Office of Emergency Communications:

Fiscal Year 2012

SAFECOM Guidance
on Emergency Communications Grants

SAFECOM

Homeland Security

A Message to Stakeholders

On behalf of the Office of Emergency Communications (OEC), I am pleased to present the *Fiscal Year 2012 SAFECOM Guidance on Emergency Communications Grants (FY 2012 SAFECOM Guidance)*. This document is updated annually to provide guidance for State, local, tribal, and territorial grantees on eligible activities and equipment standards that may be applicable to Federal grants funding emergency communications projects. This year's *SAFECOM Guidance* has been restructured to serve as an even more useful reference manual in planning emergency communications projects, identifying available grant funding, and offering additional resources to consider before you apply. The scope of the *SAFECOM Guidance* continues to expand beyond more traditional land mobile radio activities to encompass additional content on data, video, and other facets of broadband systems and other advanced technologies.

As in previous years, OEC has coordinated with Federal agency partners and State and local stakeholders to develop recommended emergency communications priorities, technical standards, resources for finding grant funding, and grant management best practices. This feedback will also be incorporated into the Emergency Communications Preparedness Center (ECPC) *Recommendations for Federal Agencies: Financial Assistance for Emergency Communications (ECPC Grants Recommendations)*, which is developed annually by the ECPC, a Federal interagency focal point for emergency communications, to define standards, terms, and conditions for Federal agencies administering emergency communication grants. Our intent is to promote consistency in policy between these documents, and across Federal grant programs, in order to ensure compatibility among Federally-funded projects.

I would like to thank the SAFECOM Executive Committee and Emergency Response Council, as well as Statewide Interoperability Coordinators, for their valuable input into the *SAFECOM Guidance*. Please continue to contribute your input and expertise on emergency communications, and encourage your State, local, tribal, and territorial colleagues to use the *SAFECOM Guidance* when developing their emergency communications investments.

Lastly, please share your feedback on the *FY 2012 SAFECOM Guidance* with us, so we can continue to refine it in succeeding years. Your input is critical to our collective efforts to improve emergency communications nationwide.

For any questions, comments, or assistance in applying these recommended grant policies to your applications, please contact my office at oec@hq.dhs.gov.

Chris Essid
Director
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U.S. Department of Homeland Security

Contents

1. Introduction

SAFECOM is a public safety-driven communications program managed by the Office of Emergency Communications (OEC), with support from the Office for Interoperability and Compatibility (OIC). SAFECOM works to build partnerships among all levels of government, linking the strategic planning and implementation needs of the emergency response community with Federal, State, local, tribal, and territorial governments, to improve emergency response through more effective and efficient interoperable wireless communications. Together, the Department of Homeland Security (DHS) and the SAFECOM Executive Committee and Emergency Response Council (EC/ERC) shape emergency communications policy and standards to ensure projects are compatible, interoperable, and most importantly, meet the needs of end-users.

OEC, in coordination with Federal agency partners and State and local stakeholders, develops the annual *SAFECOM Guidance* which provides technical information and program guidance for entities applying for Federal grant funding for emergency communications projects.

1.1 Purpose of the FY 2012 SAFECOM Guidance

The purpose of the *FY 2012 SAFECOM Guidance* is to provide guidance to grantees on:

- Emergency communications activities that can be funded through Federal grants
- Technical standards that facilitate interoperability
- Recommendations for planning, coordinating, and implementing emergency communications projects

The *FY 2012 SAFECOM Guidance* serves two purposes. First, its content on policies and standards is designed to advance national emergency communication goals and objectives established in the National Emergency Communications Plan (NECP), or National Plan.[1] Secondly, the recommendations are intended to help State, local, tribal, and territorial stakeholders develop projects that meet critical emergency communication needs, as defined in their Statewide Interoperability Plan,[2] and to improve emergency communications nationwide.

This Guidance provides general information on eligible activities, technical standards, and other terms and conditions that are common to most Federal emergency communications grants. Not all of this guidance, however, will be applicable to all grant programs. Grants funding emergency communications are administered by numerous Federal agencies and are subject to various statutory and programmatic requirements. As a result, grantees should read each grant program's materials carefully to ensure the activities they propose are eligible under that program, and that all standards, terms, and conditions required under that program are met.

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[1] The National Plan, also known as the National Emergency Communications Plan or NECP, is available at: http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf.

[2] More information on Statewide Interoperability Plans, also known as Statewide Communication Interoperability Plans or SCIPs, can be found on the OEC website at: http://www.dhs.gov/files/programs/gc_1225902750156.shtm.

1.2 Use of FY 2012 SAFECOM Guidance

The *SAFECOM Guidance* should be used during the planning and development of emergency communications projects, and in conjunction with other planning documents. Grantees are encouraged to read Federal and State emergency communications plans, and the *FY 2012 SAFECOM Guidance* to ensure projects support, and do not contradict, Federal and State plans and priorities for improving emergency communications. Specifically, grantees should:

- Consult the National Plan to understand Federal communication goals and priorities
- Review their Statewide Interoperability Plan and Implementation Reports[3] to understand statewide emergency communication goals and priorities
- Coordinate emergency communications projects with Statewide Interoperability Coordinators (SWIC)[4] to ensure that projects align to needs identified in the Statewide Interoperability Plan and/or Implementation Report
- Read the *FY 2012 SAFECOM Guidance* to understand standard terms and conditions of Federal grants funding emergency communications and recommendations

Additional information on each of these resources is provided in Table 1.

Table 1. Essential Resources for Emergency Communications Grantees

Resource	Description
National Emergency Communications Plan (NECP) or National Plan	The National Plan provides an overarching strategy, goals, and priorities designed to ensure that emergency responders can communicate across all disciplines as needed, on demand, and as authorized at all levels of government and across all disciplines. Grantees are encouraged to read the National Plan to understand national communication goals, and to ensure that investments support, and do not contradict, national goals and priorities.
Statewide Communication Interoperability Plan (SCIP)	The Statewide Interoperability Plan contains the State's detailed strategy to improve emergency communications. Every State and territory has a Statewide Interoperability Plan in place. Many Federal grants funding emergency communications require grantees to align projects to needs identified in Statewide Interoperability Plan or Implementation Report. Grantees should review the Statewide Interoperability Plan and Implementation Report for their State to ensure that investments support, and do not contradict existing efforts to improve communications.
Statewide Interoperability Coordinator (SWIC)	The Statewide Interoperability Coordinator serves as the single point of contact for interoperable communications, and implements the Statewide Interoperability Plan. Currently, most States and territories have a Statewide Interoperability Coordinator or equivalent position in place. Grantees are strongly encouraged to coordinate projects with the Statewide Interoperability Coordinator to ensure that projects support, and do not contradict, statewide efforts to improve communications.
FY 2012 SAFECOM Guidance and website	The *FY 2012 SAFECOM Guidance* and website provide information and resources for grantees developing emergency communications projects. Many Federal grants funding emergency communications require grantees to comply with the standards, terms, and conditions in the *SAFECOM Guidance.* Grantees should read the *FY 2012 SAFECOM Guidance* to ensure projects comply with the recommendations therein, and leverage resources from the website when preparing applications.

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[3] All States were required to submit a Statewide Communication Interoperability Plan (SCIP) in 2008, and are required to report progress against the SCIP in an annual SCIP Implementation Report. For the purposes of this document, the SCIP and SCIP Implementation Reports will be called Statewide Interoperability Plans and Implementation Reports.

[4] To find your Statewide Interoperability Coordinator or Statewide Plan Point of Contact, please email OEC at oec@hq.dhs.gov.

1.3   Summary of Key Changes and Updates

The *FY 2012 SAFECOM Guidance* has been revised to make it more useful for grantees seeking Federal funding for emergency communications. This section highlights key changes that have been made to the document since its last publication. The *FY 2012 SAFECOM Guidance* provides recommended priorities for funding, a review of the current Federal grant climate, an updated list of grants that fund emergency communications, and grants resources. The Guidance also includes updated technology standards. Below is a summary of key changes and updates.

Emergency Communication Priorities (Section 2). The *FY 2012 SAFECOM Guidance* provides a list of emergency communication priorities. Grantees are encouraged to target funding toward these priorities to preserve recent gains to emergency communications, and to secure funding for future improvements. In FY 2012, grantees are strongly encouraged to target grant funding toward the following priorities:

- Priority 1: Leadership and Governance
- Priority 2: Statewide Planning for Emergency Communications
- Priority 3: Emergency Communications Training and Exercises
- Priority 4: Other Integral Emergency Communications Activities
- Priority 5: Standards-Based Equipment
- Priority 6: Planning for Investments in Broadband and Other Advanced Technologies

Review of Federal Grant Landscape and Requirements (Section 3). Section 3 provides an overview of the current Federal grant climate and new initiatives affecting emergency communication grants, as well as Federal requirements and restrictions on grant funding.

Additions to Project Development Recommendations (Section 4). Section 4 includes new recommendations to consider while developing projects, including the addition of performance measures and strategies to engage the whole community in planning.

Eligible Activities (Section 5). Revisions to Eligible Activities include National Plan Goal Reporting[5] activities and updates to standards for broadband equipment to reflect the Federal Communications Commission (FCC) requirements.

Updates to Technology Standards (Section 6). The Technology Standards section was revised to reflect updates made to the *ECPC Grants Recommendation* document – a comprehensive guide for Federal agencies funding emergency communications. The standards were updated in collaboration with the 14 ECPC Federal member agencies, which will help ensure that this section is consistent with guidance used by Federal agencies administering grants.

Grants Management Best Practices (Section 7). Grantees are encouraged to leverage best practices to ensure the effective implementation of grants, and to establish the entity as a trusted steward of Federal grant funding and a credible recipient of future grant funding.

Appendix. A comprehensive appendix of emergency communication resources was added to help grantees find information and resources quickly and easily.

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[5] Also known as NECP Goal Performance and Capability Reports.

2. FY 2012 Emergency Communication Priorities

In FY 2012, State and local stakeholders are encouraged to actively seek funding for emergency communication improvements, and to target grant funding toward the following priorities:

- Priority 1: Leadership and Governance
- Priority 2: Statewide Planning for Emergency Communications
- Priority 3: Emergency Communications Training and Exercises
- Priority 4: Other Integral Emergency Communications Activities
- Priority 5: Standards-Based Equipment
- Priority 6: Planning for Investments in Broadband and Other Advanced Technologies

Investments in these areas not only help to improve emergency response, but also align to Federal funding initiatives that can support emergency communications.

Priority 1: Leadership and Governance

In FY 2012, all States and territories should sustain and fully fund a Statewide Interoperability Coordinator and support Statewide Governance.[6] State emergency communication leaders should work directly with the State Administrative Agency (SAA) to actively identify and secure funding to sustain the Statewide Interoperability Coordinator positions, and to support Statewide Governance to ensure interoperability investments align to Statewide Interoperability Plans. Sustaining and supporting statewide leadership and governance of interoperability improvements will not only enhance emergency capabilities and response, but will advance National Plan goals and recommendations to improve interoperability nationwide, and satisfy new grant requirements to involve the whole community in emergency response.

To support this priority, grantees should work with the SAA to target funding toward:

- Sustaining the Statewide Interoperability Coordinator position
- Supporting Statewide Governance activities, such as planning and executing meetings
- Building and expanding Statewide Governance, specifically membership in statewide governing bodies, to include the whole community

Priority 2: Statewide Planning for Emergency Communications

The emergency communications community has long practiced a comprehensive and inclusive approach to planning. States have engaged multiple jurisdictions, disciplines, and levels of government in planning through the development of their Statewide Interoperability Plans. Comprehensive planning has enabled States to effectively plan, prioritize, and coordinate investments, and to ensure that proposed investments support, and do not contradict, Statewide Interoperability Plans.

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[6] Statewide governance should be supported through the activities of the Statewide Interoperability Governing Body (SIGB) or similar statewide governing bodies, such as the State Senior Advisory Committee.

In FY 2012, all States and territories should continue to engage the whole community in planning, update Statewide Interoperability Plans, complete Statewide Interoperability Plan Implementation Reports to address new needs and risks, and work to integrate emergency communication needs into State-level preparedness plans.

To support this priority, grantees should target funding toward the Statewide Interoperability Coordinator (or equivalent position) to coordinate emergency communication activities, including the following:

- Update of Statewide Interoperability Plan and completion of Statewide Plan Implementation Reports to:
    - Address findings and gaps identified in After Action Reports (AAR), National Plan Goal Reports, and other State-level preparedness reports
    - Incorporate Presidential Policy Directive-8 (PPD-8)[7] and DHS Whole of Community language into the Statewide Interoperability Plan or Statewide Plan Implementation Reports
    - Address plans for implementation of the FCC narrowband mandate by the January 1, 2013 deadline[8]
    - Describe strategic broadband planning activities and initiatives in preparation for a 700 megahertz (MHz) nationwide interoperable public safety wireless broadband network
- Integration of emergency communications assets and needs into other State-level preparedness plans
- Engagement of the whole community in planning, response, and identification of risks
- Assessment of capabilities needs and remaining gaps (e.g., National Plan Goal Reports, national exercises)
- Development of risk and vulnerability assessments

Priority 3: Emergency Communications Training and Exercises

Training and exercises are necessary for ensuring emergency response providers understand operating procedures, and are able to use emergency communication equipment during natural and man-made disasters. With large Federal investments in equipment over the past three years, investments in training and exercises help emergency response providers learn to operate and maximize the use of new and existing equipment. Further, national training and exercise initiatives[9] have set standards and targets for training and exercises that help State and local entities train for disasters, and assess and address capability gaps.

