



United States Department of the Interior

NATIONAL PARK SERVICE
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DIRECTOR'S ORDER #15: NPS FREQUENCY MANAGEMENT GUIDANCE FOR RADIO COMMUNICATIONS, ELECTRONICS, AND WIRELESS SYSTEMS

Approved: Jonathan S. Jarvis
Director

Effective Date: Feb 4, 2015

Duration: This order will remain in effect until amended or rescinded

This Director's Order, along with its [Reference Handbook 15](#) (RH-15), replaces Director's Order #15: NPS Wireless Spectrum, dated November 8, 1999; and complies with Director's Order #11A: Information and Technology Management policy.

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1. Purpose

The purpose of this Director's Order is to set forth the instructions, guidance, and requirements for National Park Service managers to obtain and maintain effective radio frequency dependent telecommunications and information systems that are required to comply with all relevant standards and authorities. This Order also designates the Associate Director for Information Resources as the National Park Service authority for the approval process for telecommunications facilities proposed by commercial service providers (i.e., cellular, Wi-Fi, broadband) to be sited on National Park Service administered lands.

2. Authority

Authority to issue this Order is contained in 54 USC 100101(a) *et seq.* (commonly known as the National Park System Organic Act), and Part 245 of the Department of the Interior Manual. In addition, the National Park Service (NPS) must comply with 47 USC 305, which provides that Government stations "shall use such frequencies as shall be assigned to each or to each class by the President . . . and shall conform to such rules and regulations designed to prevent interference with other radio stations and the rights of others as the Federal Communications Commission may prescribe."

This Director's Order is intended only to improve the internal management of the NPS and is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its department, agencies, instrumentalities or entities, its officers or employees, or any other person.

3. Background

The Communications Act of 1934 (Act) provided for the regulation of interstate and foreign commerce in communication by wire and radio "...so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nationwide, and world-wide wire and radio communication service, with adequate facilities at reasonable charges, for the purpose of the national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication...". The Act also created the Federal Communications Commission to execute and enforce the provisions of that Act.

Section 305(a) of the Act vested authority in the President to assign frequencies to radio stations or to classes of radio stations belonging to and operated by the United States, including the authority to amend, modify, or revoke such assignments. Within the Executive Branch, the function was subsequently transferred to the Director of the Office of Telecommunications Policy, and most recently, to the Secretary of Commerce and the National Telecommunications and Information Administration (NTIA). NTIA maintains the radio frequency database known as the Government Master File (GMF) for all Federal agencies.

The regulations governing radio frequency management are found in the Department of Commerce publication, "Manual of Regulations & Procedures for Federal Radio Frequency Management." The Department of the Interior (DOI) and its bureaus and offices must comply with the processes and procedures provided in that manual. Agency specific guidelines, processes, and procedures for NPS are to be found in the Department of the Interior's Manual 377 (DM 377), NPS RH-15, and also comport with any applicable future policies.

As summarized in DM 377:

The National telecommunication policies are designed to achieve national objectives as an essential role of the Federal Government. Telecommunication policies are made by the Congress, the courts, the President, and the Assistant Secretary of Commerce for Communications and Information "for federal agencies" and the Federal Communications Commission (FCC) - for the public. Policy is also made through treaties

to which the United States adheres with the advice and consent of the Senate, through executive agreements, by executive departments and agencies in the discharge of their telecommunication responsibilities, and by custom and precedent. These policies may be separated into three categories: (1) national telecommunication policy; (2) telecommunication policy applying to the agencies and establishments of the Federal Government; and (3) FCC telecommunication policy.

This Order focuses on the second category, which applies to Federal agencies.

4. Instructions and Requirements

4.1 General

NPS superintendents, program managers, project managers, center managers, and the United States Park Police (USPP) must be aware of the basic requirements for radio frequency (spectrum) management, which are established by the Federal government's Interagency Radio Advisory Committee (IRAC), NTIA, and its associated subordinate subcommittees and working groups.

4.2 Delegation of Authority

The Service's Radio Program Manager is the Associate Director for Information Resources (ADIR), who is responsible for coordinating with DOI, NTIA, FCC and other Federal agencies to ensure that NPS is compliant in all matters related to radio frequency (spectrum) management. This delegation and responsibility cover such areas as: regulatory compliance, engineering compliance, communication-electronics systems analysis, interference resolution, radio systems resource sharing, technical review of equipment acquisition with DOI systems specifications, and appropriate application of other telecommunications services as needed.

