frequencies.

I T E M	A	B	C
	Categories	Frequencies	Notes
<b>Trainers</b>			
1	End item trainers (ground instructional training aircraft [GITA], missiles, vehicles, engines, etc.) used for training	5 percent	1, 2
2	Subsystem trainers (landing gear, fuel system, flight control, etc.) used in lieu of system or end item	5 percent	1, 2
3	Other trainers that do not fall in the above categories	5 percent	1, 2
<b>Support Equipment</b>			
4	AGE (powered and nonpowered)	5 percent	1, 3
5	TMDE	4	4
6	Industrial equipment	1	
<b>Special Inspections</b>			
7	Historical static displays	5 percent	1, 5
8	Document file	2 percent	6
9	Transfer and acceptance	As required	
10	TCTOs	Representative sample	
11	Foreign object (FO)	Determined locally	7
12	TO files	Determined locally	7

**NOTES:**

1. Perform an inspection of all active forms and documents (to include the automated MIS) in conjunction with equipment inspections.
2. Number of required inspections is based on the percentage of trainers possessed **or the percentage of maintenance actions/inspections scheduled and/or completed by the contractor**, whichever is less. **NOTE:** If the number of inspections is zero then the number of required inspections will be based on the percentage of trainers possessed and maintained by the contractor.
3. Number of required inspections is based on total number of inspections regardless of MDS. Provide equitable inspection distribution. As a minimum, one of each MDS must be inspected at least once each 6 months.
4. Inspect TMDE for adequacy of user inspections, repairs, serviceability, calibration, and corrosion control.
5. Number of required inspections is based on the percentage of displays possessed or percentage of inspections, washes, etc., scheduled monthly, whichever is less. Inspect each display at least every 2 years.

6. Inspect document file for each item of equipment (if maintained) as a minimum, once each year.
7. Inspection frequency is determined locally. Consider the size of the TO file and or work center (for FO inspections) when establishing inspection baselines or AQLs.

## ★Attachment 4

### STANDALONE TRANSIENT MAINTENANCE TECHNICAL INSPECTION REQUIREMENTS

The requirements listed in Table A4.1 are minimum monthly requirements for stand-alone transient maintenance functions (contracts where the primary function is transient maintenance). QAEs surveilling transient maintenance functions with additional maintenance requirements such as AGE/SE inspection and maintenance or fabrication responsibilities will review their contract requirements (to include the contractor's quality control/assurance requirements), and establish technical inspections as required. Inspections and evaluations in the areas and quantities listed below are monthly requirements unless otherwise noted. Schedule surveillance requirements on a random, yet adequately distributed, basis.

**Table A4.1. Standalone Transient Maintenance Technical Inspection Requirements.**

I T E M	A	B	C
	Categories	Frequency	Notes
★1	Aircraft Recovery	10	1
★2	Aircraft Servicing	6	1
3	Aircraft Inspection (BPO, preflight, thru flight, etc.)	4	1
★4	Aircraft Launch	10	1
5	Aircraft Maintenance (if performed)	4	1
6	Ground Movement of Aircraft	4	
7	Aircraft/Equipment Forms/MIS Documentation	12	1, 2
8	Area FO Inspection	4	3
9	TMDE Equipment Inspection	4	4
10	Training (see paragraph 14)	2	

**NOTES:**

1. Perform an inspection of active forms and documents (to include the automated maintenance information [MIS] system) in conjunction with aircraft, AGE and support equipment maintenance actions and inspections.
2. Number of required inspections is based on documentation in transiting aircraft forms and assigned equipment that transient maintenance is responsible for (if applicable). Documentation inspections will include applicable required MIS entries.
3. Areas include flight line, maintenance hangars, AGE yards, etc. for which the contractor is responsible or performs maintenance. QAEs will ensure all areas are looked at on a random basis. Perform these inspections within a reasonable time after the contractor has completed the FO inspection.
4. Inspect TMDE for adequacy of user inspections, serviceability, calibrations, and corrosion control.

## Attachment 5

## FLYING UNIT OBSERVATION WORK AREA REQUIREMENTS

Schedule quarterly surveillance requirements shown in Table A5.1 on a random, yet adequately distributed basis. For example, an inspection completed in the last week of a quarter should not be scheduled for inspection again during the first week of the new quarter.

Table A5.1. Flying Unit Observation Work Area Requirements.

