State of Illinois

Tactical Interoperable Communications Plan (TICP)

August 2024

IEMA & OHS Operations Center (24/7)

217-782-7860

Send corrections or suggestions to the Statewide Interoperability Coordinator (SWIC) at EMA.SWIC@illinois.gov.

Use the QR Code below to access the IEMA-OHS Statewide Interoperability website.

RECORD OF CHANGE

CHANGE NO.	DESCRIPTION	CHANGE DATE	APPROVED BY

This Tactical Interoperable Communications Plan (TICP) is subject to information and/or equipment updates and changes. The use of this Record of Change helps manage TICP modifications throughout the life of this document. All attempts have been made to ensure the accuracy of the information within this TICP as of the initial distribution date. Any subsequent adjustments should be logged and coordinated with user agencies within this region.

EXECUTIVE OVERVIEW

This document establishes a Tactical Interoperable Communications Plan (TICP) for the state of Illinois. It is intended to document interoperable communications resources available within the region, identify which agencies control each resource, and identify what rules of use or operational procedures exist for the activation and deactivation of each resource.

The Illinois TICP also provides tactical guidance to emergency responders at the regional level as interoperable communications progresses from a local response to a state "Level 3" incident or greater. The policies and procedures set forth in this Plan utilize and build upon interoperability standards existing within the Federal Emergency Management Agency (FEMA) Region V participating agencies.

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SECTION 1 ILLINOIS INFORMATION

Sec. 1-1 Participating Jurisdictions, Agencies, and Disciplines

The Illinois Tactical Interoperable Communications Plan (TICP) is intended for use by public safety and may be used by governmental or non-governmental organizations and personnel requiring communications or coordination during an emergent or planned event.

Sec. 1-2 Points of Contact

The primary and alternate points of contact (POC) for copies of or questions regarding this Plan are:

TITLE:	Statewide Interoperability Coordinator
AGENCY NAME:	Illinois Emergency Management Agency & Office of Homeland Security
OFFICE PHONE:	217-782-7860
EMAIL:	ema.swic@illinois.gov

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AGENCY NAME:	Illinois Emergency Management Agency & Office of Homeland Security
OFFICE PHONE:	217-782-7860
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SECTION 2 GOVERNANCE

Sec. 2-1 Illinois Statewide Interoperability Executive Committee (SIEC)

The Illinois SIEC is comprised of representatives from state, regional, local, and non-governmental organizations with diverse and appropriate professions, having an interest in interoperable communications. The following agencies are represented in the SIEC:

- Illinois State Police
- Illinois Emergency Management Agency & Office of Homeland Security
- Illinois Fire Chief's Association
- Illinois Association of Chiefs of Police
- Illinois Sheriff's Association
- Illinois Association of Fire Prot. Districts
- Illinois Office of the State Fire Marshal
- Illinois Secretary of State Police
- Illinois Department of Public Health
- Illinois Law Enforcement Alarm System
- Homeland Security Advisory Council (formerly Illinois Terrorism Task Force)
- Emergency Medical Services
- Mutual Aid Box Alarm System
- St. Louis Metro Urban Area Security Initiative
- Cook County/Chicago Area UASI
- Cook County Sheriff
- Chicago Office of Emergency Management and Communications
- Illinois Emergency Services Management Assoc.
- FCC RPC Region 13
- FCC RPC Region 54

The SIEC was created to address concerns relating to operability and interoperability of local, regional, and statewide public safety voice and data communications systems, to plan for the long-term efficient implementation and operation of interconnected public safety communications systems, and to improve overall public safety communications interoperability in Illinois.

Sec. 2-2 SIEC Responsibilities

The Illinois Interoperable Communications Sub-Committee is responsible for:

- Promoting interoperable communications in collaboration with the Homeland Security Advisory Council (HSAC, formerly Illinois Terrorism Tak Force or ITTF) Communications Committee and the Statewide Interoperability Coordinator (SWIC).
- Maintaining, reviewing, and updating the TICP in collaboration with the SWIC.
- Disseminating updated plans to all participating agencies.
- Establishing training requirements in support of the TICP.
- Re-evaluating state agency requirements as technology evolves and circumstances dictate.
- Reviewing issues presented by the SWIC regarding conflicts or non-compliance with current standards or initiatives related to Standard Operating Procedures (SOPs) created by the included agencies.

Sec. 2-2(a) In Collaboration with the HSAC (formerly ITTF)

In collaboration with the HSAC, the Illinois Interoperable Communications Sub-Committee is responsible for:

- Promoting the training of all radio users and communications personnel.
- Initiating Memoranda of Understanding (MOUs) and Memoranda of Agreement (MOAs) for interoperable communications.
- Promoting regular interoperable equipment/solutions testing, assisting agencies with test evaluations, and disseminating the results.
- Coordinating acquisition, upgrades, and sustainment of interoperable communications equipment.

