



# Technical Assistance Catalog

Office of Emergency Communications

TA-OEC-CATALOG-001-D1

July 2008 | rev. September 2008



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## TA Offerings



The Interoperable Communications Technical Assistance Program (ICTAP) is provided by the U.S. Department of Homeland Security (DHS) Office of Emergency Communications (OEC). The OEC supports and promotes the ability of emergency responders and government officials to continue to communicate in the event of natural disasters, acts of terrorism, or other man-made disasters, and works to ensure, accelerate, and attain operable and interoperable emergency communications nationwide.

The purpose of ICTAP is to enhance interoperable communications among local, State/Territory, and Federal emergency responders and public safety officials. ICTAP representatives provide support for planning, operations, technical issues, and policy decisions that need to be considered when developing interoperable communications initiatives. The goal of the ICTAP program is to improve the abilities of public safety agencies across multiple disciplines and jurisdictions to communicate effectively as they work to manage disasters, emergency incidents, and planned events.

Over the past several years, ICTAP has assembled, trained, and fielded a wide array of dedicated subject matter experts with the appropriate skills, experience, and abilities to address each request for Technical Assistance (TA). The team combines both operations-based skills and technical expertise to bring a wide range of interoperable communications knowledge to each site.

ICTAP services are supported by Federal grant funding and are provided at no cost to the requesting agencies or organizations.

The services that may be requested through ICTAP are described in this catalog. Types of services are categorized into six major topic areas:

- 1. Communications Systems Engineering Support**
- 2. Communications Operations Support**
- 3. Communications Unit Training and Support**
- 4. Tactical Communications Enhancement Support**
- 5. Communication Assets Survey and Mapping (CASM) Support**
- 6. Governance and Standard Operating Procedure Support**

Each item in the catalog is listed by title within a specific category. A brief narrative provides a general description of the scope of services provided under the specific category. A listing of products provided to the requesting organization is also included.

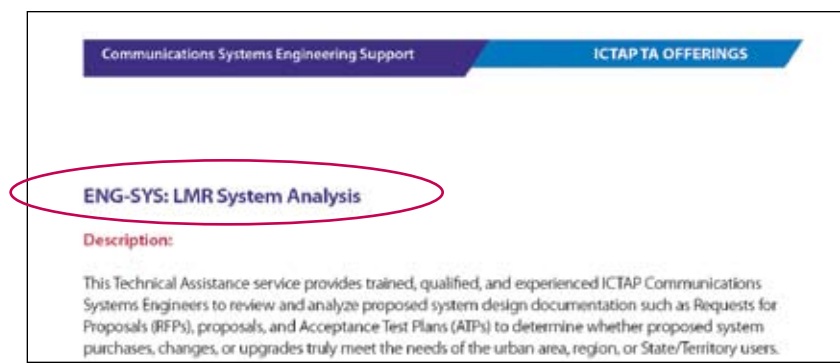
Services described in the catalog may be combined or tailored to suit the needs of the requesting organization. For example, one or more of the catalog items may be combined as a package to accomplish a single project or initiative. Similarly, a requesting organization has the option of receiving only part of the services described under a single item if all elements are not required to address the desired issue.

#### **To request ICTAP services:**

- 1) Review the ICTAP catalog of services and select the desired item(s).
- 2) Complete the ICTAP Technical Assistance Request form. (See page 43 of catalog.)
- 3) Submit the completed TA Request form to the designated State Administrative Agency (SAA).
- 4) The SAA must approve the request and submit the signed TA Request Form to DHS via E-Mail to [oecc@dhs.gov](mailto:oecc@dhs.gov).

**Complete the TA Request Form as follows:**

- 1) Enter the name and contact information of the agency, organization, or jurisdiction submitting the request
- 2) Identify each initiative documented in the Statewide Communications Interoperability Plan (SCIP) that drives the request for technical assistance. List the initiatives in priority order (highest to lowest)
- 3) Using the titles listed in the catalog, select the item(s) corresponding to the Technical Assistance requested for each initiative



- 4) Provide the requested time frame for delivery and completion of each TA service
- 5) Indicate whether the requesting entity is a State, Local, Both (combination of State and local), or Regional organization
- 6) Provide any additional relevant information regarding specific needs that relate to the request for assistance
- 7) The Statewide Interoperability Coordinator (or DHS-authorized representative) and the SCIP Point of Contact must sign, date, and submit the TA Request Form





## ■ Governance and Standard Operating Procedure Support

### Governance

Governance refers to a common structure for solving interoperability issues through improvement of policies, processes, and procedures of any major project by enhancing communication, coordination, and cooperation; establishing guidelines and principles; and reducing any internal jurisdictional conflicts. Governance involves decision-making groups responsible for ongoing planning and implementation of interoperable communications initiatives. A formal governance structure is critical to the success of interoperability planning. ICTAP provides assistance with reviewing and evaluating existing governance structures, and providing recommendations for establishing new governance bodies or structures.

Governance Support services include:

- ▶ GOV-ASMT: Existing Governance Structures Assessment
- ▶ GOV-GSM: Governance Structure Models Development
- ▶ GOV-DOC: Governance Documentation Assessment and Development



## GOV-ASMT: Existing Governance Structures Assessment

### Description:

This Technical Assistance service provides a comprehensive assessment of the organizations, structures, and other decision-making bodies in place that are tied to interoperable communications in the target jurisdiction. A report is provided containing recommendations to the current environment or structure intended to improve or enhance the oversight of interoperable communications activities in the jurisdiction.

This assessment includes an identification of the governance bodies, their composition, organizational structure, roles and responsibilities, the scope of authority, the authority by which the governance bodies were established, and how they interrelate to other governance groups in the same jurisdiction or geographic area, and a description of associated documents connected to the group such as Memoranda of Understanding (MOUs), charters, agreements, and by-laws, etc.

The results of the assessment are compiled in a report format and provided/presented to the participants. Areas of overlap, duplication, or potential for confusion over authority, roles, and responsibilities are identified, along with suggested actions to resolve the described issues.

### Deliverables:

- ▶ On-site workshops and meetings
- ▶ Final Assessment Report

## GOV-GSM: Governance Structure Models Development



### Description:

This Technical Assistance service provides models for the development of structures, strategies, and decision-making systems to committees and/or working groups responsible for the ongoing planning and implementation of interoperable communications initiatives.

This ICTAP Governance Structure Models Workshop addresses the characteristics of successful governance models, organizational structures, models for effective charters and/or bylaws;

provides examples of governance roles and responsibilities; and discusses performance measures. Workshop attendees discuss and develop recommendations for governance structures covering the desired geographical area and applicable jurisdictions.

Workshop participants discuss processes for identifying and including all relevant stakeholders. ICTAP Workshop facilitators provide definitions and examples of roles, responsibilities, and relationships of effective governance groups. Recommendations are provided for the development of a strategic action plan by which goals and objectives are achieved, potential challenges are identified, and a mechanism is developed to regularly evaluate progress and effectiveness of planning efforts.

### Deliverables:

- ▶ On-site workshops and meetings
- ▶ Document models and templates

## GOV-DOC: Governance Documentation Assessment and Development

### Description:

This Technical Assistance service provides a review of existing/proposed governance documents and/or assistance developing new governance documents to provide constructive feedback, and identify opportunities for enhancement that could lead to more effective communications interoperability planning, activities, and operations.