I T E M	A	B
	Work Areas	Frequency
1	Data Management	Q
2	Maintenance Operations Center	M
3	Plans and Scheduling	M
4	Quality Control/Assurance	Q
5	Documentation	M
6	Training Management (includes plans)	Q
7	Repair Cycle Monitor Function	M
8	Maintenance Supply Liaison (if applicable)	M
9	Electro/Environmental	Q
10	Instrument	Q
11	Communication/Navigation	Q
12	PMEL (if applicable)	Q
13	Plating (if applicable)	Q
14	Transportation (if applicable)	Q
15	Sheet Metal	Q
16	Welding (includes chemical cleaning if applicable)	Q
17	Engine Management	M
18	Engine (includes flight line support if applicable)	Q
19	Sound Suppressor/Hush House	Q
20	Test Cell	Q
21	Fuels (includes fuel cell)	Q
22	Nondestructive Inspection (NDI)	Q
23	Transient Alert	Q
24	Post Dock	Q
25	CASS (if applicable)	Q
26	AGE	Q
27	Battery	Q
28	Egress	Q
29	Fabric	Q
30	Pneudraulics	Q
31	Machine	Q
32	Paint (includes paint hanger and disposal of hazardous waste)	Q
33	Corrosion	Q
34	Survival Equipment (if applicable)	Q
35	Wash Rack	Q

<b>I T E M</b>	<b>A</b>	<b>B</b>
	<b>Work Areas</b>	<b>Frequency</b>
<b>36</b>	Aircraft Flight Line (includes offices)	Q
<b>37</b>	Aircraft Scheduled Maintenance Facility	Q
<b>38</b>	Aircraft Unscheduled Maintenance Facility	Q
<b>39</b>	Plastic Media Blasting Facility	Q
<b>40</b>	Auxiliary Fields (if applicable)	SA
<b>41</b>	Crash Recovery (crane and equipment)	SA
<b>42</b>	Aero Repair (if applicable)	Q
<b>43</b>	Wheel and Tire	Q
<b>44</b>	COMBS (CLS contracts)	Q
<b>45</b>	Munitions Storage Facility (location, quantity, movement sheets, net explosive weight [NEW], compatibility)	Q
<b>46</b>	Munitions Inspection (periodic inspection [PI] listing, documentation)	M
<b>47</b>	Munitions Stockpile (inventory review, documentation, automated system accuracy)	M
<b>48</b>	Munitions Custody Account (jacket files, automated system accuracy, allocations)	M
<b>49</b>	Munitions Control (key control, emergency action listings [EAL], reconciliation process)	Q
<b>50</b>	Armament Systems Maintenance/Weapons Loading Facility	Q
<b>51</b>	Debrief	Q
<b>52</b>	Environmental Plans and Programs (includes hazardous waste collection) (see paragraph 13)	Q

**LEGEND:**

M – Monthly

Q – Quarterly

SA – Semiannually

## Attachment 6

## TRW QUARTERLY OBSERVATION WORK AREA REQUIREMENTS

Figure A6.1 is intended as guides only for TRWs. QAEs identify actual observation area requirements in the QASP based on the actual organization of the unit. The surveillance requirements in Figure A6.1 are quarterly requirements. Schedule quarterly surveillance requirements on a random, yet adequately distributed basis. For example, an inspection completed in the last week of a quarter should not be scheduled for inspection again during the first week of the new quarter.

**Figure A6.1. TRW Quarterly Observation Work Area Requirements.**

Data Management
Maintenance Operations Center
Plans and Scheduling
Quality Control/Assurance
Documentation
Training Management (including plans)
Repair Cycle Monitor Function
Maintenance Supply Liaison *
Electro/Mechanical
Instrument *
Communication/Navigation *
Precision Measurement Equipment Laboratory (PMEL) *
Plating *
Sheet Metal *
Welding (includes chemical cleaning)
Engine Management *
Engine
Sound Suppressor *
Test Cell
Meteorological Maintenance *
Auto Flight Control and Instrument *
Airborne Missile Maintenance *
Ground Missile Maintenance *
Cryogenics Maintenance and Environmental
Trainer Development *
AGE
Battery
Bomb Navigation *
Electronic Trainer *
Pneudraulics
Machine *
Corrosion
Paint (includes paint hangar and disposal of hazardous waste)
Survival Equipment *
Defensive Fire Control *
B-1B Avionics *
Tactical Sensor *
F-111 Avionics *

F-15 Avionics \*

F-16 Avionics \*

Weapons Maintenance \*

Weapons Suspension Equipment Storage Area

Precision Imagery/Audio \*

Munitions Storage Facility

Munitions Buildup, Inspection, Maintenance, and Stockpile Storage

Munitions Stockpile and Inventory Validation, Documentation File Inspection/Custody Account Jacket File, and Munitions Warehouse Location Asset Accuracy

\* If applicable

## Attachment 7

**STANDALONE TRANSIENT MAINTENANCE OBSERVATION WORK AREA INSPECTION REQUIREMENTS**

Schedule quarterly surveillance requirements for stand-alone transient maintenance functions shown in Table A7.1 on a random, yet adequately distributed basis. For example, an inspection completed in the last week of a quarter should not be scheduled for inspection again during the first week of the new quarter.

