U.S. Government Disaster Communications and Spectrum Management

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Scott E. Jackson
Chairperson - Emergency Planning Subcommittee
NTIA Office of Spectrum Management

Overview

- Presidential Policy Directive-8
- National Response Framework (NRF)
- NRF - Emergency Support Functions
- National Disaster Recovery Framework (NDRF)
- NDRF – Recovery Support Functions
- Emergency Support Function #2 (ESF#2)
- FEMA Disaster Emergency Communications
- Other Disaster Communications Resources
- NTIA Regulations Supporting Emergency Planning
- NTIA Plans for Federal Interoperability
- NTIA Response Role – Emergency Support Function #2

Presidential Policy Directive-8

Presidential Policy Directive / PPD-8 is aimed at strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the nation, including acts of terrorism, cyber attacks, pandemics, and catastrophic natural disasters.

Presidential Policy Directive / PPD-8: National Preparedness recognizes that preparedness is a shared responsibility. It calls on federal departments and agencies to work with the whole community around six elements:

- Goal
- Approach
- Frameworks
- Annual Report
- Federal Plans
- Build and Sustain Preparedness

In the U.S., the national agency responsible for coordinating Disaster Response and Recovery is the Federal Emergency Management Agency (FEMA).

National Response Framework

- The National Response Framework (NRF) is a guide to how the nation responds to all types of disasters and emergencies. It is built on scalable, flexible, and adaptable concepts identified in the [National Incident Management System](#) to align key roles and responsibilities.

- The NRF is structured to help jurisdictions, citizens, nongovernmental organizations and businesses:
  - Develop whole community plans
  - Integrate continuity plans
  - Build capabilities to respond to cascading failures among businesses, supply chains, and infrastructure sectors
  - Collaborate to stabilize community lifelines and restore services

NRF - Emergency Support Functions

Emergency Support Functions (ESFs) provide the structure for coordinating Federal interagency support for a Federal response to an incident. They are a way to group functions that provide federal support to states and federal-to-federal support, both for Stafford Act declared disasters and emergencies and for non-Stafford Act incidents.

- **ESF #1:** Transportation
- **ESF #2:** Communications
- **ESF #3:** Public Works and Engineering
- **ESF #4:** Firefighting
- **ESF #5:** Information and Planning
- **ESF #6:** Mass Care, Emergency Assistance, Temporary Housing, and Human Services
- **ESF #7:** Logistics
- **ESF #8:** Public Health and Medical Services
- **ESF #9:** Search and Rescue
- **ESF #10:** Oil and Hazardous Materials Response
- **ESF #11:** Agriculture and Natural Resources Annex
- **ESF #12:** Energy
- **ESF #13:** Public Safety and Security
- **ESF #14:** Cross-Sector Business and Infrastructure
- **ESF #15:** External Affairs

National Disaster Recovery Framework

- The National Disaster Recovery Framework (NDRF) enables effective recovery support to disaster-impacted states, tribes, territorial and local jurisdictions. It provides a flexible structure that enables disaster recovery managers to operate in a unified and collaborative manner. The NDRF focuses on how best to restore, redevelop and revitalize the health, social, economic, natural and environmental fabric of the community and build a more resilient nation.

- The NDRF is a first step toward achieving a shared understanding and a common, integrated perspective in order to achieve unity of effort and to build a more resilient nation.

NDRF – Recovery Support Functions

The objective of the RSFs is to facilitate the identification, coordination and delivery of federal assistance to local, state, tribal and territorial governments and the private and nonprofit sectors, accelerating the process of recovery, redevelopment and revitalization.