There is a wide variety of documents that are associated with governance. These include formal statutory, legislative, or executive orders establishing governance structure and bodies. Other examples include by-laws, charters, MOUs, Mutual Aid Agreements, and various other types of agreements. Participants are provided with templates and samples used for developing formal charters, MOUs, Mutual Aid Agreements, Frequency/Radio System Sharing agreements, or other applicable agreements for governance groups, as well as a discussion of the lessons learned and methods used for communications interoperability governance models used by communities across the country.

Templates and samples for all document models include definitions of the purpose, authority, scope, operating principles, membership, decision-making processes, and expected outcomes. Recommendations are provided for the structuring of the various types of documents, questions, and issues to address when generating content for each of the document sections. ICTAP subject matter experts can help the requester populate governance document templates, upon request.

### Deliverables:

- ▶ On-site workshops and meetings
- ▶ Document models and templates
- ▶ Populated document drafts

## Standard Operating Procedures and Communications Plans



Standard Operating Procedures (SOPs) are formal written guidelines or instructions that typically have both operational and technical components. In many cases, SOPs are designed to coordinate across disciplines and jurisdictions on a day-to-day or emergency basis. Clearly defined interoperable communications SOPs facilitate an orderly and efficient response to multiagency incidents and events as routine as daily calls for service and as catastrophic as large-scale disasters.

In addition to SOPs, various urban area, regional, and/or State/Territory planning documents

include specific communications components. Planning documents where communications play a role include, but are not limited to:

- Emergency Operations Plans (EOP)
- EOP Communications Annexes
- Emergency Support Function (ESF) #2
- Continuity of Operations Plans (COOP)
- Continuity of Government (COG)
- Capabilities assessment planning
- Statewide Communications Interoperability Plan (SCIP)

SOP/Communications Plan Support services include:

- ▶ SOP-ASMT: Standard Operating Procedures/Communications Plan Assessment
- ▶ SOP-DEV: Standard Operating Procedure/Communications Plan Development
- ▶ SOP-SCIP: Statewide Communications Interoperability Plan (SCIP) Revision/Update Workshop

## SOP-ASMT: Standard Operating Procedures/Communications Plan Assessment



### Description:

This Technical Assistance service provides an independent third-party assessment of existing or proposed Standard Operating Procedures (SOPs) or Communications Plans. Assessment subject matter experts (SMEs) possess various skill sets (i.e., operations, engineering, or governance) to ensure the team's ability to evaluate all facets of the procedure/plan and provide professional, detailed inputs.

ICTAP presents the results of the SOP/Communications Plan Assessment through a detailed and thorough Assessment Report designed to document identified strengths, concerns, and areas for improvement. The Assessment Report also includes professional recommendations designed to resolve identified gaps, improve the applicability and functionality of the procedure/plan, and enhance regional interoperable communications response capabilities.

Review topics in this assessment may include key elements such as:

- Operational applicability
- Scope and authority
- Content and format
- Participating agencies
- NIMS compliance
- Compatibility with other local, regional, State/Territory, and/or Federal procedures/plans
- SOP approval mechanisms
- Responsibility and process for maintenance and update
- Training requirements
- Dissemination process, etc.

Urban areas, regions, and States/Territories may request SOP/Communications Plan Assessment Reports in various forms, based on their reporting needs. Therefore, the content and depth of the final deliverables is determined by user needs and will be tailored to the requirements of each individual request.

### Deliverables:

Varied based on request need. May include:

- ▶ Final Assessment Report
- ▶ Final Assessment Report presentation

## SOP-DEV: Standard Operating Procedures/Communications Plan Development

### Description:

This Technical Assistance service provides an experienced facilitator, data specialist, and public safety subject matter experts (SMEs) to conduct an SOP or Communications Plan Development Workshop. ICTAP SOP Workshop personnel provide instruction and guidance related to the development of both the operational and technical facets of interoperable communications SOPs or Plans. ICTAP personnel partner directly with the requesting urban area, regional, and/or State/Territory working groups to define and document the scope, tone, and content of the required SOPs or Plans.

ICTAP presents participants with examples, models, and templates used for creating various types of SOPs. Other topics discussed during the workshop include:

- Authority
- Agencies/jurisdictions covered by the SOP/Plan
- Content and format
- NIMS compliance
- SOP/Plan approval process
- SOP/Plan dissemination, training requirements
- Frequency of usage
- Ongoing maintenance and update process
- Any other elements unique to the target jurisdiction(s).

ICTAP SOP Workshop personnel also work with participants to minimize the possibility of conflict with other existing SOPs/Plans at the local, regional, State/Territory, and/or Federal levels.

Urban areas, regions, and States/Territories may develop various types of plans and procedures during the workshop process, based on their individual needs. The final deliverables are, therefore, tailored to meet the requirements of each individual request.

### Deliverables:

- ▶ On-site workshop facilitation
- ▶ Document models and templates
- ▶ Populated SOPs and/or Plans

## SOP-SCIP: Statewide Communications Interoperability Plan (SCIP) Revision/ Update Workshop

### Description:

This Technical Assistance service provides an experienced facilitator, data specialist, and communications subject matter experts (SMEs) to coordinate and execute a 2-day workshop to revise an existing State/ Territory Statewide Communications Interoperability Plan (SCIP). Developing a complete, accurate, and usable SCIP requires the collaborative efforts and inputs of the public safety/service organizations in the target area. In order to document the input of all relevant stakeholders and document revisions to the SCIP in the most efficient and effective manner, ICTAP provides the requesting area with a list of the information needed in order to update the SCIP prior to the workshop. The requesting area working group (i.e., workshop attendees) should consist of communications, planning, and operational representatives from multiple area agencies and jurisdictions across all public safety/service disciplines, including non-governmental organizations, volunteers and tribal entities. These attendees should possess the experience and authority to formulate and revise the strategic vision for interoperable communications across the State/Territory. The working group should ideally mirror the responders and support personnel needed for a major incident in the area in order to assure that all components of the public safety interoperability need are addressed. Suggested participants would include, but are not limited to:

- Law Enforcement, Fire, and EMS communication specialists
- Law Enforcement, Fire, and EMS incident management staff
- Agency planners and funding coordinators
- Communication Coordinators and supervisors
- Communications Unit Leaders
- Incident Communication Center Managers
- Radio operators
- Technical Specialists

The workshop will allow participants to discuss and document the area's existing governance structures, technology assets, and policies/procedures related to interoperable communications during events from day-to-day operations through large-scale critical incidents. Primarily the workshop will focus on addressing known gaps with these existing assets as the State/Territory revises and enhances its strategic initiatives to address those gaps. During the workshop, ICTAP Data Specialists populate the SCIP template, in view of participants, with the information discussed during the workshop. Examples from other areas can be provided as necessary to help requesters apply interoperable communications best practices and lessons learned from other areas with similar situations to their own.

### Deliverables:

- ▶ On-site workshop facilitation
- ▶ Document models and templates
- ▶ Revised SCIP



## ■ Communications Unit Training and Support

Training refers to gaining the knowledge, skills, and competencies needed to perform critical communications unit tasks. Training levels begin with orientation and progress through awareness, operational, supervision, management, and executive applications. The Communications Unit Training provided by ICTAP addresses all of these principles while retaining a focused emphasis on communications. Because communication is an inherently hands-on activity, the training focuses on practical skills to operate communication assets in your area.

Communications Unit Training Technical Assistance is categorized into the following discrete services. Urban areas, regions, and States/Territories may request Technical Assistance services individually or in any combination. Each service offered here can also be requested in combination with services in other categories included in this catalog.