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[7] Recently-issued PPD-8 requires Federal agencies to develop a new National Preparedness Goal, National Preparedness System, and National Preparedness Report. The directive also instructs Federal agencies to issue guidance for State, local, and tribal governments for improving response through comprehensive planning, and to demonstrate progress against goals. It is expected that grantees will be required to demonstrate how the whole community was involved in response planning.

[8] See Section 4.3 for further discussion of the FCC narrowband mandate.

[9] See Federal standards for training set through the National Incident Management System (NIMS), which can be found at http://www.fema.gov/emergency/nims/; National Exercise Program (NEP), which can be found at: http://www.fema.gov/prepared/exercise.shtm; and National Plan (NECP) Goals at: http://www.dhs.gov/files/publications/gc_1281645820543.shtm.

To support this priority, grantees should target funding toward certified training and exercise activities, including:

- Specific National Incident Management System (NIMS)-compliant training[10] (e.g., training in Incident Command System [ICS], Communications Leader [COML] training)
- Activities that support the adoption and use of the ICS
- Development of standard operating procedures (SOP) and plain language protocols
- Inventorying and typing of resources
- Exercises to support the National Response Framework, National Exercise Program, National Plan Goals, and other Federal initiatives to test preparedness

Priority 4: Other Integral Emergency Communications Activities

As stakeholders face cutbacks in Federal grant funding for emergency communications, it is essential for them to target grant funding to projects that are integral to emergency communications. Grantees should work with the Statewide Interoperability Coordinator to ensure projects support the statewide strategy to improve emergency communications, meet critical communication needs, and will have the greatest impact. Grantees should also work with Federal, State, local, tribal, territorial, and regional[11] partners to share resources, facilitate mutual aid, and reduce duplication.

Grantees should target funding to personnel (e.g., Statewide Interoperability Coordinator or equivalent position) who can review, prioritize, coordinate, and implement emergency communication activities, including:

- Projects that address needs in the Statewide Interoperability Plan or Implementation Report, or needs identified in National Plan Goal Reports[12]
- National Plan Goal compliance activities
- Activities that ensure compliance with the FCC narrowband mandate
- Development and implementation of SOPs
- Initiatives that engage the whole community and raise awareness of State strategy/needs
- Projects that promote intra- and inter-State collaboration
- Projects that promote asset coordination and resource sharing
- Activities and projects that leverage data and metrics from assessments, exercises, or National Plan Goal Reports, to demonstrate impact of grant funds on communications

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[10] See http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm.

[11] "Regional" for this document is defined as more than one jurisdiction (e.g., more than one State, county, local jurisdiction) including intra-State and inter-State, unless defined otherwise in grant guidance.

[12] Grantees should work with the Statewide Interoperability Coordinator to understand emergency communication needs defined in these plans and reports, and use grant funding to address those needs.

Priority 5: Standards-based Equipment

Many Federal grant programs require compliance with technical standards outlined in the *SAFECOM Guidance* to ensure Federally-funded investments are compatible and interoperable (See Section 6). To support this priority, grantees should target funding toward standards-based equipment that promotes and does not hinder interoperability, ensure projects support the statewide plan for improving emergency communications, and confirm that equipment meets technical standards in the *FY 2012 SAFECOM Guidance*. Grantees should include technical standards and specifications in procurement agreements and obtain standards documentation from vendors to ensure compliance with Federal requirements.

Allowable activities include investments in standards-based equipment that support the statewide plan for improving emergency communications, and enable the entity to:

- Sustain current capabilities
- Migrate toward broadband and other advanced technologies
- Meet the FCC narrowband mandate
- Comply with FCC requirements for broadband network deployments and operations[13]

Priority 6: Planning for Investment in Broadband and Other Advanced Technologies

With increasing interest and investment in broadband and advanced technologies,[14] grantees should plan for investments in and migration to broadband and other advanced technologies before purchasing equipment. Stakeholders should:

- Develop strategic plans in preparation for participation in a 700 MHz nationwide public safety wireless broadband network[15]
- Engage the whole community in planning; determine how best to integrate and use existing infrastructure and leverage public/private partnerships in plans to improve emergency communication capabilities and systems using broadband and other advanced technologies
- Coordinate planning efforts with the Statewide Interoperability Coordinator and ensure migration plans and investments align to and enhance statewide strategies to improve emergency communications

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[13] Grantees should be aware that day-to-day operational expenses may not be allowable under some grants. Therefore, grantees are advised to read grant guidance carefully and consult with the Federal grant program manager to determine if operational expenses are allowed under the grant.

[14] In this document, the term "advanced technologies" includes, but is not limited to, the use of emerging technologies to provide advanced interoperability solutions; solutions that allow the use of commercial services, where appropriate, to support interoperable communications; internet protocol (IP)-based technologies; use of common advanced encryption options that allow for secure and vital transmissions, while maintaining interoperability; use of standards-based technologies to provide voice and data services that meet wireless public safety service quality; solutions that have an open interface to enable the efficient transfer of voice, data, and video signals; and investments in these technologies, such as Next Generation 911 (NG911), and Bridging System Interface.

[15] Grantees should participate in the Public Safety Communications Research (PSCR) program which is testing public safety broadband equipment to ensure interoperability. PSCR working groups and workshops provide opportunities to learn about new broadband technology features.

To support this priority, grantees should target grant funding toward:

- Migration planning from legacy systems to broadband systems and other advanced technologies
- Strategic planning for broadband systems and other advanced technologies
- Updating the Statewide Interoperability Plan to incorporate broadband and migration planning
- Conducting broadband assessments
- Development of investment justification, cost/benefit analyses and funding strategies
- Development of stakeholder statements of need, as-is and proposed enterprise architectures, and system engineering requirements
- Surveying existing public safety and commercial infrastructure to determine what may be leveraged in a nationwide broadband network
- Purchasing equipment that meets FCC requirements for broadband network deployments and operations
- Participation in 700 MHz broadband demonstration network stakeholder meetings and related events

Table 2 provides a quick reference guide to priorities and allowable costs.

Table 2. FY 2012 Grant Priorities and Related Allowable Costs

Priorities	Related Allowable Costs
Leadership and Governance	• Sustaining the Statewide Interoperability Coordinator position • Supporting Statewide Governance (e.g., planning and executing meetings) • Building and expanding Statewide Governance to include the whole community

Statewide Planning for Emergency Communications	• Update the Statewide Interoperability Plan and Implementation Reports to:
	  o Address findings and gaps identified in AARs, National Plan Goal Reports, and other State-level preparedness reports
	  o Incorporate PPD-8 and DHS Whole of Community language
	  o Address plans for implementation of the FCC narrowband mandate by the January 1, 2013 deadline
	  o Describe strategic broadband planning activities in preparation for a 700 MHz nationwide public safety wireless broadband network
	• Integrate emergency communications assets and needs into State-level plans
	• Engage the whole community in planning, response, identification of risks
	• Conduct assessments of capabilities needs and remaining gaps (e.g., National Plan Reports, narrowband assessments, exercises)
	• Develop risk and vulnerability assessments

Emergency Communications Training and Exercises	• Specific NIMS-compliant training[16] (e.g., ICS and COML training) • Activities that support the adoption and use of the ICS • Development of standard operating procedures and plain language protocols • Inventorying and typing of resources • Exercises to support the National Response Framework, National Exercise Program, exercises to test preparedness (e.g., National Plan Goals)
Other Integral Emergency Communications Activities	• Projects that address needs in the Statewide Interoperability Plan or Implementation Report, and National Plan Goal Reports • National Plan Goal compliance activities • Activities that ensure compliance with the FCC narrowband mandate • Development and implementation of SOPs • Initiatives that raise awareness of State strategy and needs • Projects that promote intra- and inter-State collaboration • Projects that engage the whole community • Projects that promote asset coordination and resource sharing • Projects that leverage data and metrics from assessments, exercises, or National Plan Goal Reports, to demonstrate impact of grant funds on communications
Standards-based Equipment	Equipment that: • Promotes and does not hinder interoperability • Promotes compliance for operability and interoperability across key Long Term Evolution (LTE) interfaces, regardless of vendor • Meets the standards for interoperability included in the *SAFECOM Guidance* • Enables the entity to meet the FCC narrowband mandate • Meets FCC requirements for broadband network deployments and operations
Planning for Investments in Broadband and Other Advanced Technologies	• Migration planning from legacy systems to broadband systems and other advanced technologies • Strategic planning for broadband systems and other advanced technologies • Updating the Statewide Interoperability Plan to incorporate broadband plan • Conducting broadband assessments • Survey existing infrastructure for broadband leverage opportunities • Purchasing equipment that meets FCC requirements for broadband network deployments and operations • Participation in a 700 MHz Broadband Demonstration Network

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[16] See http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm.

3.   Before Applying

Before applying for Federal funds, potential grantees should understand the current Federal grant landscape, grant requirements and restrictions, and resources for finding funding.

3.1   Understand the Federal Grant Landscape

In FY 2012, grantees will see further reductions and streamlining of grants, increased reporting and accountability requirements, and a new Federal initiative affecting preparedness grants.

Reductions and Streamlining of Grants

Due to increasing constraints on the Federal budget,[17] grantees will see reductions in Federal grant funding and consolidation of Federal grant programs in FY 2012.[18] Grantees should identify alternative sources of funding and work with their SAA or partner with other eligible entities to secure funding for emergency communication projects.

Additionally, as grants are streamlined, emergency communications leaders and agencies are strongly encouraged to work with State-level planning offices to incorporate emergency communications priorities defined in the Statewide Interoperability Plan into broader State-level response plans (e.g., State Homeland Security Strategies, State Preparedness Plans, State Hazard Mitigation Plans) in order to ensure communication projects are eligible for funding.

Increased Reporting and Accountability

The American Recovery and Reinvestment Act (ARRA) of 2009 provided $275 billion in Federal contracts, grants, and loans, and required additional accountability and transparency in grant reporting. Increased reporting and accountability allowed the Federal government to track the progress of projects, and to assess the effectiveness of these grant programs. This trend toward increased reporting and greater accountability in grants has expanded beyond ARRA into other grant programs. In FY 2011, Congress requested more detailed reporting and accountability for grants funding emergency communications.[19]

Grantees are strongly encouraged to leverage existing documentation (e.g., Statewide Interoperability Plans and Implementation Reports, AARs, National Plan Goal Reports, narrowband and broadband assessments) to baseline needs. Grantees should target funding to meet their critical needs. Grantees should be prepared to demonstrate with qualitative and quantitative data how needs have been met or how capability gaps have been addressed as a result of the grant. Including baseline measures and subsequent measures of progress will strengthen the grant application, and may increase the grantee's chance of receiving funding in the future.

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[17] Facing fiscal constraints, the Federal government committed to mandated levels of reductions in Federal spending over the next ten years in the Budget Control Act of 2011. For more information, see: http://www.gpo.gov/fdsys/pkg/PLAW-112publ25/content-detail.html.

[18] See Consolidated Appropriations Act, 2012, (Pub. L. No. 112-74), Division D - Department of Homeland Security Appropriations Act, 2012 at: http://www.thomas.gov/cgi-bin/query/z?c112:H.2055.enr:#.

[19] See House Report 112-91 at: http://thomas.loc.gov/cgi-bin/cpquery/R?cp112:FLD010:@1(hr91).

PPD-8: New Federal Initiative Affecting Emergency Communication Grants
In FY 2011, the President issued PPD-8, a formal directive to Executive agencies, communicating his expectations and plan for improving emergency response. The directive reflects the "Administration's belief that the entire emergency management team – which includes all levels of government, the private and non-profit sectors and individual citizens – plays a key role in keeping our communities safe and secure, meeting the needs of survivors when disaster strikes and preventing the loss of life and property."[20] The directive focuses on building three key concepts:

- An "All-of-Nation" and "Whole of Community" approach to security and resilience, integrating efforts across Federal, State, local, tribal, and territorial governments;
- Key capabilities required to confront any challenge; and
- A consistent assessment system methodology, focused on outcomes that can be used to measure and track progress to achieve our National Preparedness Goal.

As such, it is expected that FY 2012 Federal grant programs will require grantees to demonstrate how a "whole community" approach to project planning was used, and how key capabilities were improved. Grantees should include their whole community approach to planning (e.g., through the development of the Statewide Interoperability Plan and Implementation Report, through engagement of multiple jurisdictions, disciplines, and levels of government in planning) in the grant application.

Evolving Broadband Requirements
Grantees should be aware that legal, regulatory, and technical requirements for broadband are evolving, and could be affected or altered by legislative and Federal agency actions. Grantees implementing broadband projects are encouraged to monitor current Federal actions affecting broadband investments, and to work with the SAA, the Statewide Interoperability Coordinator, and the Federal agency responsible for administering the grant to ensure investments are compliant with current legal, regulatory, and technical requirements.

3.2   Understand Federal Grant Requirements and Restrictions

Federal Grant Requirements
Emergency communication grants are administered by numerous Federal agencies, in accordance with various statutory, programmatic, and departmental requirements. Grantees are encouraged to read grant guidance[21] carefully to ensure the application meets all grant requirements, including:

- Program goals
- Eligibility requirements
- Application requirements (e.g., due dates, submission requirements)
- Grant requirements (e.g., reporting, financial, matching)
- Allowable costs and restrictions on allowable costs
- Technical standards preferred, required, or allowed under each program

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[20] See: http://www.fema.gov/prepared/ppd8_faqs.shtm.
[21] Also known as funding opportunity announcement, grant application, or grant guidance kit.

