



DEFENSE INFORMATION SYSTEMS AGENCY

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DISA CIRCULAR 300-100-1*

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FREQUENCIES

Electromagnetic (EM) Spectrum Management and Use

1. **Purpose.** This Circular prescribes policy, assigns responsibilities, and highlights procedures for electromagnetic (EM) spectrum management and use.

2. **Applicability.** This Circular applies to those elements of the Defense Information Systems Agency (DISA) that plan for, budget for, or utilize EM spectrum. It also provides information for Department of Defense (DoD) Components and other governmental organizations that operate and maintain the Department of Defense information networks (DODIN).

3. **Authority.** This Circular is published in accordance with the authority contained in DoD Instruction (DoDI) 4650.01, Policy and Procedures for Management and Use of the Electromagnetic Spectrum, 9 January 2009.

4. **References.** References are provided in enclosure 1.

5. **Definitions and Glossary of Terms.** Definitions and a glossary of terms are provided in enclosure 2.

6. Policy.

6.1 The management and use of EM spectrum will be considered as part of all planning, research, development, and operational activities for those programs, projects, initiatives, services, or other acquisition matters within DISA that will utilize or affect the use of the EM spectrum. In accordance with DoDI 4650.01, Policy and Procedures for Management and Use of Electromagnetic Spectrum (authority document), all DISA planning that involves use of EM spectrum will address the engineering and management considerations associated with EM spectrum early in the planning stages to ensure spectrum supportability. Specific attention and effort must be devoted to conservation, sharing, and efficient use of EM spectrum. As appropriate, the Radio Regulations of the International Telecommunication Union (ITU) and the National Telecommunications and Information Administration (NTIA) Manual of Regulations and Procedures for Federal Radio Frequency Management, as amended (reference 1) will be followed. For operations outside of the United States and its possessions (US&P), the rules, regulations, and policies established by host nations (HNs) and/or combatant commands may also apply. Requests for waivers to EM spectrum policies and procedures in DoDI 4650.01 should be provided to the Defense Spectrum Organization (DSO), except for waiver requests related to Presidential mission support requirements, which will be handled directly by the White House Communications Agency (WHCA), as specified by the WHCA Trip Requirements Document.

6.2 In accordance with subparagraph 4.e of DoDI 4650.01 (authority document), the DoD Components will identify risks and effect design and procurement decisions for their spectrum-dependent systems via the spectrum supportability risk assessment (SSRA). The SSRA will be reviewed at acquisition milestones, and risks will be managed throughout the system life cycle.

6.3 In accordance with DoDI 4650.01 (authority document), the Military Communications-Electronics Board (MCEB) (renamed Military Command, Control, Communications, and Computers Executive Board [MC4EB] by Chairman of the Joint Chiefs of Staff Instruction [CJCSI] 5116.05, Military Command, Control, Communications, and Computers Executive Board [reference 2]), spectrum support guidance must be obtained before assuming contractual obligations involving development and procurement of telecommunications equipment designed to transmit or receive EM energy. The DISA activity EM spectrum support requirements will be sent through the DSO for introduction and review by the Equipment Spectrum Guidance Permanent Working Group (ESG PWG) of the MC4EB Frequency Panel (FP), as early in the acquisition cycle as practical. After ESG PWG review, a designated Military Department (MILDEP) Spectrum Management Office (SMO) will be designated as the sponsor Service. The sponsor Service SMO PWG will prepare a Host Nation Supportability Worldwide Database Online (HNSWDO) package. The package will be submitted to the ESG PWG Steering Member for approval and release to the appropriate combatant command(s) through HNSWDO for coordination with HNs where the equipment is intended to be deployed.

6.4 The WHCA will obtain, through the respective combatant command or respective American Embassy, HN supportability comments as early as possible prior to development or procurement of any spectrum-dependent equipment or system intended for use within that HN. The WHCA will use the same coordination process to obtain operating frequencies where the equipment is intended to be deployed.