**Table A7.1. Standalone Transient Maintenance Observation Work Area Requirements.**

<b>I T E M</b>	<b>A</b>	<b>B</b>
	<b>Work Areas</b>	<b>Frequency</b>
<b>1</b>	Quality Control/Assurance	Q
<b>2</b>	Documentation	M
<b>3</b>	Technical Order and Publications Management	Q
<b>4</b>	Supply Products (see paragraph 12)	Q
<b>5</b>	Environmental Plans and Programs (includes hazardous waste collection) (see paragraph 13)	Q
<b>6</b>	Tool and Equipment Management (includes equipment accounts)	M
<b>7</b>	Flight line	M
<b>8</b>	Maintenance Facilities (only those the service provider is responsible for or routinely uses)	M

**LEGEND:**

M – Monthly

Q – Quarterly

SA - Semiannually

★Attachment 8

IC 2003-1

**INTERIM CHANGE (IC) 2003-1 TO AETCI 21-107, MAINTENANCE MANAGEMENT – MAINTENANCE CONTRACT SURVEILLANCE**

**7 MARCH 2003**

**SUMMARY OF REVISIONS**

This revision incorporates IC 2003-1, which changes the documentation procedures for technical inspections (paragraph 8.2) and reduces the monthly frequencies for certain inspections (Table A4.1). See the last attachment of this publication (IC 2003-1) for the complete IC. A star (★) indicates revision from the previous edition.

8.2. Technical inspections include a review of the aircraft or equipment forms and the automated maintenance information system (MIS) for proper documentation (applicable to the job being surveilled); checking for proper and current technical data usage; proper tool usage; and after maintenance foreign object (FO) checks of the area in which the task was performed. Discrepancies found in these categories are normally applied to the technical inspection; however, if the QAE’s judgment and experience determines it is inappropriate to include them, they may be documented separately as an “as-observed” unscheduled inspection.

**Attachment 4**

**STANDALONE TRANSIENT MAINTENANCE TECHNICAL INSPECTION REQUIREMENTS**

The requirements listed in Table A4.1 are minimum monthly requirements for stand-alone transient maintenance functions (contracts where the primary function is transient maintenance). QAEs surveilling transient maintenance functions with additional maintenance requirements such as AGE/SE inspection and maintenance or fabrication responsibilities will review their contract requirements (to include the contractor’s quality control/assurance requirements), and establish technical inspections as required. Inspections and evaluations in the areas and quantities listed below are monthly requirements unless otherwise noted. Schedule surveillance requirements on a random, yet adequately distributed, basis.

**Table A4.1. Standalone Transient Maintenance Technical Inspection Requirements.**

<b>I T E M</b>	<b>A</b>	<b>B</b>	<b>C</b>
	<b>Categories</b>	<b>Frequency</b>	<b>Notes</b>
<b>1</b>	Aircraft Recovery	10	1
<b>2</b>	Aircraft Servicing	6	1
<b>3</b>	Aircraft Inspection (BPO, preflight, thru flight, etc.)	4	1
<b>4</b>	Aircraft Launch	10	1
<b>5</b>	Aircraft Maintenance (if performed)	4	1
<b>6</b>	Ground Movement of Aircraft	4	
<b>7</b>	Aircraft/Equipment Forms/MIS Documentation	12	1, 2

<b>I T E M</b>	<b>A</b>	<b>B</b>	<b>C</b>
	<b>Categories</b>	<b>Frequency</b>	<b>Notes</b>
<b>8</b>	Area FO Inspection	4	3
<b>9</b>	TMDE Equipment Inspection	4	4
<b>10</b>	Training (see paragraph 14)	2	

**NOTES:**

1. Perform an inspection of active forms and documents (to include the automated maintenance information [MIS] system) in conjunction with aircraft, AGE and support equipment maintenance actions and inspections.
2. Number of required inspections is based on documentation in transiting aircraft forms and assigned equipment that transient maintenance is responsible for (if applicable). Documentation inspections will include applicable required MIS entries.
3. Areas include flight line, maintenance hangars, AGE yards, etc. for which the contractor is responsible or performs maintenance. QAEs will ensure all areas are looked at on a random basis. Perform these inspections within a reasonable time after the contractor has completed the FO inspection.
4. Inspect TMDE for adequacy of user inspections, serviceability, calibrations, and corrosion control.