Communications Unit Training and Support services include:

- ▶ TRG-COML: All-Hazards Type III Communications Unit Leader (COML) Certification Program
- ▶ TRG-ICS: Communication Unit Integration into the National Incident Management System (NIMS)/ Incident Command System (ICS) Workshop



## TRG-COML: All-Hazards Type III Communications Unit Leader (COML) Certification Program

### Description:

This Technical Assistance service helps participants create programs to deliver initial and refresher training specific to the Communications Unit Leader (COML) position.

The Communications Unit in the ICS structure contains several positions. The COML is the focal point for a recently developed certification course for the All-Hazards Type III COML position. ICTAP provides support for developing a standardized training program using the approved curriculum and certification requirements, and it assists with the delivery of user and trainer instruction for COML certification. The All-Hazards Type III COML certification program contains prequalification requirements, a certification course, and the completion of the associated COML Task Book. The course lasts 3 days, 8 hours per day.



A process for instructor certification to qualify as an adjunct and/or lead instructor is also in place.

Courses focused on other positions in the Communications Unit, including the Incident Communications Technician (COMT), Incident Communications Center Manager (INCM), and Radio Operator (RADO), are being developed and will be available when approved for delivery.

A Communications Unit Awareness Course for Interoperable Communications and the COML function will also be available soon. The Awareness Course targets all Incident Command System (ICS) positions, and provides a basic understanding of Communications Unit terminology, organization, and functions. The Awareness Course is designed to be an independent online study course that typically takes 2 to 4 hours to complete but can also be facilitated by an ICTAP Instructor to enhance the presentations and/or answer any questions.

### Deliverables:

- ▶ On-site workshops and meetings
- ▶ On-site user and/or trainer training

## TRG-ICS: Communication Unit Integration into the National Incident Management System (NIMS)/Incident Command System (ICS) Workshop

### Description:

This Technical Assistance service provides a training workshop focused on addressing communication-specific needs during an operational period and on the requirements for the communication unit planning process for subsequent operational periods. The Incident Command System (ICS) Workshop is designed to give an overview of the ICS for emergency response and support personnel tasked with implementing the NIMS/ICS principles, organization, and functions.

The workshop emphasizes establishing an organization that allows for interoperable communications among all levels of the organization. Students progress through a simulated incident and engage in the command and general staff meeting (strategy meeting), and tactics and plans meetings, develop an Incident Action Plan (IAP), and hand out the IAP while conducting an operational briefing. Students assume command, general staff, and unit leader positions and produce documentation required for each position. Students develop an understanding for command, plans, operations, logistics, and administrative cycles for each primary management function.

ICTAP provides a certified and experienced NIMS/ICS Workshop instructor to teach the course.

### Deliverables:

- ▶ On-site course delivery
- ▶ On-site workshops and meetings
- ▶ Presentation and supporting documents
- ▶ Document models and templates





## ■ Communications Operations Support

Exercises are an important tool to train for and practice mitigation, prevention, response, and recovery capabilities in a risk-free environment. Often, however, a key Target Capability, communications, is either omitted from or only notionally included in exercise opportunities. To best approximate the true operational environment, exercises should thoroughly incorporate and evaluate available communications procedures, tools, and personnel into multi-agency, multi-discipline, multi-jurisdictional exercises. ICTAP has, therefore, developed a focused team of exercise and communications subject matter experts to assist urban areas, regions, and States/Territories with designing, conducting, and evaluating communications-focused public safety/service discussion-based and operations-based exercises.

Urban areas, regions, and States/Territories should incorporate interoperable communications into exercises in order to:

- Promote an increased awareness of regional communications interoperability capabilities.
- Identify areas for measurable improvement in interoperable communications elements (i.e., governance, standard operating procedures, technology, training and exercises, and usage).
- Achieve a shared understanding of existing communications interoperability strengths and gaps experienced by regional communication specialists, first responders, and public safety officials.
- Build stronger relationships between regional public safety professionals, officials, and first responders that transcend agencies, jurisdictions, and disciplines.

Operations Support Technical Assistance is categorized into the following discrete services. Urban areas, regions, and States/Territories may request Technical Assistance services individually or in any combination. Each service offered here can also be requested in combination with services in other categories included in this catalog.

Communications Operations Support services include:

- ▶ OP-TTX: Communications-focused Tabletop Exercise (TTX)
- ▶ OP-EXTTX: Communications-focused Executive Tabletop Exercise (EX-TTX)
- ▶ OP-FE: Communications-focused Functional Exercise (FE)
- ▶ OP-FSE: Full Scale Exercise (FSE)
- ▶ OP-SPEV: Special Event/Pre-Event Planning Support
- ▶ OP-ASMT: Operational Communications Assessments



## OP-TTX: Communications-focused Tabletop Exercise (TTX)



### Description:

This Technical Assistance service provides trained, qualified, and experienced Exercise Design Teams to collaborate with public safety and public service professionals in an urban area, region, or State/Territory to design, facilitate, and evaluate a communications-focused tabletop exercise (TTX). This exercise is designed to be fully compliant with the Homeland Security Exercise and Evaluation Program (HSEEP) and is aligned with Emergency Support Function #2 (Communications) and the Target Capabilities List (TCL). Specifically,

this TTX is used to assess communications plans, policies, and procedures, and to assess the types of communications systems needed to guide the prevention of, response to, and recovery from a defined event.

The TTX focuses on responders, supervisors, and communications specialists in the public safety/service community through an opportunity to discuss communications plans, assets, and personnel in a static environment. Players review and verbalize their ability to use regional communications assets in response to a large-scale incident scenario but the movement of personnel and equipment is simulated. A TTX is an excellent initial exercise for initiating multi-agency exercise relationships or reviewing regional policies or procedures (i.e. a Tactical Interoperable Communications Plan or TIC Plan) and ideally should precede both functional and full-scale exercises.

ICTAP provides the requesting urban area, region, or State/Territory with a complete Exercise Design Team including a facilitator, data specialist, and evaluators. The facilitator is fully trained and certified to execute TTXs, is highly experienced in conducting discussion-based exercises, and possesses direct experience in public safety communications. Evaluators are public safety communications subject matter experts trained to identify successes and gaps revealed during the exercise. This Exercise Design Team partners directly with a local Exercise Planning Team to ensure that each exercise is designed specifically for the requesting urban area, region, or State/Territory to meet its needs.

ICTAP presents the results of the TTX through an initial QuickLook presentation followed by a detailed and thorough After Action Report/Improvement Plan (AAR/IP) designed to document exercise best practices, gaps, and recommendations to resolve those gaps. This AAR/IP then allows the urban area, region, or State/Territory to promote and measure progress toward resolving identified interoperable communications gaps through a Corrective Action Program (CAP). Finally, the requesting site receives a detailed Tabletop Exercise Manual that provides specific guidance for conducting additional communications-focused TTXs in the future.

### Deliverables:

- ▶ Initial and Final Planning Conference Briefings
- ▶ Situation Manuals (SITMANs)
- ▶ QuickLook Presentation
- ▶ Logistics Package (invitations, checklists, etc.)
- ▶ Exercise Presentations and Briefings
- ▶ After Action Report/Improvement Plan
- ▶ After Action Conference Presentation
- ▶ Tabletop Exercise Manual

## OP-EXTTX: Communications-focused Executive Tabletop Exercise (EX-TTX)

### Description:

This Technical Assistance service provides trained, qualified, and experienced Exercise Design Teams to collaborate with public safety executives and elected officials in an urban area, region, or State/Territory to design, facilitate, and evaluate a communications-focused executive tabletop exercise (EX-TTX).