6.5 In accordance with subparagraph 4.d of DoDI 4650.01 (authority document), the DoD Components must obtain United States Government (USG) certification of spectrum support, as required by the NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management (reference 1), prior to authorization to operate for experimental testing, development testing, or operations of spectrum-dependent systems in US&P. As required by Part 2; Section 31; Policies, Laws, and Other General Requirements for Budget Estimates; Office of Management and Budget Circular A-11; as amended (reference 3), USG certification must also be obtained prior to submission of cost estimates.

6.6 Within the US&P, all DISA activity requests for certification of spectrum support must be sent through the DSO to the appropriate MILDEP SMO for submission to the NTIA Spectrum Planning Subcommittee (SPS) for approval.

6.7 Commercial items and off-the-shelf items procured from commercial sources for government use require compliance with DoDI 4650.01 (authority document). In accordance with DoD Directive 8100.02, Use of Commercial Wireless Devices, Services, and Technologies in the Department of Defense (DoD) Global Information Grid (GIG) (reference 4), DoD use of low power wireless devices, such as Institute of Electrical and Electronics Engineers 802.11, local area network equipment, and radio frequency identification systems, must also comply

with DoDI 4650.01 (authority document), if the devices will be interfaced with the DODIN. The Federal Communications Commission (FCC) licenses commercial devices for civil operations in US&P. Use of any spectrum-dependent equipment outside of US&P requires coordination with the appropriate combatant command of the respective HN. In most cases, DoD use of equipment in nonmilitary and/or nongovernment bands will need to operate on a noninterference basis with civil use due to spectrum regulations.

6.8 In accordance with subparagraph 4.f of DoDI 4650.01 (authority document), current and complete technical performance (parametric) data will be captured in DoD spectrum management databases to facilitate planning. The DISA activity technical performance data on spectrum-dependent systems will be provided to DSO, which, in turn, will submit to the appropriate MILDEP SMO throughout the system life cycle.

7. Responsibilities.

7.1 **Director for Defense Spectrum Organization (DSO).** The Director, DSO, is responsible, in accordance with DoDI 4650.01 (authority document), for the overall direction and coordination within DISA for matters pertaining to management and use of EM spectrum. The Director, DSO, will:

7.1.1 Provide DISA representation to the MC4EB FP and an observer to the Interdepartment Radio Advisory Committee (IRAC), to include their subordinate forums, as appropriate, and designate DISA representation in other DoD, national, and international forums pertaining to EM spectrum management and other spectrum-related matters, as appropriate.

7.1.2 Act as the DISA focal point for the development of proposed DoD, national, and international EM spectrum utilization policies, positions, and plans of interest to DISA and DODIN operations, thus ensuring inclusion in DISA planning and programming documents and timely introduction into DoD, national, and international forums concerned with EM spectrum utilization and management.

7.1.3 Ensure efficient utilization of EM spectrum is considered an integral part of all planning, research, development, and engineering activities within DISA.

7.1.4 Ensure engineering and management associated with EM spectrum within DISA are in agreement with the Joint Staff and DoD Chief Information Officer (CIO) guidance; DoD, national, HN, and international regulations; and MC4EB policies and procedures pertaining to EM spectrum utilization and management within DoD.

7.1.5 Serve as the DISA lead in the initial review of the parameters of planned DoD and foreign satellite networks.

7.1.6 Analyze the technical characteristics of newly planned U.S. and foreign satellite networks that are intended for operation in the same frequency bands as present and planned DoD satellites and DoD satellite networks to determine the possibility of interference with

these DoD satellites. (Analyses are to be performed in accordance with the requirements and procedures of DoD, national, HN, and ITU frequency coordination rules and regulations, as appropriate. If analyses show possible interference, mitigation solutions and negotiating positions must be developed to include participation in subsequent correspondence and across-the-table resolution negotiations with technical and regulatory counterparts.)

