

**BY THE ORDER OF THE COMMANDER  
AIR FORCE SPACE COMMAND**



**AIR FORCE INSTRUCTION 21-116**

**AIR FORCE SPACE COMMAND  
Supplement 1**

**2 JANUARY 2002**

**Maintenance**

**MAINTENANCE MANAGEMENT OF  
COMMUNICATIONS-ELECTRONICS (C-E)**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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The OPR for this supplement is AFSPC CSS/SCFM (SMSgt Randy J. Spencer). This supplement implements and extends guidance of Air Force Instruction 21-116, **Maintenance Management of Communications-Electronics**. This 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. This supplement applies to Headquarters Air Force Space Command (HQ AFSPC) and its subordinate units but does not apply to Air Force Reserve Command. This supplement also applies to Air National Guard (ANG) units. Areas that are specific to particular functions will be annotated before the affected paragraph (example: information pertaining to Air Traffic Control And Landing Systems only will be labeled (ATCALS) before the paragraph. Upon receipt of this integrated supplement, discard the Air Force basic publication. Provide any recommended changes, questions, and notification of conflicts between this supplement and other publications to the MAJCOM point of contact.

### **SUMMARY OF REVISIONS**

The Checklist has been updated in order to refer to the new revision of AFI-21-116, **Maintenance Management of Communications-Electronics**.. A bar (|) indicates a revision from the previous edition.

| 1.3. The Communications Support Squadron, Space Systems Sustainment Flight is the MAJCOM point of contact for communications electronics maintenance (CEM) management policy and guidance except as referenced. The mailing address is AFSPC CSS/SCF, 150 Vandenberg St., Ste. 1105, Peterson AFB CO 80914-4730. You can also contact SCF by phone (DSN 692-5708), fax (DSN 692-3211) or e-mail (cssscf@peterson.af.mil). All POC phone listings, e-mail links and updates can be viewed by web page at <https://midway.peterson.af.mil/2letters/sc/css/cem.htm>.

1.3.1.1. (Added) For AFSPC organizations that employ other than military personnel to provide C-E maintenance and management, further guidance is outlined in paragraphs 5.26, 6.6, and attachments 2, 3, 6, 9, and 11.

1.3.1.2. Requests for waivers to AFI 21-116 will be submitted through the appropriate Wing and Numbered Air Force (NAF) staff to AFSPC CSS/SCF who will review before forwarding to HQ USAF/ILMM through the Air Force Communications Agency (AFCA). Air National Guard units requesting waivers to AFI 21-116 will submit requests through ANG/C4 to USAF/ILMM with info copies sent to AFSPC CSS/SCF.

1.3.1.3.5. The POC for the Engineering and Technical Services (ETS) program can be contacted by phone at DSN 692-2531. Other contact information can be viewed at <https://midway.peterson.af.mil/2letters/sc/css/cem>.

1.3.1.3.5.1. (Added) As required by AFI21-110\_AFSPCSUP1, *Engineering and Technical Services*, units with assigned ETS personnel will provide annual justification to HQ AFSPC/SCXB for their requirement to retain ETS personnel.

1.3.1.3.7. AFSPC CSS/SCF, Space Systems Sustainment Flight, is responsible as outlined in AFPD10-9, *Lead Operating Command Weapons Systems Management* and AFI10-901, *Lead Operating Command—Communications and Information Systems Management* as the AFSPC designated C-E Maintenance (CEM) lead for new and modified C4 systems.

1.3.1.3.9.3. The 55th Communications Squadron (ACC), Offutt AFB NE, is the CRA for the Strategic Automated Command and Control System - Data Transmission System (SACCS-DTS).

1.3.1.4.3. AFSPC units needing assistance to correct deficiencies, restore C-E systems, or requiring manning assistance should work with their appropriate wing staff for resolution. If resources are needed from outside the wing, contact AFSPC CSS/SCF for depot maintenance or HQ AFSPC/SCXB for ETS or manning assistance.

1.3.1.4.6. (Added) To contact communication electronics maintenance, sustainment, program or functional managers within HQ AFSPC, refer to the AFSPC CEM web page at <https://midway.peterson.af.mil/2letters/sc/css/cem>.

1.4. Units requesting MAJCOM SAV team assistance will forward requests through the appropriate Wing to AFSPC CSS/SCF. Units will provide travel funding for SAV personnel.

2.15. For specific modification information refer to AFI 63-1101, *Modification Management* and AFSPCI 21-104, *Systems Requirements and Implementation Approval Process*.

