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Urban Area Security Initiative

IMPLEMENTING THE INTEROPERABLE COMMUNICATIONS TECHNICAL ASSISTANCE PROGRAM (ICTAP)

Your city is one of fifty-one urban areas in the United States that has been designated an Urban Area Security Initiative (UASI) site by the Department of Homeland Security's Office for Domestic Preparedness (ODP). As a UASI site, funding is provided to enhance preparedness and improve the response to the terrorist threat of a Weapons of Mass Destruction (WMD) attack. Your site may use part or all of its funding to improve interoperable communications, which is supported by ODP's Interoperable Communications Technical Assistance Program (ICTAP). ICTAP is funded by ODP to provide free support to cities and States that have received UASI grants. This bulletin provides guidance and suggestions to help your UASI site answer questions regarding planning, the roles and responsibilities of the UASI site, the extent of technical assistance that ODP can provide under ICTAP, and policy, operational, and technical decisions that need to be considered.

WHAT IS ICTAP?

ODP is providing your region with funding for enhanced preparedness through the UASI program. ICTAP is a technical assistance program designed to enhance interoperable communications between local, State, and Federal emergency responders and public safety officials, and is associated with ODP's UASI grant program. The goal of the ICTAP program is to enable local public safety agencies to communicate as they prevent or respond to a WMD attack. ICTAP also leverages and works with other Federal, State, and local interoperability efforts whenever possible to enhance the overall capacity for agencies and individuals to communicate with one another.

HOW ICTAP SUPPORTS INTEROPERABILITY IN UASI SITES

The ICTAP program provides on-site support over four phases. Using a systems engineering approach, an ICTAP technical assistance team works closely with the UASI site's Urban Area Working Group (UAWG), or their communication designees, to assess the current communications infrastructure for gaps and to translate operational requirements into technical requirements that can be used to design an interoperable communications system.

In Phase 1, Define Requirements, the ICTAP team can help the urban area assess its current communications capabilities and the interoperability gaps that limit communications between agencies

at the local, State, and Federal level. This includes a survey of existing communications technologies and the development of operationally based scenarios to understand how agencies could respond to a terrorist incident and the interoperable communications capability needed to support that response.

In Phase 2, Identify Solutions, the ICTAP team assesses a variety of potential solutions that could address the identified needs. Solutions may be short- and/or long-term, integrating other local, State, and Federal initiatives. Working with the input of the UAWG, the ICTAP technical assistance team develops an implementation plan.

In Phase 3, Implement Solutions, the ICTAP team helps to implement and integrate the planned approach to interoperable communications, assisting with design of the chosen interoperable communications architecture and with implementation planning. This may include coordinating host site agreements, providing training, and assisting with testing.

In Phase 4, Transition Services, the ICTAP team continues to provide technical assistance by assisting with training needs, utilization evaluations, and exercise coordination.

THE PUBLIC SAFETY INTEROPERABLE COMMUNICATIONS PROBLEM

Interoperability is the ability for public safety agencies to exchange voice and/or data with one another on demand, when needed. Historically, public safety agencies have operated independent communications systems, but the increasing complexity, size, and frequency of disasters and emergencies demand coordinated multi-agency response.

Barriers to interoperability are both technical and human. Different jurisdictions use different equipment and communicate using different radio frequency bands. There is a limited amount of radio spectrum available to public safety. Funding to replace aging communications equipment is limited and is subject to jurisdictional budget cycles.

Achieving interoperability requires some shared management and control. Just as important as the technology is the need for uniform policies, and procedures, standards and training, including exercises on mutual aid in WMD events.

UAWG AND INTEROPERABLE COMMUNICATIONS

The first step for the UAWG is to assemble representatives across different governmental levels, jurisdictions, and public safety disciplines who have equal voices and decision making powers to govern the interoperability project. The UAWG can designate an Interoperability Committee or divide the effort among existing working groups to address technical, operational, and policy issues. Working with the UAWG, the ICTAP Team will assist with the development of a coordinated plan that defines the vision, goals, and objectives of the effort; describes the specific problems or needs that are to be addressed; identifies partners and their roles and responsibilities; and provides a budget and timeline. For each phase of technical assistance, the ICTAP team will work closely with the UAWG to define requirements, identify potential solutions, implement solutions, and participate in follow-on training, evaluation, and exercises. With the assistance of the ICTAP Team when needed, the UAWG or their designated Interoperability Committee will need to do the following:

- Develop a problem statement and determine what technical assistance is required from the ICTAP technical assistance team;