Each region and the USPP will designate an Information Officer and full-time Radio Program Manager responsible for all radio operations within their respective parks, field offices, and centers. In turn, each park, field office or center will designate a Radio Coordinator who will have this responsibility assigned as a collateral duty to assist the NPS Radio Program Manager and their respective park units, field offices, and centers to ensure compliance with radio frequency (spectrum) management policies and procedures.

4.3 Areas of Responsibility

4.3.1 Requirements Analysis

A requirements analysis must be conducted to show a need for either initial or additional radio frequency support. This can be conducted at the program, project, center, and park level. The analysis is required where radio systems are being designed, purchased, upgraded, or replaced. Where radio systems are supportive of critical mission requirements, or otherwise necessary for the safety of life and property, NPS managers may recommend establishing such facilities. Assistance in conducting a requirements analysis and determining sharing opportunities with

other parks, agencies, or jurisdictions can be obtained by contacting the Service's Radio Program Management Division (RPMD). See RH-15.

4.3.2 Standards

The Association of Public Safety Communications Officials International (APCO) has developed standards for radio equipment to ensure multiple vendor products are compatible and interoperate for Land Mobile Radio (LMR) and Public Safety Communications. The APCO Project 25 (P25) Standards were adopted by the DOI and its bureaus in 1996. In 1998, the Electronics Industries Association (EIA) and the Telecommunications Industry Association (TIA) agreed on the Project 25 standards and adopted them under a new name: EIA/TIA-102 standards. These standards apply to all DOI bureaus. See RH-15.

Other EIA and TIA standards apply for other communications and electronics equipment, systems and networks (i.e. microwave, traveler information stations, hydrological systems, supervisory control and data acquisition systems, etc.). Most of these standards are incorporated and identified in the [Manual of Regulations and Procedures for Federal Radio Frequency Management](#) (The NTIA Manual). See RH-15.

Additionally, in 2008, the DOI and its bureaus adopted the Motorola R-56 Standards and Guidelines for Communication Sites. These standards and guidelines are to be applied to all NPS new communications site development and restoration projects as much as feasibly and practically possible. See RH-15.

4.3.3 Radio System Sharing

In compliance with recommendations from the General Accounting Office (GAO), radio system sharing may present a cost-effective alternative to funding new, or upgrading single agency systems. These practices promote conservation of limited frequency resources. DOI and its bureaus advocate radio system sharing among Federal, State, local and tribal partners and cooperators; and the use of commercially available radio services whenever practical and cost-effective. Guidance pertaining to radio system sharing can be found in the DOI [Information Resources Management Bulletin 1998-002](#), dated June 4, 1998, and the DOI's [Office of the Chief Information Officer \(OCIO\) Directive 2005-010](#), dated June 28, 2005.

4.3.4 Regulatory Compliance

Superintendents and managers of parks, regional offices, programs, and projects will work with the RPMD to ensure that all planning is in compliance with the requirements of the NTIA, the DOI, this Order, the park's authorizing legislation and applicable plans, and other applicable statutes, regulations, and policies.

The Code of Federal Regulations (CFR) requires all "licensees to take reasonable precautions to avoid causing harmful interference. This includes monitoring the transmitting frequency for communications in progress and such other measures as may be necessary to minimize the potential for causing interference." 47 CFR 90.403(e)

4.3.5 Acquisition of Frequency Dependent Systems

If a bureau uses radio frequencies to accomplish its mission it **must** obtain licensed frequency assignments in advance. As stated in the DOI's Office of the Chief Information Officer (OCIO) Directive 2008-019 requires all bureaus within the DOI procuring any equipment, *regardless of cost*, that uses radio frequencies to accomplish its task, have licensed frequency assignments *prior to* acquiring new or repurposing existing radio equipment. This requirement applies to "all communications-electronics systems or devices that require radio frequency assignments/licenses."

Exemptions. Exemptions from this policy are low power, non-licensed, commercial off-the-shelf (COTS) devices such as cellular phones, satellite phones, blackberries, wireless air cards, and non-licensed wireless LANs authorized to operate under 47 CFR 15, Global Positioning Systems (GPS), Navigational and Location Beacons. These devices do not require frequency assignments.