7.1.7 Serve as a liaison for DISA activities on spectrum support matters for DISA-owned equipment requiring coordination with the MILDEPs and MC4EB, as required.

7.1.8 Evaluate and influence new and emerging spectrum-related technologies to maximize DoD spectrum utilization and ensure spectrum policies accommodate their uses to meet DoD mission requirements. (As appropriate, DSO will coordinate with the Services through forums such as the MC4EB FP.)

7.1.9 Develop and maintain a DoD spectrum management architecture, which is a key component of the DoD Information Enterprise Architecture.

7.1.10 Develop, maintain, and enhance DoD joint standard spectrum management information systems and components, to include DoD spectrum management related databases and analytical tools and capabilities.

7.1.11 Establish and maintain a capability to perform required electromagnetic compatibility (EMC) analyses and studies to support effective use of spectrum-dependent systems in electromagnetic environments (EMEs) and accomplish national security and military objectives, in accordance with DoDI 3222.03, DoD Electromagnetic Environmental Effects (E3) Program (reference 5).

7.2 Component Acquisition Executive (CAE). The CAE will:

7.2.1 Ensure spectrum management requirements unique to DISA acquisitions, if any, are outlined in DISA Instruction (DISAI) 610-225-2, Acquisition Oversight and Management (reference 6); DISAI 270-50-9, Life-Cycle Sustainment Planning (reference 7); and supporting acquisition guidelines.

7.2.2 Ensure spectrum-related issues are coordinated with DSO for all programs, projects, initiatives, services, or other acquisition matters pertaining to the use of spectrum.

7.3 Director for Infrastructure Development Directorate (ID). The Director, ID, will obtain spectrum support for commercial and military satellite earth terminals installed through the DoD Teleport Program.

7.4 Director for Infrastructure Directorate (IE). The Director, IE, will:

7.4.1 Obtain spectrum support for commercial and military satellite earth terminals installed through the Satellite Communications (SATCOM) Program Management Office, as required.

7.4.2 Ensure the information required to complete EM spectrum management data submission requirements to assess and determine spectrum supportability of all commercial fixed and mobile satellite services is available to the warfighter.

7.5 Director for Center for Operations (OPS). The Director, OPS, will:

7.5.1 Create, in the appropriate format, frequency assignment requests for strategic missions, based on information provided by the Telecommunications Service Order, in accordance with DISA Circular (DISAC) 310-130-1, Submission of Telecommunications Service Requests (reference 8) and, for tactical missions, based on information provided by the Satellite Access Authorization (SAA).

7.5.2 Support the review and confirmation of SATCOM frequency assignments by accomplishing the following actions:

7.5.2.1 Forwarding requests to the appropriate MILDEP SMO SPECTRUM XXI (SXXI) Job Account (JA) for satellite frequency assignment coordination.

7.5.2.2 Creating frequency proposals for frequency requests outside of US&P and sending the proposals to the appropriate combatant command for processing, with courtesy copies to the SXXI JA of the appropriate MILDEP SMO.

7.5.2.3 Ensuring maintenance and completeness of OPS-submitted frequency records authorized for use in support of SATCOM and ensuring the frequency proposals are current and properly recorded in the SXXI Frequency Resources Record System (FRRS) and the NTIA Government Master File databases, as appropriate.

7.5.3 Complete all SATCOM frequency actions, as required by the rules and regulations of DoD, the United States, the ITU, and HNs.

7.5.4 Ensure the efficient control of assigned OPS-submitted frequencies, using only authorized frequency, bandwidth, power, and other authorized parameters, as stated in the FRRS.

7.5.5 Provide frequency action requirements to DSO immediately, as soon as requirements are known, to allow time for coordination and approval actions.

7.5.6 Advise DSO of problems related to EM spectrum utilization to obtain assistance in resolution.

7.5.7 Report EM interference on SATCOM, in accordance with requirements in Chairman, Joint Chiefs of Staff Manual (CJCSM) 3320.02D, Joint Spectrum Interference Resolution (JSIR) Procedures (reference 9).

