

**BY ORDER OF THE
4TH FIGHTER WING COMMANDER**

**SEYMOUR JOHNSON AIR FORCE
BASE INSTRUCTION 17-220**



1 MAY 2023

CYBERSPACE OPERATIONS

SPECTRUM MANAGMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication implements and extends the guidance of Department of the Air Force Instruction 17-220, Spectrum Management. It establishes Seymour Johnson Air Force Base (SJAFB) policy for spectrum management of all units within SJAFB responsibility, whether tenant/reserve/guard or active-duty status. This publication applies to all civilian employees and uniformed members of the Regular Air Force, the Air Force Reserve, the Air National Guard, the United States Space Force, and the Civil Air Patrol when conducting missions as the official Air Force Auxiliary, all Department of the Air Force (DAF) civilian employees, and those with a contractual obligation to abide by the terms of DAF issuances. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, Recommendation for Change of Publication; route DAF Forms 847 from the field through the appropriate chain of command. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, Records Management and Information Governance Program, and are disposed in accordance with and disposed of in accordance with Air Force Records Information Management System (AFRIMS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

1. Responsibilities

1.1. The Installation Spectrum Manager (ISM): The spectrum manager is responsible to the installation commander, through their chain of command, for managing all spectrum use on the sites and areas under the control of the installation commander. The spectrum manager will:

1.1.1. Ensure using organizations understand the technical parameters and any imposed operational restrictions of their assigned frequencies.

1.1.2. Maintain current frequency management records of all frequencies assigned to the sites and areas hosted by the installation and provide using organizations with a spectrum authorization (license) for their records.

1.1.3. Meet with all using organizations annually to conduct customer education and discuss current spectrum operations issues.

1.1.4. Process frequency proposals and applications for equipment spectrum certification using the End-to-End Supportability System and SPECTRUM XXI respectively, and ensure submissions are processed through the appropriate command channels.

1.1.5. Provide spectrum operations assistance and guidance to tenant activities.

1.1.6. Support local exercise coordination requirements.

1.1.7. Review operational plans and requirement documents and obtain frequency support through command channels.

1.1.8. Assist deployable units with identifying spectrum requirements for exercises and contingencies.

1.1.9. Review and validate using organizations frequency assignment requirements, validate existing frequency assignment parameters, and submit modifications, renewal, or deletion actions through command channels in accordance with the National Telecommunications and Information Association (NTIA) Manual, Annex F.

1.1.10. Update Frequency records in the Frequency Resource Record System.

1.1.11. Maintain a current point of contact list for using activities. Contact list includes: name, unit, e-mail address, and phone number.

1.1.12. Ensure contractor activities using the Department of the Air Force's frequency assignments follow federal and Military Command, Control, Communication, and Computers Executive Board (MC4EB) Pub 7, Frequency Resource Record System (FRRS) Standard Frequency Action Formant (SFAF), for electromagnetic spectrum policies and guidelines.

1.1.13. Educate spectrum users on the importance of obtaining spectrum supportability guidance and validation prior to entering into a contractual obligation for all spectrum-dependent systems in accordance with the NTIA Manual and Department of Defense Instruction (DoDI) 4650.01.

1.1.14. Perform emitter surveys, based on resource availability, as required with assistance from the parent command to ensure spectrum-dependent systems are operated in accordance with frequency licenses.

1.1.15. Coordinate new and renewal requirements with appropriate Department of Defense area frequency coordinator in accordance with NTIA Manual and Allied Communications Publications (ACP) 190 US SUPP-1(D).

1.1.16. Immediately notify appropriate Department of Defense area frequency coordinator and command spectrum manager requesting interference resolution assistance to initiate an investigation to locate and determine the offending source and report the interference in accordance with DAFI 17-220.

1.1.17. Coordinate with the safety office and weapons safety officer to support the hazard of electromagnetic radiation to ordnance program and provide frequency assignment records for antenna locations in accordance with AFI 91-208, Hazards of Electromagnetic Radiation to Ordnance (HERO) Certification and Management.

1.1.17.1. Provide parametric data for spectrum-dependent systems.

1.1.17.2. Coordinate spectrum-dependent system relocation or parametric data changes with the user and safety office. Coordinate with the installation safety office to identify any hazard of electromagnetic radiation to fuel and the bioenvironmental engineering flight to support health hazard evaluations and inventory accuracy in accordance with AFI 48-109, Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health Program.

1.1.18. Submit proposals for units through command spectrum channels.

1.1.19. Submit proposals for tenant units supporting the host mission to the host's and tenant's commands respectively.

1.1.20. Submit proposals for tenant units not supporting the host mission to the supported unit's parent command with a copy to the host and tenant unit spectrum commands. See examples below:

1.1.20.1. Submit frequency requirements for a Headquarters Air Force Materiel Command unit in support of Air Combat Command on an Air Mobility Command installation to Headquarters Air Combat Command with a copy to Air Force Materiel Command and Air Mobility Command.

