

Public Safety Interoperable Communications (PSIC) Grant Program

Resilient Communications Capabilities

March 2011



NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

U.S. DEPARTMENT OF COMMERCE



FEMA

**FEDERAL EMERGENCY MANAGEMENT AGENCY
GRANT PROGRAMS DIRECTORATE**

U.S. DEPARTMENT OF HOMELAND SECURITY



PSIC Grant Program Strategic Technology Reserve Background

Emergency response agencies must be able to prepare for incidents that can disrupt communications, whether it is a major disaster or local emergency. To adequately prepare for these possibilities, agencies must develop plans to promote survivability and have equipment in place to be able to recover quickly from the incident. Implementing redundant infrastructure, developing resilient strategies, defining recovery time objectives, and exercising communications continuity plans will improve communications system survivability. The Public Safety Interoperable Communications (PSIC) Grant Program represents a critical step toward accomplishing this goal.

The Deficit Reduction Act of 2005, as amended, directed the Department of Commerce's National Telecommunications and Information Administration (NTIA), in consultation with the U.S. Department of Homeland Security, to establish and implement the PSIC Grant Program. Of the nearly \$1 billion in PSIC funds available to the States and territories, \$855 million has been designated by State and local agencies for the acquisition and deployment of equipment that will increase emergency communications interoperability. An additional \$90 million has been designated by State and local agencies to fund collaborative planning and training efforts. As a result of PSIC-funded improvements to legacy communications systems and acquisition and development of new communications resources and solutions, this substantial investment in communications infrastructure will significantly enhance the Nation's emergency communications interoperability and overall survivability of communications infrastructure.

To target the need for resilient communications equipment, the Deficit Reduction Act, as amended, directed that \$75 million of the PSIC grant funds be spent for the funding of Strategic Technology Reserves (STR)—equipment reserves (e.g., mobile communications units, mobile radio caches, portable towers) that are prepositioned, deployable, and able to re-establish communications. The PSIC-funded STR solutions are designed to provide States and territories with the ability to recover quickly from major system-debilitating incidents and to meet mission critical needs until day-to-day communications channels and systems can be restored.

In implementing STR requirements, the PSIC Grant Program established a set minimum amount for each State and territory out of its overall PSIC funding. A State or territory could seek a waiver of its STR allocation – thereby reducing the STR funding going to that State or territory – if it could demonstrate that an STR capability already existed, a portion of the STR capability existed (and therefore full STR funding was not necessary), or that it had a higher priority public safety communications need.

Of the \$75 million made available for the STR portion of the PSIC Grant Program, the PSIC Grant Program granted waivers to States and territories in the amount of \$26.2 million, leaving the rest of the States and territories with a \$48.8 million minimum allocation for STR Investments. States and territories budgeted more than the minimum required for a total of \$57 million in requests; complemented with \$16.4 million in matching funds, the total expenditures for PSIC STR solutions comes to \$73.4 million. **Figures 1A** and **1B** provide an overview of the STR funding breakdown:

Original Allocation	\$75,000,000	
	—	Federal Waivers Granted
	\$26,228,280	(\$9,538,449 Partial + \$16,689,831 Full)
Total Federal Funding Allocation	\$48,771,720	

Figure 1A: STR Original Allocation & Waivers

	\$57,009,886	Actual Federal Funding Amount**
		<i>**Grantees chose to spend more than the minimum required amount on the STR Investments</i>
Non-Federal Match Amount	+ \$16,382,860	
	\$ 73,392,746	Total STR Funding Amount

Figure 1B: STR Federal & Match Amounts

The following subsections detail the PSIC-funded STR solutions and the impact they will have on the overall resiliency, redundancy, and dependability of the Nation's emergency communications environment.

Strategic Technology Reserve Trends

The *Implementing Recommendations of the 9/11 Commission Act of 2007* required PSIC grantees to establish and implement an STR containing deployable, pre-positioned equipment capable of re-establishing communications when communications infrastructure is damaged or destroyed. STR-related Investment findings are summarized below.