7.6 Commander for White House Communications Agency (WHCA). For Presidential mission support requirements, the Commander, WHCA, in accordance with the WHCA Trip Requirements Document, will:

7.6.1 Ensure planning, engineering, and management requirements associated with EM spectrum are in agreement with the Joint Staff and DoD CIO guidance and DoD, national, HN, and international regulations.

7.6.2 Obtain HN coordination and frequency clearances and support through appropriate combatant command channels or the relevant HN embassy, when applicable.

7.6.3 Create frequency requests for operational missions, for requirements within US&P, based on information provided by Regional SATCOM Support Center SAAs, as well as user Telecommunication Service Requests (TSRs) and telecommunications Requests for Service, in accordance with the WHCA Trip Requirements Document.

7.6.4 Provide the following support for frequency requests outside of US&P:

7.6.4.1 Create frequency proposals and send the proposals to the respective combatant command SMO or HN embassy information management program or office for processing.

7.6.4.2 Maintain approved frequency proposals for use as temporary frequency assignments in WHCA SXXI standalone database.

7.7 Directors, Executives, Commanders, and Chiefs of Major Organizational Elements. These individuals will:

7.7.1 Inform DSO of EM spectrum policy, management, utilization, and related technical issues to be properly addressed within DISA and for timely introduction into DoD, national, and international forums concerned with EM spectrum-related matters.

7.7.2 Provide support, as requested by DSO, in the development of DISA spectrum management and utilization positions for introduction into appropriate DoD, national, and international forums concerned with EM spectrum policy, planning, and day-to-day utilization and management.

7.7.3 Monitor projects being planned and implemented to ensure spectrum supportability is addressed and frequency authorization is obtained within HN(s) where the project product is to be deployed.

7.7.4 Advise DSO of any known problems or changes in frequency utilization regulatory policies or procedures in HNs within their areas of responsibility.

7.7.5 Afford DSO the opportunity to provide EM spectrum policy and utilization guidance before the following actions are taken:

7.7.5.1 Initiation of any actions for development, procurement, deployment, or installation of any equipment, system, or subsystem designed to transmit or receive EM energy.

7.7.5.2 Development of any plans involving changes in EM spectrum requirements within the Defense Information Systems Network (DISN) and the DODIN.

7.7.6 Submit, in accordance with U.S. Strategic Command (USSTRATCOM) Instruction 714-04, Consolidated SATCOM Management Policies and Procedures (C-SMPP) (reference 10), a combatant command validated Satellite Access Request to the appropriate Regional SATCOM Support Center or Global SATCOM Support Center and a Gateway Access Request to the appropriate DISA Regional Contingency and Exercise Branch, when requesting SATCOM and associated DISN services.

7.7.7 Provide current and complete technical performance (parametric) data on DISA procured or developed spectrum-dependent systems to DSO throughout the system life cycle, in accordance with paragraph 4 of enclosure 3 of DoDI 4650.01 (authority document) and Military Communications-Electronics Board (MCEB) Pub 8, Standard Spectrum Resource Format (SSRF) (reference 11), as applicable.

7.7.8 Consider the efficient utilization of EM spectrum in the following:

7.7.8.1 Development of standards for wireless waveform and networking (WWN) technologies, to include dynamic allocation, access, and utilization technologies of EM spectrum, in accordance with DoDI 4630.09, Wireless Communications Waveform Development and Management (reference 12).

7.7.8.2 Planning, engineering, acquiring, and integrating spectrum-related joint, interoperable, secure, agile, and global enterprise solutions to satisfy the needs of the warfighter.

7.7.9 Coordinate with DSO on EM spectrum policy and utilization guidance under the following condition(s):

7.7.9.1 Initiation of any action for WWN technology standards development using or interfering with EM spectrum.

7.7.9.2 Initiation of any action for the development, procurement, or installation of any equipment, system, or subsystem designed to radiate or receive EM energy.