Economic   Health and Social Services

Community Assistance   Infrastructure Systems

Housing Recovery   Natural and Cultural Resources

ESF#2 Communications

ESF #2 acts to meet the telecommunications and essential elements of information needs of local, state, tribal, territorial, insular area, and Federal Government agencies; nongovernmental organizations; industry essential service providers; other private sector partners; and individuals, families, and households, including individuals with disabilities and others with access and functional needs. The following are responsibilities of ESF #2:

- Provides disaster emergency communications, which consists of the technical means and modes required to provide and maintain operable and interoperable voice and data communications in an incident area.
- Supports the temporary reestablishment of the basic public safety communications infrastructure and assists in the initial restoration of the commercial telecommunications infrastructure.
- Coordinates the provisioning of priority and other telecommunications services at incident support facilities, provides capabilities and services to aid response and short-term recovery operations, and ensures a smooth transition to long-term recovery efforts.
- Leads communications planning, training, exercising, and coordination of the enterprise capabilities of the Federal Government to support a whole of government approach to disaster response.
- Facilitates the delivery of mission critical information to maintain situational awareness for emergency management decision makers and support elements.
- Develops and maintains a cyber and communications common operating picture with federal, state, and industry partners
- Develops cyber and communications restoration priorities during disasters
- Coordinates and deconflicts incident radio frequencies in disaster event areas of operation.

FEMA Disaster Emergency Communications

Enable interoperable communications to ensure coordination and collaboration among Federal, State, Tribal, Territorial, and local (F/S/T/T/L) governments, as well as the private sector and non-governmental organizations; Enable effective and efficient Federal disaster response and recovery by providing Operational Communications support (Voice, video, and data) to first responders in coordination with other mission partners, stakeholders, and survivors; Support all-hazard emergency management across the entire disaster management lifecycle - preparedness, mitigation, response, and recovery.

- We deploy, install, operate, maintain and protect telecommunications, logistics, and operations assets in support of planned special events and in response to disasters, assist citizens and first responders. We prepare for, protect against, respond to, recover from and mitigate all hazards.

- We provide disaster emergency communications through six geographically dispersed Mobile Emergency Response Support detachments and a pre-positioned fleet of Mobile Communications Office Vehicles.

- We assist State, Local, Tribal and Territorial entities in mitigating their disaster emergency communications risks and requirements to support life-saving efforts, protect property, and coordinate response and recovery operations.

- We deliver operational communications capabilities needed to save lives, minimize suffering, and protect property.

Other Disaster Communications Resources

- NCC SHARES
- ARRL ARES
- ARRL RACES

NTIA Regulations Supporting Emergencies

Rules in the NTIA Manual of Regulations & Procedures for Federal Radio Frequency Management

[Manual of Regulations for Federal Radiofrequency Spectrum Management](#)

- Section 12.3 – Spectrum Management in Support of the National Response Framework (Non-Wartime)

- Section 12.4 – Emergency Communications for which an Immediate Danger Exists to Human Life or Property

- Section 4.3.16 – Plans for Federal Interoperability Channels for Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz

12.3 – Spectrum Management in Support of the National Response Framework (Non-Wartime)

1. In the case of an emergency where Federal Emergency Management Agency (FEMA) activates procedures in accordance with the National Response Framework (NRF), NTIA will continue to perform its frequency management functions at its Headquarters, whether at the home office in Washington, DC or at its Continuity of Operations (COOP) sites. Thus, processing of all frequency assignment requests continues to follow current published procedures. NTIA may also deploy spectrum managers to the emergency area as necessary to perform a liaison representing NTIA.

2. In the event of Department of Defense (DOD) involvement, the Defense Coordinating Officer (DCO) or Joint Task Force, will establish a Joint Spectrum Management Element (JSME) in accordance with Chairman of the Joint Chiefs of Staff Instruction 3320.01B, with DOD Joint Publication 6-01, Annex A to ACP 190 and other applicable procedures and guidelines. The JSME spectrum manager serves as the single point of contact for joint or single service task forces temporary or permanent spectrum requirements. The JSME forwards requirements through the appropriate military channels. In all instances, spectrum coordination will not be completed until the NTIA Office of Spectrum Management (OSM) Frequency Assignment Branch validates the spectrum use and authorizes a frequency assignment.