Additionally, as stated in NPS Contracting Officer Technical Instruction (COTI) 1443.07-02, all procurements of communications-electronics equipment requiring frequency authorizations/assignments must be approved by RPMD prior to obligation of funding. This approval must be electronically documented and accompany the purchase request. When new requirements are being planned, an estimate of the lead time required to obtain the frequency assignment from the NTIA should be requested during the planning process to ensure adequate time to obtain frequency assurance prior to placing an order for goods (equipment) or services.

See RH-15 for examples of procurement documentation.

4.3.6 System Compliance

4.3.6.1 Avoiding Interference

As summarized in Chapter 10, Paragraph 10.1.1 of the NTIA Manual:

NPS and all federal agencies planning the use of, conducting experiments relating to, or developing and procuring telecommunication systems requiring the use of radio frequencies must take all reasonable measures to ensure that such systems will neither cause nor receive harmful interference to or from other authorized users when placed in their intended operational environments. In planning telecommunication systems within the scope of this procedure, federal agencies will develop systems for operational use in accordance with the applicable portions of the National Tables of Frequency Allocations and the provisions identified in the NTIA Manual, unless an exception is recommended by the IRAC's Spectrum Planning Subcommittee (SPS) and approved by NTIA.

4.3.6.2 Satisfying OMB Circular A-11

In Chapter 10, Paragraph 10.1.2 of the NTIA Manual, OMB Circular No. A-11 specifies in Section 33.4:

You must obtain a certification by the National Telecommunications and Information Administration, Department of Commerce that the radio frequency required can be made available before you submit estimates for the development or procurement of major radio spectrum-dependent communications-electronics systems (including all systems employing space satellite techniques).

NTIA certification of spectrum support can be obtained using the procedures in Chapter 10 of the NTIA Manual. The matter of preparation and submission to OMB of budget estimates for federal systems is covered in Section 8.2.5.

4.3.6.3 Non-Licensed Devices

As stated in Chapter 10, Paragraph 10.3.7 of the NTIA Manual:

Federal policy for non-licensed devices is covered in the Code of Federal Regulations (CFR) Parts 7.8 and 7.9 and such devices will normally not be considered for the purpose of spectrum planning review procedure. Plans or proposals to operate non-licensed devices in space, however, shall be submitted to the SPS for record (this information should be submitted via a short memorandum and include the frequency bands, Part 15 FCC ID number if applicable, and how the equipment will be used). Agencies can request that information on a non-licensed device, regardless of whether it is to be used in a terrestrial application or in space, shall include a justification for SPS consideration of such a device.

4.3.7 Land Mobile Radio Systems

The principal method of communicating by wireless “push-to-talk” communications in the NPS will be by utilizing internal or external (cooperators and partners) owned and operated land mobile radio systems. The development, installation, maintenance, and utilization of these radio systems is essential to ensure that critical, life safety missions and incident responders have unrestricted access to reliable radio communications, designed specifically to meet the geographic service area managed by NPS employees and their cooperators. In park operations, the use of commercial services may be utilized to supplement the Service’s systems and operational requirements for interoperability amongst law enforcement, public safety and other management functions.

For specific requirements pertaining to law enforcement communications refer to Department of the Interior’s Manual 446, Chapter 16, (446 DM16), entitled: “Law Enforcement Radio and Telecommunications Systems” and NPS Reference Manual 9 (RM-9), Chapter 40.

4.3.8 Commercial Telecommunication Services

The use of commercially available services (i.e., cellular service, broadband, etc.) is encouraged as an adjunct to park radio communications systems for mission critical and non-mission critical activities where NPS and cooperators owned and operated LMR systems cannot provide such

service. NPS personnel should be aware that with commercial services there are “no provisions for priority access” for any government entity regardless of the level of government (local, State or Federal), or the nature of the emergency. Commercial service providers offer these services on a first-come, first-serve basis to all of their subscribers. To obtain priority service one must apply for Wireless Priority Service (WPS) at <https://www.dhs.gov/wireless-priority-service-wps>, or for emergency service one must apply for Government Emergency Telecommunications Service (GETS) at <http://www.dhs.gov/government-emergency-telecommunications-service-gets>.