7.7.9.3 Development of any plans involving changes in EM spectrum requirements within the DISN and the DODIN.

7.7.10 Advise DSO of any known problems or changes in EM spectrum utilization, regulatory policy, or procedures in HNs within their areas of responsibility.

8. **Procedures.** Procedures for the management and use of EM spectrum will be implemented within DISA, in accordance with the appendix to enclosure 3 of DoDI 4650.01 (authority document), as applicable. This enclosure contains the procedures regarding certification of spectrum support and authorization to operate for the USG and HNs; spectrum-dependent system technical data; acquisition oversight of spectrum supportability risks; and SSRAs, to include their suggested tasks.

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2 Enclosures a/s

MARK E. ROSENSTEIN
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Chief of Staff

SUMMARY OF SIGNIFICANT CHANGES. This revision clarifies the scope of the Circular to include development and operational activities for those programs, projects, initiatives, services, or other acquisition matters within DISA that will utilize or impact the electromagnetic (EM) spectrum. The task to establish and maintain a capability to perform required electromagnetic compatibility (EMC) analyses and studies to support effective use of spectrum-dependent systems in electromagnetic environments (EMEs) and accomplish national security and military objectives, in accordance with DoDI 3222.03, DoD Electromagnetic Environmental Effects (E3) Program, was added as a Director for Defense Spectrum Organization (DSO) responsibility. The task to ensure spectrum-related issues are coordinated with DSO for programs, projects, initiatives, services, or acquisition matters was added as a Component Acquisition Executive (CAE) responsibility. The tasks previously assigned to the Director for Program Executive Office – Satellite, Teleport, and Services (PEO-STS) were separated and reassigned to the Director for Infrastructure Development (ID) and the Director for Infrastructure (IE), due to the DISA reorganization and the standdown of the PEO-STS Directorate. The tasks previously assigned to the Director for GIG Enterprise Service Engineering (GE) were reassigned to the Directors, Executives, Commanders, and Chiefs of major organizational elements due to the DISA reorganization and the standdown of the GE Directorate.

*This Circular replaces DISAC 300-100-1, 21 June 2010, and must be reissued, canceled, or certified current within 5 years of its publication. If not, it will expire 10 years from its publication date and be removed from the DISA issuances postings.

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DISTRIBUTION: P

Enclosure 1

REFERENCES

1. NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management (Redbook), as amended.
<http://www.ntia.doc.gov/osmhome/redbook/redbook.html>.
2. CJCSI 5116.05, Military Command, Control, Communications, and Computers Executive Board, 23 April 2014.
3. Office of Management and Budget Circular A-11, Preparation, Submission, and Execution of the Budget, as amended, July 2014.
4. DoDD 8100.02, Use of Commercial Wireless Devices, Services, and Technologies in the Department of Defense (DoD) Global Information Grid (GIG), 14 April 2004.
5. DoDI 3222.03, DoD Electromagnetic Environmental Effects (E3) Program, 25 August 2014.
6. DISAI 610-225-2, Acquisition Oversight and Management, 19 February 2015.
7. DISAI 270-50-9, Life-Cycle Sustainment Planning, 5 May 2015.
8. DISAC 310-130-1, Submission of Telecommunications Service Requests, 19 August 2009.
9. CJCSM 3320.02D, Joint Spectrum Interference Resolution (JSIR) Procedures, 3 June 2013.
10. USSTRATCOM Instruction 714-04, Consolidated SATCOM Management Policies and Procedures (C-SMPP), 15 October 2007.
<https://vela.stratcom.smil.mil/rel/Publications/Pubs%20Document/SIs/714-04.pdf>
11. MCEB Pub 8, Standard Spectrum Reference Format, 26 April 2012.
https://software.forge.mil/sf/docman/do/listDocuments/projects.pub_8_ssrf/docman.root.requirements.diagrams?uri=/sf/docman/do/listDocuments/projects.pub_8_ssrf/docman.root.requirements.diagrams
12. DoDI 4630.09, Wireless Communications Waveform Development and Management, 3 November 2008.