3. The deployed NTIA spectrum liaison will manage the use of the Federal radio frequency spectrum, coordinate Federal radio frequency interoperability, coordinate Federal telecommunications assistance to local, state, tribal, territorial, and insular area governments and resolves radio frequency use conflicts in the Joint Field Office or disaster area. The NTIA Liaison will assist agencies, as necessary, in forwarding requests to their appropriate agency headquarters or, if necessary, to NTIA for assignment action. All frequency requests must be processed through NTIA Headquarters.

12.4 – Emergency Communications for which an Immediate Danger Exists to Human Life or Property

1. In situations where immediate danger exists to human life or property, an agency may operate temporarily on any regularly assigned frequency in a manner other than that specified in the terms of an existing assignment. Emergency operations under such situations should continue only as long as necessary to ensure that the danger to human life or property no longer exists. Emergency operations under these circumstances shall be reevaluated on a regular basis until such time as normal/routine operations can be reestablished.

2. Interoperable communications for disaster/emergency response involving federal, state, local, and tribal entities shall be in conformance with Section 12.15 of this Manual. Additional information regarding interoperable communications can also be found in the National Interoperability Field Operations Guide promulgated by the Department of Homeland Security.

4.3.16 – Plans for Federal Interoperability Channels for Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz

Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz:

1. The plans shown in Tables 1 and 2 show frequencies available for assignment to all federal agencies to satisfy law enforcement, public safety, emergency response, and disaster response interoperability requirements. These frequencies will be referred to hereinafter as "Federal Interoperability Channels".

2. The Federal Interoperability Channels are available for use among federal agencies and between federal agencies and non-federal entities with which federal agencies have a requirement to operate.

3. The channels are available to federal agencies on a shared basis and will not be authorized for the exclusive use of any one federal agency.

4. The channels are available to non-federal entities to enable joint federal/non-federal operations for law enforcement, public safety, emergency response and disaster response, subject to the condition that harmful interference will not be caused to federal stations.

5. Non-federal use will be coordinated with the FCC through the Statewide Interoperability Coordinator (SWIC) or a state appointed official. The FCC will grant authority to program and use the Federal Interoperability Channels through a signed agreement between the SWIC or state appointed official and a federal user with a valid GMF assignment.

6. These channels are restricted to mobile (including portable) interoperability communications and are not authorized for routine or administrative uses.

7. These channels are authorized to operate mobile (including portable) to perform testing, training and exercises of interoperable communications, subject to the existing geographic restrictions maintained by NTIA.

4.3.16 – Plans for Federal Interoperability Channels for Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz

Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz:

8. Extended operations and congestion may lead to frequency conflicts. Coordination with NTIA is required so that interference can be avoided.

9. Only narrowband emissions are authorized on the Federal Interoperability Channels.

10. Federal agencies having a law enforcement, public safety, emergency response or disaster response requirement will ensure that their agency is added to the (*JNT) circuit remarks field in the Government Master File (GMF).

11. All federal law enforcement, public safety, emergency response, and disaster response agencies are required to have the Federal Interoperability Channels programmed into one or more zones/banks/channel groups of their mobile (including portable) radios.

12. Exceptions to the above conditions of use will be considered by the Interdepartment Radio Advisory Committee (IRAC)/Frequency Assignment Subcommittee (FAS) on a case-by-case basis.

NTIA Response Role – ESF#2

NTIA's ESF #2 Federal Emergency Response Officials support the Wireless Communications Unit of the Joint Field Office:

- Facilitate request for Radio Frequency spectrum

- Advise Federal leadership on spectrum-use issues

- Resolution of interference issues

- Frequency coordination for incoming Federal responder communications assets and systems, including

  ➢ Assisting with state, local, tribal, industry, and volunteer organization interoperability issues (Civil user coordination is conducted by the Federal Communications Commission)

  ➢ Operational Support and coordination of Special Temporary Assignments and Assignment modification routing for Federal responders

  ➢ Assist in interoperability and mutual aid issues as required

Questions

Scott Jackson

Office: (202) 482-4847

Cell: (202) 450-7721

Email: sjackson@ntia.gov

Website: NTIA.GOV

Twitter: @NTIAgov

Facebook: Facebook.com/NTIAgov