



DEPARTMENT OF THE NAVY

U.S. NAVAL SUPPORT ACTIVITY

PSC 817 BOX 1

FPO AE 09622-0001

NAVSUPPACT NAPLES INST 2400.1
N6

20 APR 2016

NAVSUPPACT NAPLES INSTRUCTION 2400.1

From: Commanding Officer, U.S. Naval Support Activity, Naples
Italy

Subj: INSTALLATION SPECTRUM MANAGEMENT

Ref: (a) DoD Instruction 4650.1 of 9 January 2009
(b) CJCSI 3320.01C
(c) CJCSI 3320.03C
(d) OPNAVINST 2400.20F
(e) OPNAVINST 5100.23G
(f) NTP-6 Guide
(g) Naval Network Warfare Command Installation Spectrum
Manager's Guide (ISM)
(h) European Command (EUCOM) Spectrum Management Manual
(i) ACI 6700.03
(j) COMNAVREGEURAFSWA 2400.1

Encl: (1) Sample ISM Appointment Letter
(2) Sample ISM Relief Letter
(3) Sample Command Frequency User POC Appointment Letter
(4) Sample Command Frequency User POC Relief Letter
(5) SFAF Template
(6) Sample DD Form 1494 with Instructions

1. Purpose. To establish policy and procedures and assign responsibilities for Spectrum Management (SM) within the U.S. Naval Support Activity (NAVSUPPACT), Naples, Italy Area of Responsibility (AOR). This instruction implements applicable provisions of references (a) through (j).

2. Discussion

a. The Electromagnetic Spectrum. Military operations rely heavily on equipment using the Electromagnetic Spectrum (EMS), a finite yet vital resource that is currently constrained by the equipment technology. The rapid growth of sophisticated weapons systems, as well as intelligence, operations, and communications systems, greatly increases demand for EMS access. Lack of proper, preplanned EMS coordination and consideration of

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electromagnetic environmental effects (E3) will have an adverse effect upon friendly but competing users. EMS availability/supportability is further constrained by national/international legislation designed to protect the rights of sovereign governments by requiring approval prior to transmission in any portion of the spectrum that lies within a particular country's national borders. In joint military operations, EMS requirements may exceed the amount of spectrum resources available in a given electromagnetic operational environment. As a result, efficient management, control, and use of the EMS are essential to ensure operations are conducted with minimal unintentional electromagnetic interference (EMI) and without negative E3. Increased demand for commercial wireless services is further exacerbating the problem. Both nationally and internationally, the spectrum currently allocated to government services (including military use) is being reallocated to satisfy commercial demands for advanced wireless services. Joint and combined force operations must also consider the needs of coalition forces in future contingencies. Therefore, an effective spectrum management structure is required not only to satisfy spectrum needs of military users but also to coordinate with host nations (HNs) to facilitate effective use of this finite resource.

b. International Considerations. Because the electromagnetic spectrum is a natural resource managed within the borders of each independent sovereign nation, international spectrum management concepts become an extremely important consideration when U.S. military forces are required to operate abroad. Before U.S. military forces can legally operate Spectrum-Dependent (S-D) systems/equipment within a sovereign nation's territory, they must first obtain frequency allocation approval and frequency assignment authorization from the host nation.

c. Reference (d), Navy and Marine Corps Spectrum Management Offices delegated the responsibility for the management of the electromagnetic spectrum to Commander, Navy Information Dominance Forces (COMNAVIDFOR). COMNAVIDFOR thereafter designated the Navy and Marine Corps Spectrum Center (NAVMARSPECCEN) or (NMSC) as the center for excellence for Navy EMS Management. The NAVMARSPECCEN carries out this mission through regional Navy and Marine Corps Spectrum Offices (NMCSO) worldwide. NMCSOs act under direction of NAVMARSPECCEN and provide direct support to Combatant Commands (COCOMs). NMCSOs

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provide direct support to Combatant Commands (COCOMs). NMCSOs have qualified and trained SM personnel ready to assist Navy installations, as required, in providing spectrum management services to naval operations globally. NMCSOs perform the following functions within their region of responsibility:

(1) Coordinate Spectrum Certification actions for all Navy S-D systems and equipment.

(2) Coordinate, register, and protect radio frequencies for test, evaluation, and operational use of S-D equipment and systems by all naval activities, and assist with electromagnetic certifications (EMC) and radiation hazards (RADHAZ) site approval coordination.