Waivers for Pre-existing STR Capabilities

If a State or territory could demonstrate that it had a pre-existing STR capability or a higher priority public safety communications need, it could request a waiver of the STR provision. The PSIC Grant Program granted full and partial waivers to these States and territories according to their capabilities and needs as defined below. While a portion of the States and territories were granted waivers, nearly two-thirds of them plan to use their entire STR allocation. **Figure 2** illustrates those States and territories that were approved for a full or partial STR waiver.

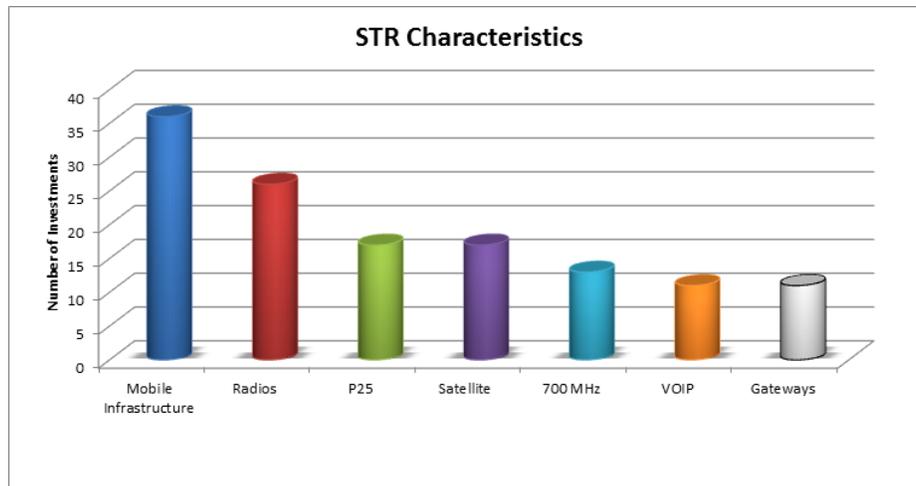


Figure 3: STR Investment Characteristics

Mobile Infrastructure (36 Investments): More than three-fourths of the STR Investments will deploy mobile infrastructure assets. Examples include: site-on-wheels, cells-on-wheels, portable repeaters, portable towers, portable antenna systems, mobile command vehicles, and trailers used to re-establish communications when systems are damaged or destroyed. Most mobile infrastructure Investments also include advanced technology characteristics, such as P25, 700 MHz, satellite, and IP technologies, as discussed below.

Radios (26 Investments): Many States and territories cite the need for additional radios for use by outside service providers during emergencies that require mutual aid. As a result, more than half of STR solutions will include pre-positioned radio caches.

P25 (17 Investments): More than one-third of STR solutions, particularly those involving radio caches, include P25 technology. Including P25 in STR solutions is critical because catastrophic events often require interoperability with multi-disciplinary and multi-jurisdiction first responders.

Satellite (17 Investments): More than one-third of STR Investments include satellite technology such as deployable infrastructure with satellite connectivity capabilities and satellite phones.

700 MHz (13 Investments): Nearly one-third of the STR solutions include the ability to interoperate with the 700 MHz frequency band. Solutions include radio caches and mobile infrastructures that are able to operate or interoperate with newly available frequencies in the 700 MHz band.

IP/ Radio over Internet Protocol (RoIP)/Voice over Internet Protocol (VoIP) (11 Investments): Other advanced technologies, including IP, VoIP, and/or RoIP, are often incorporated into STR solutions. IP functionality—wireless data, VoIP, and RoIP—is becoming available in mobile deployable solutions, particularly mobile command vehicles and trailers.

Gateways (11 Investments): Mobile gateway solutions and capabilities are reflected in one-quarter of STR Investments. Mobile gateways enable on-scene interoperability by connecting disparate communications systems.