Additionally, grantees should be aware of common requirements for grants funding emergency communications, including:

- **Environmental and Historic Preservation (EHP) Requirements.** Grantees must comply with all applicable EHP laws, regulations, Executive Orders, and agency guidance. Grantees are strongly encouraged to discuss projects with Federal grant program officers to understand EHP restrictions, requirements, and review processes prior to starting the project.

- **National Incident Management System (NIMS).** Homeland Security Presidential Directive 5 (HSPD-5), *Management of Domestic Incidents*, requires the adoption of NIMS to strengthen and standardize preparedness response, and as a requirement to receive preparedness grant funding. State, local, tribal, and territorial grantees should ensure that the most recent NIMS reporting requirements have been met.[22]

- **State Preparedness Report Submittal.** Section 652(c) of the Post-Katrina Emergency Management Reform Act of 2006 (Pub. L. No. 109-295), 6 U.S.C. §752(c), requires any State that receives Federal preparedness assistance to submit a State Preparedness Report to the Federal Emergency Management Agency (FEMA). Grantees should consult with the SAA to ensure that the most recent State Preparedness Report has been submitted.

Grantees should ensure that all grant requirements are met, that they can implement the project as proposed and within the grant period of performance, properly manage grant funding, fulfill grant reporting requirements, and comply with Federal grant restrictions. Below are the most common restrictions that affect emergency communication grants.

Federal Grant Restrictions
Grantees should be aware of common restrictions on Federal grant funding. Grantees should consult the grants officer with any questions.

- **Commingling of Funds.** Grantees must ensure that Federal funds are used for purposes that were proposed and approved, and have financial systems in place to properly manage grant funds. Grantees cannot commingle Federal sources of funding. The accounting systems of all grantees and subgrantees must ensure that Federal funds are not commingled with funds from other awards or Federal agencies. Each award must be accounted for separately.

- **Cost Sharing/Matching Funds.** Grantees must meet all matching requirements prescribed by the grant.[23] If matching funds are required under a grant, grantees must provide matching funds or in-kind goods and services that must be:

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[22] National Integration Center (NIC) has advised State, tribal nation, and local governments to self assess their respective progress relating to NIMS implementation objectives in the NIMS Compliance Assistance Support Tool (NIMSCAST). The list of objectives against which progress and achievement are assessed and reported can be found at: http://www.fema.gov/emergency/nims/ImplementationGuidanceStakeholders.shtm#item2.

[23] Cost sharing/matching requirements vary by grant. For questions on match, contact the grant officer for the program in question.

- o   Allowable under the program and associated with the Federally-funded investment
- o   Applied only to one Federal grant program
- o   Valued at a cost that is verifiable and reasonable
- o   Contributed from non-Federal sources
- o   Treated as part of the grant budget
- o   Documented the same way as Federal funds (in a formal accounting system)

- **Funding and Sustaining Personnel.** In general, the use of Federal grant funding to pay for staff regular time is considered personnel. Staff must perform activities allowable under the grant. Most Federal grants require applicants to identify sustainable sources of funding and work to integrate new staff into State and local budgets in future years to maintain these capabilities. Grantees should develop a plan to sustain critical communications positions, in the event that Federal funds are not available to support the position in future years.

- **Supplanting.** Grant funds cannot supplant (or replace) funds previously funded or budgeted for the same purpose. Most Federal grants funding emergency communications restrict grantees from hiring personnel for the purposes of fulfilling traditional public safety duties or to supplant traditional public safety positions and responsibilities.

By understanding the Federal grant landscape and common grant requirements and restrictions, stakeholders can be better prepared to plan and apply for grants in FY 2012.

3.3   Finding Funding

There are traditional and other sources of grant funding available for emergency communications. Below, grantees will find information on traditional grant funding sources that have been used to improve emergency communications, and other sources of funding that grantees may consider when funding emergency communications projects.

Traditional Grant Funding
OEC is charged with coordinating Federal grant funding. Through its work with the ECPC Grants Focus Group, OEC identified over 40 past and recurring Federal grants and loans that have funded emergency communications. For an updated list, see: http://www.safecomprogram.gov/SiteCollectionDocuments/GrantProgramsforSAFECOMWebsite.pdf. When applying for these funds, grantees are encouraged to:

- Review the list of grants that fund emergency communications
- Identify current grant funding available and alternative sources of funding
- Understand eligibility requirements, program goals, and allowable costs[24]
- Understand what past grants have funded in your jurisdiction
- Partner with entities eligible to receive other sources of funding

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[24] FEMA has allowed the use of current grant funds for maintenance and operations (M&O) costs on equipment previously paid for under certain FEMA grant programs. Please see Information Bulletin (IB) 336 and 348 for specific guidance on using grant funds for M&O. IBs are available at: http://www.fema.gov/government/grant/bulletins/index.shtm.

Other Sources of Funding

While the *SAFECOM Guidance* has traditionally covered Federal grant programs, there are other grant and loan programs that can provide extensive funding for State, local, tribal, and territorial public safety communication needs. For example, the U.S. Department of Agriculture (USDA) Rural Utility Service's (RUS) integrated interoperable emergency communications and 911 upgrade authority in its Telecommunications Loan Program, and loans and grants from USDA Rural Development's Community Facilities Program have provided critical funding for emergency communication projects.

OEC has included loans in the list of grants posted to the SAFECOM website.[25] Grantees should be aware that requirements under grants and loans differ. Grantees should work with State and local public safety and financial representatives to understand loan requirements and to ensure their proposals meet all requirements under each program.

In addition, there are a host of Federal programs that are not solely focused on public safety communications, but have proven to be useful to enhancing public safety communications (e.g., Rural Telecommunications and Rural Electrification Programs). These programs can improve access to 911 services; provide all hazards warnings; ensure integrated, interoperable, emergency communications; provide critical infrastructure protection and outage prevention; and, assure standby power to emergency responders. As public safety-specific grants are reduced, public safety grantees should identify alternative sources of funding, such as these rural grants and loans, and work with entities eligible to receive that funding (e.g., utilities and other community development organizations) to secure Federal funding needed to strengthen utility and communications infrastructure. Grantees can find recurring, new, and related grants and loan programs on www.grants.gov.

4.   Project Development Recommendations

After grantees have reviewed Federal grant guidance and understand Federal grant requirements, grantees should consider the following recommendations when developing projects for funding.

4.1   Review the Statewide Interoperability Plan

Every State and territory was required to develop and submit a Statewide Interoperability Plan to OEC by December 2008. Additionally, each State and territory is required to submit a report on the progress of the State or territory in implementing its Statewide Interoperability Plan - the Statewide Interoperability Plan Implementation Report.

The Implementation Reports describe the current status of interoperable communications in each State and territory based on the Interoperability Continuum.[26] The Reports include information on each State or territory's capabilities, interoperability gaps, and strategic initiatives for improving interoperability.

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[25] See: http://www.safecomprogram.gov/grant/Default.aspx.
[26] Based on the SAFECOM Interoperability Continuum, see: http://www.safecomprogram.gov/NR/rdonlyres/54F0C2DE-FA70-48DD-A56E-3A72A8F35066/0/Interoperability_Continuum_Brochure_2.pdf.

Grantees should review the Statewide Interoperability Plan and Implementation Report for their State or territory to ensure proposed projects support the statewide strategy to improve emergency communications. Grantees should express in grant applications how projects align to the Statewide Plan, and how plans were developed in conjunction with the whole community. Including this information in grants will help satisfy new requirements under PPD-8.

4.2   Coordinate with the Statewide Interoperability Coordinator

To understand the current emergency communications environment, and to ensure that projects support statewide plans to improve interoperability, applicants should coordinate emergency communications investments with the Statewide Interoperability Coordinator. The Statewide Interoperability Coordinator is responsible for implementing the Statewide Interoperability Plan, and for ensuring that projects support, and do not hinder, current statewide efforts to improve emergency communications. Grantees should also consult the Statewide Governing Body (e.g., SIGB), that helps plan and prioritize emergency communication projects, and the appropriate stakeholders at State, local, tribal, and territorial levels of government, and other regional entities to ensure that projects:

- Align to needs identified in Statewide Interoperability Plan and/or other communication plans (e.g., Tactical Interoperable Communications Plans [TICPs], National Plan Goal Reports) or to gaps identified in AARs from planned exercises or actual events
- Do not duplicate current efforts
- Are compatible with existing equipment and systems, where equipment is involved
- Promote shared, standards-based systems (e.g., Project 25 [P25] compliant)
  Meet FCC narrowband requirements

4.3   Consider the FCC Narrowband Mandate

In December 2004, the FCC mandated that all non-Federal public safety land mobile licensees operating below 512 MHz and using 25 kilohertz (kHz) bandwidth voice channels move to12.5 kHz voice channels by January 1, 2013.

To assist State, regional, local, and tribal levels of government in achieving this mandate, many grants that fund interoperable communications equipment allow grant funds to be used for narrowband-related activities, including:

- Development of narrowband plans
- Assessment of narrowband compliant assets and capabilities
- Training associated with narrowband transition
- Replacement of non-narrowband compliant equipment
- Acquiring/upgrading tower sites needed to comply with narrowband conversion[27]
- Reprogramming existing equipment to comply with narrowband conversion

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[27] Some Federal grants do not allow construction or similar ground-disturbing activities. Consult the grant guidance and the grant officer.

Grantees are encouraged to allocate grant funds (where allowable) to plan and implement narrowbanding activities that will ensure compliance by the FCC-mandated deadline of January 1, 2013. Generally, Federal licensing fees are *not* allowable under most Federal grants. However, public safety grantees should not anticipate having such expenses because public safety entities are exempt from FCC filing fees.[28] Grantees are encouraged to be proactive in their implementation efforts, given that non-compliant public safety agencies may not be able to communicate with systems operating on new narrowband channels; even if communications are possible, they may be degraded.

4.4   Consider Regional, Multi-Jurisdictional, Multi-Disciplinary Projects

Grant applicants are encouraged to coordinate proposals with State and regional partners to promote greater interoperability across jurisdictions and nationwide. Applicants should consider developing projects that:

- Improve emergency communications across jurisdictions (e.g., across States, counties)
- Enables communication between jurisdictions, disciplines, and all levels of government
- Expands coverage to unserved or underserved areas within or beyond a region
- Links disparate systems
- Connects local systems and responders to regional or statewide systems

Regional projects, intra-State and/or inter-State projects that include more than one jurisdiction, should promote wide area interoperability and not create new barriers between responders inside and outside of the region. For example, grant funding should not advance a "proprietary-based project" when an equivalent "open standards" solution exists.

4.5   Consider Cross-Border Communications

Interoperability is an operational requirement that often transcends political boundaries. Grantees located adjacent or near to international borders are encouraged to consider developing projects that improve communications along and across international borders. Grantees should promote solutions that improve not only intra-State communications, but also communications between international, Federal, State, local, and tribal public safety and border agencies.

Grantees should coordinate with Federal, State, local, and international partners operating along the U.S.-Canada and U.S.-Mexico borders to ensure that grant-funded activities support current efforts to improve interoperability. Grantees should leverage existing resources and relationships to improve communications along and across the border. Grantees should work with Statewide Interoperability Coordinators to ensure that Federally-funded projects do not interfere with the 800 MHz rebanding effort occurring along the U.S.-Canada and U.S.-Mexico borders.[29]

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[28] For more information, go to http://transition.fcc.gov/fees/ and the Appendix of this document, which contains links to additional FCC resources.

[29] For more information on the rebanding process, see FCC Frequently Asked Questions at: http://transition.fcc.gov/pshs/public-safety-spectrum/800-MHz/.

Additionally, grantees are reminded that Federal funding may not be allocated to international entities, unless authorized by law, and placement of Federally-funded equipment on international property may be subject to special terms and conditions.[30] Applicants should work closely with their grant officer to ensure that proposed activities are allowable under the grant.

4.6   Consider Broadband and Advanced Technologies

A nationwide, interoperable public safety broadband network for first responders is a key priority for national policy makers.[31] First responders and the FCC recognize the need for a common interoperability framework for public safety wireless broadband networks to ensure that networks are technologically compatible and interoperable.

Grantees should consider investments in broadband and advanced technologies,[32] in order to continue to improve emergency communication capabilities in their jurisdiction. The use of the 700 MHz spectrum "will allow public safety to adopt broadband technologies that support high-speed data transmission across long distances creating access to video mapping, global positioning system (GPS) applications, and more."[33] In the near-term, grantees should:

- Engage the whole community in planning for the migration to and use of broadband and advanced technologies
- Share proposed projects with the Statewide Interoperability Coordinator to ensure that projects support statewide strategies to improve emergency communications, and to leverage existing resources
- Ensure proposed projects are compliant with the regulations adopted by the FCC (and/or any subsequent orders and rules issued by the FCC) to ensure nationwide compatibility and interoperability[34]
- Ensure current capabilities are maintained throughout the planning and development of these new systems

4.7   Incorporate Whole Community Approach

Grant applications should support new Federal initiatives to engage the whole community in response planning.[35] Grantees should ensure proposed projects support the statewide strategy for improving emergency communications, engage the whole community in project planning, and should detail in grant applications how multiple jurisdictions, disciplines, and levels of government were engaged in the development of the project.

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[30] See your grants officer for more information on placement of equipment on international property or foreign land.

[31] For information on the Broadband Plan, see: http://www.broadband.gov/plan/.

[32] The FCC has advised grantees to ensure that investments in wireless broadband networks are compliant with 3 GPP-Release 8 of the LTE standard, and have required grantees to provide information on how the investment will achieve interoperability with other public safety networks, including a statement on whether the interface is compliant with Third Generation Partnership Project (3 GPP)-Release 8 of the LTE standard.

