

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



**AIR FORCE INSTRUCTION 33-106**

**AIR FORCE MATERIEL COMMAND**

**Supplement 1**

**5 NOVEMBER 1999**

**Communications**

**MANAGING HIGH FREQUENCY RADIOS,  
LAND MOBILE RADIOS, CELLULAR  
TELEPHONES, AND THE MILITARY  
AFFILIATE RADIO SYSTEM**

**HOLDOVER**

***"The basic publication has changed; impact on supplemental information is under review by the OPR.  
Users should follow supplemental information that remains unaffected."***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This supplement contains guidelines and procedures for managing high frequency radios, cellular telephones (CT), land mobile radios (LMR) and the military-affiliate radio system within AFMC. It is recommended that each base CSO develop a supplement to outline local procedures for managing high frequency radios, LMRs and the military-affiliate radio system. These radio systems, with the exception of the CTs, can provide extensive capabilities during contingency operations with proper planning. Write their use into your planning documents, then exercise the plans to test the systems under stressed loads to determine both equipment and operator overload limits. Base supplements may add to but not reduce requirements from the AFI and MAJCOM supplements. This supplement does not apply to the Air National Guard.

**SUMMARY OF REVISIONS**

This document is substantially revised and must be completely reviewed.

**AFI 33-106, 1 September 1997, is supplemented as follows:**

4.4.1. The AFMC focal point (MAJCOM LMR manager) is AFMC Computer Systems Office (AFMC CSO/SCSL, 4225 Logistics Ave, Suite 20, Wright-Patterson AFB OH 45433-5759).

4.6.10. Is the approval authority for all requirement documents which identify cellular telephones as the recommended technical solution. In addition to the CSRD requirement criteria documented in AFI 33-106 Attachment 5, CTs must not be approved for use as the primary or only communications device in contingency or emergency operations. The CT infrastructure is extremely vulnerable to physical damage (hurricane, earthquake, etc) and even if they survive the physical damage of a disaster, will be unavailable in times of crisis due to system overload.

4.6.11. Approve CTs only after all other technical solutions are researched and determined not adequate to meet customer requirements.

4.6.15. (Added) Provide assistance and policy to the local Contracting Office for use in training International Merchant Purchase Authorization Card (IMPAC) cardholders on requirements for the purchase of LMR assets.

4.7.20. (Added) Become familiar with LMR system capabilities/limitations and develop plans to use HF or SATCOM to cover areas outside LMR coverage, but within your center's area of responsibility.

4.8.1.3. The annual revalidation will be accomplished within 30 days of the anniversary date of the approval of the original CSRD and will include a separate justification for each communications requirement for which the CT was originally issued. The document will identify each cellular instrument by serial number. The Base CSO will then re-evaluate the communications need for the best technical solution and costing. Failure to perform the annual revalidation will result in CT deactivation 30 days after notification by base CSO.

4.8.1.5. (Added) CTs can be used in operational and contingency plans as the last resort. Prior to using CTs, all other means of communication will be exhausted. This includes, but is not limited to: base telephone systems, portable radios, air-to-ground and ground-to-ground based radio systems, satellite based systems (Iridium), e-mail and fax, if available.

4.8.1.6. (Added) The using organizations are responsible for all costs incurred with the purchase, use, and maintenance of CTs acquired for their organization's official use.

4.8.2.1. Ensure CSO approval on all requests for mobile communications equipment (i.e., LMRs, pagers and cellular telephones) prior to purchases utilizing the IMPAC.

**4.10. Trunked Land Mobile Radio (TLMR).** The use of TLMR systems is encouraged when such systems will alleviate base-wide integration, interoperability, or frequency congestion/allocation problems and enhance the base's overall operational capability. TLMR systems may be established by individual bases or cooperatively with other federal agencies. Bases should request access through the wide area trunked system administrator if a cooperative (wide area) TLMR system is already operating in their vicinity. Use of "storm plans" with trunked systems greatly increases the system's effectiveness during contingencies. During contingencies expect an increase in radio traffic and requests to use telephone interconnections. Plans should minimize traffic by limiting telephone access to emergency users only. Also, have conventional capability on trunking frequencies using base stations at locations such as security police, fire department, hospital, and command post for direct communications in case the trunking repeaters go off the air. Have portable radios programmed in advance for such an event.