Large-scale critical incidents can result in significant long-term physical, economic, social, political, psychological, and environmental implications to a region. To ensure an effective response to and recovery from these incidents, senior public safety executives require both the appropriate communications tools and adequate training in order to coordinate a multiagency cooperative response.

The EX-TTX is designed to be fully compliant with the Homeland Security Exercise and Evaluation Program (HSEEP) and is aligned with Emergency Support Function #2 (Communications) and the Target Capabilities List (TCL). Specifically, this exercise covers ways to utilize interoperable communications policies, procedures, and technologies to:

- Maintain control during incidents
- Enhance situational awareness
- Properly function within the incident management process
- Provide policy inputs to the incident commander or unified command team
- Craft and deliver a cohesive incident message to the public.

ICTAP provides the requesting urban area, region, or State/Territory with a complete Exercise Design Team, including a facilitator, data specialist, and evaluators. The facilitator is fully trained and certified to execute EX-TTXs, is highly experienced in conducting discussion-based exercises, and possesses direct experience in public safety executive-level communications. Evaluators are public safety communications subject matter experts trained to identify successes and gaps revealed during the exercise. This Exercise Design Team partners directly with a local Exercise Planning Team to ensure that each exercise is designed specifically for the requesting urban area, region, or State/Territory to meet its needs.

ICTAP presents the results of the EX-TTX through an initial QuickLook presentation followed by a detailed and thorough After Action Report/Improvement Plan (AAR/IP) designed to document exercise best practices, gaps, and recommendations to resolve those gaps. This AAR/IP then allows the urban area, region, or State/Territory to promote and measure progress toward resolving identified interoperable communications gaps through a Corrective Action Program (CAP). Finally, the requesting site receives a detailed Executive Tabletop Exercise Manual providing specific guidance on how to conduct future communications-focused EX-TTXs.

### Deliverables:

- ▶ Initial and Final Planning Conference Briefings
- ▶ After Action Report/Improvement Plan (AAR/IP)
- ▶ After Action Conference Presentation
- ▶ Executive Tabletop Exercise Manual
- ▶ Situation Manuals (SITMANs)
- ▶ Logistics Package
- ▶ Exercise Presentations and Briefings
- ▶ QuickLook Presentation

## OP-FE: Communications-focused Functional Exercise (FE)



### Description:

This Technical Assistance service provides trained, qualified, and experienced Exercise Design Teams to collaborate with public safety and public service professionals in an urban area, region, or State/Territory to design, facilitate, and evaluate a communications-focused Functional Exercise (FE). This exercise is designed to be fully compliant with the Homeland Security Exercise and Evaluation Program (HSEEP) and is aligned with Emergency Support Function #2 (Communications) and the Target Capabilities List (TCL).

The FE targets communications users in the public safety/service community through an opportunity to operationally exercise communications plans, assets, and personnel in a static environment. Players demonstrate their ability to use regional communications assets in response to a large-scale incident scenario, but the movement of personnel and equipment is simulated. An FE is an excellent follow-on exercise to a TTX.

ICTAP provides the requesting urban area, region, or State/Territory with a complete Exercise Design Team, including a Team Lead, data specialist, controllers, and evaluators. The Team Lead is fully trained and certified to execute FEs, is highly experienced in conducting operations-based exercises, and possesses direct experience in public safety communications. Controllers and evaluators are public safety communications subject matter experts trained to identify successes and gaps revealed during the exercise. ICTAP may request that the site provide additional controllers or evaluators, and ICTAP provides controller/evaluator training for all personnel involved. This Exercise Design Team partners directly with a local Exercise Planning Team to ensure that each exercise is designed specifically for the requesting urban area, region, or State/Territory to meet its needs.

ICTAP presents the results of the FE through an initial QuickLook presentation followed by a detailed and thorough After Action Report/Improvement Plan (AAR/IP) designed to document exercise best practices, gaps, and recommendations to resolve those gaps. If the FE follows an ICTAP TTX, the AAR/IP will also assess progress made on gaps identified during the TTX process. This AAR/IP then allows the urban area, region, or State/Territory to further promote and measure progress toward resolving identified interoperable communications gaps through a Corrective Action Program (CAP). Finally, the requesting site receives a detailed Functional Exercise Manual that provides specific guidance on how to conduct future communications-focused FEs.

### Deliverables:

- ▶ Initial, Mid-Term, and Final Planning Conference Briefings
- ▶ Exercise Evaluation Guidelines (EEGs)
- ▶ Functional Exercise Leave Behind Manual
- ▶ Controller/Evaluator Handbook (C/E Handbook)
- ▶ After Action Report/Improvement Plan (AAR/IP)
- ▶ Controller/Evaluator Training Briefings
- ▶ After Action Conference Presentation
- ▶ Master Scenario Events List (MSEL)
- ▶ QuickLook Presentation
- ▶ Logistics Package
- ▶ Exercise Presentations and Briefings
- ▶ Exercise Plan (EXPLAN)



## OP-FSE: Full-Scale Exercise (FSE)

### Description:

This Technical Assistance service provides trained, qualified, and experienced public safety communications subject matter experts (SMEs) to collaborate with public safety and public service professionals in an urban area, region, or State/Territory to evaluate the area's communications capabilities during existing or planned Full Scale Exercises (FSEs).

FSEs are often large, multiagency, multidiscipline, multijurisdictional exercises designed to test many facets of emergency response and recovery operations. While communication is one of several capabilities included in the response scenario, interoperable communications are frequently not an evaluation focus, and gaps in this area are often neglected in exercise reports.

Selected SMEs possess various skill sets (i.e., operations, engineering, or policies and procedures) to ensure the team's ability to evaluate all components of interoperable communications during the exercise and provide professional and detailed inputs.

In addition to exercise evaluation, ICTAP Exercise Design SMEs can assist the local Exercise Planning Team during the FSE planning and development process to properly, and thoroughly, integrate interoperable communications components into the exercise itself. This planning assistance would include support tasks such as developing or enhancing appropriate exercise injects to trigger communications events, incorporating applicable communications performance measures, identifying regional assets for exercise play, documenting known communications challenges that could impact exercise play, and developing concise Exercise Evaluation Guides (EEGs).

ICTAP presents the results of the FSE by integrating its evaluation (designed to document exercise best practices, gaps, and recommendations to resolve those gaps) into the local After Action Report/Improvement Plan (AAR/IP). If the FSE follows an ICTAP TTX, EX-TTX, or FE, the AAR/IP will also attempt to document progress made on gaps identified during those processes. This AAR/IP then allows the urban area, region, or State/Territory to further promote and measure progress toward resolving identified interoperable communications gaps through a Corrective Action Program (CAP).

At this time, ICTAP does not independently design or facilitate stand-alone communications-focused FSEs.

### Deliverables:

- ▶ Initial, Mid-Term, and Final Planning Conference participation
- ▶ Communications Exercise Evaluation Guidelines (EEGs)
- ▶ After Action Report/Improvement Plan (AAR/IP) inputs
- ▶ After Action Conference Presentation inputs



## OP-SPEV: Special Event/Pre-Event Planning Support



### Description:

This Technical Assistance service provides experienced public safety operations/communications subject matter experts (SMEs) to collaborate with public safety professionals in an urban area, region, or State/Territory during the planning and execution phases for planned special events.

Planned special events such as national/international sporting events, civic festivals, large conventions, or political summits can involve dozens of public safety agencies, across

several disciplines and jurisdictions, and present significant challenges to establishing and maintaining appropriate interoperable communications. Large-scale planned events, therefore, require substantial operational planning and preparation to appropriately coordinate all public safety participants, to ensure that the event proceeds smoothly, and to prepare to respond to an involved or simultaneous incident.

