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Communications and Information

RADIO FREQUENCY MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes policy and procedures, and defines responsibilities for radio frequency management at Vandenberg Air Force Base (AFB). It includes, but is not limited to, the functions of frequency procurement, assignment, control, protection, coordination, scheduling, monitoring, and reporting. This instruction implements AFI 33-118 and AFMAN 33-120, **Radio Frequency Spectrum Management**, and applies to military and non-military activities using and operating electromagnetic radiating equipment of any type on Vandenberg AFB. It also applies to electromagnetic receiving systems requiring frequency protection for successful operation. **Attachment 1** is a Glossary of Terms.

The Paperwork Reduction Act of 1974 as amended in 1996 and AFI 37-160, Volume 8, **The Air Force Publications and Forms Management - Developing and Processing Forms**, affects this publication.

SUMMARY OF REVISIONS

The revision of this publication is to meet the format standards required by the Air Force. No content material has changed. Some required format changes have been made to allow for the conversion process.

1. Air Force Policy. The radio frequency (RF) spectrum is a limited natural resource vital to the support of military operations. The intensive requirements being placed on this resource require effective management at all command levels to ensure radio frequencies can be provided to meet essential mission requirements. AFI 33-118 and AFMAN 33-120 provides information, instructions, and directions for the implementation of a frequency management program to ensure effective and efficient use of those limited radio frequencies are available.

2. Responsibilities. The RF management task at Vandenberg AFB is very critical due to the types of satellite and missile support activities. The task is complicated by constantly changing RF requirements, the use of sensitive receivers, reception of critical data, and joint use of most frequencies between many unre-

lated agencies and programs. The 30 SW Commander, as host, is the final authority for all matters that deal with radio frequency use on this base. The 30 SW Frequency Manager will:

- 2.1. Provide RF management support for all base activities. Such support includes frequency planning, frequency compatibility analysis, frequency assignment, inter-agency coordination, frequency guidance, RF measurements, real-time RF surveillance and control, and RF interference resolution.
- 2.2. Present problems, involving tenant activities that cannot be mutually resolved at the working level, to the 30 SW Commander for resolution.

3. Procedures:

3.1. Frequency Allocation. Any base activity planning to procure or develop a new system involving transmission or reception of RF energy, or planning to change the RF characteristics of an existing RF system, must include the frequency manager in the initial planning phase. This ensures that any new equipment is compatible in the Vandenberg AFB or California environment, and conforms with Department of Defense (DoD), national, and international regulations and agreements. If the involved equipment has not been approved for use within DoD, the frequency manager provides assistance in the development and processing of DD Form 1494, **Application for Frequency Allocation**. "Normal" lead-time is one year prior to the need date.

3.2. Frequency Procurement. Any activity having a requirement for a new RF assignment, or requiring modifications to an existing one, must contact the frequency manager. The frequency manager provides assistance in specific frequency selections to ensure compatibility prior to drafting and processing a formal RF application. In some cases, the frequency manager can issue local assignments. This expedited procedure is based on authority that has been issued to the frequency manager by HQ USAF and CINCPAC.

3.3. Frequency Assignment. The frequency requirements at Vandenberg AFB are complex, diverse, always changing, and involve varied commands and agencies who are supporting programs and tests that are unrelated to each other. All activities operating electromagnetic systems must have a radio frequency authorization, issued by the frequency manager. Any command, agency, business, or visiting unit who holds or receives a RF assignment document from their respective DoD frequency management agency command or the Federal Communications Commission (FCC) must send that document to the 30 SW frequency manager for validation, and subsequent issuance of a radio frequency authorization.

3.4. Frequency Scheduling. All RF usage at Vandenberg AFB, open or closed loop radiation, is subject to scheduling unless otherwise specified by the radio frequency authorization. Frequency requirements for scheduled numbered range tests and operations are automatically authorized when the test is included in the official range schedule, and the applicable operations directive (OD) specifies those frequencies authorized for use during the particular test or operation.

3.4.1. To schedule an operation, range users contact the 30th Range Squadron Scheduling Flight (30 RANS/ DOS), 816 13th Street, Vandenberg AFB, CA 93437-5233, and provide their forecasted radio frequency requirements.