4.3.9 Commercial Telecommunication Facilities

As stated in paragraph 10.2.2 of Director’s Order #53: Special Park Uses:

A wireless telecommunication facility is authorized [on NPS administered land] using a right-of-way permit. Statutory authority to issue a permit authorizing a wireless telecommunication facility is found at 16 U.S.C. 5. When considering a request for a telecommunication facility, the Superintendent will consider the entire footprint of the facility including, but not limited to, the tower, any equipment buildings, power and telephone lines, and means of access.

Applications for wireless communication facilities should only be accepted from a FCC licensee authorized to provide the proposed service(s) in the specific area or from a Federal agency with authorization from the National Telecommunication and Information Agency, part of the Department of Commerce. In addition, applications for wireless communication facilities must be processed, as closely as possible, according to the timeline and steps enumerated in Reference Manual 53.

Currently, WiFi (wireless fidelity or wireless local area network) does not utilize a licensed portion of the Federal spectrum. If the park receives a request for installation of WiFi equipment on parklands, staff should consult the Regional Information Officer and the Washington Special Park Uses Program Manager.

The Service’s Radio Program Management Division (RPMD) is responsible for providing technical expertise in the area of system review and analysis for commercial telecommunication towers and systems for “all” right-of-way applications. Applications may not be approved before review, analysis and clearance by the RPMD. The RPMD is also responsible for resolving any and all radio signal interference issues that arise once the commercial telecommunication facility is approved, and becomes operational.

Managers are encouraged to use commercial telecommunications facilities and related infrastructure where applicable, as long as the facilities comply with DOI and NPS standards and guidelines for communications sites.

The following information must be provided by the applicant in order for the RPMD to evaluate the potential for radio signal interference:

1. Telecommunications System Diagram
2. System Specifications Data
3. Antenna Specification Data
4. FCC Issuance of Radio Frequency Licenses
5. Radio Frequency Interference Analysis
6. Radio Propagation Signal Strength Map
7. Antenna/Tower Placement Map
8. Antenna/Tower Structural Analysis

4.4 Frequency Request Applications

As stated above, each region and the USPP will designate a Radio Program Manager (RPM), or Radio Coordinator (RRC), who is responsible for obtaining, coordinating, generating, and reviewing all operational and administrative parameters for the radio frequency applications (frequency proposals) for their area of responsibility (i.e. park units, field offices, and centers). All frequency request applications must be submitted to the RPMD in the applicable format deemed by RPMD via electronic means. Geographical map depicting system layout, detailed system (schematic) diagrams, and associated documentation necessary to articulate the frequency requirement “must” accompany the frequency request applications for the package to be complete.

See RH-15 for specific details pertaining to procedures for submitting frequency request applications.

4.5 Frequency Assignment Issuance

When a frequency proposal has been successfully reviewed, approved, and licensed to operate by NTIA, a radio frequency assignment (RFA) will be posted in the Federal Government’s Frequency Management System and the RPMD will issue the license (record) to the requesting NPS organization.

Per the NTIA Manual, all operational and administrative parameters, as well as any applicable restrictions identified in the assignment licensed record “must” be adhered to, in efforts of preventing unauthorized emission which may cause harmful interference to authorized licensed user within radio line-of-sight (RLOS).

See RH-15 for specific details pertaining to the policy and procedures for frequency assignment issuance.

4.6 Frequency Assignment Review

As stated in paragraph 8.2.6 of the NTIA Manual:

Each federal agency shall maintain a program of continuing review of frequency assignments to its radio stations and shall delete or amend such assignments as appropriate. The objectives of this program are:

- a) to ensure that frequency assignments are in current use and are correctly reflected in the Government Master File (GMF),
- b) to ensure that frequency assignments are required for continued operations for the purpose stated in their justification, and
- c) to ensure that frequency assignments are still qualified for authorization under the provisions of the regulations contained in the NTIA Manual.

Each assignment shall be reviewed in the manner specified in Annex F of the NTIA Manual, unless by the terms of its authorization it is subject to review more frequently.

Radio frequency assignments will be reviewed every five (5) years. See RH-15 for specific details pertaining to the policy and procedures for frequency assignment review.

4.7 Frequency Assignment Security

Public release of radio frequency assignments authorized and maintained for tactical and operational law enforcement activities could cause serious harm to NPS law enforcement operations. The frequency information associated with law enforcement operations are specifically exempted from release under the Freedom of Information Act (FOIA), 5 USC 552.