Selected SMEs possess various skill sets (i.e., operations, engineering, or policies and procedures) to ensure the team's ability to advise on all components of interoperable communications prior to or during the event. SMEs can provide inputs to event/incident action plans, assist with developing communications plans, identify pre-event training opportunities, and advise on methods to overcome identified communications challenges.

### Deliverables:

- ▶ Planning Conference participation
- ▶ Event/Incident Action Plan inputs
- ▶ Communications Plan inputs
- ▶ Other assessments, on request

## OP-ASMT: Operational Communications Assessments

### Description:

This Technical Assistance service provides experienced public safety operations/communications subject matter experts (SMEs) to conduct specific assessments of communications capabilities during day-to-day operations.

All operable and interoperable communications must be efficient and intuitive in order to be effective tools for public safety responders and communications specialists. Operational communications assessments, therefore, ensure that proposed or in-place technologies, plans, and procedures enhance and support operations.

These assessments are tailored directly to the requestor's needs and can include:

- Field assessments through ride-alongs with responders
- Dispatch center and Public Safety Answering Point (PSAP) assessments
- Specific mobile equipment deployment assessments
- Tactical assessments of interoperable assets for specialty response teams

ICTAP presents the results of each Operational Assessment through an individual Operational Assessment Report. The final deliverables are tailored to meet the requirements of each individual request.

### Deliverable:

- ▶ Operational Assessment Report





# Technical Assistance Request Offerings

## ■ Communications Systems Engineering Support

For any interoperable solution to be accepted and used by the public safety community, that technology must be robust, reliable, intuitive, and trusted. Interoperable communications, therefore, serve as the critical backbone of the region's ability to respond to emergencies and must be deployed and maintained at full operational readiness. ICTAP Communications Systems Engineering Technical Assistance offers objective third-party services to help public safety radio administrators enhance their Land Mobile Radio (LMR) system networks and make informed interoperability decisions. These services can help urban areas, regions, and States/Territories develop confidence in their chosen interoperability solutions, use those solutions more effectively across their respective areas, and improve the technological capacity to support day-to-day and large-scale interoperable communications needs.

Communications Systems Engineering Technical Assistance covers all phases of a communication system's life cycle – defining requirements, identifying solutions, implementing the system, and supporting existing systems. These services include diverse offerings such as system analyses, Project 25 (P25) standards information sharing, system performance analysis (e.g., drive testing and coverage plots), hands-on equipment training, and others as requested.

ICTAP's Communications Systems Engineers possess specific expertise in areas such as system configuration options, RF coverage, LMR standards, microwave technologies, data interoperability, broadband wireless, national spectrum requirements, etc. These engineers are also available to advise and participate in additional service categories such as exercise observation and analysis, communications plan development, and communications unit training.

Communications Systems Engineering Support Technical Assistance is categorized into the following discrete services. Urban areas, regions, and States/Territories may request Technical Assistance services individually or in any combination of the below. Each service offered here can also be requested in combination with services in other categories included in this catalog.

Communications Systems Engineering Support services include:

- ▶ ENG-SYS: LMR System Analysis
- ▶ ENG-MIG: LMR System Migration
- ▶ ENG-COV: RF Prediction Coverage Maps
- ▶ ENG-DT: RF Coverage Drive Test Measurements
- ▶ ENG-P25: P25 Information Sharing
- ▶ ENG-P25W: P25 Land Mobile Radio Workshops
- ▶ ENG-MW: Microwave Design Analysis
- ▶ ENG-AG: Audio Gateway Information and Training

## ENG-SYS: LMR System Analysis



### Description:

This Technical Assistance service provides trained, qualified, and experienced ICTAP Communications Systems Engineers to review and analyze proposed system design documentation such as Requests for Proposals (RFPs), proposals, and Acceptance Test Plans (ATPs) to determine whether proposed system purchases, changes, or upgrades truly meet the needs of the urban area, region, or State/Territory users.

Proper Land Mobile Radio (LMR) system design is critical to ensure that the Nation's first responders have reliable and robust communications. ICTAP Systems Engineers act as an independent third party to ensure that final reports are objective and vendor-neutral.

ICTAP presents the results of the LMR System Analysis through a detailed and thorough Assessment Report designed to document identified discrepancies between user requirements and existing or proposed system capabilities. The Assessment Report also includes professional recommendations designed to resolve those gaps, improve technological interoperable communications functionality, and enhance regional interoperable communications capabilities. Analysis topics in this assessment may include interoperability, wide area communications capabilities, coverage, capacity, P25 features, and others.

In some cases, radio system planners need only a high-level analysis on existing or proposed LMR system documentation. Urban areas, regions, and States/Territories may therefore request a QuickLook LMR System Analysis intended to provide a faster turnaround time through a less in-depth Assessment Report. As such, the content and depth of the final Assessment Report is determined by user needs and is tailored to the requirements of each individual request.

### Deliverables:

- ▶ Site collaboration presentations and discussions
- ▶ Final Assessment Report
- ▶ Final assessment presentation, on request

## ENG-MIG: LMR System Migration

### Description:

This Technical Assistance service assists urban areas, region, and State/Territory users to implement a migration strategy from a legacy Land Mobile Radio (LMR) system to a new Project 25 (P25) standards-based system. ICTAP Communications Systems Engineers review and analyze current system utilization, including:

- Jurisdictional boundaries
- Essential talkgroups
- Frequencies
- Coverage boundaries
- Tower locations
- Subscriber radio capabilities
- Other related parameters.

As a second phase to this effort, ICTAP Communications Systems Engineers review and analyze new system documentation or plans in order to better provide recommendations for a switchover.



The third phase of this service includes recommendations on a migration plan that utilizes information gathered in phases 1 and 2. Phase 3 includes consultations and discussions with the system users, administrators, equipment providers, and installers to establish a switch-over strategy.

There are many factors to be taken into account within a migration plan. Some factors to consider are:

- Utilization of a new frequency band
- Frequency availability during new system testing and transition
- System down-time acceptability
- Timeline constraints
- Radio programming logistics.

Consideration also needs to be given to whether multiple subscriber radios will need to be employed during the migration period. User training is an important aspect and can include: new equipment operation training, talkgroup structure training, coverage area training, and intermediate and long-term usage procedures. If some users migrate prior to others, temporary interoperability solutions may have to be employed in order to retain communications between all users.

### Deliverables:

- ▶ Site collaboration presentations, documents, or discussions
- ▶ System Migration Report

## ENG-COV: RF Coverage Prediction Maps

### Description:

This Technical Assistance service offers an assessment of RF system coverage (i.e., coverage footprints) for an urban area, region, or State/Territory.

Existing Land Mobile Radio (LMR) systems may not provide adequate RF coverage for their entire operational area. Coverage gaps negatively impact the ability of public safety professionals to communicate and may significantly hinder their response. RF coverage prediction maps, therefore, allow Radio System Administrators to visualize RF coverage, to baseline system performance prior to any changes or upgrades, and/or to determine where gaps occur in both existing and proposed radio networks.