[33] http://www.pscr.gov/projects/broadband/700mhz/700mhz.php.

[34] Information on broadband standards is available in Section 6. Additional information on broadband resources are provided in the Appendix of this document.

[35] For more information on PPD-8, see http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm and guidance in FEMA grants requiring grantees to demonstrate "whole community" approach.

Grantees are encouraged to engage the community early in the process of project development to ensure that they can provide evidence of community involvement in grant applications.

4.8   Build Measures of Performance in Grant Applications

Grantees are strongly encouraged to develop measures of performance for all grant-funded projects. Federal agencies are expected to increase reporting requirements in FY 2012. Grantees should develop measures of performance at the start of the grant, to include interval measures of performance to gauge project progress, and to track performance so that it can demonstrate the impact of Federal funds on emergency communications in its final grant reports.

Grantees are encouraged to leverage existing documentation and data (e.g., Statewide Interoperability Plans and Implementation Reports, AARs, findings from National Plan Goal Reports, narrowband and broadband assessments) to demonstrate need and how gaps in capabilities will be addressed through grant-funded projects.

For assistance in developing measures, see OEC's Communications Interoperability Performance Measurement Guide at: http://www.safecomprogram.gov/oecguidancedocuments/Default.aspx.

5.   Eligible Activities

The following section details eligible emergency communications activities commonly funded by Federal grants, based on the four common cost categories: Planning and Organization, Training, Exercises, and Equipment.[36]

Applicants seeking to improve interoperable emergency communications are encouraged to allocate grant funding to these activities; however, all activities listed here may not be eligible for funding under all grant programs. Applicants should read each grant guidance and related information carefully to ensure that activities proposed are eligible under the program.

5.1   Planning and Organization

Planning activities help to identify and prioritize needs, define capabilities, update preparedness strategies, refine communication plans, identify where resources are needed most, and deliver preparedness programs across multiple disciplines and levels of government. Grant recipients are strongly encouraged to use grant funding for planning, which may include:

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[36] The general cost categories for grants include: Planning, Organization, Training, Exercises, and Equipment (POETE). Some grants do not provide a category for Organizational costs, but allow organizational costs to be included under the Planning cost category. Grantees should be aware that emergency communications personnel, planning, and organizational costs are often allowable under the Planning cost category for grants. Grantees should consult specific grant guidance for allowable costs.

- **Personnel to assist with planning.** Under some Federal grants, full- or part-time staff may be hired to support emergency communications planning activities, including:

  o Statewide Interoperability Coordinator
  o Project manager(s)
  o Emergency communication specialists (e.g., frequency planners, radio technicians)
  o Regional, local, or tribal interoperability coordinator(s)

In general, the use of Federal grant funding to pay for staff regular time is considered personnel. Staff must perform activities that are associated with the grant and allowable under the program. For grants funding emergency communications, this may include:

  o Establishing or updating interoperability plans
  o Conducting stakeholder outreach
  o Integrating interoperability plans at State and local levels
  o Planning communications training and exercises
  o Systems and equipment planning
  o Implementing Statewide Interoperability Plan initiatives
  o Managing interoperability projects
  o Tracking progress toward National Plan goals and recommendations

Common restrictions on Federal grant funding for emergency communications personnel are provided on Section 3.2 of this document.

- **Hiring of certain full- or part-time staff and contractors or consultants.** Some Federal grants allow grantees to hire full- or part-time contractor staff or consultants to assist with planning activities that are directly related to the Federally-funded project, including: project manager, subject matter expert, regional/local interoperability coordinator, or technical experts.

- **Development and/or enhancement of interoperable emergency communications plans**. Grant funds may be used to develop and/or enhance interoperable communications plans and align plans to goals, objectives, and initiatives set forth in the National Plan. Emergency communications plans include:

  o Statewide Interoperability Plans and Implementation Reports
  o TICPs or other regional interoperable emergency communications plans
  o Disaster emergency communications plans
  o Communications system life cycle planning, including migration planning
  o Plans for narrowband conversion and compliance
  o Plans for 800 MHz rebanding planning
  o Broadband planning and migration, including planning to make use of existing infrastructure and to leverage commercial resources
  o Stakeholder statements of need, and concept of operations (CONOPS)
  o As-is and proposed enterprise architectures
  o System engineering requirements
  o Plans related to the procurement of communications systems or equipment

- o Planning for back-up communications in the event that primary systems or equipment fail (contingency and strategic planning)
- o Planning for Training and Exercises
- o Plans to address findings in AARs
- o Plans to demonstrate or achieve National Plan Goals

- **Development and update of emergency communications plans requires input from localities and public safety agencies.** As a result, the following activities are often supported through Federal grants funding emergency communications:

  - o Conferences and workshops to receive input on plans
  - o Meeting expenses related to planning
  - o Public education and outreach on planning
  - o Travel and supplies related to planning, coordination meetings

- **Establishment and/or enhancement of interoperability governing bodies.** Grant funds may be used to establish or enhance statewide, regional (multi-State, multi-urban area), or local interoperability governing bodies (i.e., SIGB, Statewide Interoperability Executive Committees [SIEC]).[37] Statewide bodies often lead activities associated with planning, implementing, and managing interoperable emergency communications initiatives. Common eligible activities include:

  - o Developing agreements (e.g., Memoranda of Understanding [MOU], Charter)
  - o Meeting related expenses
  - o Public education and outreach to increase participation in governing bodies
  - o Travel to and supplies for governing body meetings

- **Development of interoperable emergency communications assessments and inventories**. Grantees are encouraged to allocate grant funding to planning activities, such as assessments of:

  - o Technology capabilities, assessments, inventory of infrastructure, equipment (e.g., Communications Asset Survey and Mapping [CASM], fleetmaps)
  - o SOPs, coordination of interoperability channels, Regional Response Plans
  - o Training and exercises
  - o Narrowband compliance capabilities, assets, and gaps in coverage
  - o Broadband capabilities, assets, gaps in coverage
  - o Development of cost maintenance models[38] for equipment and usage

- **Development and enhancement of interoperable emergency communications protocols.** Funds may be used to enhance multi-jurisdictional and multi-disciplinary common planning and operational protocols, including the development or update of:

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[37] The National Plan established a national milestone that Statewide Governing Bodies should be established in all 56 States and territories as recommended in the Statewide Interoperability Planning Guidebook.
[38] For information on common maintenance costs for emergency communication projects, see FEMA Information Bulletin 337: http://www.fema.gov/pdf/government/grant/bulletins/info337.pdf.

- o SOPs, including the elimination of coded substitutions (i.e., developing and implementing common language protocols)
- o Partnership agreements, MOUs, cross border agreements
- o Plans to integrate State and local SOPs, or develop mutual aid agreements
- o SOPs in response to specific disasters or emergencies
- o Field guides and templates for field guides, SOPs

- **Planning for broadband and other advanced technologies**. Grant funds may be used to plan for broadband and other advanced technologies, such as broadband, wireless data networks, IP-based mobile communications devices, and location-based services. Broadband and advanced technologies include the broadband infrastructure programs covered in the ARRA. These programs may have implications for statewide planning and implementation that could benefit migration to IP-based 911.[39] This can include hardware, software, data, and operational policies and procedures supported by multi-purpose emergency service networks. Activities may include:

  - o Broadband planning and broadband migration plans
  - o Development of SOPs to coordinate stakeholders or implement broadband and advanced technologies
  - o Plans to comply with requirements, standards, and best practices for broadband and other advanced technologies
  - o Contingency and migration planning, feasibility studies for broadband and advanced technologies

- **Use of priority service programs**. Grant funds may be used to facilitate participation in a number of Federal priority service programs, including:

  - o Telecommunications Service Program (TSP)
  - o Government Emergency Telecommunications Service (GETS)
  - o Wireless Priority Service (WPS)

Additional Requirements and Recommendations for Planning Activities

Grantees should consider targeting funding toward activities that will help them meet Federal grant requirements such as:

- **Submission of State Preparedness Reports.** Any State that receives Federal preparedness assistance must submit a State Preparedness Report to FEMA.[40] Grantees should ensure State Preparedness Reports have been submitted, and should work with State preparedness professionals to include emergency communications needs in State Preparedness Reports. Grant funds can be used to coordinate and update plans.

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[39] A National Plan for Migrating to IP-Enabled 9-1-1 Systems, see www.911.gov.
[40] Section 652(c) of the *Post-Katrina Emergency Management Reform Act of 2006* (Public Law 109-295), 6 U.S.C. §752(c).

- **Compliance with NIMS.** Under many grant programs, State, local, tribal, and territorial entities must adopt NIMS as a condition of grant funding. Implementation of NIMS requires coordination with State and local emergency response planners, completion of training courses, the adoption and use of the ICS, a plain language requirement, and the inventorying and typing of resources, and more. Many of these activities can be supported through grants.

- **Submission of Statewide Interoperability Plan Implementation Reports.**[41] OEC is required to report to Congress on progress against Statewide Interoperability Plans. States are required to submit Statewide Interoperability Plan Implementation Reports annually to help OEC meet this reporting requirement. Costs related to updating the Statewide Plan, or preparing Implementation Reports, including personnel and planning meetings, are allowable under most preparedness grants.

- **Completion of National Plan Goal Capability and Performance Reports.**[42] States were asked to complete activities and exercises to demonstrate compliance with National Plan Goals, and to submit National Plan Goal Reports to OEC. Grant funding can be used to support National Plan goal activities and reports. Findings from National Plan Goal Reports will be used to assess the level of preparedness in jurisdictions nationwide, and can be used to demonstrate needs for grant funding purposes.

- **Inclusion of "whole community" approach to planning.** In FY 2012, grantees should target grant funding toward activities that engage the whole community in planning. Engaging the whole community supports national initiatives to strengthen response, and satisfies new grant requirements.

5.2 Training

Recipients are encouraged to allocate Federal grant funds to support emergency communications and incident response training, and to include training in projects that include the development of new SOPs or the purchase of new equipment. Communications-specific training activities should be incorporated into statewide training and exercise plans, and reflected in Statewide Interoperability Plan and Implementation Reports. Training projects should address a performance gap identified through Statewide Interoperability Plans, Tactical Plans, National Plan Goal Reports, AARs, and/or other assessments. Emergency communications grant funds may be used for the training activities listed below.

- **Personnel Expenses.** Full- or part-time staff may be hired to support training activities. This includes staff that will:

   o Assess training needs
   o Develop training curriculum
   o Train the trainers
   o Train emergency responders

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[41] Also known as SCIP Implementation Reports.
[42] Also known as NECP Goal Capability and Performance Reports.

o Develop exercises to test training
o Support training conferences
o Develop and implement a curriculum covering new technical issues raised by broadband and other advanced technologies

Common restrictions on Federal grant funding for emergency communications personnel are provided in Section 3.2 of this document.

- **Overtime.** Some Federal grants permit the use of funds for overtime related to training. These expenses are limited to the additional costs that result from personnel working more than 40 hours per week as a direct result of their attendance at approved interoperable and emergency communications activities (i.e., approved emergency communications training).

- **Backfill-related Overtime.** Some Federal grants allow funds to be use for back-fill related overtime. These expenses are limited to costs of personnel who work overtime to perform the duties of other personnel who are temporarily assigned to grant-funded activities (e.g., to attend approved, grant-funded emergency communications training). These costs are calculated by subtracting the non-overtime compensation, including fringe benefits of the temporarily assigned personnel, from the total costs for backfilling the position. Grantees should ensure that grant funds can be used for overtime and should consult their grant officer to ensure that overtime costs are correctly calculated.

- **Hiring of certain full- or part-time contractors or consultants.** Hiring full- or part-time contractor staff or consultants to assist with training activities that are directly related to the grant-funded project (e.g., COML trainers).

- **Development, delivery, attendance, and evaluation of training**. Grant funds may be used to plan, attend, and conduct communications-specific training workshops or conferences, to include costs related to planning, meeting space, and other meeting costs, facilitation costs, travel, and training development. Communications-specific training[43] should focus on:

  o Use of established operational protocols (i.e., common language)
  o NIMS/ICS; ICS Communications Unit position training
  o Use of advanced technology, including broadband technology, and interoperable communications equipment
  o Disaster preparedness training
  o Peer-to-peer training
  o Regional (multi-State, multi-urban area) training
  o COML, Communications Unit Technician (COMT)Training associated with narrowband transition, and conversion to narrowband
  o Use of relevant advanced data capabilities (voice, video, data, text)

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[43] DHS training catalogs are available at: https://www.firstrespondertraining.gov/odp_webforms/. The Federal-sponsored course catalog can be found at: https://www.firstrespondertraining.gov/webforms/pdfs/fed_catalog.pdf, and the State-sponsored course catalog at: https://www.firstrespondertraining.gov/webforms/pdfs/state_catalog.pdf.

- **Expenses related to training.** Many Federal grants allow funds to be used for expenses related to training, including:

  - Training sessions, workshops, conferences and travel related to training
  - Meeting expenses related to training
  - Public education and outreach on training opportunities
  - Supplies related to training (e.g., signs, badges, and other materials)

Additional Requirements and Recommendations for Training Activities
Grantees should target funding toward certified emergency communication activities, including:

- **Compliance with NIMS.** Under many grant programs, State, local, tribal, and territorial entities must adopt NIMS[44] as a condition of grant funding. Implementation of NIMS requires that State, local, tribal stakeholders complete certain training courses.[45] Grantees should target grant funding towards training that will ensure compliance with NIMS.