Enclosure 2

DEFINITIONS AND GLOSSARY OF TERMS

Certification of Spectrum Support. Certification by the National Telecommunications and Information Administration (NTIA) that a candidate system conforms to the United States and its possessions (US&P) spectrum allocation scheme. Requirements for obtaining spectrum support for new telecommunications systems or major modifications of an existing system are found in chapter 10 of the NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management. Some host nations have similar certification, but requirements vary.

Electromagnetic Compatibility (EMC). The ability of systems, equipment, and devices that utilize the electromagnetic (EM) spectrum to operate in their intended operational environments without suffering unacceptable degradation or causing unintentional degradation because of EM radiation or response. It involves the application of sound EM spectrum management; system, equipment, and device design configuration that ensures interference-free operation; and clear concepts and doctrines that maximize operational effectiveness.

Electromagnetic Environment (EME). The resulting product of the power and time distribution, in various frequency ranges, of the radiated or conducted EM emission levels that may be encountered by a military force, system, or platform when performing its assigned mission in its intended operational environment. It is the sum of EM interference; EM pulse; hazards of EM radiation to personnel, ordnance, and volatile materials; and natural phenomena effects of lightning and precipitation static.

Electromagnetic Environmental Effects (E3). The impact of the electromagnetic environment (EME) on the operational capability of military forces, equipment, systems, and platforms. E3 encompasses the EM effects addressed by the disciplines of electromagnetic compatibility (EMC), electromagnetic interference (EMI), electromagnetic (EM) vulnerability, EM pulse, electronic protection, electrostatic discharge, and electromagnetic radiation (EMR) hazards to personnel, ordnance, and fuels or volatile materials. E3 includes the effects generated by all EME contributors, including radio frequency (RF) systems, ultra-wideband devices, high-power microwave systems, lightning, and precipitation static. This term and its definition are proposed for modification in the next edition of Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms.

Electromagnetic Interference (EMI). Any electromagnetic (EM) disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of telecommunications equipment being operated in compliance with applicable rules and regulations. It can be induced intentionally, as in some forms of electronic warfare, or unintentionally, as a result of spurious emitter emissions, poor receiver selectivity, intermodulation products, improperly coordinated frequency assignments, or a combination of these and other factors.

Electromagnetic (EM) Spectrum. In accordance with Joint Publication 1-02, the range of frequencies of EM radiation from zero to infinity. For the purposes of this Circular, the "electromagnetic spectrum" is defined as the range of frequencies of EM radiation that has

been allocated for specified services under the United States and international tables of frequency allocation, together with the EM spectrum outside the allocated frequency range where use of unallocated frequencies could cause harmful interference with the operation of any services within the allocated frequency range. The terms "electromagnetic spectrum," "radio frequency spectrum," and "spectrum" will be synonymous.

Federal Communications Commission (FCC). An independent United States Government (USG) agency established by the Communications Act of 1934. It is charged with regulating interstate and international communications by radio, television, wire, satellite, and cable. The jurisdiction of FCC covers the fifty states, the District of Columbia, and the United States and its possessions (US&P).

Frequency Allocation. The designation of a given segment of the electromagnetic (EM) spectrum for specific use by one or more radio communication services, or noncommunications uses, under specified conditions. Radio astronomy, industrial, scientific, medical, etc., are in the noncommunications category.

Frequency Assignment. The authorization given by an administration for a radio frequency (RF) transmitter or receiver to use a specific RF or RF channel, under specified conditions (e.g., geographical location or area, radiated power, antenna directivity, bandwidth, modulation technique, and other operational parameters).