Communications Systems Engineers can provide RF coverage prediction maps in various forms including traditional static images and dynamic, interactive graphical representations using Google Earth®. These RF coverage prediction maps can be used as a tool to plan appropriately for:

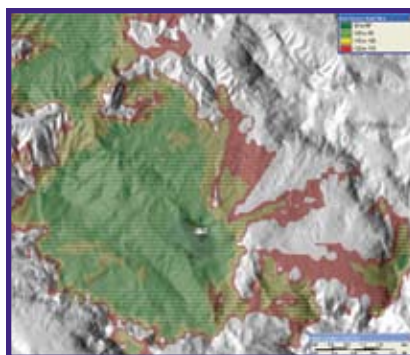
- Current system upgrades (e.g., new tower locations, new antenna locations, and frequency band changes)
- A catastrophic infrastructure loss (e.g., collapsed tower, equipment power loss, and damaged repeater)
- System migration by providing an independent assessment of proposed system coverage.

Urban areas, regions, and States/Territories may request RF coverage prediction maps in various forms, based on their reporting needs. The content and depth of the final deliverables are determined by user needs and are tailored to the requirements of each individual request.

### Deliverables:

Varied based on request need. May include:

- ▶ Images in Microsoft PowerPoint® presentations
- ▶ ICTAP RF Coverage Analysis Report
- ▶ Google Earth® files





## ENG-DT: RF Coverage Drive Test Measurements

### Description:

This Technical Assistance service provides ICTAP Communications Systems Engineers to collect system strength measurements in order to assess the true performance of a given radio system.

Existing Land Mobile Radio (LMR) systems are typically designed or characterized by prediction models and software. This methodology alone may not provide an adequate level of prediction accuracy upon which to base important region-wide radio system decisions. However, using field strength measurements from a user's existing system provides real-world data to calibrate prediction software applications, thereby improving accuracy.



RF Coverage Drive Tests can be used to define and refine system coverage requirements, provide information for system implementation, and enhance existing system operations over the course of the communication system life cycle. For existing systems, Drive Test data can be used to supplement baseline coverage studies. For new system implementations, a Coverage Acceptance Test (CAT) is performed by the installer to determine if the installed system meets the design requirements. ICTAP Drive Test data can be used as a supplement to this CAT and provides an explanation of the data analysis methodology used.

Urban areas, regions, and States/Territories may receive ICTAP Drive Test data in various forms, based on their reporting needs. The final deliverables are tailored to meet the requirements of each individual request.

### Deliverables:

- ▶ Measurement data (Microsoft Excel®, MapPoint®, Google Earth®)
- ▶ ICTAP Coverage Acceptance Test Report

## ENG-P25: P25 Information Sharing

### Description:

This Technical Assistance service provides information designed to enhance the requesting urban area, region, and/or State/Territory's understanding and application of Project 25 (P25) technology standards in their respective areas.



The P25 radio standards provide a common protocol to communicate using public safety radio systems. The P25 standards include many features and interfaces with varying levels of completion. The P25 standard is constantly maturing and provides more capability and interoperability as it is developed. It becomes increasingly important for radio system managers to become aware of the latest defined P25 features, capabilities, and products available today.

ICTAP Communications Systems Engineers interact directly with the requesting site to provide all requested P25 information. This interaction may take the form of an on-site workshop (see ENG-P25W: P25 Land Mobile Radio Workshops), teleconference, and/or sharing P25-related tools and documents such as the ICTAP P25 Features Matrix. The ICTAP P25 Features Matrix is a tool that gives a snapshot of the features available in the standard today. System administrators can use this tool to help determine which features to include in future system upgrades or system migrations.

Urban areas, regions, and/or States/Territories can also request P25 technical notes or report appendices in combination with other services offered in this catalog.

### Deliverables:

Varied based on request need. May include:

- ▶ The ICTAP P25 Features Matrix
- ▶ On-site information sharing workshop
- ▶ P25 technical note or appendix to report (i.e., definitions and interfaces)
- ▶ Meetings and discussions with involved agencies
- ▶ Other assessments, on request

## ENG-P25W: P25 Land Mobile Radio Workshops

### Description

This Technical Assistance service provides progressive levels of understanding on Project 25 (P25) standards. Modules 1-5 can be given on site or at the ICTAP Public Safety Technology Lab located at SPAWAR Systems Center Pacific in San Diego, CA.. The P25 Land Mobile Radio (LMR) Workshop Series consists of five modules:

**Module 1 – Project 25 Overview:** A high-level overview providing a basic understanding of the P25 LMR system for both technical and non-technical attendees. P25 details, including the current status and future direction of the P25 Standards development, are covered. Duration: 4 hours.

**Module 2 – Project 25 Features and Services:** A more in-depth module aimed at the LMR system decision maker, manager, administrator, and/or users based on the ICTAP P25 Features Matrix. It is designed to help maximize system operability and interoperability between agencies. Duration: 4 hours.

**Module 3 – Project 25 ISSI Status:** A short course on the P25 Inter-RF Subsystems Interface (ISSI) to educate attendees on the status of this key standard for LMR inter-system interoperability. The defined capabilities and implementation road map are covered and will help system administrators plan for its deployment in their systems. ICTAP suggests offering this module in conjunction with the VOIP and ROIP module. Duration: 1 hour.

**Module 4 – VOIP and ROIP:** A short course to help students understand Voice over IP (VOIP) and Radio over IP (ROIP) for public safety as an interoperability solution. ICTAP suggests offering this module in conjunction with the Project 25 ISSI Status module. Duration: 1 hour.

**Module 5 – Introduction to Radiowave Propagation for Public Safety:** An advanced course that guides the attendee through applicable radiowave propagation theory, prediction/planning, and coverage measurements. This module is geared toward the system planner/designer to enable a confident evaluation of manufacturer designs and Acceptance Test Planning procedures. This module should also help participants avoid common mistakes in proposed design improvements for fill-in and system expansion, and it includes hands-on experience with an RF planning tool. Duration: 8 hours.

Modules can accommodate 20 students for modules 1-4 and preferably no more than 6 to 8 for Module 5.

### Deliverables:

- ▶ Module presentations
- ▶ Reference materials

## ENG-MW: Microwave Design Analysis

### Description:

This Technical Assistance service provides experienced ICTAP Communications Systems Engineers to review and analyze proposed microwave design documentation to determine if the specifications meet the needs of the urban area, region, or State/Territory requestor.

System backbones provide reliable and robust high-speed voice and data traffic between geographically separate communications sites. Proper backbone design is critical in order to maintain the Nation's public safety Land Mobile Radio (LMR) systems. Microwave links are a common method used to provide these backbone communications.

The ICTAP Microwave Design Analysis results in an objective third-party report that may be used to assist system managers in decision making, as an initial design to be included in a Request for Proposal (RFP), as a supplementary information source in LMR system proposals, or for general equipment information.

ICTAP presents the results of the Microwave Design Analysis through an individual Assessment Report or in combination with other ICTAP engineering services. The Assessment Report may include a microwave system design, a microwave path analysis, and recommendations on equipment selection. The final deliverables are tailored to meet the requirements of each individual request.

### Deliverables:

Microwave Assessment Report, including:

- ▶ Design review
- ▶ Microwave path analysis
- ▶ Equipment recommendations



## ENG-AG: Audio Gateway Information and Training

### Description:

This Technical Assistance service provides different levels of understanding on gateway (i.e., audio bridge) functionality and operations. Participation in all three modules should prepare urban area, regional, or State/Territory personnel for activation and deactivation of available gateways. The Gateway Training Workshop can be given on site using live local equipment or at the ICTAP Public Safety Technology Lab located at SPAWAR Systems Center Pacific in San Diego, CA. The Gateway Training Workshop is broken into three modules:



**Module 1 – Gateway Overview:** A high-level overview targeted for anyone requiring a basic understanding of gateway functionality.