(3) Perform record reviews in accordance with COCOM policy and Host Nation direction.

d. Acquisition and Installation of Spectrum Dependent Systems. Per reference (d), planning for the use of spectrum resources and assignment of spectrum management responsibilities must be fully integrated into all installation acquisition and installation plans. To ensure critical frequencies and S-D systems/equipment are protected from unintentional EMI due to friendly operations, the acquiring/fielding/using agencies will identify system characteristics to the Installation Spectrum Manager (ISM) prior to use. The ISM will forward all requests to the supporting NMCSO, to coordinate an interference analysis of all spectrum requests against existing frequency assignments to identify and de-conflict potential interference (to include radar de-confliction) before making a new assignment. As new requirements are identified, situations of conflicting or competing spectrum use will occur. Conflicts within a primary geographic area should be resolved through the COCOM and appropriate Host Nation SM organizations via the COCOM Joint Frequency Management Office. Specific areas of concern during the acquisition and fielding period include the following:

(1) Spectrum Certification. In general, all S-D devices or systems require an approved DD 1494 form, Application for Equipment Frequency Allocation, and Spectrum Supportability Risk Assessment (SSRA) prior to fielding see enclosure (7). DD 1494 form is generally submitted by the system developer or program manager, and should be included with the system documentation. For locally acquired systems, the acquiring agency needs to

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initiate the spectrum certification process. An approved DD 1494 is not an approval or authorization to radiate on specific frequencies. Only a Frequency Assignment as described in paragraph 2.d.(5) provides authorization for operation of an S-D system or equipment under specific requirements. The ISM is responsible for ensuring that requirements for DD 1494 forms are properly coordinated, submitted, and approved.

(2) Spectrum Supportability Risk Assessment (SSRA). An SSRA is an assessment performed by program managers (PMs) and materiel developers (MATDEVs) on all programs that are acquiring or incorporating S-D) systems or equipment. The purpose is to identify and assess an acquisition's potential to affect the required performance of the newly acquired system or other existing systems within the operational electromagnetic environment (EME). This assessment will be accomplished with due consideration given to regulatory, technical, and operational spectrum and E3 issues and assigned risks. Requirements for the submission of SSRAs during the Defense Acquisition System (DAS) process are established by the following:

(a) Reference (a), requires the submission of an SSRA prior to each acquisition milestone (MS).

(b) Reference (b), requires the submission of SSRAs prior to each acquisition MS and readiness reviews.

(c) Reference (c), requires the results of the SSRAs for information technology and national security systems be included in the Information Support Plan (ISP). SSRAs are required to determine and document if adequate spectrum is available to support system operation in Department of Defense (DoD), Allied, and coalition operations. Spectrum supportability (SS) and E3 risks and the steps that need to be taken to mitigate the risks are to be identified in the SSRA and provided to the Military Department (MILDEP) Spectrum Management Office (SMO) who will review the SSRA and forward their recommendations to the Service Chief Information Officer (CIO) for approval. A statement on the SS of an acquisition is then forwarded to the milestone decision authority (MDA). PM/MATDEVs should consult, as early as possible, with their respective MILDEP SMO regarding the application and tailoring of the SSRA, and to ensure that all user requirements are met. The detail and scope of each

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SSRA depends upon the system's entry point into the DAS, the complexity of the system, knowledge of the S-D systems to be acquired or integrated, and the intended operational EME. In general, each PM/MATDEV is required to prepare and submit an SSRA when the acquisition includes or incorporates an S-D system or equipment, including commercial items and non-developmental items (NDI) that are S-D. The SSRA guidance document is located at <https://acc.dau.mil/CommunityBrowser.aspx?id=491776&lang=en-US>.

(3) Host Nation Coordination/Approval. As part of the spectrum certification process for systems being deployed to other nations, S-D users must obtain Host Nation Approval (HNA) prior to activation of the system. Requests for HNA must be submitted to the NAVMARSPECCEN located at Fort Meade, MD. Host Nation Coordination is accomplished once the system has obtained an approved DD-1494 and Foreign Disclosure Office approval for release/submission to the Host Nation. European Command (EUCOM) will not submit any frequency requests to the Host Nation until both of these processes are complete.

(4) Installation Public Works Coordination. All communication system projects should be evaluated by the installation Public Works planning office for Mixed Commission approval, Host Nation concerns, and frequency approval/requirements. In addition, they will determine any requirements for electromagnetic surveys based on planning requirements and host nation regulations. Host nation coordination and approval can take time to complete, so requests should be submitted as soon as possible. The ISM should ensure that all S-D projects are submitted for review and assist the Public Works office as required.

(5) Frequency Assignment. The DD 1494 provides spectrum certification, and the results of electromagnetic surveys studies performed during the local coordination process should determine what frequencies are available for use in a particular location. It is then the fielding/installing organization's responsibility to complete a Standard Frequency Action Format (SFAF) or User Frequency Request Form to request a frequency assignment see enclosure (6). The ISM should work with the fielding agency to complete the SFAF and submit to the

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appropriate NMCSO. S-D system users must submit permanent frequency requests at least 120 days prior to the anticipated activation date and 90 days prior for temporary (commonly 1 to 6 months or less) frequency assignments.