- **Completion of COML.** OEC, in partnership with OIC, FEMA, the National Integration Center (NIC), and practitioners from across the country developed performance and training standards for the All Hazards COML as well as formulated a curriculum and comprehensive All-Hazards COML Course. Grantees should target grant funding toward this critical training to improve on-site communications during emergencies, and to satisfy NIMS training requirements.

5.3   Exercises

Exercises should be used to both demonstrate and validate skills learned in training and to identify training gaps and gaps in capabilities. To the extent possible, exercises should include participants from multiple jurisdictions and agencies such as emergency management, emergency medical services, law enforcement, interoperability coordinators, public health officials, hospital officials, and other disciplines, as appropriate.

In addition, grantees are encouraged to use Federal grant funding to demonstrate progress against National Plan Goals,[46] which may include the following activities:

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[44] NIMS is a national framework for response, that requires State, local, and tribal stakeholders to adopt a national ICS, complete certified training, and integrate the framework into State and local protocols.
[45] For more information on NIMS training, see: http://www.fema.gov/emergency/nims/FAQ.shtm#item9.
[46] National Plan (NECP) Goals can be found at:
http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf, p.7.

- **For Goals 1 and 2:** In FY 2012, States are encouraged to use grant funding to address any gaps identified in Goal 1 and Goal 2 capability and performance reports.[47] Tribal entities are encouraged to use Federal funding to complete their National Plan Goal 2 Capability and Performance Report.
- **For Goal 3:** In FY 2012, States may also allocate Federal grant funding to prepare for a significant event,[48] as indicated in Goal 3 of the National Plan. Preparation may include testing or piloting capabilities[49] in order to test, evaluate, and validate methods used to successfully manage emergency communications during a significant event.

In addition to exercises related to National Plan Goals, Federal funds may be used for the following interoperable emergency communication exercise activities:

- **Personnel Expenses.** Full- or part-time staff may be hired to support exercises. This includes staff that will:

    o Assess needs
    o Plan and conduct exercises in compliance with NIMS and Homeland Security Exercise and Evaluation Program (HSEEP)
    o Plan and conduct National Plan Goal 2 or 3 exercises
    o Lead After Action Conference and prepare AARs

    Common restrictions on Federal grant funding for emergency communications personnel are provided in Section 3.2 of this document.

- **Overtime.** Some Federal grants permit the use of funds for overtime related to training. These expenses are limited to the additional costs that result from personnel working more than 40 hours per week as a direct result of their attendance at approved, grant-funded interoperable and emergency communications activities (i.e., approved emergency communications exercise).

- **Backfill-related Overtime.** Some Federal grants allow funds to be use for back-fill related overtime. These expenses (if allowable) are limited to costs of personnel who work overtime to perform the duties of other personnel who are temporarily assigned to grant-funded activities (e.g., to attend approved, grant-funded exercise). These costs are calculated by subtracting the non-overtime compensation, including fringe benefits of the temporarily assigned personnel, from the total costs for backfilling the position. Grantees should ensure that grant funds can be used for overtime and consult their grant officer to ensure overtime costs are calculated correctly.

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[47] Urban areas and States conducted exercises and/or developed incident AARs from planned events or real-world incidents to demonstrate compliance with National Plan Goals 1 and 2. Many States used Federal grant funds to complete National Plan Goal activities, and capability and performance reports. Grantees are encouraged to target funding toward gaps identified in these reports.

[48] See National Planning Scenarios at: http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf, p. 31.

[49] Capabilities may include, but not be limited to, confirming communications within a 3-hour timeframe, restoring communications experiencing failures, and ensuring back-up communications.

- **Hiring of certain full- or part-time contractors or consultants.** Hiring full- or part-time contractor staff or consultants to assist with training activities directly related to the grant-funded project (e.g., emergency communications or disaster preparedness exercise).

- **Design, development, execution, and evaluation of exercises.** Grant funds may be used to design, develop, conduct, and evaluate interoperable emergency communications exercises, including tabletop and fully functional exercises. Exercise activities should focus on:

    o Using new or established SOPs; testing SOPs
    o Using interoperable emergency communications equipment
    o Designing and executing exercises of the new equipment purchased to facilitate the conversion process to narrowband, or serving as strategic technology reserve
    o Designing and executing regional (multi-State, multi-urban area) exercises
    o Designing and executing HSEEP compliant exercises
    o Designing and executing NIMS compliant training and exercises
    o Using broadband equipment and systems, and other advanced technologies
    o Demonstrating response level communications or National Plan Goals

- **Expenses related to exercises.** Many Federal grants allow funds to be used for expenses related to exercises, including:

    o Meeting expenses related to planning or conducting exercises
    o Public education and outreach related to exercises
    o Travel and supplies related to exercises

Additional Requirements and Recommendations for Exercise Activities

- **All Federally-funded exercises must be managed and executed in accordance with HSEEP.** The HSEEP Library provides guidance for exercise design, development, conduct, and evaluation of exercises, as well as sample exercise materials. HSEEP Volume V: Prevention Exercises provides recommendations for designing, developing, conducting, and evaluating prevention-focused exercises. The HSEEP Library can be found at: https://hseep.dhs.gov.

- **All Federally-funded exercises must be NIMS-compliant.** In 2003, the President issued HSPD–5, Management of Domestic Incidents, which requires all Federal departments and agencies to adopt NIMS and to use it in their individual incident management programs and activities, including all preparedness grants. Grantees should review the NIMS requirements on the following site: http://www.fema.gov/emergency/nims/index.shtm and ensure that all Federally-funded training and exercise activities are NIMS-compliant.

- **Training and exercises should be coordinated with the Statewide Interoperability Coordinator.** Communications-specific exercise activities should be coordinated with the Statewide Interoperability Coordinator and/or Statewide Governing Body, and should be incorporated in the Statewide Interoperability Plan or Implementation Report.

5.4   Equipment

Emergency response providers must upgrade and regularly maintain communications systems and capabilities to ensure effective operation. Regional operable and interoperable solutions, including shared solutions, are strongly encouraged. Grant applicants are encouraged to coordinate with regional partners and submit applications that promote regional (multi-jurisdictional, cross-State, cross-border) collaboration and cost-effective measures. Interoperable emergency communications grant funds should be used to focus on the activities listed below.

- **Design, construction,[50] implementation, enhancement, replacement, and maintenance[51] of emergency response communications systems and equipment.** Grant funds may be used to design, construct, implement, enhance and maintain interoperable emergency communications systems. Equipment activities should focus on:

  - System engineering requirements
  - As-is and proposed enterprise architectures
  - Purchase of emergency communications equipment[52] and purchase of equipment for the 700 MHz public safety broadband wireless network (i.e., mobile, portable, infrastructure[53] equipment), that complies with the FCC Waiver Order[54] or any succeeding rules governing the 700 MHz nationwide interoperable public safety broadband wireless network
  - Development of interoperability verification and validation test plans
  - Development of system life cycle plans
  - Migration to approved, open-architecture, standards-based interoperable technologies
  - Leveraging existing and other advanced technologies (e.g., multi-band/multi-mode capable radio) to expand and integrate disaster communications capabilities among emergency response providers
  - Project management costs associated with equipment and systems
  - Procurement of technical assistance services for management, implementation, and maintenance of communication systems and equipment
  - Reimbursement of cellular and satellite user fees when used for back-up emergency communications

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[50] Not all Federal grants permit construction-related activities. Check the grant guidance or ask your grant officer if construction activities are allowed. For grants that support construction-related activities, see EHP requirements that apply to select construction-related activities in this guidance.

[51] For DHS preparedness grants, FEMA has issued guidance on the use of grant funds for maintenance and operations. See Information Bulletins 336 and 348, located at: http://www.fema.gov/government/grant/bulletins/index.shtm.

[52] For a list of interoperable emergency communications equipment typically allowed under emergency communication grants, see the list of Interoperable Communications Equipment on the FEMA Authorized Equipment List (AEL) on the Responder Knowledge Base (RKB) website at: https://www.rkb.us/FEMAGrants/DisplayFEMAGrants.cfm.

[53] Grantees are advised to consult their grant officer regarding the purchase of activities that are construction-related.

[54] http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-79A1_Rcd.pdf.

- **Plan, procure, and deploy broadband systems and other advanced technologies.**
  Grant funds may be used to plan, procure, and deploy broadband systems and other
  advanced technologies, including NG911 technology systems, networks, telephony, and
  data sharing capabilities, based on open standards and systems. Activities can include:

  - **Upgrading systems to take advantage of advanced data** capabilities
  - Ensuring open-standards interface between broadband systems, other advanced
    technologies, including NG911 and land mobile radio (LMR) systems to achieve
    seamless digital, IP-enabled emergency communications system

- **Conversion to 12.5 kHz narrowband equipment.** The FCC mandated that all non-
  Federal public safety land mobile licensees operating below 512 MHz and using 25 kHz
  channel bandwidth in their radio systems migrate to 12.5 kHz channels by
  January 1, 2013. To assist State, regional, local, and tribal levels of government in
  achieving this mandate, grant funds may be used for the activities listed below:

  - Replacing non-narrowband compliant equipment
  - Acquiring/upgrading additional tower sites needed to maintain coverage after the
    narrowband conversion
  - Reprogramming existing equipment to operate in compliance with the
    narrowband mandate

Additional Requirements and Recommendations for Equipment Purchases
Federal grant funds for equipment often carry additional requirements, which may include:

- **Compliance with Federal procurement requirements.** As a condition of funding,
  recipients agree to comply with Federal procurement requirements. Grantees are
  responsible for ensuring open and competitive procurements, subject to the specific
  requirements, if any, of a particular grant program, and applicable state or local
  procurement requirements. Grantees are required to have written procurement policies in
  place, are encouraged to follow the same policies and procedures it uses for procurements
  using non-Federal funds, and should include any clauses required by the Federal
  government. The following are key procurement tenets when using Federal funds:

  - Procurement transactions should be conducted to ensure open and free competition
  - Grantees/subgrantees should avoid non-competitive practices (e.g., contractors
    that developed the specifications for a project should be excluded from bidding)
  - Grantees/subgrantees may not supplant, or replace, non-Federal funds that are
    already budgeted or funded for a project

- **Development of communications system life cycle plans.** Emergency response
  providers must upgrade and regularly maintain communications systems to ensure
  effective operation. Grantees should develop a system life cycle plan for any
  communications system, and are often required to submit system life cycle plans for
  equipment purchased with Federal grant funds. Grant funds often support the
  development of system life cycle plans. See the Appendix for a link to OEC's System
  Life Cycle Planning Guide.

- **Compliance with SAFECOM technical standards.** Grantees must ensure that all grant-funded equipment complies with the SAFECOM technical standards in Section 6 of this Guidance, unless otherwise noted in a program's grant guidance.[55] Many Federal grants require grantees to explain and document how their procurements will comply with the applicable standards for LMR systems and data-related information sharing systems, or provide compelling reasons for using non-standards-based solutions. Grantees should document all purchases and evidence of compliance with standards-based requirements.

- **Compliance with Federal Environmental and Historic Preservation (EHP) laws.** Grantees must ensure that Federally-funded projects comply with relevant EHP laws. The installation of communications towers and other ground-disturbing activities frequently requires EHP review. Each agency (and sometimes, each program) has its own EHP compliance process. Grantees should discuss proposed construction-related activities with grant offices *before* beginning work to determine whether proposed activities are allowed, and to determine if proposed activities are subject to EHP review.

  To learn more about Federal EHP requirements, see the Council on Environmental Quality Regulations (CEQR), 40 CFR Part 1500-1508, or the U.S. Department of Energy website at: http://ceq.hss.doe.gov/nepa/regs/ceq/toc_ceq.htm.

- **Leveraging existing systems and adopting new technologies.** Grantees are encouraged to migrate to approved, open architecture and to leverage existing and other advanced technologies (e.g., multi-band/multi-mode capable radio) to expand and integrate disaster communications capabilities among emergency response providers.

- **Coordination with Statewide Interoperability Coordinator and with State and local partners.** Grantees are strongly encouraged to coordinate with the Statewide Interoperability Coordinator and with other State and local partners to ensure compatibility among existing and planned emergency communications systems and equipment, and consistency with the Statewide Interoperability Plan.

- **Cost Share**. Many Federal grants require recipients to provide a percentage of total costs allocated to equipment. Federal funds cannot be matched with other Federal funds, but can be matched through State or local cash and in-kind contributions. Match requirements are often waived for ancillary territories. Grantees should review cost share requirements for Federal grants funding emergency communications equipment.

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[55] Technical standards and requirements vary among Federal grant programs (especially grants funding research and testing). Applicants should review grant guidance to ensure that specific standards, terms, and conditions under the grant are met.

6. Equipment Standards

Grantees should purchase standards-based and advanced technologies that promote interoperability. When procuring equipment for communications systems, whether voice or data, a standards-based approach must be used to facilitate interoperability between jurisdictions and disciplines at all levels of government, and to ensure interoperability between Federally-funded investments. The applicable requirements for LMR systems, Voice over Internet Protocol (VoIP) systems, and data-related information sharing systems (including broadband applications) are described below.