FOIA requests for radio frequency data should be forwarded immediately to the NPS FOIA Officer for processing. The NPS FOIA officer will work with the appropriate law enforcement office(s) and the Solicitor's office prior to issuing any response to requests for law enforcement frequency data. FOIA requests for wildlife telemetry frequency data will be coordinated with the U.S. Fish and Wildlife Service (FWS) National Communications Center in Denver, the FWS FOIA Officer and the Solicitor before preparing any response.

4.8 Records Management

The policy and guidance in this section is (1) covered by Director's Order #11D: Records and Electronic Information Management and the accompanying Records and Electronic Information Management (REIM) Guide, and (2) applies to paper and electronic records.

Effective, January 6, 2012, all NPS units are encouraged to maintain records electronically, but must develop a document recordkeeping system before doing so, and confirm a sound IT infrastructure ensuring adequate space, access, and redundancies. Existing paper records should not be transferred to digital format unless they require special access.

The Information Resources Directorate will establish a documented record keeping systems as part of an overall records management process to meet their business needs, and to facilitate fulfilling their records management responsibilities, with particular attention to the standards of accessibility.

4.8.1 Management Rosters

The RPMD will retain and update as needed a roster of Servicewide radio program managers and radio coordinators. Each regional office, park, and the USPP should keep local rosters of their

respective managers and coordinators, and should update the Servicewide Radio Program Manager when appropriate. When superseded, a copy of each roster will be kept as a Federal record.

4.8.2 Requirements Analysis

Requirements analyses are considered ‘Non-Permanent Facilities and Maintenance Program Records,’ and should be destroyed/deleted 15 years after completion in accordance with Director’s Order #11D and the REIM Guide. Copies of records related to radio frequency dependent systems requirements documentation, such as Statements of Work (SOW) and Request for Proposals, must be submitted to the RPMD.

4.8.3 Radio System Sharing

Records related to radio system sharing, such as ‘system sharing agreements,’ are considered ‘Non-Permanent Facilities and Maintenance Program Records,’ and should be destroyed/deleted 15 years after completion or supersession, whichever occurs first, in accordance with Director’s Order #11D and the REIM Guide. Copies of records related to radio system sharing must be submitted to the RPMD.

4.8.4 Frequency Assignment Issuance

The recordkeeping responsibility of these records belongs to the Department of Commerce. All information submitted into the Government Master File may be destroyed/deleted when no longer needed or superseded. After successful review, approval, and licensing to operate by NITA a radio frequency assignment will be issued to the requesting NPS. Once issued, the NPS organization must display the license (record) in/or about the location of the authorized transmitting system until superseded; these documents are considered ‘Routine and Supporting Documentation’ and may be destroyed only when superseded, in accordance with Director’s Order #11D and the REIM Guide.

4.8.5 System Compliance – Avoiding Interference

Records related to avoiding interference, such as an ‘interference analysis,’ are considered ‘Non-Permanent Facilities and Maintenance Program Records,’ and should be destroyed/deleted 15 years after completion in accordance with Director’s Order #11D and the REIM Guide. Copies of records related to interference analysis and/or reporting must be submitted to the RPMD.

4.8.6 Frequency Request Applications

Records related to radio frequency request applications, such as geographical map depicting system layout, detailed system (schematic) diagrams, and associated documentation necessary to articulate the frequency requirement are considered ‘Non-Permanent Facilities and Maintenance Program Records,’ and should be destroyed/deleted 15 years after completion or superseded, whichever occurs first in accordance with Director’s Order #11D and the REIM Guide.

4.8.7 Frequency Assignment Review

Records related to frequency assignment reviews are considered 'Non-Permanent Facilities and Maintenance Program Records,' and should be destroyed/deleted 15 years after completion, in accordance with Director's Order #11D and the REIM Guide.

4.8.8 Exemptions

Exemptions to this policy are considered 'Routine and Supporting Documentation' and should be destroyed/deleted 3 years after issuance, in accordance with Director's Order #11D and the REIM Guide.

4.9 Additional References/Information

For more information, contact the WASO Information Resources Directorate, Radio Program Management Division. Further information relating to the management of radio communications and other communications-electronics systems may be found in RH-15.

----- End of Director's Order -----