(6) Wireless Commercial Off The Shelf (COTS). Per ref (h), all S-D systems (including COTS) must be evaluated / approved for use in their intended EME. The European Community has established a standards body that oversees/allocates the use of COTS spectrum throughout Europe. Products that meet these requirements will be labeled as "CE" compliant devices. Most U.S. devices are not normally aligned with the EC spectrum allocation tables or CE compliant. Therefore, USN forces need to take care when selecting/purchasing COTS equipment from the United States. Although "CE" equipment doesn't guarantee a frequency assignment it definitely helps if approved in the country of use. Per paragraph 3d, submit all requests for use of COTS equipment to the ISM for processing, coordination, and determination of support.

e. Electromagnetic Interference. The ability to utilize, control, and exploit the electromagnetic spectrum is critical to current and future Navy operations. Inherent in its control is the timely and accurate identification, reporting, and resolution of EMI. EMI is any electromagnetic disturbance that interrupts, obstructs, degrades, or otherwise limits the effective performance of electronics or electrical equipment to include S-D systems/equipment. EMI can be induced intentionally or unintentionally by numerous friendly, enemy, neutral and natural sources. Per enclosures (5) and (6) of reference (f), Navy commands will report interference using the Joint Spectrum Interference Resolution formatted messages and by the fastest means available. As the interference report passes through the chain of command, each component with the capability will attempt to resolve the interference under its purview. The report is forwarded as quickly as possible to a level of command with the capability or control to resolve the conflict. As much as possible, ISMs will attempt to detect, report, analyze, and resolve, if possible, persistent and recurring non-hostile EMI and Electronic Warfare incidents affecting DoD systems.

f. Electromagnetic Environmental Effects (E3). Transmitting S-D equipment (radios, radar, electronic countermeasures, electronic counter-counter measures,) or other electromagnetic emitting devices can generate radiation of

specific magnitude to adversely affect the surrounding environment. This can result in hazards of electromagnetic affects to ordnance (HERO), hazards of electromagnetic affects to personnel (HERP), and hazards of electromagnetic affects to fuels (HERF). The Dahlgren Division, Naval Surface Warfare Center, in conjunction with SPAWAR Systems Center Atlantic, manages the Navy spectrum analysis program and performs routine and specialized installation HERO, HERP, and HERF surveys. Per reference (e), installation commanders should be familiar with reports for their installations, and ISMs should maintain copies of all published reports.

g. SM Software. Spectrum XXI is the mandated frequency request software tool for Ashore Commands. It is used to initiate, submit, process, and coordinate frequency proposals and assignments by CNO GENADMIN message. Spectrum XXI is a client/server, windows-based software system that provides frequency managers with a single information system that addresses spectrum management automation requirements. All ISMs should contact their supporting NMCSO to receive current information for their installations contained in Spectrum XXI and to initiate changes and updates.

3. Actions

a. Per reference (d), Commanding Officer, NAVSUPPACT Naples will:

(1) Ensure that radio frequencies used onboard their installation are properly coordinated/authorized, and frequency assignments are reviewed within designated host nation time frames to verify accuracy/compliance.

(2) Ensure that spectrum certifications and frequency assignments are obtained prior to purchasing any Communications-Electronic equipment, as required.

(3) Ensure that provisions for use of specific radio frequencies by military or nonmilitary tenant activities on the installation are specifically addressed in a host-tenant agreement. Such agreements include specific authority for the commander of the installation to require the tenant activity to cease or modify operation on a specific frequency or to change frequencies, should the need arise.

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(4) Designate an installation spectrum manager to serve as a central point of contact (POC) for all frequency use. See enclosures (1) and (2) for sample designator letter.

(5) Ensure that the necessary EMC studies are conducted prior to approval for all requests for installation of commercial mobile service provider equipment on shore installations.

b. NAVSUPPACT Naples ISM will:

(1) Be responsible for all electromagnetic radiation emanating from the installation, including all activities hosted by the installation. ISMs should report all cases of interference to the Commanding Officer, recommending he/she issue a "cease and desist" order to the controlling unit.

(2) Ensure a viable radio frequency management program is in place and fully supports installation requirements.

(3) Maintain a current listing or electronic database of all frequencies assigned to the installation and hosted activities on the installation.

(4) Maintain frequency management records for the installation.

(5) Establish a spectrum management education program.

(6) Process frequency action proposals and ensure they are submitted through the appropriate command channels per references (e) and (f).

(7) Maintain current POC listing for each activity on the installation.

(8) Ensure contractor activities using Navy facilities comply with Navy spectrum management policies.