Strategic Technology Reserves—Breakdown by Grantee

Strategic Technology Reserves: Entire Amount Approved

The *Deficit Reduction Act of 2005*, as amended by the *Implementing Recommendations of the 9/11 Commission Act of 2007*, directed the PSIC Grant Program to allocate \$75 million in grant funds to establish an STR solution. As noted, the PSIC Grant Program granted States and territories waivers for a total amount of \$26.2 million; therefore, States and territories had a remaining \$48.8 million allocated for STR Investments. States and territories budgeted more than the minimum required allocation (\$57 million), which, combined with \$16.4 million in matching funds; results in \$73.4 million for STR solutions. **Table 1** lists the States and territories that were approved for their entire STR allocation to establish or enhance an STR solution.

Table 1: States and Territories Approved to Expend Entire STR Allocation

Grantee	STR Investment Description
Alabama	Radio caches will be purchased for each region and portable tower/repeater capabilities will be added. This Investment will provide additional equipment and training needed for response to major disasters and catastrophic events.
Alaska	This Investment will fund an inventory analysis of STR assets, acquisition and deployment of equipment to fill gaps in the strategic reserve, and development of policies and procedures for routine and emergency use. The STR will include pre-positioned radio caches and gateway equipment to enable interoperability in Alaska's insular communities. The assets (e.g., portable radios, cellular and satellite voice equipment, gateway hardware and software, IP-based technology) acquired through this Investment will be integrated with existing resources and will be available both regionally and statewide to enhance interoperability in rural and remote communities.
American Samoa	The Investment will provide ultra-high frequency (UHF) and very high frequency (VHF) portable repeaters, which are deployable and field programmable to UCALL/UTAC, the national and regional mutual aid channels. The Investment also includes a mobile tower system (mobile vehicle, vehicle-mounted tower, and vehicle-mounted generator) and satellite phones that will re-establish communications in the event of communications failure or loss. The STR will be maintained and deployed by the American Samoa Telecommunications Authority and will be available for deployment to any public safety agency throughout the territory upon request.
Arizona	While the Arizona Department of Emergency Management and Military Affairs maintains several mobile communications vehicles and one fully equipped command center, these assets do not provide all the equipment necessary to support a large-scale, multi-jurisdictional incident. This Investment will augment the existing STR with additional portable telecommunications capabilities, including telephone service, radio caches, and equipment that enables local and wide-area networking capabilities.
Arkansas	The State will procure a mobile radio unit with a cache of 40 to 50 radios and assemble a team that will be trained to deploy and manage the equipment.
Colorado	This Investment will address the communications gap through the acquisition of two Mobile Interoperable Gateway Systems and additional radio equipment. The gateways will be installed on mobile trailers that can be moved to the scene of an incident. Each communications trailer will contain a cache of equipment, including radio antennae, gateways, and portable radios that have been pre-programmed to operate in every region.

