

**BY ORDER OF THE COMMANDER
EGLIN AIR FORCE BASE**



AIR FORCE INSTRUCTION 17-220

**EGLIN AIR FORCE BASE
Supplement**

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Cyberspace

EGLIN SPECTRUM MANAGEMENT

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AFI 17-220, 16 March 2017 is supplemented as follows:

This supplement applies to all activities assigned to the 96th Test Wing, associate units as specified in the host-tenant support agreements, and public/private organizations that wish to operate Federal Communications Commission (FCC) licensed/regulated stations within the Eglin AFB complex. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed for changes. Revisions were substantial but only in following the paragraph renumbering and added Attachments in AFI 17-220. The information in the supplement did not change.

3.2.5.2.2.1. **(Added)** Appoints in writing the ISM to serve as the Spectrum Manager for the installation to include the Eglin Test and Training Complex (ETTC).

3.2.5.2.7. **(Added)** Delegates the GAFC/ISM to represent the Installation Commander in areas of spectrum management and act on behalf of the Installation Commander to immediately resolve all electromagnetic RF interference issues and prohibit any RF emitters from operating (cease and desist) when anticipating or noting electromagnetic interference to approved mission essential electromagnetic equipment.

3.2.7.2.1. **(Added)** All assigned frequencies will be reviewed at least once every five years and updated to ensure accuracy of the assignment (see Attachment 7). All Eglin radio frequency authorizations (RFAs) will be reviewed/validated annually.

3.2.7.22. **(Added)** Formulate local policies/directives and enforce compliance of national policies to ensure efficient management and utilization of the electromagnetic spectrum for support of the Eglin AFB mission to include all tenant activities. Exercise continuous review of research and development (R&D) programs involving electromagnetic radiating devices to ensure the systems are developed to operate in the appropriate portions of the spectrum in accordance with the National Telecommunications and Information Administration (NTIA) National Table of Allocation.

3.2.7.23. **(Added)** Provide continued surveillance of the Eglin AFB communications-electronics posture to ensure frequency assignments are obtained to support the mission.

3.2.7.24. **(Added)** Perform a technical analysis on DD Forms 1494, *Application for Equipment Frequency Allocation*, and Equipment Location and Certification Information Database (EL-CID) for compliance to the NTIA standards and resolve any discrepancies with the submitting office. Upon resolution of the discrepancies, the DD Form 1494/EL-CID will be submitted to the Air Force Spectrum Management Office (AFSMO) for processing for spectrum supportability.

3.2.7.25. **(Added)** Obtain the United States Military Command, Control, Communications, and Computers Executive Board (USMC4EB) guidance for all radiating devices developed at Eglin AFB and for modifications of existing fielded devices (when applicable) and provide written coordination on procurement actions for all RF emitting equipment/systems.

3.2.7.26. **(Added)** Issue RFAs authorizing the use of assigned RF spectrum within the ETTC, including active countermeasures, chaff drops and GPS jamming. Copies of the approved RFAs will be provided to the Project Officer and 96 OSS/OSOQ. Other copies will be provided as required. All frequencies utilized within the ETTC must be authorized by the Eglin ISM regardless of prior authorization, which may have been granted by other agencies. The RFA issued by the ISM in the GAFC Office will contain an expiration date on which the authorization expires.

3.2.7.27. **(Added)** Issue Eglin RFAs for the specific EA, Chaff, or GPS testing/jamming in accordance with paragraph 6.57.3.

3.2.7.28. **(Added)** Provide assistance to the DoD GAFC with the analyses of all reported RF interference (RFI) incidents. Coordinate spectral data with 96 OSS/OSOQ regarding RFIs generated by or affecting TW mission activities and ensure the proper data is collected and source of interference is identified. Coordinate all Electromagnetic Interference (EMI) reports for the ETTC.

3.2.7.29. **(Added)** Manage/Authorize test/training range frequencies that will be scheduled in the Center Scheduling Enterprise (CSE) System via use of RFAs issued to using organizations and 96 OSS/OSOQ. All other assigned frequencies will be managed/authorized by the DoD GAFC for deconfliction through the Integrated Frequency Deconfliction System (IFDS).