(9) Review frequency assignments and validate as required, to ensure up-to-date parameters. Submit modifications, renewals or deletions as required in accordance with COCOM and Host Nation frequency review policies.

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(10) Review ITPRs, as required, to ensure any purchase requests for RF-transmitting devices include the required frequency approval documentation.

(11) Ensure all memorandums of agreement/understanding concerning the operation of S-D devices and systems are on file.

(12) Provide frequency management assistance and guidance to host installation and tenant activities.

(13) Perform base-wide emitter survey in conjunction with 5 year review program.

(14) Contact the Region Spectrum Manager and/or the NMCSO with any questions concerning the ISM program.

c. Spectrum using activities within NAVSUPPACT Naples AOR will:

(1) Designate in writing a Command Spectrum User (CSU) POC for frequency related matters and provide a copy of the CSU Designation Letter to the NAVSUPPACT Naples ISM.

(2) Ensure appropriate spectrum supportability is accomplished prior to purchasing RF equipment or entering into any contractual obligations involving S-D equipment.

(3) Request only the minimum number of frequencies necessary to support the mission.

(4) Request only the minimum number of frequencies necessary to support the mission.

(5) Request only the minimum transmitter power and antenna gain necessary to ensure adequate coverage required.

(6) Include frequency approval documentation when submitting an ITPR for the lease or purchase of any device capable of transmitting RF.

(7) Ensure any Government Purchase Card Program (GPCP) Requests involving wireless devices to include but not limited to; cordless phones, wireless microphones, COTS/government off the shelf wi-fi equipment are screened by the Command Spectrum User POC prior to approving purchase.

(8) Obtain frequency assignment before energizing any transmitting device.

(9) Obtain approval from the ISM prior to modifying any existing emitters or antennas (e.g. increasing power, change in antenna height, gain, etc.).

(10) Ensure electromagnetic radiating equipment operations comply with authorized parameters of the assignment.

(11) Promptly report any incident of radio frequency interference to the ISM.

(12) Advise ISM immediately when frequencies are no longer required.

(13) Maintain copy of frequency authorization (assignment) as received from ISM.

(14) Actively participate with ISM during conduct of base-wide emitter survey and take immediate corrective actions to ensure compliance with all frequency assignments.

d. NAVSUPPACT Naples Resource Management (N8) Department. Ensure any GPCP requests involving wireless devices to include but not limited to; cordless phones, wireless microphones, COTS wi-fi equipment are screened by the NAVSUPPACT Naples ISM prior to approving purchase.

4. Forms. See enclosures (5) and (6).


D. W. CARPENTER

Distribution:

NAVSUPPACT NAPLES INST 5216.4BB

Lists: I through IV

Electronic via NAVSUPPACT NAPLES web site:

<https://www.cnic.navy.mil/Naples/About/Departments/Administratio n/AdministrativeServices/Instruction/index.htm>

Sample Installation Spectrum Manager Appointment Letter

From: (Command)
To: (Regional Spectrum Management Office)

Subj: INSTALLATION SPECTRUM MANAGER LETTER OF APPOINTMENT

Ref: (a) OPNAVINST 2400.20(Series)

1. Per reference (a), the following personnel are appointed as Installation Spectrum Manager and Alternate Installation Spectrum Manager.

Command Name:
PLA:
Commanding Officer/Officer-In-Charge:
Contact Information: Phone Number:
FAX Number:
Email address:

Installation Spectrum Manager:
Rank/Rate/Grade:
Security Clearance:
Date of Appointment:
EAOS/PRD:
EMAIL Address:

Alternate Installation Spectrum Manager:
Rank/Rate/Grade:
Security Clearance:
Date of Appointment:
EAOS/PRD:
EMAIL Address:

//s//
Commanding Officer or Officer-In-Charge

Copy to:
Installation Electronics Maintenance Officer
Installation Supply/Purchasing Officer

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Sample Installation Spectrum Manager Relief Letter

From: (Command)

To: (Regional Spectrum Management Office)

Subj.: INSTALLATION SPECTRUM MANAGER; RELIEF OF ISM APPOINTMENT

Ref: (a) OPNAVINST 2400.20(Series)

1. Per reference (a), the following individual is hereby relieved of duties as Installation Spectrum Manager.

Command Name:

PLA:

Commanding Officer/Officer-In-Charge:

Contact Information: Phone Number:

FAX Number:

Email address:

Installation Spectrum Manager:

Rank/Rate/Grade:

Security Clearance:

Date of Appointment:

EAOS/PRD:

EMAIL Address:

Alternate Installation Spectrum Manager:

Rank/Rate/Grade:

Security Clearance:

Date of Appointment:

EAOS/PRD:

EMAIL Address:

//s//

Commanding Officer or Officer-In-Charge

Copy to:

Installation Electronics Maintenance Officer

Installation Supply/Purchasing Officer

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Sample Tenant Command Spectrum User POC Appointment Letter

From: (Command)

To: (NAVSUPPACT Naples Spectrum Manager)

Subj.: TENANT COMMAND SPECTRUM USER POC LETTER OF APPOINTMENT

Ref: (a) OPNAVINST 2400.20(Series)

1. Per reference (a), the following personnel are appointed as Command Spectrum User POC and Alternate Command Spectrum User POC.