Grantee	STR Investment Description
Connecticut	This Investment will fund mobile field communications units that will carry a variety of equipment depending on the location and systems that they will serve. The units will serve as fully integrated radio frequency sites for rapid response. The equipment must include a shelter, antenna, generator, trailer, and radio equipment fully integrated and ready to use. The units will be configured in trunked, conventional, or analog mode for any frequency band, and in multiple configurations.
Delaware	This Investment will fund mobile trailers, complete with generators that are designed to re-establish communications within two hours in the event of a disruption.
Georgia	The State will purchase equipment to upgrade mobile communications vehicles, a cache of 800 MHz radios, and a cache of satellite phones for first responders coming into the area to assist during incident response.
Guam	<p><u>Investment #1:</u> The STR Investment will provide funds for the acquisition of a communications trailer equipped with VHF, UHF, and 800 MHz radios. The equipment will be P25-compliant and provide Guam's public safety agencies with an IP-based audio bridge. This Investment will provide public safety agencies with continuity of operations in the event that critical communications infrastructure is damaged.</p> <p><u>Investment #2:</u> This Investment will acquire portable satellite IP-based communications infrastructure and Very Small Aperture Terminal satellite equipment. This satellite system will support 100 users with digital data, IP phones, analog public switch telephone network phones, and a wireless local area network for phones and computers.</p>
Hawaii	<p><u>Investment #1:</u> This Investment will provide each jurisdiction access to limited radio communications until the primary radio system is repaired by funding a cache of satellite phones. The satellite phones will expand voice communications statewide and provide radio coverage when other methods of communications are damaged or destroyed during a disaster.</p> <p><u>Investment #2:</u> This Investment will provide 10 transportable repeater packages that will be equipped with UHF, VHF, and 800 MHz repeaters, programmed with national and regional mutual aid channels. The packages will also include two dual-port Internet Protocol (IP) remote adapter panels to allow these resources to be easily managed by a laptop computer.</p>
Idaho	This Investment will provide for the acquisition of P25 interoperable and portable communications systems available for rapid deployment and capable of re-establishing communications for public safety agencies and emergency first responders operating within the State of Idaho.
Iowa	This Investment will provide additional mobile radios to the Woodbury County communications bus, the Iowa Department of Public Safety communications bus, and a yet-to-be-identified mobile resource in the eastern third of the State. It will also place 911 equipment in the Woodbury bus.
Kansas	This Investment will address gaps in the State's existing STR by adding digital trunking capability to both mobile communications trailers and a P25 system that can support additional users. The State will also acquire 40 P25-compliant subscriber units for each trailer and will pre-position 60 P25-compliant subscriber units with Incident Management Team members to be deployed during a disaster or emergency situation. Lastly, the State will use its PSIC funding to provide training on STR resources and exercises on STR assets.

Grantee	STR Investment Description
Kentucky	This Investment provides funding for the acquisition of seven Mobile Control Centers (MCC) and the upgrade of two existing Mobile Communications Vehicles. The MCCs will use a combination of mobile repeater systems for the State Mutual Aid voice channels, frequency patching technology, and wireless repeaters for the State's mobile data network.
Maine	Maine's STR Investment standardizes the technology across each of the four existing mobile communications vehicles strategically located across the State. The Investment also upgrades the vehicles' capabilities to serve as emergency dispatch centers and links them together should a catastrophic event wipe out traditional communications across a wide area. These acquisitions are dependent on the existing interoperable communications capacities of counties and communities where the need is greatest.
Massachusetts	The Investment will identify, purchase, and test technologies such as satellite telephones, high frequency radios, portable caches, and priority commercial services to establish an STR. The equipment included in this Investment will also be used in day-to-day operations, encouraging increased familiarity with the technologies and standard operating procedures (SOP).
Michigan	The State will purchase a Site-on-Wheels (SOW), three networked portable dispatch IP consoles, and a Rapid Response Communications Vehicle (RRCV). Designed to address capacity issues and service interruptions, the RRCV will contain satellite phones, data messaging devices, and wireless VoIP services.
Minnesota	<p><u>Investment #1</u>: This Investment will provide funding for developing regional deployable communications capabilities using mobile VHF repeaters, towers, generators, and a radio cache. It will also expand the capability of an existing mobile, statewide, independent 700/800 MHz trunked communications system, using an intelli-repeater. The intelli-repeater has the capacity to perform trunking functions without the need of a site controller and provides redundant functions in the event of equipment failure. The State will also develop SOPs and agreements for the activation and deployment of these resources.</p> <p><u>Investment #2</u>: This project will provide funding for developing regional deployable communications capabilities using mobile VHF repeaters, towers, generators, and an appropriate radio cache. Additionally, it will expand the capability of an existing mobile, statewide, independent 700/800 MHz trunked communications system, using an intelli-repeater.</p>
Mississippi	This Investment provides enhanced backup communications capabilities to ensure that interoperability can be achieved and maintained during emergencies and is available on demand. Phase I of the STR provided basic infrastructure for wide area coverage and mobile communication centers that could be moved and used to re-establish communications in areas where infrastructure was damaged or destroyed. Phase II of the project is addressed by the PSIC STR Investment. Mississippi will purchase and deploy a cache of P25 700/800 MHz dual-band radios to be used with the current State system. The radio cache, in combination with the State's mobile sites (e.g., three SOWs, one master SOW, nine coastal tower sites), will provide a backup system that can be moved to other parts of the State and to neighboring States in the event of a disaster.
Missouri	Missouri will first conduct an assessment of the existing equipment and determine the gaps in the STR solution. Any gaps will then be mitigated by purchasing the needed interoperable communications equipment. The plan is to pre-position STR assets regionally to assist in a man-made or natural disaster.