3.2.7.30. **(Added)** Maintain a current log of all registered FCC non-licensed devices being operated on the ETTC.

3.2.7.31. **(Added)** Conduct/Support RF spectrum surveys for the ETTC as requested by 96 TW/SE, individual units, or AFSMO. Coordinate use of 96 RANSS Frequency Control and Analysis (FCA) assets with 96 RANSS/RNRI as required for conduct/support of surveys. Egin test and training mission requirements will take priority over GAFC and 96 TW ISM survey requirements. To ensure deconfliction of range resources, O&M FCA assets in support of the GAFC/ISM requirements will be scheduled in CSE through 96 OSS/OSOQ.

3.2.7.32. **(Added)** Perform frequency management functions to authorize use of the spectrum for Egin AFB and associated test and training range areas which includes all Egin host and tenant activities. The ISM office is located in Building 380. The telephone number is (850) 883-7535. Frequency de-confliction and real-time frequency management for daily mission support and/or conduct will be performed by 96 OSS/OSO; 96 OSS/OSOQ Operations Spectrum Managers will assist 96 OG test squadrons in the scheduling/deconfliction of RF spectrum requirements.

3.2.8.2.1. **(Added)** Submit frequency requirements, in writing, to the ISM as far in advance of the operational need date as practical to operate electromagnetic spectrum radiating devices in free-space within the ETTC or at any other operating location. If the requirement cannot be satisfied from existing assignments, the ISM will submit a request in Standard Frequency Action Format (SFAF) to the AFMC Spectrum Management Office to the AFSMO. IAW AFI 17-220, paragraph 5.3.2 and 5.3.3, a 60-day lead time is required for processing through AFMC and AFSMO. If FAA and/or FCC coordination is required, additional lead time will be required. Typical lead time for local processing is up to 15 days, therefore a customer should plan for a required lead time of 75 days from the day of intended use. The user must provide justification for an earlier use date, including a mission impact statement.

3.2.8.2.2. **(Added)** To comply with the acquisition statutory and regulatory directives, obtain written coordination from the ISM prior to submitting Purchase Request for electromagnetic spectrum radiating or receiving devices. Contractual obligations to procure/develop, or use communications-electronics equipment that utilizes electromagnetic energy shall not be assumed until a frequency certification has been obtained and the availability of appropriate frequency assignment support is assured. **Note:** Fuzes are exempt from this requirement.

3.2.8.2.3. **(Added)** Submit completed DD Form 1494/EL-CID, for all new or modified RF emitting equipment/systems, regardless of its rated power output levels, which propose to radiate in the RF spectrum. **Note:** The full spectrum certification process has four development phases from conceptual through operational. Most equipment/systems require certification documentation through more than two phases. RF emitters will not be procured without benefit of national level certification by the NTIA and USMC4EB followed by compliance with guidance contained in the approved DD Form 1494/EL-CID, also known as the J/F 12.

3.2.8.2.4. **(Added)** Prior to the scheduling of developmental or operational tests, obtain an RFA [Eglin AFB Form 584, *Radio Frequency Authorization (RFA)*] from the ISM. The Form 584 will serve as conditional approval to radiate as specified within the RFA. **Note:** Most RFAs contain a caveat requiring schedule coordination with the 96 OSS/OSOQ. All agencies with assigned frequencies will maintain a program of continuous review to ensure usage is limited to actual requirements and excess frequencies are relinquished. Any errors or omissions noted in the RFA shall be brought to the immediate attention of the ISM for correction.

3.2.8.14.1. **(Added)** Contact the 96 OSS/OSOQ to obtain advice on deconfliction and scheduling procedures as per the caveats noted on the RFA.

3.2.8.14.2. **(Added)** Notify the ISM at least 75 days prior to the initial test date for all EA operations, including chaff drops and GPS testing/jamming, within the ETTC. Specific data formats and analysis must be completed prior to submission of the request to AFSMO. Once the approval is granted by the cognizant authority, an RFA will be issued stipulating the guidance as noted in the approval document.