6.1 Standards for Land Mobile Radio Systems (P25 Suite of Standards)

To maximize opportunities to improve interoperability across investments, grantees should ensure that digital voice systems and equipment purchased with Federal grant funding are compliant with the Project 25 (P25) suite of standards, unless otherwise noted in a program's grant guidance.[56] The P25 suite of standards is published by the Telecommunications Industry Association (TIA).[57] TIA is a recognized American National Standards Institute (ANSI) standards development organization. The P25 standards provide a number of technical specifications for emergency communications equipment that are designed to ensure equipment is interoperable. To date, TIA has published over 75 documents detailing the specifications, messages, procedures, and tests applicable to the 11 interfaces, functions, and features offered by P25. The P25 Statement of Requirements is published by the Project 25 Steering Committee on an annual basis.[58] Below are two links to P25 information for grantees:

- Grantees can find the Document Suite Reference and additional information on P25 from the National Institute of Standards and Technology (NIST) at: http://www.pscr.gov/outreach/p25dsr/p25dsr.php.

- For additional information on P25 information and resources, grantees can register (free of charge) for the Project 25 Technology Interest Group (PTIG) website at: http://www.project25.org/.

To ensure projects are compliant with the P25 suite of standards, grantees should:

1. **Include P25 Standards in Statement of Requirements**
   Grantees should review the technical specifications detailed in the TIA documents to determine which standards are applicable to the proposed purchase and project. To gain a better understanding of technology standards and options, grantees may wish to develop and release a Request for Information (RFI). An RFI is a formal request for specific information about current technologies and services and their corresponding limitations and about different vendor approaches for delivering a solution or service.

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[56] Grantees should read grant guidance carefully to ensure compliance with standards, allowable cost, documentation, reporting, and audit requirements, outlined in each grant guidance.

[57] The 2010 P25 suite of standards is available at: http://www.tiaonline.org/standards/technology/project_25/.

[58] For more information, see: http://ftp.tiaonline.org/TR-8/APIC/P25%20UNS/Public/Current%20Approved%20Project%2025%20Statement%20of%20Requirements/P25%20SoR%20(March%203,%202010).pdf.

Grantees should include all applicable standards and expectations for interoperability in any statement of requirements or bid for communication procurements funded through Federal grants. This will help develop a shared understanding between buyers and vendors for determining what certification or compliance with a standard means to the agency making the purchase.

Grantees are responsible for ensuring open and competitive procurements, subject to the specific requirements, if any, of a particular grant program and applicable state or local procurement requirements. Grantees should avoid using product specifications developed by a specific vendor or targeted to a specific product in the requirements. This could limit the ability of other vendors to respond to the Request for Proposal (RFP), and the number of competitive proposals that the community will receive.

Grantees may wish to review the SAFECOM website (http://www.safecomprogram.gov), which provides valuable resources for developing requirements for procurements.[59]

2. **Select P25 Eligible Equipment**
   For assistance in determining eligible communications equipment purchases, grantees can access the *Public Safety Communications Research (PSCR) Grant Guidance Decision Charts,* which provide help in navigating P25 standards documents and in selecting and procuring P25 equipment. The PSCR tool can be accessed at: http://www.pscr.gov/outreach/safecom/grant_guidance/grant_charts.php.

   In addition, grantees can use the Responder Knowledge Base (RKB) website to identify equipment that is certified[60] by the P25 Compliance Assessment Program (P25 CAP).[61] For more information, see: https://www.rkb.us/search.cfm?typeid=2.

3. **Obtain Documented Evidence of P25 Compliance**
   To ensure equipment purchased is P25 compliant, grantees using Federal funds to purchase equipment are strongly encouraged to obtain documented evidence from the manufacturer that the equipment has been tested and passed all the applicable, published, normative P25-compliance assessment test procedures for performance, conformance, and interoperability as defined in the "Grant Guidance-P25 Explanatory Addenda," which can be found at: http://www.safecomprogram.gov/library/Lists/Library/Attachments/86/GRANTGUIDANCEPROJECT25EXPLANATORYADDENDAv2.pdf.

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[59] See Enhancing Communications Interoperability: Guidelines for Developing Requests for Proposals at: http://www.safecomprogram.gov/SiteCollectionDocuments/GuidelinesforRFPDevelopmentCW62806.pdf.

[60] Grantees should note that not all equipment is listed on this site, and not all equipment listed is certified. Equipment that has been certified by the P25 CAP to be P25-compliant is marked with the "P25CAP" logo. For equipment not listed on this site, and/or not certified by the P25 CAP, grantees are strongly encouraged to obtain documented evidence of P25 compliance from the manufacturer to ensure P25 compliance as discussed above.

[61] For more information on the P25 CAP Program, see: http://www.pscr.gov/projects/lmr/p25_cap/p25_cap.php.

Grantees should be prepared to demonstrate how their procurements comply with these requirements. When purchasing P25 LMR equipment/systems, grantees should, at a minimum, ensure the vendor has participated in equipment testing consistent with the P25 CAP. Equipment covered in the *Project 25 Compliance Assessment Program Requirements*[62] document is tested in accordance with applicable standards and policies of the P25 CAP, and evidence of this testing is documented through Supplier's Declarations of Compliance and Summary Test Reports that have been posted to http://www.rkb.us.

If documentation is not available through the P25 CAP, agencies should obtain documented evidence from the manufacturer that the equipment has been tested and passed all of the applicable, published, normative, P25 test procedures for performance, conformance, and interoperability.

Securing documentation of compliance either through the P25 CAP Program, and/or through the manufacturer will help to verify that equipment purchased is P25 compliant, and is interoperable with other P25 systems and equipment. Compliance with P25 will help to ensure that public safety agencies, across disciplines and jurisdictions, and at all levels of government can communicate in emergencies, and will help to improve emergency communications nationwide.

4. **Ensure compliance with P25/AES encryption standard (if applicable)**
In order to ensure the interoperability of encrypted communications, devices used by responders must share a common algorithm. Purchase of non-standard encryption features may inhibit interoperability between response agencies.

Therefore, grantees using Federal funds to purchase encryption options for new or existing communications equipment should ensure that encrypted capabilities are compliant with the P25 Block Encryption Protocol. Grantees investing in encryption are strongly encouraged to invest in AES 256-bit. The P25 suite of standards references the use of Advanced Encryption Standard (AES) and Data Encryption Standard-Output Feedback (DES-OFB) in the Project 25 Block Encryption Protocol, ANSI/TIA-102.AAAD.

Grantees seeking to use Federal grant funds to purchase non-standard encryption features or capabilities for new or existing equipment, must ensure AES is included as well to ensure their devices have the capability to interoperate in an encrypted mode.

Grantees currently using DES-OFB may continue to invest in this encryption method, but should plan to migrate to AES when practical. The Federal government recognizes AES as a more robust encryption algorithm, and strongly recommends entities migrate to AES. Federal, State, and local agencies are migrating to AES; migration toward this encryption method will ensure future interoperability with these entities.

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[62] http://www.safecomprogram.gov/SAFECOM/currentprojects/project25cap/.

5. **Ensure Additional Features Purchased are P25 Compliant**
   When Federal grant funds are used to purchase new P25 LMR equipment/systems containing non-standard features or capabilities, and a comparable P25 feature/capability is available, grantees must ensure the standards-based feature or capability is included as well. Further, if Federal grant funds are used to upgrade existing equipment/systems or to add non-standard features or capabilities, and a comparable P25 feature/capability is available, grantees must ensure that the standards-based feature or capability is included as well.

6. **Written Justification Required for non-P25 Purchases**
   Authorizing language for most emergency communication grants strongly encourage investment in standards-based (e.g., P25) equipment. Many agencies will not approve non standard-based equipment unless there are compelling reasons for using other solutions. Funding requests by agencies to replace or add radio equipment to an existing non-P25 system (such as procuring new portable radios for an existing analog system) will be considered if there is a compelling reason why such equipment should be purchased, and written justification of how the equipment will advance interoperability and support eventual migration to interoperable systems. Therefore, if grantees are using Federal grant funds to purchase equipment that does not align with national voluntary consensus standards, including P25, grantees should submit written justification to grant program offices explaining the need to purchase non-standard equipment, and how that purchase will serve the needs of the applicant better than equipment or systems that meet or exceed such standards. Absent compelling reasons for using other solutions, agencies considering new radio or system acquisitions should invest in standards-based equipment and are expected to migrate to P25 compliant equipment.

   These technologies may include IP-based solutions that should not require nor involve the acquisition of non-P25 systems or equipment. Regardless of the technology, grantees should ensure that projects promote (and do not hinder) interoperability, and deliver capabilities that approach the functional equivalent of a common standards-based shared system.

6.2   Standards for Voice-over-Internet Protocol (VoIP) Systems

When purchasing bridging or gateway devices that have a VoIP capability to provide connectivity between LMR systems, those devices must at a minimum, implement either the Bridging Systems Interface (BSI)[63] specification or the P25 Inter Radio Frequency Sub-System Interface (ISSI) as a part of their VoIP capability.

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[63] The BSI is a VoIP interface between bridging or gateway devices. More information is available at:
http://www.safecomprogram.gov/SAFECOM/currentprojects/voip/.

6.3   Standards for Data-Related Information Sharing Systems

OASIS Emergency Data eXchange Language
The Organization for the Advancement of Structured Information Standards (OASIS) Emergency Data eXchange Language (EDXL) is a suite of data messaging standards.

Federal agencies strongly encourage grantees to comply with OASIS EDXL standards. This standard is important to emergency communications because compliance with EDXL facilitates information sharing among public safety agencies.

Grant funded systems, developmental activities, or services related to emergency response information sharing should comply with the OASIS EDXL suite of data messaging standards.

Compliance should include the following OASIS EDXL standards:

- Common Alerting Protocol (CAP), version 1.1 or latest version
- Distribution Element (DE), version 1.0 or latest version
- Hospital AVailability Exchange (HAVE), version 1.0 or latest version
- Resource Messaging (RM) standards, version 1.0 or latest version

This Guidance does not preclude funding of non-OASIS EDXL compliant systems when there are compelling reasons for using other solutions. Funding requests by agencies to use non-OASIS EDXL compliant systems will be considered if there is a compelling reason why such equipment should be purchased, and written justification of how the equipment will advance interoperability and how the purchase will support eventual migration to interoperable systems. Absent such compelling reasons, the OASIS EDXL standards are the preferred standards. For more information, see: http://www.oasis-open.org.

National Information Exchange Model
National Information Exchange Model (NIEM) is a framework established by DHS and the Department of Justice (DOJ) to enable streamlined and secure information sharing of data among Federal, State, local, tribal, and territorial agencies, and with private sector entities.

NIEM allows disparate systems to share, exchange, accept, and translate information in an efficient manner. Grant funded systems supporting emergency response information sharing should leverage the NIEM for data component or element standards.

NIEM enables streamlined information sharing among Federal, State, local, tribal, and territorial agencies, as well as with private sector entities. NIEM allows disparate systems to share, exchange, accept, and translate information in an efficient manner. Rather than seeking nationwide integration of all Federal, State, local, tribal, and territorial information systems, NIEM focuses on cross-domain information exchange potential across multiple levels of government, thereby allowing organizations and agencies to share information quickly and effectively without rebuilding systems.

NIEM is not a software program, a computer system, or a data repository but a framework made up of two key components:

- A data dictionary of more than 7,000 terms that are commonly used in an information exchange
- A repeatable, reusable process for developing information exchange requirements

The resulting work product is an Information Exchange Package Documentation (IEPD), which is a set of artifacts that define a particular data exchange. For example, there is an IEPD that defines the information content and structure for an Amber Alert, a bulletin or message sent by law enforcement agencies to announce the suspected abduction of a child. IEPDs define the process by which data is exchanged and is currently used by all 50 States.

Grantees are encouraged to leverage the NIEM website to develop a greater understanding of data exchange functions and processes. More information on NIEM can be found at: www.niem.gov. In addition, NIEM has developed specific guidance for grantees which can be found at: https://www.niem.gov/program-managers/Pages/implementation-guide.aspx.

P-TAC Center: Supporting Technology Evaluation Project (STEP)
Grant funded systems, developmental activities, or services related to emergency response information sharing should also comply with user acceptance testing and/or conformance testing through the Supporting Technology Evaluation Project (STEP) managed by FEMA Preparedness-Technology, Analysis, and Coordination (P-TAC) Center. Information on STEP can be found at: www.ptaccenter.org/step. STEP provides testing of commercial software and hardware products, and reports on product conformity to standards (conformance testing) and NIMS concepts and principles (user acceptance testing). Findings from STEP tests may be accessed through the RKB website to assist grantees in making purchases. More information on the P-TAC Center and the products and services available to the response community to include STEP can be found at: www.ptaccenter.org.

6.4   Standards for Broadband Technologies

The FCC has made the deployment of a nationwide, interoperable mobile broadband network for first responders a key part of its National Broadband Plan,[64] and the current Administration has made establishing a nationwide public safety broadband network a centerpiece of its spectrum initiatives.[65] Congress is currently considering several legislative proposals[66] to foster the development, deployment, and operation of an interoperable Nationwide Public Safety Broadband Network (NPSBN) in the 700 MHz band, which would address a key finding from the 9/11 Commission Report.[67]

As part of the FCC's current efforts to enable the deployment and operation of this network and facilitate network interoperability, it has recognized the need for a common technical and operational framework to ensure that public safety broadband operations are interoperable on a nationwide basis. As a first step in enabling interoperability, the FCC adopted LTE as the required air interface for public safety broadband network operations at 700 MHz.[68]

Designating LTE as the required air interface for public safety broadband is important to the recent large-scale investment of the Broadband Technology and Opportunities Program (BTOP) funds to some of the jurisdictions that have obtained waivers from the FCC authorizing early pilot deployment in the 700 MHz public safety broadband spectrum, and which are required to use LTE for those deployments.[69] Supporting this common air interface and the standard interface between the Radio Access Network and the LTE Evolved Packet Core, will promote interoperability among Federally-funded investments, and allow the Federal government to coordinate investments across grant programs. In addition, as commercial deployments in the 700 MHz band are focused on LTE deployment, public safety can benefit from the economies of scale associated with these deployments.