**Module 2 – Advanced Gateway Operation:** Targeted for personnel interested in a more advanced/detailed understanding of gateway operations; i.e., Communications Unit Leaders (COML), Communication Coordinators (COMC), Communications Technicians (COMT), Incident Communication Center Managers (INCM), and agency communication specialists.

**Module 3 – Gateway Hands-on Configuration:** Equipment specific, targeted for gateway installers, maintenance technicians, and specialists.

Session lectures, discussions, and practical exercises are focused on the site-specific gateways and are intended to prepare personnel in the region to quickly activate and deactivate their own equipment. The total workshop is approximately 6 to 8 hours in length. Each module is intended to build on previous module(s). The training session can accommodate approximately 20 students for modules 1 and 2 but no more than 10 for module 3.

### Deliverables:

- ▶ Workshop training presentations (also left for reference on CD)
- ▶ Available gateway firmware updates
- ▶ Simulation software
- ▶ Latest ACU-1000 controller software
- ▶ Workshop training materials/handouts and reference materials

## COMMUNICATIONS SYSTEMS ENGINEERING PACKAGES

Technical Assistance Packages detailed below are combinations of the Communications Systems Engineering services offered individually above. Urban areas, regions, and States/Territories may, therefore, request Engineering services individually or collectively. These packages may also be requested alone or in combination with Technical Assistance services offered under other categories in this catalog.

### **ENG-PKG1: Package #1 LMR System Analysis**

This Technical Assistance package is designed to analyze either a current or proposed system using a variety of methods. First, Communications Systems Engineers review system documentation for completeness and traceability to a Request for Proposal (RFP). Second, Engineers perform an RF coverage study to validate proposed coverage performance. Third, Engineers conduct a microwave design and path analysis to analyze system links. Finally, the requesting urban area, region, or State/Territory receives up-to-date information regarding the Project 25 (P25) technology standard.

This package comprises the following individually offered services (detailed above):

- ENG-SYS: LMR System Analysis
- ENG-COV: RF Coverage Prediction Maps
- ENG-MW: Microwave Design Analysis
- ENG-P25: P25 Information Sharing

### **ENG-PKG2: Package #2 RF Coverage Analysis**

This package comprises a two-phase approach to analyze RF coverage for a specific radio system. In the first phase, Communications Systems Engineers collect field strength measurements in the service area to characterize local propagation parameters. The second phase uses the measured data to calibrate ICTAP's prediction tools, producing tailored RF Coverage Prediction Maps.

This package comprises the following individually offered services (detailed above):

- ENG-DT: RF Coverage Drive Test Measurements
- ENG-COV: RF Coverage Prediction Maps

## ■ Tactical Communications Enhancement Support

Tactical Interoperable Communications Plans (TIC Plans) are designed to allow a site (i.e., an urban area, county, region, or State/Territory) to document interoperable communications governance structures, technology assets, and usage policies and procedures. The TIC Plan can be used by first responders to clearly define the breadth and scope of interoperable assets available in the area, how those assets are shared and their use prioritized, and the steps individual agencies should follow to request, activate, use, and deactivate each asset.

Completed TIC Plans are required for all 2005 Urban Area Security Initiative (UASI) sites and are encouraged for newly designated UASI cities, multiagency counties, multicounty regions, and States/Territories. Existing TIC Plans, whether developed in cooperation with previous grant initiatives or written independently, are also eligible for revision and update assistance to ensure that all contents are current.

Tactical Communications Enhancement Support services include:

- ▶ TIC-WKSP: Tactical Interoperable Communications Plan (TIC Plan) Workshop
- ▶ TIC-PIW: Tactical Interoperable Communications Plan Implementation Workshop (TICPIW)



## TIC-WKSP: Tactical Interoperable Communications Plan (TIC Plan) Workshop

### Description:

This Technical Assistance service provides an experienced facilitator, data specialist, and communications subject matter experts (SMEs) to coordinate and execute a 2-day workshop to develop a new Tactical Interoperable Communications Plan (TIC Plan), or update an existing TIC Plan, for an urban area, region, or State/Territory.

Developing a complete, accurate, and usable TIC Plan requires the collaborative efforts and inputs of the public safety/service organizations in the target area. In order to document the input of all relevant stakeholders and develop the TIC Plan in the most efficient and effective manner, ICTAP provides the requesting area with a list of the information needed for the plan prior to the workshop. The requesting area also receives a copy of the plan template that the group will populate during the workshop.

The requesting area working group (i.e., workshop attendees) should consist of communications and operational representatives from multiple area agencies and jurisdictions across all public safety/service disciplines, including non-governmental organizations, volunteers and tribal entities. The working group should mirror the responders and support personnel needed for a major incident in the area. Suggested participants would include, but are not limited to:

- Law Enforcement, Fire, and EMS communication specialists
- Law Enforcement, Fire, and EMS incident management staff
- Communication Coordinators and supervisors
- Communications Unit Leaders
- Incident Communication Center Managers
- Radio operators
- Technical Specialists.

The workshop will allow participants to discuss and document the area's existing governance structures, technology assets, and policies/procedures related to interoperable communications during events from day-to-day operations through large-scale critical incidents. During the workshop, ICTAP Data Specialists populate the TIC Plan template, in view of participants, with the information discussed during the workshop. Examples from other areas can be provided as necessary to help requesters apply interoperable communications best practices and lessons learned from other areas with similar situations to their own.

### Deliverables:

- ▶ On-site workshop facilitation
- ▶ Document models and templates
- ▶ Populated TIC Plan



## TIC-PIW: Tactical Interoperable Communications Plan Implementation Workshop (TICPIW)

### Description:

This Technical Assistance service provides a 1-day (6 to 8 hour) TIC Plan Implementation Workshop (TICPIW) targeted to urban area, regional, and/or State/Territorial cross-disciplinary responders and support personnel.

Once developed and approved, Tactical Interoperable Communications Plans (TIC Plans) must be disseminated to all stakeholder agencies. Ensuring that communications users are knowledgeable on the plan and able to implement its components reflexively increases the area's ability to maintain appropriate and effective interoperable communications during an event or incident of any size or scope.

Sessions, lectures, discussions, and exercises are focused on the area's TIC Plan, and are intended to prepare emergency response and communications personnel to execute interoperable communications during events or incidents. ICTAP provides a trained, qualified, and experienced facilitator to familiarize responders and support personnel with their TIC Plan and how to use their TIC Plan as a tool to develop a communications plan. The TICPIW includes hands-on exercises using local scenarios, personnel, equipment, and communication assets, and can be tailored to meet specific audience requirements, on request.

ICTAP recommends inviting locally available urban area, regional, State/Territory and Federal agency personnel to attend the workshop. Suggested participants would include, but are not limited to:

- Law Enforcement, Fire, and EMS communication specialists
- Law Enforcement, Fire, and EMS incident management staff
- Communication Coordinators and supervisors
- Communications Unit Leaders
- Incident Communication Center Managers
- Radio operators
- Technical Specialists
- Regional emergency managers
- Personnel identified to respond to a Type 1 or 2 Incident of National Significance.

### Deliverables:

- ▶ On-site workshop presentation
- ▶ TICPIW reference materials
- ▶ Incident response paperwork and templates (e.g., ICS Communications forms, etc.)