3.4.2. 30 RANS/DOS coordinates those requirements with the Frequency Control and Analysis Center (FCAC) to confirm frequency compatibility, and to determine any restrictions that may be necessary to prevent conflicts with other users. Confirmation of scheduled time, along with radiation restrictions, if any, are passed to the range user by 30 MXS/MXRS.

3.4.3. Operators should use certified closed circuit systems for testing as much as possible to reduce frequency sharing and frequency scheduling problems.

3.5. Frequency Coordination. Any activity anticipating a need for coordination with a non-range agency concerning RF matters must contact the 30 SW Frequency Manager. The frequency manager provides or performs all such coordination necessary to prevent or resolve frequency problems. This focal point for base internal or external frequency coordination is mandatory and is the only way of ensuring appropriate technical responses, preventing redundant or conflicting positions, and maintaining good relationships and credibility.

3.6. Frequency Interference Reporting.

3.6.1. 30 SW and Vandenberg AFB tenant units report all radio frequency interference (RFI) to the 30 RANS Frequency Control and Analysis Center (FCAC); currently available 24-hour day, 7-day week, at building 7011, Room 302, telephone extension 6-9247/3246. Secure telephone (STU-III) is available to the SECRET level. INTERFERENCE is by definition not hostile. MEACONING, INTRUSION, and JAMMING are considered FOREIGN and HOSTILE and will be reported to the FCAC via the most appropriate secure media; i.e., STU-III, courier, or AUTODIN Message. For the purposes of this instruction, any of the aforementioned acts; although suspected or ultimately determined to be of domestic origin (whether foreign or not) are still considered HOSTILE and will be reported via classified media.

3.6.2. The FCAC will report all hostile, suspected hostile, and unknown (probable hostile) RFI to the 30 SW Command Post (CP); telephone extension 6-9961, via a SECRET level STU-III, and initiate the MIJI FEEDER report.

3.6.3. Within 24 hours of the initial report a SECRET MIJI FEEDER in SARAH-LITE message format will be hand-carried to the CP by the frequency manager or his representative. The CP will send the message either by SARAH-LITE or SECURE TELEFACSIMILE COPIER to the AFSPC Space Operations Center (AFSPOC).

3.6.4. Routine or "non-hostile" (blue on blue) interference will not be reported beyond the FCAC. Exceptions will be those incidents determined by the frequency manager or wing command post to be of informational value to the wing or command staff.

3.6.5. Unresolved interference from other DoD service or interbase activities; and encroachment by U.S. civilian (Federal Communications Commission licensed) or foreign civil systems will also be reported to HQ AFSPC for coordination with HQ Air Force, the Office of the Secretary of Defense, or the U. S. Department of State (as applicable).

3.7. Cease Transmission Order. All operators of RF transmitters (government, non-government, private, commercial); operating under 30 SW authority must cease RF transmission immediately when specifically directed to do so by the frequency manager or the FCAC. Such actions may be necessary to resolve interference or radiation hazard problems. Prompt compliance with a "Cease Transmission" order is a condition for continued authorization to conduct business on or within 30 SW assets or facilities.

PAUL W. CURTIS, Colonel, USAF
Commander, 30 LG

Attachment 1**GLOSSARY OF TERMS***Terms*

Electromagnetic Equipment ---Electronic systems, equipment, and devices capable of radiating RF energy, or are dependent on the reception of RF energy to successfully perform their function.

Frequency Allocation ---Designation of a portion of the RF spectrum to accommodate operations of electromagnetic equipment (usually developmental; not a "license" to operate).

Frequency Assignment ---Designation of specific frequency, group of frequencies, or frequency band for operational or test purposes ("the license").

Frequency Manager ---Person designated by the 30th Space Wing (30 SW) Commander who exercises frequency management for, and in coordination with, all units on Vandenberg AFB and other 30 SW operating locations.

Frequency Procurement ---Obtaining an RF authorization from higher headquarters to operate a RF device (usually a transmitter).

Frequency Scheduling ---The means by which frequency assignments are approved for use during specific time periods. Required for most range or missile systems and not for ground communications systems.

Radio Frequency (RF) ---Includes the electromagnetic spectrum from 3 KHz to 300 GHz.