Command Name:

PLA:

Commanding Officer/Officer-In-Charge:

Contact Information: Phone Number:

FAX Number:

Email address:

Installation Spectrum Manager:

Rank/Rate/Grade:

Security Clearance:

Date of Appointment:

EAOS/PRD:

EMAIL Address:

Alternate Installation Spectrum Manager:

Rank/Rate/Grade:

Security Clearance:

Date of Appointment:

EAOS/PRD:

EMAIL Address:

//s//

Commanding Officer or Officer-In-Charge

Copy to:

Installation Electronics Maintenance Officer

Installation Supply/Purchasing Officer

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Sample Tenant Command Spectrum User POC Relief Letter

From: (Command)
To: (NAVSUPPACT Naples Spectrum Manager)

Subj.: TENANT COMMAND SPECTRUM USER POC; RELIEF OF SPECTRUM USER
APPOINTMENT

Ref: (a) OPNAVINST 2400.20(Series)

1. Per reference (a), the following individual is hereby relieved of duties as Command Spectrum
User POC

Command Name:
PLA:
Commanding Officer/Officer-In-Charge:
Contact Information: Phone Number:
FAX Number:
Email address:

Installation Spectrum Manager:
Rank/Rate/Grade:
Security Clearance:
Date of Appointment:
EAOS/PRD:
EMAIL Address:

Alternate Installation Spectrum Manager:
Rank/Rate/Grade:
Security Clearance:
Date of Appointment:
EAOS/PRD:
EMAIL Address:

//s//

Commanding Officer or Officer-In-Charge

Copy to:
Installation Electronics Maintenance Officer
Installation Supply/Purchasing Officer

Standard Frequency Action Format

Introduction to the Standard Frequency Action Format (SFAF) / User Request Form

An SFAF is used to request a frequency assignment and is the foundation of the DoD frequency database. Because everyone uses the SFAF, we are able to manage the frequency databases and retrieve information as required. The SFAF is used for a variety of actions; requesting new frequencies (N), modifying existing frequency assignments (M), and deleting frequencies/records that are no longer required (D). You are not required to become an expert with all the fields available on an SFAF, however you must become familiar with the format and understand what fields are required for various actions/requests. MCEB PUB-7 provides detailed guidance on completing an SFAF request.

To simplify this process NMCSO EUR / AF has developed user friendly forms to allow ISMs to assist S-D system users in gathering the necessary information. Completion of the User Request Form is the responsibility of the Project Officer / System Owner. It is important to complete the entire form as this provides all required EUCOM / AFRICOM mandatory data elements to request frequency support. Table 2 depicts an example of the User Request Form.

Table 1 User Request Form

<u>USER REQUEST FORM</u>
<u>Instructions</u>
<ul style="list-style-type: none"> • Standard processing time for frequency authorizations is 90 to 120 days. Because frequency authorizations are processed as quickly as possible you may receive them sooner than the standard processing time. However, always allow for standard processing time when requesting frequency authorizations. Provide as much applicable information as possible and submit to regional spectrum management office. • One Worksheet for each frequency per Transmitter. If more than one worksheet is required for a project or circuit then identify the entire project or circuit similarly in the Project/Circuit Number block of each worksheet. This is IAW DoD's Standard Frequency Action Format (SFAF) US Military Communications-Equipment Board (MCEB) PUB-7. • Be sure to explain in Supplementary Details if this is a transceiver, if there is uplink/Downlink configuration pairing, if the receive and transmit location is the same lat/long, if you are transmitting from one location to another, if you are transmitting to or from an aircraft in a radius of operation. • Send frequency request to the local Installation Spectrum Mgr (ISM), and forwarded to NMCSO EUR/AF Naples Italy for processing.