2.17.1. Waiver requests for the requirement to use CAMS will be submitted through the appropriate Wing and Numbered Air Force (NAF) staff to AFSPC CSS/SCF. If approved, AFSPC CSS/SCF will submit through AFCA to HQ USAF/ILMM. CAMS will be used to perform Maintenance Data Collection (MDC) on systems and component failures, material consumption, TCTO reporting requirements, equipment historical inputs and Time Compliance Technical Order (TCTO) processing. Contracts must specify that contractors are required to either utilize CAMS for input, or the contractor will provide appropriate interfaces that will automatically upload the required MDC data into CAMS.

2.17.3.1. (Added) (Intercontinental Ballistic Missile Communications (ICBM Comm)) In addition to CAMS, enter all missile related communications discrepancies into the Improved Maintenance Management Program (IMMP) except as otherwise directed by security protection/classification guides.

2.18.2. To ensure command wartime capabilities are not eroded, units considering outsourcing or privatizing a C-E maintenance activity must submit the proposal through the appropriate Wing and Numbered Air Force (NAF) staff to HQ AFSPC/SCXB before developing the Performance Work Statement (PWS).

2.31. Examples of Functionally Supported Maintenance Activities (FSMAs) may include a detachment or other squadron flight with personnel performing C-E maintenance as defined by AFI 21-116. C-E maintenance management support for these activities will normally come from their parent unit or nearest main operating base. The NAF/SC staff will coordinate the details for support between the FSMA, the base communications unit, or other applicable commands or agencies. For example, a missile maintenance squadron's generation flight may receive daily support from the squadron's munitions flight but require augmentation from the nearest communications squadron for a Maintenance Standardization and Evaluation Program (MSEP) managerial evaluation.

3.2.2.13.1. (Added) (ICBM Comm) See AFSPCI 21-114, *ICBM On-Site Time Related Maintenance Restrictions*, Table 1.1.

3.2.2.25. (Added) (ICBM Comm) Establish and enforce effective safety and security programs in conjunction with base safety and security agencies. Compliance with AFSPCI 31-1101, *ICBM Systems Security Standard* and AFSPCI 21-114, *Intercontinental Ballistic Missile (ICBM) Maintenance Management*, paragraph 1.25. is mandatory.

4.6.2.3. (Added) (ICBM Comm) Follow the appropriate security protection/classification guide for all outage reporting.

4.7.1. Maintenance Control / Network Control Center (NCC) Help Desk Collocation. Regardless of the section of assignment, Maintenance Control personnel may be collocated with the NCC Help Desk at the wing's discretion. Maintenance Control may also be functionally realigned under the Help Desk Supervisor. The Help Desk Supervisor may be a Maintenance Controller if the local mission will be better supported. The Job Control Manpower Standard (38BC) will be used to provide manpower authorizations for Maintenance Control. The NCC Manpower Standard (38DA) will be used to provide manpower authorizations for the Help Desk. Other than local cross-utilization training, personnel from the two collocated functions will not attend formal training intended for the respective work center (i.e. Maintenance Control personnel will not receive formal network training, and Help Desk personnel will not receive specialized maintenance training).

4.9.6. (Added) (ICBM Comm) Missile Communications units will report all Priority 1-4 discrepancies to the Missile Maintenance Operations Center (MMOC) and enter all other discrepancies into IMMP IAW priorities listed in AFSPCI 21-114, *Intercontinental Ballistic Missile (ICBM) Missile Maintenance Management* Attachment 2. Units will comply with paragraphs 2.3.3.4. and 2.3.3.24. for briefing or debriefing requirements. All dispatch status will be tracked IAW paragraph 4.17.1. of this publication.

5.5.2.13. (Added) (ICBM Comm) Serves as the ICBM communication squadron focal point for USSTRATCOM Directive (SD) 513-3, USSTRATCOM C4 ICBM CEP.

5.13.5. Local Work Cards (LWCs) should be in the same basic format as AF published technical order equipment work cards. They may be published on AFTO Forms 26D, **Inspection Work Cards**, or equivalent electronic forms. Approved LWCs will be signed by the COM/CMSF. Copies of LWCs must be forwarded to AFSPC CSS/SCFM for review and consideration for AFSPC-wide application.

5.16.4.3. Forward a copy of all locally developed MQCCs to AFSPC CSS/SCFM for review and possible AFSPC or AF publication.