3.2.8.14.3. **(Added)** Include a copy of the RFA as an annex to all Test/Training Directives issued for testing/training within the ETTC to identify that all frequency assignments have been granted and conditional approval has been issued for their specific Job Order Number.

5.14.1. **(Added)** Interference Reporting within the ETTC:

5.14.1.1. **(Added)** All EMI affecting test/training missions, operational/test equipment, and test items shall be reported immediately to the JTTOCC at 882-5800, the ISM at 883-7535 (after hours at 850-496-1867), and the 96 OSS/OSOQ during duty hours at 882-5330. OSOQ Operations Spectrum Managers will determine if the harmful interference is being caused by another mission through validation of mission schedules and issue a “cease operation” order to the lower priority mission. DoD GAFC/ISM office will be notified immediately of all harmful interference/RFI incidents and will take the lead in resolution with assistance from the 96 RANSS/RNRI or 96 OSS/OSOQ as required to isolate the interfering source and implement action to resolve the EMI to the authorized user. A final report will be issued from the ISM or GAFC to the Commander with copies to AFSMO and Joint Spectrum Interference Resolution Online (JSIRO) as required by AFI 10-707. The findings will be final and all requested actions will be tracked for compliance. Failure to comply with the recommendations provided in the report may result in a revocation of the source of interference unit’s frequency authorization.

5.14.1.2. **(Added)** All requests for non-mission related RFI will be reported to the DoD GAFC/ISM which will lead the resolution effort. Corresponding support of O&M Contract FCA resources will be coordinated through and tasked by the 96 RANSS Site/Range Engineer or scheduled in CSE through 96 OSS/OSOQ. All data collected by the 96 RANSS FCA assets for these efforts will be submitted to the DoD GAFC/ISM with copies to the 96 RANSS Site/Range Engineer for compilation as required. All data collected by the 96 OSS/OSOQ using O&M Contract FCA resources will be submitted to the ISM for analysis and to the 96 RANSS Site/Range Engineer for compilation.

6.2.1.2.1. **(Added)** All users procuring items in this category must contact the ISM for approval prior to procuring such items. The user shall register this non-licensed device with the ISM providing information as follows:

6.2.1.2.1.1. Owning Organization:

6.2.1.2.1.2. POC:

6.2.1.2.1.3. Telephone Number:

6.2.1.2.1.4. Manufacturer:

6.2.1.2.1.5. Model Number:

6.2.1.2.1.6. FCC Part 15 Approval or ID number:

6.2.1.2.1.7. Transmitter Frequency:

6.2.1.2.1.8. Output Power:

6.2.1.2.1.9. Emission:

6.2.1.2.1.10. Antenna type and gain:

6.2.1.2.1.11. Location (GPS coordinates) for use:

6.2.1.2.2. **(Added)** The user agrees to accept any interference to the non-licensed device and thus, will not report any interference to this device to either 96 OSS/OSOQ or to the ISM. Additionally, the user agrees not to cause any interference to any scheduled equipment. A statement to this effect will be added to each RFA, issued by the ISM requesting use of these devices.

6.57.3.1. **(Added)** For all EA operations, including chaff drops and GPS testing/jamming, within the ETTC, notify the ISM at least 75-days prior to the initial test date. Specific data formats and analysis must be completed prior to submission of the request to AFSMO. The ISM will provide a worksheet outlining the specific data required for each submittal. Once the approval is granted by the U.S. Strategic Command (STRATCOM), an RFA will be issued stipulating the guidance as noted in the approval document.

Chapter 10 (Added)

THE 96TH TEST WING RESPONSIBILITIES

10.1. (Added) 96 OSS/OSOQ (Frequency Control and Analysis Office) will:

10.1.1. (Added) Review all RFAs issued by the ISM for mission support and provide operations spectrum management support to 96 OSS/OSO Mission Scheduling, JTTOCC, and range users to prevent harmful interference.

10.1.2. (Added) Issue all radiation clearances to users requiring scheduling as authorized by the signed RFA. Ensure all range users comply with all radio silence directives issued by the DoD GAFC.