SUBMITTING COMMAND

Explanation	User Information
Command Name (Unit/Organization/Activity) Plain language address (PLA/DMS), UIC	

INFORMATION

Project/Circuit Name Provide project or circuit name	
Classification Will this record be classified? Mark sections with classification markers (i.e. (U), (C), (S))	
Frequency What is the frequency band for the assignment? (i.e. 225-400Mhz) If a distinct frequency is required provide the frequency.	
Number of Frequencies How many frequencies required. List by "BAND"	
Station Class (please refer to Appendix D for commonly used station classes) What station class? (i.e. fixed, mobile, portable, transportable, etc).	
Bandwidth / Emission Designator (please refer to Appendix D for a detailed explanation of emission designators) What is the bandwidth and type of transition? (i.e. 5k/25K/etc., AM/FM/etc.)	
Transmitter Power What is the transmitter power? (i.e. 10W)	
Usage Period List the amount of daily Use (i.e. 24 hours, nightly, daily, specific days and times, as required, etc.)	
Required Start Date	
Temporary/Permanent How long do you require the frequency for? (is this request for a Permanent Assignment or a Temporary Assignment. Temporary Assignments are not to exceed 90 days)	
HN Nominations Acceptable Required in all EUCOM assignments. If host nation nominations are acceptable, enter "YES". If acceptable with certain limitations, enter "YES" followed by the limitations, for example "YES, IF SEPARATION CRITERIA IN LINE 112 CAN BE MET". If not acceptable, such as for equipment that operates on a fixed frequency, enter "NO" followed by the reason. Example: For a 1030MHz IFF/SIF request, enter "NO, FIXED FREQUENCY". This line item is normally deleted before the SFAF is assigned in SXXI.	

TRANSMIT INFORMATION

Transmit State/Country	
Transmit Location Provide the place name of the location (i.e. San Diego, Coastal, NAVBASE SAN DIEGO, etc.	
Transmit Coordinates What is the Latitude/Longitude of the transmit antenna. (Degrees, Minutes, and Seconds in DMS format).	
Transmit Radius What radius will the transmitter operate in? (In Kilometers or miles). Note that this is total transmit Radius (If two stations are transmitting at 20km then the RADIUS is at least 40KM. this is the total transmission range of the equipment and not just the operational range of the circuit.	

Enclosure (5)

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<p>Transmitter Details What transmitter/transceiver will be used? (i.e. What are the Manufacturer, model number, part number, equipment nomenclature, DD1494 filing numbers if known. Attach any technical data that you can find to aid in the request. NOTE: ALL RF Equipment used by the DOD must have a DD1494.</p>	
<p>Number of Transmitters How many transmitters will be used (i.e. fixed, mobiles, portables, etc.?)</p>	
<p>Pulse Details If the system used pulse modulation, what is the pulse repetition rate(s)? Does this system contain side lobe suppression? (required for radar)</p>	
<p>Intermediate Frequency What is the value of the frequency range resulting from a frequency conversion into a fixed, lower carrier (before demodulation).</p>	
<p>Transmit Antenna Type What type of transmit antenna will be used? (i.e. Parabolic, whip, etc.)</p>	
<p>Transmit Antenna Details What antenna will be used? (i.e. What are the manufacturer, model number, part number, equipment nomenclature, J/F 12 and/or DD1494 filing numbers if known. Attach any technical data that you can find to aid in the request.</p>	
<p>Transmit Antenna Structure height What is the antenna structure height (in meters above ground)?</p>	
<p>Transmit Antenna Gain What is the transmit antenna gain?</p>	
<p>Transmit Antenna Terrain Elevation What is the transmit antenna terrain elevation? (specify meters or feet AMSL)</p>	
<p>Transmit Antenna Feedpoint Height How high is the transmit antenna above ground? (specify meters or feet AMSL)</p>	
<p>Transmit Antenna Horizontal Beamwidth What is the transmit antenna angular beamwidth (specify in degrees at the half-power (-3 dB) point)?</p>	
<p>Transmit Antenna Vertical Beamwidth What is the transmit antenna vertical beamwidth (specify in degrees and the angle between the half-power points (-3dB) from the pattern of the antenna)?</p>	
<p>Transmit Antenna Direction What is the transmit antenna directional, non-directional, or does it rotate? (If Directional provide the direction relative to true north)</p>	
<p>Transmit Antenna Polarization How is the transmit antenna polarized? (i.e. horizontal, vertical, etc.)</p>	

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RECEIVE INFORMATION

Note: include all receiver equipment and locations that will be receiving from the transmitter(s) Identified. Identify each receiver and it's detail information separately (i.e R1/CA, R2/HI, etc.)