Grantee	STR Investment Description
Nevada	This Investment will provide for the acquisition of three communications vehicles equipped with modern satellite data/voice communication technology, mobile radio gateways/repeaters, and 100 portable radios for the 700/800 MHz frequency band. The communications vehicles will be strategically located throughout the State, with a response time of four hours or less to any point in Nevada, and will give responders the ability to achieve shared channel/shared system communications interoperability.
New Jersey	<p><u>Investment #1:</u> The State will purchase two communication SOWs with accompanying caches of portable radios to provide backup and redundant communications in the event that critical infrastructure is damaged or destroyed. The SOWs are self-contained and transportable, and equipped with their own generators, fuel, erectable tower, and antenna systems. The SOWs will utilize a 700 MHz P25 trunking protocol to maximize the number of talkgroups available and will use conventional mutual aid frequencies to facilitate a coordinated response. This Investment will also fund the development of a training program for all users, including communications unit leader (COML) and communications unit technician (COMT).</p> <p><u>Investment #2:</u> This Investment will enable the State to purchase and distribute 200 VHF, 200 UHF, and 200 800 MHz P25-capable radios, chargers, batteries, and accessories for use in the event of an emergency. Each county will receive approximately 33 radios that are able to operate in each of the three frequency bands. Training will be included for all cache radio operators, COMLs, and COMTs.</p>
New Mexico	This Investment will provide standard equipment on mobile command vehicles (i.e., gateways, P25, and analog cache of radios) and develop memoranda of understanding (MOU) and contracts governing the deployment and maintenance of the mobile command vehicles. New Mexico will also develop SOPs, training, and exercises involving its STR capabilities. To resolve the State's communications centers' outage problems, New Mexico will install generators in the communications centers and provide solar cells and generators at the repeater sites.
New York	This Investment will establish a statewide STR by purchasing six communications vehicles equipped with interoperable communications equipment (i.e., cache of radios, portable tower, generator, satellite solution, cellular phone, and VoIP) that will be pre-positioned in the State Emergency Management Office geographic regions. In addition, the Investment will improve interoperability by allowing the vehicles to provide mobile interoperable communications in remote areas.
North Dakota	This Investment will enable the State to deploy gateways in the State's four quadrants to interconnect disparate communications systems within and between those regions. The Investment will enable a communication link to every county and will provide a link to first responders and secondary response agencies (e.g., private ambulance, power companies), as well as to Canadian, Federal, and State agencies.
Oklahoma	This Investment will provide a communications interoperability trailer with a 100-foot hydraulic mast with multiple antenna mounts, a generator, and an IP gateway device. This Investment will also provide the technology to bridge different radio systems during natural and man-made disasters and will improve spectrum efficiency by using mutual aid and other shared channels in multiple frequency bands.
Oregon	This Investment will provide funding for an assessment of all STR assets including maps, key contacts, and the process by which those resources can be requested. Based on the statewide assessment, the remaining STR funds will be used to augment deployable assets and to develop statewide SOPs to access STR resources.