Frequency Panel (FP). One of the several panels which supports the Military Command, Control, Communications, and Computers Executive Board (MC4EB). The panel consists of a member from each interested Service or Agency, which has representation on the MC4EB, plus observers from selected agencies. Historically, membership has included representatives from the Army, Navy, Air Force, Marine Corps, Coast Guard, DISA, National Security Agency (NSA), DoD Chief Information Officer (CIO), and Joint Staff (J6) on behalf of the Joint Staff and combatant commands. Its mission is to review, develop, and coordinate studies, reports, and DoD positions for consideration by the MC4EB in the areas of radio wave propagation, electromagnetic (EM) compatibility, as well as engineering and management associated with EM spectrum. It is supported by several permanent working groups.

Host Nation (HN). A nation that receives the forces and/or supplies of allied nations, coalition partners, and/or North Atlantic Treaty Organization (NATO) organizations to be located on, to operate in, or to transit through its territory.

Host Nation Spectrum Worldwide Database Online (HNSWDO). A web application that facilitates warfighter deployment and communications by providing worldwide visibility of host nation radio frequency (RF) spectrum dependent equipment's supportability.

Interdepartment Radio Advisory Committee (IRAC). An advisory committee to the National Telecommunications and Information Administration (NTIA) within the Department of Commerce. Committee members include representatives of 19 federal departments/agencies, including the three Military Departments (MILDEPs). Its basic functions are to assist in assigning frequencies to United States Government (USG) radio stations and in developing and

executing policies, programs, procedures, and technical criteria pertaining to the allocation, management, and use of electromagnetic (EM) spectrum for USG users. These actions are recommendations, subject to NTIA approval.

Job Account (JA). A construct within SXXI software for identifying a single job. Each JA consists of a job name, a job password, and an optional default Oracle server account name. The JAs determine edit authority for frequency proposals. The JAs are unique within the entire SXXI network.

Military Command, Control, Communications, and Computers Executive Board (MC4EB). In accordance with DoD Directive 5100.35, Military Communications-Electronics Board (MCEB), a chartered flag rank organization whose mission is to (1) obtain coordination on military communications-electronics (C-E) matters among DoD Components, between DoD and other governmental departments and agencies, and between DoD and representatives of foreign nations; (2) provide guidance and direction to DoD Components; and (3) furnish advice and assistance, as requested, on military C-E matters to the Secretary of Defense, the Joint Chiefs of Staff, Military Departments (MILDEPs), and other DoD Components. There are three levels within the MC4EB structure: the Principals (an O-9 level forum), the Deputies (an O-7/O-8 level forum), and the Coordinators (an O-6 level forum). The MC4EB is supported by several panels, one of which is the Frequency Panel (FP). The Military Communications-Electronics Board (MCEB) was renamed MC4EB by CJCSI 5116.05, Military Command, Control, Communications, and Computers Executive Board.

National Telecommunications and Information Administration (NTIA). As an operating unit of the Department of Commerce, the NTIA serves as the President's principal advisor on U.S. telecommunications policies. The NTIA Office of Spectrum Management has the responsibility for radio frequency utilization by United States Government (USG) stations. This includes the establishment of policies concerning radio spectrum allocation and use, the assignment of frequencies consistent with these policies, and guidance to ensure the conduct of U.S. telecommunications activities is consistent with these policies. The NTIA is supported by the Interdepartment Radio Advisory Committee (IRAC).

Request for Service (RFS). The document, used to initially request telecommunications service, submitted by the requester of the service to their designated Telecommunications Certification Office (TCO).

Spectrum-Dependent Systems. All electronic systems, subsystems, devices, and/or equipment that depend on the use of electromagnetic (EM) spectrum to properly accomplish their function(s) without regard as to how they were acquired (full acquisition, rapid acquisition, Joint Concept Technology Demonstration, etc., or procured commercial off-the-shelf, government off-the-shelf, nondevelopmental items, etc.).