5.16.4.4. (Added) Maintenance Support will keep a master file of all applicable AF and AFSPC published MQCCs, local work cards and locally published checklists.

5.17. (ATCALs) Contractor and DOD civilian personnel that maintain ATCALs systems are subject to MSEP type personal evaluations. Sub-paragraphs of 5.17 will be used as a guide for all MSEP type personal and system evaluations. Personal evaluations can be conducted by the contract QA function, the assigned QAE or MAJCOM staff. Contract/DOD civilian ATCALs functions will conduct technical evaluations of assigned ATCALs systems as specified by this paragraph. The use of MQCC's if available/published are mandatory. Technical evaluations of assigned ATCALs systems can be conducted by the internal contract QA function, the assigned QAE or MAJCOM staff. MSEP managerial evaluations at DOD civilian and contractor locations can be satisfied through the Air Traffic Standardization Evaluation Program as outlined in AFI 13-218.

5.17.2.3. All applicable command MQCCs, AFSPC checklists and local checklists shall be used for all MSEP type inspections.

5.17.3.9.5. (ICBM Comm) Before routing personnel evaluation reports, forward a copy to 20 AF/LGK (ICBM Communications). Twentieth Air Force will review all evaluation reports and provide feedback as necessary.

5.26. Although AFI 21-116 suggests not applying the instruction in a blanket manner to contracts, this supplement will be used to specify paragraphs of AFI 21-116 that are required to be applied to new and existing contracts. The paragraphs referenced are the minimum requirements that will be applied.

5.26.1. (ATCALs) The following paragraphs of AFI 21-116 will apply to all contracted and DOD civilian ATCALs maintenance functions: paragraphs 5.17, 5.26.3, 5.26.4, 6.9, 6.10 and attachments 2, 3, 6, and 11. Contracting officers will modify contracts at the earliest opportunity to reflect the requirements outlined in this section.

5.26.2.1. Commanders will reference AFI 63-124, *Performance Based Service Acquisition (PBSA)* before appointing government personnel to oversee contracted communications electronics functions. The individual selected does not have to be task qualified, but needs to be familiar with the technical nature and mission of the function.

5.26.3. CAMS should be the only collection tool/platform used for MDC. In the event that a compatible or comparable system is used instead, a specification must be included in the contract that requires the contractor to provide an appropriate interface to upload the required MDC data into CAMS.

5.26.4. New contracts and contract modifications will be routed to the command sustainment manager at AFSPC CSS/SCF as well as to HQ AFSPC/LGC for review prior to incorporation into the contract.

5.28.10. (Added) Perform workcenter training assessments IAW AFI 36-2232, *Maintenance Training*, at least once a year.

6.6.2. (MILSTAR) MILSTAR technical publications, technical orders and other documents require information protection procedures to prevent extraction of information that cannot be placed into the public domain in any form. Unless government or government-contracted security is provided after duty hours, technical publications, technical orders and documents must be stored in locked containers, desks or cabinets.

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

AFSPCI 21-104, *Systems Requirements and Implementation Approval Process*

AFSPCI 21-114, *Intercontinental Ballistic Missile (ICBM) Maintenance Management*

AFI 36-2232, *Maintenance Training*

*MILSTAR System Operations Protection Guide Single Channel Transponder System*

*(SCTS) Security Classification Guide*

***Abbreviations and Acronyms***

**CEM**—Communications Electronics Maintenance

**CEP**—Continuous Evaluation Program

**IMDS**—Integrated Maintenance Data System

**IMMP**—Improved Missile Management Program

**ISST**—Intercontinental Ballistic Missile (ICBM) Super High Frequency (SHF) Satellite Terminal

**TPE**—Trainer Proficiency Evaluations

**A11.1.** (ATCALs) System certification and proper system operation is the inherent responsibility of the actual maintainer, regardless of classification of employment. Certification of contracted ATCALs systems will be dual-certified. That is, contract ATCALs maintenance will be certified by both contract and government personnel. Contract maintenance personnel will comply with all procedures listed in attachment 11 for systems certification. Government certifications at contracted facilities will be certified by the assigned QAE, MAJCOM staff or Air Force Flight Standards Agency (AFFSA) personnel at intervals specified in attachment 11, paragraph A.11.4 and A.11.10. If the QAE is not available or technically proficient on an assigned ATCALs system, maintenance data will be forwarded to AFSPC CSS/SCF and/or AFFSA for review and documentation of certification.

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