10.1.3. (Added) Manage/deconflict the authorized use of the RF spectrum on the ETTC in support and/or conduct of daily mission activity.

10.1.4. (Added) Submit a follow-up action report of all frequency scheduling or radio silence violations such as unauthorized or unnecessary frequencies to the GAFC for resolution. Reference paragraph 5.14 and 5.14.1.1.

10.1.5. (Added) Review all test directives/documentation as required to ensure requirements for 96 OSS/OSOQ support are identified. Attend test documentation planning meetings as required to formulate 96 OSS/OSOQ Operations Spectrum management support.

10.1.6. (Added) Upon notification of radio frequency/electromagnetic interference by a user or affected user, immediately notify the DoD GAFC/ISM Office to coordinate actions to mitigate the RFI/EMI source. OSOQ spectrum management personnel will determine if the harmful interference is being caused by another mission through validation of mission schedules and issue a "cease operation" order to the lower priority mission. DoD GAFC/ISM office will take the lead in resolution with assistance from the 96 RANSS/RNRI or 96 OSS/OSOQ as required to isolate the source and implement action to terminate the EMI to the authorized user. The GAFC may direct 96 OSS/OSOQ to schedule use of the O&M FCA resources through the mission scheduling process to investigate/resolve reported RFI issues. DoD GAFC may request support through the 96 RANSS/TD and/or 96 RANSS Site/Range Engineer for tasking of O&M FCA resources to investigate/resolve EMI should longer periods of dedicated time be required for use of the O&M resources. Eglin test and training mission requirements will normally take priority over ISM and/or GAFC requirements for use of O&M Contract FCA resources dependent on urgency/severity/impact of the EMI. During normal working hours, report harmful interference involving civilian or other DoD activities immediately to the DoD GAFC via 850-883-7535. After hours, all interference shall be immediately reported to the DoD GAFC Duty Officer at 850-496-1867. The DoD GAFC will be the lead for all RFI interference actions per ACP 190 US SUP 1 (D) Annex B 8.b.(4). For all RFI incidents, each case of harmful interference shall be reported on Eglin AFB Form 369, *Radio Frequency Interference Report*. Prepare each report and forward within 24 hours to the DoD GAFC and provide to the 96 RANSS Site/Range Engineer. Reference paragraph 5.14.

10.1.7. (Added) Publish unclassified mission frequencies in the daily operations orders to include frequencies requested for maintenance actions.

10.1.8. **(Added)** 96 OSS/OSOQ Operations Spectrum Managers will assist 96 OG test execution squadrons in scheduling RF spectrum requirements.

10.2. (Added) 96 RANSS/RNRI (Range Support Squadron) will:

10.2.1. **(Added)** Provide DoD GAFC, ISM, and 96 OSS/OSOQ with all monitoring and measurement services required to resolve interference incidents, optimize frequency assignments, and ensure efficient use of the RF spectrum. All requests for non-mission related direct support of O&M Contract FCA resources will be coordinated through and tasked by the 96 RANSS Site/Range Engineer or scheduled through 96 OSS/OSOQ. All data collected by the 96 RANSS FCA assets for these efforts will be submitted to the respective requestor of the support activity with copies to the 96 RANSS Site/Range Engineer for compilation as required.

10.2.2. **(Added)** Provide configuration and operational control over all RF monitoring facilities and mobile monitoring assets manned by the range O&M contractor and provide support for DoD GAFC, ISM and 96 OSS/OSOQ in pursuit of AFSIR EMI or potential EMI sources. Be responsible for all government site engineering oversight, taskings, improvement, modernization, and related duties for the O&M Contractor and associated Annex of the O&M contract. Ensure the O&M contractor will document all activities on 96 TW Form 346, *FCA Operators Log*, or as otherwise tasked, annotating parameters such as frequency, power and emission bandwidth, as requested.

10.2.3. **(Added)** Provide systematic monitoring and resulting data, as requested by 96 OSS/OSOQ or in support of the ISM, of all emitted frequencies within or near the ETTC.