## TACTICAL COMMUNICATIONS ENHANCEMENT PACKAGE:

The Technical Assistance Package detailed below is a combination of Communications Operations Support and Tactical Interoperable Communications Plans (TIC Plan) Support services offered individually above. Urban areas, regions, and States/Territories may, therefore, request TIC Plan services individually or collectively. This package may also be requested alone or in combination with Technical Assistance services offered under other categories in this catalog.

### **TIC-PKG: Tactical Communications Enhancement Package**

This Technical Assistance package is designed to develop, disseminate, train, and exercise an urban area, regional, and/or State/Territory TIC Plan. First, ICTAP TIC Plan personnel collaborate with local response entities to develop the area's TIC Plan. Next, area personnel attend a TIC Plan Implementation Workshop to receive training on the use and applications of their plan. Finally, ICTAP Exercise Design Specialists design, facilitate, and evaluate a tabletop exercise (TTX), Executive TTX (EX-TTX), and Functional Exercise (FE) for the area focused on the assets, policies, and procedures documented in the TIC Plan.

This package comprises the following individually offered services (detailed above):

- TIC-WKSP: TIC Plan Workshop
- TIC-PIW: TIC Plan Implementation Workshop (TICPIW)
- OP-TTX: Communications-focused Tabletop Exercise
- OP-EXTTX: Communications-focused Executive Tabletop Exercise
- OP-FE: Communications-focused Functional Exercise.

Each exercise will assess solutions to previously identified gaps as well as identify new gaps. The TIC Plan can, therefore, be revised between the exercises to reflect changes in policies, procedures, or equipment. ICTAP can also provide subject matter experts to advise on and evaluate the application of the TIC Plan during a locally developed Full-scale Exercise following this package series, on request.

## ■ Communication Assets Survey and Mapping (CASM) Support

The Communication Assets Survey and Mapping (CASM) tool provides the ability for representatives of public safety agencies within a urban area, State/Territory to collect, store, and visualize data about agencies, communication assets, and how agencies use these assets. The CASM tool is composed of two components: the Communication Assets Survey (CAS) and the Communication Assets Mapping (CAM) tool. The CAS component provides a means to enter, edit, and delete information about agencies, communication assets (such as radio systems, dispatch centers, mutual aid channels/systems, gateways, and radio caches), and agency usage of the assets. The CAM component provides a means to display this information in a map-based interface and provides analysis tools for displaying agency-to-agency interoperability, including interoperability gaps, in various ways.

CASM services include:

- ▶ CASM-SETUP: CASM Initialization and Training
- ▶ CASM-SUPPORT: CASM Data Import and Review

### CASM PACKAGE

The Technical Assistance Package detailed below combines the Communication Assets Survey and Mapping (CASM) services offered individually above.

#### **CASM-PKG: CASM Package**

This package provides the support initially required to get a State/urban area set up and running in CASM. First, the State/urban area is set up in CASM and a CASM Account Manager account is created. Second, basic CASM training is provided for the identified user base. Third, this package provides import of State/urban area data. Import of the data such as agencies, towers, or dispatch centers can help the State/urban area to get off to a faster start (with pre-populated data, users can focus on addition of systems, and on agency use of assets). Finally, this package provides a review/analysis of the data in the State/urban area's jurisdictions, to help identify incomplete and/or inconsistent data entries.

In addition to these CASM services, help for CASM-related issues is provided via e-mail at [CASM-support@spawar.navy.mil](mailto:CASM-support@spawar.navy.mil).

## CASM-SETUP: CASM Initialization and Training

### Description:

#### Initialization

This Technical Assistance service will create the Communication Assets Survey and Mapping (CASM) Administrative Manager and set up the database and map view in CASM for the requesting urban area, State, or Territory. The State Administrative Agency (SAA) or designee must designate a CASM Administrative Manager (AM) (using the AM Authorization Memo, to be provided by the Site Point of Contact [POC]) to provide administrative support for State-level CASM User Accounts. The SAA or designee must complete, approve, and submit the User Account Request Form for the AM (via FAX at 619-553-4668 attn.: CASM; or e-mailing a scanned document to: *CASM-support@spawar.navy.mil*).

The CASM Team creates the AM account and then initiates the CASM view for the urban area, State, or Territory. The Site POC notifies the AM when CASM is ready for use.

#### Training

This Technical Assistance service offers two levels of Communication Assets Survey and Mapping (CASM) training: a Basic CASM course and Targeted Training courses.

The Basic CASM training class is provided by an CASM instructor who presents attendees with the basic operations of the CAS and CAM components. The class includes the use of CAS to enter, edit, and delete information about agencies, communication assets (such as radio systems, dispatch centers, mutual aid channels/systems, gateways, and radio caches), and agency usage of the assets. The class also includes the use of CAM to display CAS-entered data on a map-based interface and use of analysis tools for displaying agency-to-agency interoperability, including interoperability gaps, in various ways. A typical class is a 4-hour presentation that provides a combination of lecture and hands-on use via an Online Training Session.

CASM also provides periodic online Targeted Training, typically three sessions a month. Each session focuses on one CASM feature or function and is an hour long. All CASM users are invited to participate.

### Deliverables:

- ▶ CASM account for the State/Territory or Urban Area identified AM
- ▶ Training Brief and Supporting Documents

## CASM-SUPPORT: CASM Data Import and Review

### Description:

#### Data Import

This Technical Assistance service provides a mechanism for importing data from spreadsheets directly into the Communication Assets Survey and Mapping (CASM) database. The intent of the data import service is to expedite the task of entering voluminous amounts of data into CASM that may already exist in another database. Data Import instructions and templates are provided in the CASM Data Import Service listed under CAS 'Help' on the CASM Website, <https://franz.spawar.navy.mil/> (please note: a CASM user ID and password is required to get to CAS 'Help').

Types of data that can be imported into CASM include:

- Agencies
- Channels – those provided by a radio system, used by an agency, or programmed in a radio cache
- Talk Groups – those provided by a trunked radio system, used by an agency, or programmed in a radio cache
- Towers used by a specific radio system
- Repeaters/Base Stations for a radio system on towers
- Dispatch Centers and the agencies served
- Points of Contact.

#### Data Review

This Technical Assistance service will allow users to request an internal review and analysis of any data entered into CASM by site representatives.

The scope of the requested review may include any/all jurisdictions including the entire State/Territory, urban areas, county(ies), municipalities, individual agencies, and/or specific disciplines. The review will analyze the existing data entered into CASM and highlight areas of noteworthy/complete data, identify any incomplete data entry, and flag inconsistent data. The review will also include written recommendations designed to help the requestor better utilize CASM to provide a more accurate picture of interoperability in their area.

### Deliverables:

- ▶ Populated data in the CAS database
- ▶ CASM Data Review Report





# Homeland Security

## OEC Technical Assistance (TA) Request Form

Upon Completion E-Mail form to [oecl@dhs.gov](mailto:oecl@dhs.gov)

Technical Assistance Requestor:

Name: \_\_\_\_\_ Title: \_\_\_\_\_ Agency: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email Address: \_\_\_\_\_

Please indicate the SCIP initiative and corresponding TA offering requested for FY' 2009 in order of priority. The number of requests accepted and the scope of assistance to be delivered will be determined by available OEC TA resources. At least one initiative must provide direct support to a designated Urban/Metropolitan area.

Priority	SCIP Initiative	TA Offering	Timeframe	Jurisdiction Level (State/Region/ Urban Area)
1				
2				
3				
4				
5				

Additional Information regarding specific needs:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Interoperability Coordinator /  
SCIP POC Signature

\_\_\_\_\_  
State Administering  
Agency (SAA)

\_\_\_\_\_  
OEC Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