1.1.21. Ensure all electromagnetic attack events for test, training, and exercises are processed in accordance with Chairman Joint Chiefs of Staff Manual (CJCSM) 3212.02E, Performing Electronic Attack in the United States and Canada for Tests, Training, and Exercises or CJCSM 3212.03A, Performing Tests, Training, and Exercises Impacting the Global Positioning System.

1.1.22. Meet established lead times for permanent and temporary frequency requirements in Air Combat Command (ACC).

1.1.22.1. Meet with the Wing exercise planner at a minimum twice per year, or as required, to review Wing's exercise and deployment schedule.

1.1.22.2. ACC requires 60 days of lead-time prior to required start date for permanent and temporary frequency requirements. This lead-time starts when the ACC Spectrum Management Office (SMO) receives the request. Additional time must be allotted to

ensure the request is processed through the ISM. Requirements received after 60 days will be at risk of non-approval.

1.1.22.3. Submit exercise packages requiring Identify Friend or Foe (IFF) with only US platforms participating to ACC NLT 130 days (foreign platforms 165 days) prior to STARTEX. Foreign platforms will require additional documentation to support national level coordination as noted in Annex H, ACP 190 US SUPP-I (D). Exercise packages submitted late will require a letter of justification/impact statement of late submission by the Wing Commander or equivalent. Late packages may delay assignments from being assigned in time for STARTEX.

1.1.22.4. For operations outside the United States & Possessions, unified commands set lead-times for frequency actions based on agreements with host governments. Generally, theater Combatant Command (CCMD) Joint Frequency Management Offices (JFMO) require a minimum of ninety (90) business day's lead-time to process overseas requirements. The 90-day time starts when the CCMD JFMO receives the request. Refer to theater instructions for specific lead-times. Ensure host nation supportability has been accomplished before any assignment action.

1.1.22.5. Electronic Attack (EA) clearances, to include Counter Small Unmanned Aerial System (C-sUAS) requests, require 60 days of lead-time for initial annual clearance waiver requests. The Federal Aviation Administration (FAA) and Federal Communications Commission (FCC) approves straight stick for one year. For C-sUAS requests, the FCC requires coordination every 90 days. FCC re-coordination on C-sUAS clearance waivers need to be submitted to ACC SMO 30 days prior to renewal date.

1.2. Wing Datalink Manager:

1.2.1. The Wing datalink managers for Link-16 requirements will comply with Chairman Joint Chiefs of Staff Instruction (CJCSI) 6231.01B, Link-16 Spectrum De-confliction within the United States and Possessions.

1.2.2. The wing datalink manager or Joint Interface Control Officer (JICO) will submit a Link-16 summary request form and non-stage 4 documentation as required to the ISM for Link-16 requirements. Link-16 Pulse De-confliction Server (LPDS) scheduling should be included. Ensure additional lead time for the Navy Marine Corps Spectrum Center (NMSC)/FAA coordination.

1.3. Lead Wing, Agile Combat Employment (ACE) Planning Office shall:

1.3.1. Meet frequency request lead times according to [Attachment 2](#).

1.4. The Unit/Organization Commander shall:

1.4.1. Appoint a unit spectrum monitor (USM) for their designated user organization to organize and carry out spectrum program operations and coordinate with the installation spectrum manager.

1.4.2. Appoint a replacement USM within 30 days of departure of previous spectrum monitor.

1.5. The Unit Spectrum Monitor shall:

- 1.5.1. Contact the ISM immediately after appointment of USM by Unit Commander for processing of appointment letter and initiation of training.
- 1.5.2. Obtain spectrum certification prior to purchasing a spectrum-dependent system or entering into any contractual obligations for the use of spectrum-dependent devices in accordance with the NTIA manual, [paragraph 10.1.2](#) and DoDI 4650.01.
- 1.5.3. Obtain a frequency assignment through the installation spectrum manager prior to operation of any spectrum-dependent devices that radiate radio frequency energy per NTIA Manual, Chapter 8.
- 1.5.4. Maintain a copy of frequency authorizations received from the installation spectrum manager.
- 1.5.5. Ensure spectrum-dependent system operations comply with authorized parameters identified in the frequency assignment notification in accordance with NTIA Manual, Chapter 8.
- 1.5.6. Act promptly to notify the ISM to report and assist in resolving incidents of interference in accordance with AFI 17-221, Spectrum Interference Resolution Program.
- 1.5.7. Ensure units use radiation-suppression devices when tuning, testing, or experimenting with any equipment that emits radio frequency.
- 1.5.8. Maintain and identify a point-of-contact to the ISM for unit frequency matters.
- 1.5.9. Document and forward documentation for frequency assignment deletions to the ISM.
- 1.5.10. Obtain approval from the ISM before modifying any existing spectrum-dependent systems or antennas (i.e., increase power, change antenna height or gain), if outside of the assigned parameters of the frequency authorization in accordance with the NTIA Manual, Chapter 10.
- 1.5.11. Assist the ISM in reviewing and verifying equipment parameters during mandatory and periodic reviews, in accordance with NTIA Manual, Annex F.
- 1.5.12. Contact the ISM for interpretation or guidance of any national or military-level spectrum management policy.
- 1.5.13. Process spectrum supportability risk assessments in accordance with DoDI 4650.01.
- 1.5.14. Submit host nation coordination requests to the installation spectrum manager in accordance with CJCSI 3320.01C
- 1.5.15. Obtain electromagnetic attack authorizations from the Department of the Air Force Spectrum Management Office prior to test, training, or exercises in accordance with CJCSM 3212.02E or CJCSM 3212.03A.