Federal agencies funding the deployment of broadband systems are encouraged to require grantees seeking funding for 700 MHz public safety broadband investments to:

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[64] See: http://www.broadband.gov/plan/

[65] See: President's Wireless Innovation and Infrastructure Initiative at: http://www.whitehouse.gov/the-press-office/2011/02/10/president-obama-details-plan-win-future-through-expanded-wireless-access; and, American Jobs Act of 2011 (S.1549) at: http://thomas.loc.gov/cgi-bin/query/z?c112:S.1549:

[66] See SPECTRUM Act (S. 911) at: http://thomas.loc.gov/cgi-bin/query/z?c112:S.911:; and, information on the Jumpstarting Opportunity with Broadband Spectrum (JOBS) Act available through the House Energy and Commerce Committee at: http://energycommerce.house.gov/news/PRArticle.aspx?NewsID=9114.

[67] The 9/11 Commission Report states that during the 2001 terrorist attack on the World Trade Center, some Port Authority Police Department (PAPD) commands lacked interoperable radio frequencies. As a result, there was no comprehensive coordination of PAPD's overall response. The 9/11 Commission Report, *Heroism and Horror, 292-293 (July 22, 2004).*

[68] Specifically, the FCC designated the use of LTE,-at least 3GPP Standard, Evolved Universal Terrestrial Radio Access ("E-UTRA") Release 8 ("LTE"), and associated Evolved Packet Core ("EPC") by those waiver jurisdictions. See Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, FCC Third Report and Order and Fourth Notice of Proposed Rulemaking (FNPRM), released Jan. 26, 2011. LTE is the next generation wireless advancement of the current third generation (3G) Global System for Mobile Communications (GSM) cellular standard. This technology is designed to transmit data wirelessly through a standard IP platform projected at download speeds of Megabits per second (Mbps). LTE networks can permit the transmission of data intensive services like high definition streaming video or complex mapping tools with minimal delays to the user. Mobile telecommunication carriers are globally adopting LTE to improve upon their existing 3G networks.

[69] BTOP website: http://www2.ntia.doc.gov/.

- Obtain the necessary FCC authorization to operate in the 700 MHz broadband spectrum
- Ensure that projects are compliant with the regulations adopted by the FCC (and/or any subsequent orders and rules issued by the FCC to ensure nationwide compatibility and interoperability)

To ensure compliance, Federal agencies can ask grantees to demonstrate how their investments comply with the FCC's regulatory requirements. Grantees are encouraged to document and demonstrate compliance with these regulations.

Grantees may be required to include a statement in their application on whether their interfaces to such other networks are interoperable with existing networks, whether their networks are compliant with applicable standards, and whether their networks will be interoperable with future networks operating in the 700 MHz band. Please see the FCC's Waiver Order for additional information on the FCC's current standards for wireless broadband networks operating in the 700 MHz band at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-79A1_Rcd.pdf.

Additionally, grantees should be aware that the PSCR Program has initiated a 700 MHz Public Safety Broadband Demonstration Network at Commerce's Institute for Telecommunication Sciences (ITS) laboratories in Boulder, Colorado. The goal of the Demonstration Network is to provide a vendor-neutral environment where public safety, industry, and Federal agencies can test equipment for the 700 MHz public safety broadband network. The FCC has required all jurisdictions that were granted waivers for early build-out of 700 MHz deployments, along with their vendors, to participate in the Demonstration Network.[70] Grantees who have received funds to support deployment of 700 MHz public safety broadband network facilities are required to participate in the PSCR Program.

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[70] For more information, please see the 700 MHz Public Safety Broadband Demonstration Network section of this document.

7. Grants Management Best Practices

With reductions in Federal grant funding and increasing demands on grantees to report on progress and to demonstrate impact, grantees should ensure the most effective and proper management of Federal grants. Table 3 below provides best practices during the four major phases of the grant:

- Planning grant applications (Pre-Award)
- Managing grant funding (upon Award)
- Implementing grant-funded projects (Post-Award), and
- Completing Federal grant projects (Close-Out)

Table 3. Suggested Actions and Best Practices to Leverage During Grant Cycle Phases

Phases	Suggested Actions/Best Practices
Pre-Award	- Read the Statewide Interoperability Plan and Implementation Reports, coordinate with the Statewide Interoperability Coordinator to ensure projects support the Statewide Plan - Work with SAA to include communication projects in State-level preparedness plan (e.g., Homeland Security Strategies, State Preparedness Plans) - Identify funding options (grants and loans) - Work with SAA, neighboring jurisdictions, and other eligible entities when applying for funding - Review grant requirements included in funding opportunity announcement/grant guidance - Include coordination efforts (whole community) in applications - Identify staff to manage financial reporting and programmatic compliance requirements - Develop ○ Project milestones to ensure project will be completed on time ○ Budget milestones that indicate planned drawdowns ○ Performance measures and identify metrics that will help demonstrate impact - Consider potential impacts of EHP requirements, and impact on implementation timelines - Ensure proper mechanisms are in place to avoid commingling and supplanting of funds - Evaluate the ability of sub-grantees to manage Federal funding - Consider how the project will be sustained after grant funding has ended
Award	- Review award agreement to identify special conditions, budget modifications, restrictions on funding, pass-through and reporting requirements, and reimbursement instructions - Update the proposed budget to reflect changes made during review and award - Inform sub-recipients of the award and fulfill any pass-through requirements
Post-Award	- Establish repository for grant file and related data to be collected and retained from award through close-out, including correspondences, financial and performance reports, project metrics, documentation of compliance with EHP requirements and technology standards - Ensure fair and competitive procurement process for all grant-funded purchases - Understand the process for obtaining approval for changes in scope and budget - Adhere to proposed timeline for project/budget milestones; document and justify delays - Leverage Federal resources, best practices, technical assistance - Participate in PSCR Program 700MHz Demonstration Project (for broadband projects) - Complete financial and performance reports on time - Draw down Federal funds as planned in budget milestones or in regular intervals
Close-Out	- Complete projects within grant period of performance - Maintain and retain data as required by the award terms and conditions - File close-out reports; report on final performance

The proper management of grants will enable grantees to effectively implement projects, access grant funds, and establish the entity as a trusted and capable steward of Federal funding, able to manage additional funds in the future.

Grantees should stay up-to-date on grant requirements by regularly communicating with your grant officer, and by leveraging agency and Office of Management and Budget (OMB) resources on its Grants Management page at: http://www.whitehouse.gov/omb/grants_default/.

For additional grant and emergency communications resources, see the following Appendix.

Appendix. Emergency Communication Resources

The Appendix provides links to resources referenced in the *FY 2012 SAFECOM Guidance* and additional resources to help grantees develop emergency communication projects and complete Federal grant applications. Grantees are strongly encouraged to visit the SAFECOM website (http://www.safecomprogram.gov) for additional resources.

700 MHz Public Safety Broadband Network
- FCC website: http://www.fcc.gov/encyclopedia/700-mhz-spectrum
- Public Safety Communications Evolution brochure: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=330
- Interoperability Planning for Wireless Broadband: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=331
- Purchase of equipment for the 700 MHz public safety broadband wireless network should comply with the FCC Waiver Order (see: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-79A1_Rcd.pdf) or any succeeding rules governing the 700 MHz public safety broadband network
- Public Safety Communications Research (PSCR) Demonstration Network: http://www.pscr.gov/projects/broadband/700mhz_demo_net/700mhz_ps_demo_net.php
- Comments of the National Telecommunications and Information Administration, FCC Docket No. 06-229 (filed June 10, 2011). See: http://ntia.doc.gov/fcc-filing/2011/ntia-comments-regarding-implementing-nationwide-broadband-interoperable-public-safet

800 MHz Rebanding
- FCC website: http://transition.fcc.gov/pshs/public-safety-spectrum/800-MHz/
- 800 MHz rebanding website: http://www.fcc.gov/pshs/public-safety-spectrum/800-MHz/reconfiguration.html
- 800 MHz Transition Administrator (TA) website: http://www.800ta.org/
- Transition Administrator contact: comments@800TA.org
- FCC Frequently Asked Questions on rebanding: http://transition.fcc.gov/pshs/public-safety-spectrum/800-MHz/

Authorized Equipment List
For a list of interoperable emergency communications equipment typically allowed under emergency communication grants, see the list of Interoperable Communications Equipment on the FEMA Authorized Equipment List (AEL) on the Responder Knowledge Base (RKB) website at: www.rkb.us/FEMAGrants/DisplayFEMAGrants.cfm

Border Communications
- See *SAFECOM Guidance*, Section 4.5

Broadband
- See *SAFECOM Guidance*, Sections 4.6 and 6.4
- See Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, FCC Third Report and Order and Fourth Notice of Proposed Rulemaking (FNPRM), released Jan. 26, 2011. http://www.fcc.gov/document/service-rules-698-746-747-762-and-777-792-mhz-bandsimplementing-nationwide-broadband-inte-0
- See Public Safety Wireless Broadband Network Resources (below)

Cost Sharing/Matching Resources
Cost-share requirements vary greatly by grant. Grantees should review grant guidance carefully to understand matching requirements, and ensure that they can meet matching requirements before applying for Federal funds.
- General guidance on match can be found in Section 3.2 of the *FY 2012 SAFECOM Guidance*
- As an example, FEMA provided matching guidance for the Public Safety Interoperable Communications (PSIC) Grant Program in the PSIC Handbook, under "Managing the PSIC Grant." FEMA also released an Information Bulletin clarifying PSIC match requirements at: http://www.fema.gov/pdf/government/grant/bulletins/info268_Match_Clarification_Letter.pdf. **Note:** this is only an example of match for one grant program. For specific information on matching requirements, grantees should read the specific grant guidance and consult the grant officer.

Data-Related Systems - Standards
- See *SAFECOM Guidance* (Sections 5.4 and 6.3)
- See Organization for the Advancement of Structured Information Standards (OASIS) at: http://www.oasis-open.org

Emergency Communications System Life Cycle Planning Guide
http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=324

Environmental Resources
- See *SAFECOM Guidance*, Section 6. Equipment – Additional Requirements for Equipment Purchases
- Each agency has its own environmental review process. Grantees should contact their grant officer **as early in the grant process as possible** to understand and ensure compliance with environmental review requirements.
- DHS has posted guidance on its environmental review requirements:
  - FEMA Information Bulletins (IB) on environmental: Refer to IBs 329, 345, and 356 located at http://www.fema.gov/government/grant/bulletins/index.shtm
  - For questions on EHP for FEMA grants, contact: GPDEHPInfo@fema.gov
- The Public Safety Interoperable Communications (PSIC) Grant Program website provides resources for ensuring compliance with environmental compliance. These are unique to PSIC but provide a good overview of DHS' process. Grantees are strongly encouraged to address EHP concerns with program managers. For general resources issued for PSIC, see:
  - List of Federal Environmental Laws: http://www.ntia.doc.gov/legacy/psic/NEPA_sub1.html
  - Federal Environmental Resources: http://www.ntia.doc.gov/legacy/psic/NEPA_sub2.html
  - Council on Environmental Quality (CEQ) template for completing an environmental impact statement: http://ceq.hss.doe.gov/Nepa/regs/ceq/1502.htm#1502.10
  - Brochure of environmental review process: http://www.ntia.doc.gov/legacy/psic/NEPA_main.html

Equipment, Standards
- For guidance on equipment, see the *SAFECOM Guidance* (Sections 5.4 and 6)
- Interoperable Equipment. For a list of interoperable emergency communications equipment typically allowed under emergency communication grants, see the list of *Interoperable Communications Equipment* on the FEMA Authorized Equipment List on the Responder Knowledge Base website at: https://www.rkb.us/FEMAGrants/DisplayFEMAGrants.cfm
- Emergency Communications System Life Cycle Planning Guide. See: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=324
- P25 Resources (see P25 Resources below)

- Data Standards. See Organization for the Advancement of Structured Information Standards (OASIS) at: http://www.oasis-open.org
- Narrowband website: http://transition.fcc.gov/pshs/public-safety-spectrum/narrowbanding.html
- Narrowband Tech Topic: http://transition.fcc.gov/pshs/techtopics/techtopics16.html
- For broadband equipment, see Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, FCC Third Report and Order and Fourth Notice of Proposed Rulemaking (FNPRM), released Jan. 26, 2011. http://www.fcc.gov/document/service-rules-698-746-747-762-and-777-792-mhz-bandsimplementing-nationwide-broadband-inte-0

Exercise Resources
- For guidance on exercises, see the *SAFECOM Guidance* (Section 5.3)
- Exercises conducted with FEMA support should be managed and executed in accordance with the HSEEP. HSEEP Guidance for exercise design, development, conduct, evaluation, and improvement planning is located at: https://hseep.dhs.gov
- For questions on HSEEP, email hseep@dhs.gov
- Exercises should be NIMS compliant. More information is available online at the National Integration Center at: http://www.fema.gov/emergency/nims/index.shtm
- The Communications-Specific Tabletop Exercise Methodology at: http://www.safecomprogram.gov/SiteCollectionDocuments/CommunicationsSpecificTabletopExerciseMethodology.pdf
- See National Planning Scenarios at: http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf.
- For NECP Goals, see: http://www.dhs.gov/files/publications/gc_1281645820543.shtm
- For questions on NECP Goals, contact necpgoals@hq.dhs.gov