4.10.1. Requirements for TLMR systems cannot be funded locally or through command channels until a TLMR conversion plan has been approved by the MAJCOM, Department of Commerce, National Tele-

communications and Information Administration (NTIA), Interdepartmental Radio Advisory Committee, and Spectrum Planning Subcommittee.

4.11.1. (Added) Center commanders will verify all CTs in use are required.

4.11.2. (Added) Using Organization Commander or Designated Representative:

4.11.2.1. (Added) The using organizations will maintain CTs and cost data to support future audits. They will maintain total number of assets and cost of CT usage (airtime + service charges).

4.11.2.2. (Added) Develop CT usage parameters defining excessive use, non-use, and unofficial use.

4.11.3. (Added) All base organizations are responsible for all costs incurred with the acquisition, use and maintenance of cellular phones acquired for their organization's official use. The communications unit will continue to assist customers by providing efficient technical solutions for their communications needs. When it makes good sense, the communications unit may bundle customer requirements in order to obtain the most competitive pricing from commercial providers.

**4.12. (Added)** Wing/Group Commanders will establish procedures to ensure units purchasing mobile communications equipment (LMRs, pagers, and cellular telephones) utilizing the IMPAC process obtain CSO approval prior to purchase.

**4.13. (Added) LMR Maintenance:** The base CSO will establish a focal point to control and track maintenance, and serve as the Quality Assurance Evaluator for the contracting officer.

4.13.2. (Added) Contract Maintenance. Use warranty service unless mission or costs dictate otherwise. The base CSO, LMR manager, and using organizations determine the repair method which results in the lowest total overall cost (as-required cost, plus cost of spares, versus cost under a recurring contract). Base CSO should ensure maintenance service contracts permit qualified DOD employees to perform LMR equipment installations and removals.

4.13.2.1. (Added) Items requiring infrequent maintenance (such as central base pagers and ancillary equipment, cellular telephones, vehicular chargers, antennas, scanners, public address systems, sirens, light bars, etc.) should be maintained on an "as-required" basis unless it is cost effective or mission essential to do otherwise. Using organizations are responsible for all costs incurred to repair or replace LMR assets or as specified in the local base contract or procedures.

4.13.2.2. (Added) Normally, only high priority centralized mission essential equipment, and intrinsically safe land mobile radios (ISLMRs) are covered by a recurring contract.

4.13.2.3. (Added) Base CSO ensures LMR maintenance contract addresses wartime or contingency requirements and support. Use AFI 33-106, Attachment 4, as a guide.

4.13.3. (Added) Maintenance Documentation. Use the LMR MIS or LMR TRS maintenance log subsystem as the maintenance record for LMR assets.

4.13.4. (Added) Preventive Maintenance. Perform annual preventative maintenance inspection (PMI) on high priority, centralized mission essential equipment. Perform PMIs on equipment certified as intrinsically safe and used in hazardous environment as determined by manufacturer, Factory Mutual Research Corporation, or the Air Force Safety Agency, whichever is the most stringent. Document PMIs in the LMR MIS or LMR TRS equipment subsystem.

4.13.5. (Added) Deployed LMRs. Units with deployment missions requiring LMRs must arrange for maintenance at deployment locations using the following options:

4.13.5.1. (Added) If available, contract maintenance coordinated in advance with deployed locations and included in the appropriate operations plans.

4.13.5.2. (Added) Deployment of spare LMR equipment and parts.

4.13.5.3. (Added) Organic maintenance, if authorized.

4.13.5.4. (Added) Shipping to CONUS unit for repair.

**Attachment 1**

*Abbreviations and Acronyms*

PMI--Preventive Maintenance Inspection

SPS--Spectrum Planning Subcommittee

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