LUCAS J. TEEL, Col, USAF
COMMANDER, 4th FIGHTER WING

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

DAFI 17-220, *Spectrum Operations*, June 8, 2021

AFI 33-322, *Records Management an Information Governance Program*, July 28, 2021 MC4EB

Pub 7, *Military Command, Control, Communications & Computers Executive Board*,
November 1, 2018

NTIA Manual, *Manual of Regulations and Procedures for Federal Radio Frequency
Management*, September 2017

DoDI 4650.01, *Policy and Procedures for Management and Use of the Electromagnetic
Spectrum*, January 9, 2009

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

AFI 91-208, *Hazards of Electromagnetic Radiation to Ordnance (HERO) Certification and
Management*, October 24, 2019

AFI 48-109, *Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health
Program*, April 22, 2020

CJCSM 3212.02E, *Performing Electronic Attack in the United States and Canada/or Tests,
Training, and Exercises*, June 17, 2019

CJCSM 3212.03A, *Performing Tests, Training, and Exercises Impacting the Global Positioning
System*, July 27, 2019

AnnexH

CJCSI 6234.01B, *Link-16 Spectrum De-Confliction within the United States and Possessions*,
March 16, 2001

DAFI 17-221, *Spectrum Interface Resolution Program*, May 11, 2018

CJCSI 3320.01C, *Electromagnetic Spectrum Use in Joint Military Operations*,
February 22, 2011

Prescribed Forms

None

Adopted Forms

AF Forms 847, Recommendation for Change of Publication

Abbreviations and Acronyms

ACC—Air Combat Command

ACP—Allied Communications Publications

ACE—Agile Combat Employment
AFB—Air Force Base
AFI—Air Force Instruction
AFRIMS—Air Force Records Information Management System
CCMD—Combatant Command
CJCSI—Chairman of the Joint Chiefs of Staff Instruction
CJCSM—Chairman of the Joint Chiefs of Staff Manual
C-sUAS—Counter Small Unmanned Aerial System
DAF—Department of the Air Force
DAFI—Department of the Air Force Instruction
DoDI—Department of Defense Instruction
EA—Electronic Attack
EMFR—Electromagnetic Field Radiation
EX—Exercise
FAA—Federal Aviation Administration
FCC—Federal Communications Commission
FRRS—Frequency Resource Record System
HERO—Hazards of Electromagnetic Radiation Ordnance
IFF—Identification Friend or Foe
ISM—Installation Spectrum Manager
JFMO—Joint Frequency Management Office
JICO—Joint Interface Control Officer
LPDS—Link-16 Pulse De-confliction Server
MC4EB—Military Command, Control, Communications, and Computers (C4) Executive Board
NLT—No Later Than
NMSC—Navy Marine Corps Spectrum Center
NTIA—National Telecommunications and Information Association
OPR—Office of Primary Responsibility
RDS—Records Disposition Schedule
SFAF—Standard Frequency Action Format
SJAFB—Seymour Johnson Air Force Base
SMO—Spectrum Management Office

USM—Unit Spectrum Monitor

Attachment 2

FREQUENCY REQUEST LEAD TIMES

A2.1. The following are lead time required by the Seymour Johnson AFB, Installation Spectrum manager (ISM). These lead times provide processing time for the ISM in order to meet the ACC lead times listed in 1.1.22 of this document and DAFI 17-220.

A2.2. LEAD TIMES.

TYPE OF REQUEST	LOCATION	ACC LEAD TIME	SJAFB LEAD TIME
EX w/ IFF w/ US Aircraft	CONUS/OCONUS	130 days	145 days
EX w/ IFF w/ Foreign Aircraft	CONUS/OCONUS	165 days	180 days
Temporary/Exercise	CONUS	60 days	75 days
Temporary/Exercise	OCONUS	90 days	105 days
Permanent	CONUS	60 days	75 days
EA Clearance Needed	CONUS	60 days/30 days renewals	75 days/45 days renewals