Grantee	STR Investment Description
Puerto Rico	This Investment will purchase a satellite kit to facilitate interoperability in the event of a communications failure. Moreover, operational and training plans will be developed to ensure that the equipment obtained with these funds is properly used. Additional equipment includes solar-charged capabilities and satellite telephones with solar charger packs.
Rhode Island	This Investment will provide for the purchase of portable towers, repeaters, and a cache of radios to increase interoperability throughout the State and to supplement the current Rhode Island State Communications Network (RISCON) system. The Investment will enable an efficient deployment of additional radios to an incident or major event to achieve interoperability with responding agencies that operate outside the RISCON system.
South Carolina	This Investment addresses several of the State's key concerns (e.g., disrupted landline and wireless network services, high call volumes, power failure, and site damage) by providing for the acquisition of a trailer-mounted satellite system, which will provide voice and data connectivity via landline telephone, cell phone, fax, and email. The Investment will also provide for the acquisition of a central cache of VHF, UHF, and 800 MHz radios.
South Dakota	This Investment will upgrade and expand the State's current capability by acquiring 175 new radios that are compatible with the existing statewide communications network and will serve public safety agencies statewide.
Tennessee	This Investment provides for a radio cache, a radio SOW, and training and exercises on this STR equipment. The mobile towers and vehicles will use wireless and satellite connections to re-establish communications and training will include the COML for public safety personnel.
Texas	This Investment will provide backup interoperable capabilities during an incident or natural disaster by procuring a cache of equipment, including communications response trailers, portable radios with P25 conventional and trunking capabilities, a deployable IP-based radio gateway, portable generators, portable deployable gateway devices, and satellite telephones and radios.
U.S. Virgin Islands	This Investment will provide the territory with a self-contained, deployable repeater and communications system supported by backup generators, portable masts, and towers. This Investment will benefit 23 key public safety and response agencies, including fire and law enforcement.
Utah	This Investment will enhance the STR of communications equipment that currently exists by developing a comprehensive plan for the implementation of the STR. Once the plan is developed, the State will acquire additional assets that are capable of operating in VHF and 800 MHz, and will place these resources at strategic locations throughout the State to enable emergency communications in the event of total system failure.
Virginia	STR funding will be applied toward completion of three strategic radio caches and the acquisition of a mobile communications vehicle. Virginia has committed to utilizing radios that are P25-compliant, able to communicate on the 700/800 MHz frequencies, and programmed for National Interoperability Channels to achieve the greatest interoperability among users and systems. A portion of the funding will be distributed to localities to provide training on the new equipment.
Wyoming	This STR Investment will provide a cache of P25 radios in each of the seven regions and each mobile support vehicle to enable interoperability in multi-agency, multi-jurisdictional response efforts.

Strategic Technology Reserves: Partial Waiver

Table 2 lists the States and territories to which the PSIC Grant Program granted partial STR waivers. These grantees demonstrated that partial STR solutions were in place, and the PSIC Grant Program granted a waiver to use only a portion of the STR funding allocations to enhance current STR solutions, allowing these States to reallocate the remaining funding to other priority Investments.

Table 2: States and Territories Granted a Partial STR Waiver

Grantee	STR Investment Description
Florida	This Investment will upgrade the State’s existing five-channel mobile trunked radio system to allow for connectivity to the State of Florida Statewide Law Enforcement Radio System and provide upgrades which will enable 700/800 MHz and P25 operations. A second system will be purchased and built to the same specifications as the upgraded original unit (P25 700/800 MHz). The second unit will be stationed in the Tallahassee area to provide a rapid response capability for the northern Florida area and out-of-State response capabilities.
Illinois	This Investment will enhance the existing Illinois Transportable Emergency Communications System and unified command vehicles through the procurement of additional repeaters, base stations, and portable radios, providing a more robust solution necessary to re-establish communications in the event of a disaster.
Indiana	This Investment addresses this communications gap by funding the purchase of 75 additional radios and one Mobile Intelli-Repeater System (MIRS), which is a portable five-channel site equipped with an antenna. MIRS will be deployable to a disaster area and provide instantaneous voice and data communications and boost communications coverage.
Montana	The State will enhance the existing STR and purchase mobile emergency generators, mobile VHF repeaters, and mobile towers to help restore connectivity. The State will also purchase master controller emergency spare kits, radio site rapid response maintenance packages, and microwave rapid response maintenance packages to support the statewide system and serve the needs of first responders in the State.
Nebraska	This Investment will enhance the current STR solution to acquire additional mobile tower equipment.
New Hampshire	New Hampshire has invested in and maintains two major interoperable communications vehicles, a number of mobile gateways, and several radio caches. This Investment will be used to further enhance the existing STR with deployable cache technology and to develop SOPs for the current solution. The Investment will be also be used to purchase fixed assets to supplement the current backbone infrastructure. With these fixed assets (i.e., critical radio links, microwave point-to-point paths, and emergency transmitters), the State has components for rapid replacement of the backbone and has built in redundancy into the systems to re-establish communications in the event of system failure.
North Carolina	This Investment will assist North Carolina in providing each of the seven Domestic Preparedness and Response Regions (DPRR) with one portable tower and related equipment, including VHF/UHF/800 MHz conventional repeaters, a gateway, radios, and a generator. In addition, each DPRR will receive a customized trailer containing a radio cache.