- Analyze interoperability needs in the region to determine which agencies need to be able to communicate in specific situations;
- Identify regional communication resources and contacts for the development of the proposed solution;
- Determine what equipment and/or resources will be needed to expand existing systems;
- Review and develop procedures for the installation, operation, maintenance, testing and exercising of the interoperable communications solution;
- Provide input to technical recommendations for the proposed solution;
- Develop a Request For Proposal (RFP) for proposed solutions, if necessary; and,
- Make short- and long-term policy decisions regarding use of the current system and proposed future interoperability solutions, including the following:

  - Who will define policies and procedures?
  - Under what circumstances can each system be used?
  - Who has authorization to request or approve requests for use of each system?
  - Who is notified when the system is put to use and how does notification take place?
  - How will regional dispatch centers be made aware when an interoperable communications system has been activated and the channels or talk groups involved?
  - What rules govern communications in a multi-agency situation?
  - How will limited communications reserves be used to support Incident Command in a multi-agency response to an incident?
  - How can the UAWG ensure that agency personnel will exercise and become familiar with all relevant systems?

Each UASI site will have unique challenges and needs. Some sites may be just beginning to develop interoperability solutions, while others may have programs in place or be developing interoperability solutions through other Federal or State grants. Kansas City, Missouri, a UASI site that began to implement its ICTAP program in early 2004, provides an example of how ICTAP is working with an ongoing interoperability effort.

SNAPSHOT OF THE KANSAS CITY UASI

Kansas City, Missouri, is part of a bi-state metropolitan area straddling the Missouri-Kansas State line, located at the junction of the Missouri and Kansas Rivers. The Kansas City UASI site is home to 450,000 people, covering an area of 317 square miles, 8 counties, and over 100 cities. The general terrain is hilly with numerous rivers and streams crisscrossing the city.

The city's central location and diversified transportation and storage facilities make it one of the Nation's key agribusiness markets and the location of a number of major businesses. A midwest transportation hub, Kansas City is one of only five U.S. cities with three intersecting interstate highways. The city's rail system carries 300 daily freight arrivals and departures. About 400 flights a day come and go from Kansas City International Airport. Eleven regulated barge lines transport goods through Kansas City on the Missouri River.

Kansas City is located between two major military installations—Fort Leavenworth, Kansas, home to several Army activities including the 35th Infantry Division and the Army Command and General Staff College, and Whiteman Air Force Base, Missouri, home to the 509th Bomb Wing and the B-2 Stealth Bomber.

KANSAS CITY—A MODEL OF COOPERATION

The Mid-America Regional Council (MARC) is a joint political organization of city and county governments that has been delegated the authority by these jurisdictions to administer funds for the Kansas City metro area UASI program. MARC comprises a number of committees made up of members from these jurisdictions, including a committee—the Regional Interoperability

Committee (RIC), which has been working on issues related to interoperable communications. "The ICTAP program has been a huge resource to the region," says Matt May, Emergency Services Planner for MARC. "In addition to funding, the ICTAP team has provided technical expertise that would have either severely decimated or eliminated funds allocated to the project, requiring MARC to look to other funding sources to initially implement the project."

"MARC provides a mechanism that brings together appropriate representation that has the authority to make decisions on behalf of the region," says ICTAP Technical Team Project Manager Neil Hoff, of the Space and Naval Warfare Systems Center-San Diego. "MARC already had a committee organized to deal specifically with interoperable communication, making our job a lot easier."

Prior to the involvement of the ICTAP technical team, Kansas City had begun to identify interoperable communications gaps and selected a communications architecture (ICTAP Phases 1 and 2). The solution, known as RAMBIS, Regional Area Multi-Band Integrated System, was adopted by the RIC on behalf of the Kansas City UAWG. RAMBIS is a multi-band region-wide radio system that will provide interoperability between disparate radio systems (800MHz, VHF, UHF) through simulcast transmission and cross-band repeating. Simulcast transmission allows the same signal to be broadcast from multiple repeater sites to cover a larger geographic area. Cross-band repeat functionality will allow the channels for 800MHz, VHF, and UHF to be interconnected so that a transmission received on one band will be rebroadcast on all bands, creating interoperability among all three frequency bands.

As the project began, MARC created Operational and Technical Working Groups (WGs). The ICTAP team is working with the Operational WG to determine the RAMBIS high-level architecture, define operational procedures, develop performance criteria for the RAMBIS system and define how it will interface with other existing or planned interoperable communications capabilities. With the Technical WG, the ICTAP team is working to identify frequencies and facilities available for use by the RAMBIS system. In addition to contributing to the development of the RFP for the RAMBIS system, the ICTAP team will assist with evaluation of RFP responses, and will be available to provide technical assistance during system implementation.

ADDITIONAL INFORMATION

ICTAP may be able to assist your region with interoperable communication solutions.. For more information, visit http://www.ojp.usdoj.gov/odp or call 1-800-368-6498.