Receive State/Country	
Receive Location Name Provide the place name of the location (i.e. San Diego, Coastal, NAVBASE SAN DIEGO, etc.)	
Receive Coordinates What is the Latitude/Longitude of the receive antenna. (Degrees, Minutes, and Seconds in DMS format).	
Receive Radius What radius will the transmitter operate in? (In Kilometers or miles). Note that this is total transmit Radius (If two stations are transmitting at 20km then the RADIUS is at least 40KM. this is the total transmission range of the equipment and not just the operational range of the circuit.	
Receiver Details What Receiver/Transceiver will be used? (i.e. What are the Manufacturer, model number, part number, equipment nomenclature, JF/12 and/or DD1494 filing numbers if known. Attach any technical data that you can find to aid in the request.	
Receive Antenna Type What type of receive antenna will be used? (i.e. Parabolic, whip, etc.)	
Receive Antenna Details What antenna will be used? (i.e. What are the manufacturer, model number, part number, equipment nomenclature, J/F 12 and/or DD1494 filing numbers if known. Attach any technical data that you can find to aid in the request.	
Receive Antenna Structure height What is the receive antenna structure height? (In meters above ground)	
Receive Antenna Gain What is the receive antenna gain?	
Receive Antenna Elevation What is the receive antenna terrain elevation (specify meters or feet AMSL)	
Receive Antenna Height How high is the receive antenna above ground? (Specify meters or feet AMSL)	
Receive Antenna Horizontal Beamwidth What is the transmit antenna angular beamwidth (specify in degrees at the half-power (-3 dB) point)?	
Receive Antenna Vertical Beamwidth What is the transmit antenna vertical beamwidth (specify in degrees and the angle between the half-power points (-3dB) from the pattern of the antenna)?	
Receive Antenna Direction Is the receive antenna directional, non-directional, or does it rotate? If directional, provide direction relative to true north.	
Receive Antenna Polarization How is the receive antenna polarized? (I.e Horizontal, Vertical, etc.)	

Enclosure (5)

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ADDITIONAL DETAILS

Supplemental Details

Give full detailed and specific description of your requirement for usage of this requested frequency and how you intend to use it (i.e. what, how, when, where, mission, exercise, or test supporting). Include FCC type Acceptance Number, contract number and contractor. Include who this directly supports (i.e. Navy, FAA, DOE, Air Force unit, etc.)

Enclosure (5)

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Sample DD Form 1494

APPLICATION FOR EQUIPMENT FREQUENCY ALLOCATION	CLASSIFICATION	DATE	Form Approved OMB No. 0704-0188
			PAGE 1 OF PAGES
<p>The public reporting burden for this collection of information is estimated to average 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704 0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION. RETURN COMPLETED FORM TO THE USING AGENCY OR CONTRACTING AGENCY, AS APPROPRIATE.</p>			
DOD GENERAL INFORMATION			
TO		FROM	
1. APPLICATION TITLE			
2. SYSTEM NOMENCLATURE			
3. STAGE OF ALLOCATION <i>(X one)</i>			
<input type="checkbox"/> a. STAGE 1 - CONCEPTUAL <input type="checkbox"/> b. STAGE 2 - EXPERIMENTAL <input type="checkbox"/> c. STAGE 3 - DEVELOPMENTAL <input type="checkbox"/> d. STAGE 4 - OPERATIONAL			
4. FREQUENCY REQUIREMENTS			
a. FREQUENCY(IES)			
b. EMISSION DESIGNATOR(S)			
5. TARGET STARTING DATE FOR SUBSEQUENT STAGES			
a. STAGE 2		b. STAGE 3	c. STAGE 4
6. EXTENT OF USE			
7. GEOGRAPHICAL AREA FOR			
a. STAGE 2			
b. STAGE 3			
c. STAGE 4			
8. NUMBER OF UNITS			
a. STAGE 2		b. STAGE 3	c. STAGE 4
9. NUMBER OF UNITS OPERATING SIMULTANEOUSLY IN THE SAME ENVIRONMENT			
10. OTHER J/F 12 APPLICATION NUMBER(S) TO BE		11. IS THERE ANY OPERATIONAL REQUIREMENT AS DESCRIBED IN THE INSTRUCTIONS FOR PARAGRAPH 11?	
<input type="checkbox"/> a. SUPERSEDED J/F 12/ <input type="checkbox"/> b. RELATED J/F 12/		<input type="checkbox"/> a. YES <input type="checkbox"/> b. NO <input type="checkbox"/> c. NAVAIL	
12. NAMES AND TELEPHONE NUMBERS			
a. PROGRAM MANAGER		(1) COMMERCIAL	(2) AUTOVON
b. PROJECT ENGINEER		(1) COMMERCIAL	(2) AUTOVON
13. REMARKS			
DOWNGRADING INSTRUCTIONS		CLASSIFICATION	

20 APR 2016

**INSTRUCTIONS FOR COMPLETING DD FORM 1494,
"APPLICATION FOR EQUIPMENT FREQUENCY ALLOCATION"**

GENERAL INFORMATION

CLASSIFICATION: This form must be classified in accordance with appropriate agency security directions. Downgrading instructions must be indicated. The highest classification for each item or sub-item as required must be indicated by a (U), (C), or (S) alongside the item or sub-item title, for classified applications.