Grantee	STR Investment Description
Ohio	This Investment enhances Ohio’s STR capability by installing in-band 700/800 MHz repeater and antenna systems into all interoperable communications vehicles. This installation will provide 700/800 MHz band coverage in remote areas and improve portable coverage by reducing dead zones.
Wisconsin	This Investment will build and maintain a field-deployable Mobile Communications Trailer and upgrade an existing unit with onboard interoperable communications technology to support all levels of crisis communications regardless of jurisdiction. The STR can be deployed to the State’s high-risk areas for natural, technological, or terrorism-related events within a matter of three hours.

Strategic Technology Reserves: Full Waiver

Table 3 lists the States and territories to which the PSIC Grant Program granted full STR waivers. These grantees demonstrated that fully-functioning STR solutions were already in place or that a higher priority public safety communications need existed, and reallocated STR funding to other priority Investments.

Table 3: States and Territories Granted a Full STR Waiver

Grantee	Description of Preexisting STR
California	The State’s current STR includes projects and equipment provided at the local, regional, and State levels. The existing STR capabilities include the Operational Area Satellite Information System, a stand-alone primary redundant satellite communications system that was recently upgraded.
District of Columbia	The National Capital Region (NCR) Urban Area has, over the past three years, developed an interoperable radio cache for use during emergencies. This radio cache was purchased with NCR urban areas security initiative (UASI) funds between fiscal year (FY) 2003 and FY 2005, and is currently maintained with local funds.
Louisiana	Since 2005, the State of Louisiana has invested FEMA Recovery funds, Homeland Security Funds, State General Funds, and Community Oriented Policing Services Grants on an STR solution. This includes several radio caches, three MCPs, an Interoperable Communications Extension System, and a Rapid Restoration of Communications trailer.
Maryland	Current STR solutions in the State of Maryland include three radio caches (approximately 1,250 radios), several interoperability gateways, 28 mobile command vehicles (MCV), SOWs, and multimode phones (analog/digital/satellite).
Commonwealth of the Northern Mariana Islands (CNMI)	CNMI was granted a full waiver of the PSIC STR requirement to focus on more pressing interoperability communications issues.
Pennsylvania	Pennsylvania has invested in a significant amount of both deployable assets and radio caches throughout the State. These Investments include five Multi-Agency Radio Interoperability Systems vehicles, a mobile command post (MCP), four cells on wheels, three communications trucks with satellite capabilities, two Deployable Regional Operations Centers, and radio caches of 685 portable radios and 346 tactical repeaters.
Vermont	The Vermont State Police currently maintains two MCPs and a rapid response vehicle. There are also three MCPs owned by local first response agencies as well

Grantee	Description of Preexisting STR
	as several radio caches located throughout the State. In addition, Vermont has a partnership with the Vermont National Guard, which will provide assistance during times of disaster or man-made events, and MOUs have been signed between the New England States as well as with Canada to allow the sharing of communication assets during times of emergency.
Washington	Washington's existing STR solutions include Audio Connect Unit (ACU) 1000 gateways, Land Mobile Radios, deployable communications trailers, a radio cache, theatre-deployable communications packages, and satellite communications packages.
West Virginia	West Virginia's existing STR solutions include an MCC, two radio caches (136 radios), an Emergency Portable Interoperable Communications System, and a portable trunked radio site.