10.2.4. **(Added)** Upon notification of RFI/EMI by a user or affected user, see actions required in paragraph 5.14.1.1.

EVAN C. DERTIEN, Brigadier General, USAF
Commander

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

ACP 190 US SUPP-1(D), *Guide to Frequency Planning*, January 2015

AFI 17-221, *Spectrum Interference Resolution Program*, 22 December 2015

AFI 17-220, *Spectrum Management*, 16 March 2017

AFMAN 33-363, *Management of Records*, 01 March 2008

CJCSM 3212.02 (Series), *Performing Electronic Attack in the United States and Canada for Tests, Training, and Exercises*, 31 December 2013

CJCSM 3212.03 (Series), *Performing Tests, Training, and Exercises Impacting the Global Positioning System (GPS)*, 08 November 2013

Prescribed Forms

Eglin Form 346, *FCA Operators Log*

Eglin Form 369, *Radio Frequency Interference Report*

Eglin Form 584, *Radio Frequency Authorization (RFA)*

Adopted Form

AF Form 847, *Recommendation for Change of Publication*

DD Form 1494, *Application for Equipment Frequency Allocation*

Attachment 2

AIR FORCE SPECTURM CERTIFICATION

A2.2.6.3.1. **(Added)** Provide the prescribed documentation to the ISM for processing to include DD Form 1494 submittals requiring foreign coordination.

A9.3.2.1. **(Added)** The geographical area of responsibility for the DoD Gulf Area Frequency Coordinator (GAFC) is described as an area within the boundary as defined by the following coordinates: 33.30N83.0W west to 33.30N90.0W south to 24.0N90.0W east to 24.0N83.0W north to 33.30N83.0W.

Attachment 9**AIR FORCE DOD AREA FREQUENCY COORDINATION FOR NATIONAL AND SERVICE TEST AND TRAINING RANGES**

A9.5.2.7. **(Added)** GAFC will serve as the single point of contact for Eglin AFB to coordinate all spectrum matters with AFCs, Air Force Spectrum Management Office (AFSMO), other DoD Spectrum Agencies, other military installations, Aerospace Flight Test Radio Coordinating Committee (AFTRCC) for telemetry coordination, and other government agencies such as FCC, Federal Aviation Administration (FAA), US Navy and US Army. Spectrum issues that will impact the 96 TW's ability to conduct test & training operations on the Eglin Range will be coordinated with 96 OSS/OSO.

A9.5.2.8. **(Added)** GAFC will require temporary radio silence, or otherwise withhold approval to radiate, for any frequency, channel(s) or band of frequencies within the transmission capability of any interfering activity for the period of time necessary for any potential victim operation to be completed, or to protect civil, military, or federal safety-of-life operations. Upon receipt of such a requirement, the GAFC will issue a directive to all operating units, to include the 96 OSS/OSOQ to cease all operations as outlined in the directive. The GAFC is responsible for the modification or withdrawal of the directive. The 96 OSS/OSOQ will immediately notify the DoD GAFC of any violations and assist in the shutdown of any 96 TW source of interference as determined by the DoD GAFC.

A9.5.2.9. **(Added)** 96 OSS Frequency Control and Analysis Office (96 OSS/OSOQ) will be notified of all ETTC mission related interference. OSOQ personnel will determine if the harmful interference is being caused by another mission through validation of mission schedules and issue a "cease operation" order to the lower priority mission. DoD GAFC office will be notified immediately of all harmful interference incidents with follow up reporting as required.

A9.5.2.10. **(Added)** GAFC will serve as a technical consultant and voting member on the Eglin Installation Encroachment Management Team (IEMT).

A9.5.2.11. **(Added)** GAFC will develop and process all Electronic Attack (EA), Chaff, and GPS Test/Jamming requests in accordance with CJCSM procedures no less than 75 days prior to the initial target test date. Once approved by the Joint Staff, ISM will issue a RFA for the specific EA, Chaff, or GPS test/jamming events.

A9.5.2.12. **(Added)** GAFC will represent the 96th Test Wing Commander as a voting member of the Range Commanders Council Frequency Management Group (RCC FMG).