Spectrum Management. The planning, coordinating, and managing of the joint use of electromagnetic (EM) spectrum through operational, engineering, and administrative procedures. The objective of spectrum management is to enable electronic systems to perform their functions in the intended environment without causing or suffering unacceptable interference.

Spectrum Requirements. In accordance with the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6212.01F, Net Ready Key Performance Parameter (NR KPP), the determination as to whether electromagnetic (EM) spectrum necessary to support the operation of spectrum-dependent equipment or system during its expected life cycle is, or will be, available (that is, from system development, through developmental and operational testing, to actual operation in the EM environment). The assessment of equipment or system as having "spectrum requirements" is based upon, as a minimum, receipt of equipment spectrum certification, reasonable assurance of the availability of sufficient frequencies for operation, and consideration of electromagnetic compatibility (EMC).

Spectrum Supportability Risk Assessment (SSRA). Risk assessment performed by DoD Components for all spectrum-dependent systems to identify risks as early as possible and affect design and procurement decisions. These risks are reviewed at acquisition milestones and are managed throughout the system's life cycle.

SPECTRUM XXI (SXXI). A client/server software system, interconnected through a wide area network, which provides frequency managers with a single information system that addresses DoD and U.S. Federal Agencies spectrum management automation requirements.

Telecommunications Certification Office (TCO). The activity designated by a federal department or agency to certify to DISA (as an operating agency of the National Communications System [NCS]) that a specified telecommunications service or facility is a validated, coordinated, and approved requirement of the department or agency and that the department or agency is prepared to pay mutually acceptable costs involved in the fulfillment of the requirement.

Telecommunications Service Request (TSR). A valid, approved, and funded telecommunications requirement prepared in accordance with the format in chapter C3 of DISA Circular 310-130-1, Submission of Telecommunications Service Requests, and submitted to DISA or DISA activities for fulfillment. A TSR may not be issued except by a specifically authorized Telecommunications Certification Office (TCO).

CAE	Component Acquisition Executive
CIO	Chief Information Officer
C-SMPP	Consolidated SATCOM Management Policies and Procedures
DISA	Defense Information Systems Agency
DISAC	DISA Circular
DISAI	DISA Instruction
DISN	Defense Information Systems Network
DoD	Department of Defense
DoDI	Department of Defense Instruction
DODIN	Department of Defense information networks
DSO	Defense Spectrum Organization
EM	electromagnetic
EMC	electromagnetic compatibility
EME	electromagnetic environment

EMI	electromagnetic interference
EMR	electromagnetic radiation
ESG PWG	Equipment Spectrum Guidance Permanent Working Group
E3	electromagnetic environmental effects
FCC	Federal Communications Commission
FP	Frequency Panel
FRRS	Frequency Resources Record System
GIG	Global Information Grid
HN	host nation
HNSWDO	Host Nation Spectrum Worldwide Database Online
ID	Infrastructure Development Directorate
IE	Infrastructure Directorate
IRAC	Interdepartment Radio Advisory Committee
ITU	International Telecommunication Union
JA	job account
JSIR	Joint Spectrum Interference Resolution
MCEB	Military Communications-Electronics Board
MC4EB	Military Command, Control, Communications, and Computers Executive Board
MILDEP	Military Department
NR KPP	Net Ready Key Performance Parameter
NTIA	National Telecommunications and Information Administration
OPS	Center for Operations
RF	radio frequency
RFS	request for service
SAA	Satellite Access Authorization
SATCOM	satellite communications
SMO	Spectrum Management Office
SPS	Spectrum Planning Subcommittee
SSRA	spectrum supportability risk assessment
SSRF	Standard Spectrum Resource Format
SXXI	SPECTRUM XXI
TCO	Telecommunications Certification Office
TSR	Telecommunications Service Request
USG	United States Government
US&P	United States and its possessions
WHCA	White House Communications Agency
WNN	wireless waveform and networking