Federal Communications Commission (FCC) Resources
- 800 MHz rebanding website: http://www.fcc.gov/pshs/public-safety-spectrum/800-MHz/reconfiguration.html
- 800 MHz Transition Administrator (TA): http://www.800ta.org/
- For more information on the 800 MHz transition, contact the Transition Administrator at comments@800TA.org
- For more information on the rebanding process, see FCC Frequently Asked Questions at: http://transition.fcc.gov/pshs/public-safety-spectrum/800-MHz/.
- FCC Narrowbanding website: http://transition.fcc.gov/pshs/public-safety-spectrum/narrowbanding.html
- FCC Public Notice: Less Than One Year Remains for Land Mobile Radio Licensees in the 150-174 MHz and 421-512 MHz Bands to Transition to Narrowband Operations. See: http://transition.fcc.gov/pshs/public-safety-spectrum/narrowbanding.html
- For broadband equipment, see Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, FCC Third Report and Order and Fourth Notice of Proposed Rulemaking (FNPRM), released Jan. 26, 2011. http://www.fcc.gov/document/service-rules-698-746-747-762-and-777-792-mhz-bandsimplementing-nationwide-broadband-inte-0
- For more information on licensing fees, see the FCC Fee Filing Guide for the Wireless Telecommunications Bureau at: http://transition.fcc.gov/fees/appfees.html.
- For additional information on public safety broadband: http://www.fcc.gov/public-safety

FEMA Grant Bulletins
http://www.fema.gov/government/grant/bulletins/index.shtm

Grants
- For guidance on grants and grants management, see *SAFECOM Guidance* (Sections 3 and 7)
- For a list of grants funding emergency communications, see:
  http://www.safecomprogram.gov/SiteCollectionDocuments/GrantProgramsforSAFECOMWebsite.pdf
- See also: http://www.grants.gov
- OMB resources on grants: http://www.whitehouse.gov/omb/grants_default/

Homeland Security Presidential Directives (HSPD)
www.dhs.gov/xabout/laws/editorial_0607.shtm

Intergovernmental Review
Executive Order 12372 requires applicants from State and local units of government or other organizations providing services within a State to submit a copy of the application to the State Single Point of Contact (SPOC), if one exists, and if this program has been selected for review by the State. Applicants must contact their State SPOC to determine if the program has been selected for State review. Executive Order 12372 can be referenced at: http://www.archives.gov/federal-register/codification/executive-order/12372.html. The names and addresses of the SPOCs are listed on OMB's home page available at: www.whitehouse.gov/omb/grants_spoc

Interoperability Continuum
http://www.safecomprogram.gov/oecguidancedocuments/continuum/Default.aspx

Interoperability Planning for Wireless Broadband
www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=331

Land Mobile Radio, Standards
- See *SAFECOM Guidance*, Section 6.1
- See P25 Resources (below)

Maintenance
For guidance on maintenance for FEMA grants only, see Information Bulletins (IB) 336 and 348, located at: http://www.fema.gov/government/grant/bulletins/index.shtm

Narrowbanding
- See FCC website: http://transition.fcc.gov/pshs/public-safety-spectrum/narrowbanding.html
- See *SAFECOM Guidance*, Section 4.3
- A Practical Guide to Narrowbanding:
  http://www.safecomprogram.gov/SiteCollectionDocuments/OECNarrowbandingGuide_Final.pdf

National Broadband Plan
http://www.broadband.gov/plan/

National Emergency Communications Plan (NECP)
http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf

National Emergency Communication Plan (NECP) Goals
- For NECP Goals, see: http://www.dhs.gov/files/publications/gc_1281645820543.shtm
- For questions on NECP goals, contact necpgoals@hq.dhs.gov

National Interoperability Field Operations Guide
http://www.dhs.gov/files/publications/gc_1297699887997.shtm

National Plan (also known as the National Emergency Communications Plan or NECP)
http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf

National Plan for Migrating to IP-Enabled 9-1-1 Systems
www.911.gov

National Preparedness Guidelines
The National Preparedness Guidelines provide guidance to State, local, tribal, and territorial stakeholders in meeting the Nation's most urgent preparedness needs. For information on the *National Preparedness Guidelines*, see: http://www.fema.gov/pdf/emergency/nrf/National_Preparedness_Guidelines.pdf

National Incident Management System (NIMS)
- NIMS Resource Center at: www.fema.gov/nims
- NIMS training guidance is available on FEMA's NIMS Resource Center at: www.fema.gov/emergency/nims/NIMSTrainingCourses

OASIS Emergency Data eXchange Language (Standards for Data-Related Investments)
- See: http://www.oasis-open.org

OEC
Website: http://www.dhs.gov/xabout/structure/gc_1189774174005.shtm
Contact: oec@hq.dhs.gov

OEC 2012 Technical Assistance Catalog
http://www.publicsafetytools.info/start_index.php

P-TAC Center: Supporting Technology Evaluation Project (STEP)
More information on the P-TAC Center and the products and services available to the response community to include STEP can be found at: www.ptaccenter.org

Performance Measurement
- See OEC's *Communications Interoperability Performance Measurement Guide* at: http://www.safecomprogram.gov/oecguidancedocuments/Default.aspx

Planning Guidance and Resources
- See the *SAFECOM Guidance*, Section 5.1
- The *National Preparedness Guidelines* are instrumental in guiding State, local, tribal, and territorial stakeholders in meeting the Nation's most urgent preparedness needs. For information on the *National Preparedness Guidelines*, please see: http://www.fema.gov/pdf/emergency/nrf/National_Preparedness_Guidelines.pdf
- *State and Urban Area Homeland Security Strategy: Guidance on Aligning Strategies with the National Preparedness Goal*, http://www.fema.gov/good_guidance/download/10144
- Statewide Interoperability Planning Guidebook: http://www.safecomprogram.gov/statewideplanning/Default.aspx
- *CPG 101: Developing and Maintaining State, Territorial, Tribal, and Local Government Emergency Plans* (used to develop robust and effective plans): http://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf

- The *State Multi-Hazard Mitigation Planning Guidance (Mitigation Planning "Blue Book")* includes guidance for developing a Hazard Mitigation Plan, including the integration of man-made disasters into planning: http://www.fema.gov/library/viewRecord.do?id=3115
- *Regional Intrastate Governance Guide for Emergency Communications:* http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=129
- *Regional Interoperability Communications Plan Template*: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=327
- *National Planning Scenarios*: http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf
- *Emergency Communications System Life Cycle Planning Guide:* http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=324
- *Communications Interoperability Performance Measurement Guide:* http://www.safecomprogram.gov/SiteCollectionDocuments/OECPerformanceMeasurementGuide.pdf
- *Formal Agreement and Standard Operating Procedure Template Suite and Reference Library:* http://www.safecomprogram.gov/oecguidancedocuments/webpages/ts.aspx
- *Interoperability Continuum:* http://www.safecomprogram.gov/oecguidancedocuments/continuum/Default.aspx
- *Establishing Governance to Achieve Statewide Communications Interoperability:* http://www.safecomprogram.gov/SiteCollectionDocuments/EstablishingGovernanceGuide.pdf
- *Interoperability Planning for Wireless Brochure*: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=331
- *Target Capabilities List*: www.fema.gov/pdf/government/training/**tcl**.pdf

Presidential Policy Directive 8 (PPD-8)
For more information on PPD-8, see: http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm and http://www.fema.gov/prepared/ppd8_faqs.shtm

Project 25 (P25), Standards for Land Mobile Radio (LMR) Investments
- See the *SAFECOM Guidance*, Section 6.1
- The P25 suite of standards is available at: www.tiaonline.org
- Grantees can find the Document Suite Reference and additional information on P25 from the National Institute of Standards and Technology (NIST) at: http://www.pscr.gov/outreach/p25dsr/p25dsr.php
- For additional information on P25 information and resources, grantees can register (free of charge) for the Project 25 Technology Interest Group (PTIG) website at: http://www.project25.org/
- For sample procurement language, see *Enhancing Communications Interoperability: Guidelines for Developing Requests for Proposals* at: http://www.safecomprogram.gov/SiteCollectionDocuments/GuidelinesforRFPDevelopmentCW62806.pdf
- For assistance in determining eligible communications equipment purchases, grantees can access the *Public Safety Communications Research (PSCR) Grant Guidance Decision Charts* which provide help navigating the P25 standards documents and in selecting and procuring P25 equipment at: http://www.pscr.gov/outreach/safecom/grant_guidance/grant_charts.php
- For P25 testing and compliance information, see: "Grant Guidance-P25 Explanatory Addenda": http://www.safecomprogram.gov/library/Lists/Library/Attachments/86/GRANTGUIDANCEPROJECT25EXPLANATORYADDENDAv2.pdf
- Where such equipment is covered in the *Project 25 Compliance Assessment Program Requirements (*http://www.safecomprogram.gov/SAFECOM/currentprojects/project25cap/*)* document, it must be tested in accordance with applicable standards and policies of the P25 CAP, and evidence of this testing must be documented through Supplier's Declarations of Compliance and Summary Test Reports that have been posted to http://www.rkb.us.

Public Safety Communications Evolution Brochure
http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=330

Public Safety Communications Research (PSCR) Demonstration Network
http://www.pscr.gov/projects/broadband/700mhz_demo_net/700mhz_ps_demo_net.php

Public Safety Wireless Broadband Network, Resources
- For broadband equipment, see Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, WT Docket No. 06-150, PS Docket No. 06-229, FCC Third Report and Order and Fourth Notice of Proposed Rulemaking (FNPRM), released Jan. 26, 2011. http://www.fcc.gov/document/service-rules-698-746-747-762-and-777-792-mhz-bandsimplementing-nationwide-broadband-inte-0 and http://www.fcc.gov/public-safety
- Public Safety Communications Research (PSCR) Demonstration Network: http://www.pscr.gov/projects/broadband/700mhz_demo_net/700mhz_ps_demo_net.php
- Interoperability Planning for Wireless Broadband: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=331
- Public Safety Communications Evolution brochure: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=330

Regional Guidance
- See *SAFECOM Guidance*, Section 4.4
- Regional Intrastate Governance Guide for Emergency Communications: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=129
- Regional Interoperability Communications Plan Template: http://www.safecomprogram.gov/library/lists/library/DispForm.aspx?ID=327

Responder Knowledge Base (RKB)
https://www.rkb.us/.

SAFECOM Resources
www.safecomprogram.gov

State Administrative Agency (SAA)
You can find your SAA and other State-level contacts at:
http://www.fema.gov/government/grant/saa/index.shtm

Statewide Interoperability Coordinator (SWIC)
- To find your Statewide Interoperability Coordinator or Statewide Interoperability Plan Point of Contact, please contact OEC at oec@hq.dhs.gov
- See *SAFECOM Guidance*, Section 4.2
- Establishing Governance to Achieve Statewide Communications Interoperability: http://www.safecomprogram.gov/SiteCollectionDocuments/EstablishingGovernanceGuide.pdf

Statewide Interoperability Plan (formerly known as the Statewide Communication Interoperability Plan or SCIP)
- To find your Statewide Interoperability Plan, please contact your Statewide Interoperability Coordinator or Statewide Interoperability Plan Point of Contact. If you do not know your Statewide Interoperability Coordinator, please email OEC at oec@hq.dhs.gov
- See *SAFECOM Guidance*, Section 4.1

Statewide Interoperability Planning Guidebook:
http://www.safecomprogram.gov/statewideplanning/Default.aspx

Supporting Technology Evaluation Project (STEP)
More information on the P-TAC Center and the products and services available to the response community to include STEP can be found at: www.ptaccenter.org

Target Capabilities List (TCL)
www.fema.gov/pdf/government/training/tcl.pdf

Technical Assistance Catalog (2012)
http://www.publicsafetytools.info/start_index.php

Threat Assessment
In order to qualify for FY 2011 funding, FEMA required all grantees shall develop and maintain a Threat and Hazard Identification and Risk Assessment (THIRA). See HSGP Guidance at: http://www.fema.gov/government/grant/hsgp/

Training, Resources
- For guidance on emergency communications training, see *SAFECOM Guidance*, Section 5.2
- NIMS Resource Center at: www.fema.gov/nims
- NIMS training guidance is available on FEMA's NIMS Resource Center at www.fema.gov/emergency/nims/NIMSTrainingCourses
- Approved Federal Sponsored Course Catalog. This catalog lists Federal-sponsored courses that fall within the FEMA mission scope, and have been approved through the FEMA course review and approval process. An updated version of this catalog can be accessed at: http://www.firstrespondertraining.gov
- Additionally the new National Preparedness Directorate (NPD) Online Course Catalog (OCC) allows access to courses delivered by the CDP, EMI, and NTED. It can be accessed at: http://training.fema.gov/occ/
- DHS training catalogs are available at: https://www.firstrespondertraining.gov/odp_webforms/
- Federal-sponsored course catalog can be found at: https://www.firstrespondertraining.gov/webforms/pdfs/fed_catalog.pdf
- State-sponsored course catalog at: https://www.firstrespondertraining.gov/webforms/pdfs/state_catalog.pdf.
- Grantees should review the NIMS requirements on the following site: http://www.fema.gov/emergency/nims/index.shtm and ensure that all Federally-funded training and exercise activities are NIMS-compliant

Voice-over-Internet Protocol (VoIP) Standards
- For guidance on VoIP, see *SAFECOM Guidance*, Section 6.2
- When purchasing bridging or gateway devices that have a VoIP capability to provide connectivity between LMR systems, grantees should see standards posted at: http://www.safecomprogram.gov/SAFECOM/currentprojects/voip/