APPLICATION PURPOSE: This is an application for development or procurement of equipment with RF emitters. It is not a frequency assignment request for operation of RF emitters. Funds must not be obligated prior to the approval of an application for frequency allocation.

DATA REQUIREMENT: All applicable data items shall be submitted for all stages. Estimated values or ranges of values may be submitted for Stage 1 and 2 in the absence of calculated or measured values and shall be annotated (EST). Values for Stages 3 and 4 should be measured.

STANDARDS: Technical parameters of the application will be evaluated against the appropriate DoD, National and International EMC standards.

REMARKS ITEMS: Use the remarks item located at the bottom of each page of the form to amplify or clarify the entries. Add continuation pages as required.

ABBREVIATIONS:

Hertz	Hz	microseconds	usec
kilohertz	kHz	decibel	dB
megahertz	MHz	dB isotropic	dBi
gigahertz	GHz	pulses per second	pps
milliwatt	mW	parts per million	ppm
watt	W	peak envelope power	PEP
nanoseconds	nsec	not applicable	NA
National	NTIA	not available	NAvail
Telecommunications & Information Administration		occupied bandwidth	OC-BW

HOW TO ASSEMBLE THE FORM:

FOR US COORDINATION:

1. DoD General Information Page
2. Transmitter Page(s)
3. Receiver Page(s)
4. Antenna Page(s)
5. Line Diagram(s)
6. Space Systems Data, if applicable
7. Continuation Page(s) (cross reference pages)
8. NTIA General Information Page

FOR FOREIGN COORDINATION: If this form is used to obtain foreign national frequency supportability comments, see the instructions on the back of the Foreign Coordination General Information Page.

DOD GENERAL INFORMATION PAGE

ITEM 1 - Application Title. Enter the Government nomenclature of the equipment, or the manufacturer's name and model number, and a short descriptive title.

ITEM 2 - System Nomenclature. Enter the nomenclature of the system for which this equipment is a subsystem, e.g., PATRIOT or Global Positioning System.

ITEM 3 - Stage of Allocation. Mark the appropriate block using the following NTIA definitions.

Stage 1 - Conceptual. The initial planning effort has been completed, including proposed frequency bands and other available characteristics.

Stage 2 - Experimental. The preliminary design has been completed, and radiation, using test equipment or preliminary models, may be required.

Stage 3 - Developmental. The major design has been completed, and radiation may be required during testing.

Stage 4 - Operational. Development has been essentially completed, and final operating constraints or restrictions required to assure compatibility need to be identified.

ITEM 4 - Frequency Requirements.

a. Enter the required frequency band(s). For equipment designed to operate only at a single frequency, enter this frequency. Indicate units, e.g., kHz, MHz, or GHz.

b. Enter the emission designator(s) including the necessary bandwidth for each designator, as described in Chapter 9 of the NTIA Manual e.g., 40MOPON. Identify each mode as hopping or non-hopping, e.g. 64MOF3E (Hopping).

Enter in Item 13, "Remarks," any other information pertinent to frequency requirements, such as minimum frequency separation or special relationships involving multiple discrete frequencies.

ITEM 5 - Target Starting Date for Subsequent Stages. Enter proposed date of application submission for each subsequent stage.

ITEM 6 - Extent of Use. Describe extent of use that will apply to Stage 4, e.g., continuous or intermittent. If intermittent, provide information including the expected number of hours of operation per day or other appropriate time period; scheduling capability; and any conditions governing the times of intermittent use, e.g., used only during terminal guidance phase, used only as required for calibration of test range equipment.

ITEM 7 - Geographical Area. Enter geographical location(s) or area(s) of use for this and subsequent stage(s), e.g., Gilfillan Plant, Los Angeles, California, and White Sands Missile Range, New Mexico (Stage 2); US&P (Stage 3); US&P, NATO Countries and Korea (Stage 4). Provide geographical coordinates (degrees, minutes, seconds) if available.

ITEM 8 - Number of Units. Enter total number of units planned for the stage review requested and the subsequent stages.

ITEM 9 - Number of Units Operating Simultaneously in the Same Environment. Enter maximum number of these units planned to be operating simultaneously in the same environment during Stage 4 use.

ITEM 10 - Other J/F 12 Application Number(s). Mark appropriate block(s) and enter J/F 12 number(s) for superseded and/or related application(s).

ITEM 11 - Operational Requirement. If this equipment will operate with the same or similar equipment used by other US Military Services, DoD Components, US Government Agencies or Allied Nations, mark "Yes," and specify in Item 13, "Remarks," the Services, Agencies or countries (to include the country's services).

ITEMS 12 and 13 - Self-explanatory.