Sec. 2-3 Meeting Schedule

The SIEC meets regularly on the third Thursday of each month or as published by the Secretary of the Committee.

Sec. 2-4 SIEC Organization

The SIEC is organized as shown in the chart below:

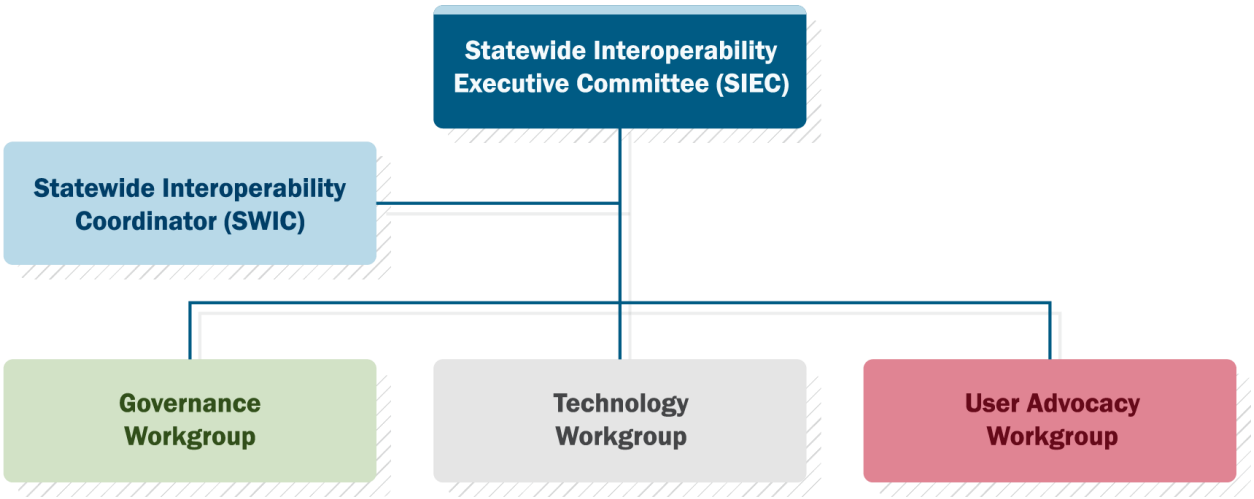

Figure 1: SIEC Organization Chart

Sec. 2-5 Agency Responsibilities and Rights

The responsibilities of the participating agencies are as follows:

- Agencies have the rights and responsibilities described in Illinois MOUs, Operating Policies, and Interoperable Communications Procedures.
- Agencies are responsible for complying with MOU/Agreements disseminated by the Illinois Emergency Management Agency & Office of Homeland Security and Illinois SIEC in coordination with their respective jurisdictions.
- Where applicable, agencies will be responsible for consistently maintaining, testing, and exercising connectivity to interoperable communications resources.
- Agencies retain the right to decide when and where to participate in interoperable communications. For example, agencies will retain the right to accept or decline a patch to a gateway system to provide interoperable communications during an incident.

Sec. 2-6 Maintenance of TICP

The Illinois SWIC, in coordination with the Illinois Interoperability Sub-Committee, shall have the responsibility of reviewing and updating the TICP, also known as "the Plan":

- The Plan is to be updated in response to changes in interoperability equipment or resources and upon recommendations from incident and exercise after-action reports (AAR).
- Requests for modifications/additions to the Plan should be submitted to the SWIC. Formal notification (email message) to participating agencies of any modifications or additions to the TICP shall be made in writing no later than 30 days after the modification or addition is made.

Sec. 2-6(a) TICP Addendum Process

- To avoid confusion, TICP corrections and other revisions to the TICP prior to the next scheduled TICP version update should be incorporated into the existing TICP as an addendum and any such addendum be posted on the TICP internet portal site.

Sec. 2-6(b) TICP Version Control

The Illinois SIEC is responsible for the maintenance and distribution of the latest version of the TICP document and shall maintain a valid working copy of the TICP on an internet-accessible portal site for Illinois.

- The TICP shall receive periodic version updates, incorporating all addenda that have been made since the last version update. Any addenda added to the TICP update shall be removed from the Internet portal site.
- The SIEC is responsible for the maintenance of a complete version history of the TICP, including all addenda.
- In the event of a conflict of TICP versions, the TICP version published on the internet portal site shall supersede all other versions. The portal site address is: https://iemaohs.illinois.gov/hs/interoperability.html.

SECTION 3 PRIMARY, ALTERNATE, CONTINGENCY, EMERGENCY (PACE) PLANNING

Maintaining operability, interoperability, and continuity of emergency communications is critical for emergency response regardless of the operating conditions. Primary, Alternate, Contingency, Emergency (PACE) communications plans are a tool for helping organizations prepare for backup communications capabilities in out-of-the-ordinary situations. PACE planning helps organizations establish options for redundant communications capabilities if primary capabilities are disrupted or degraded. [i]

PACE planning helps organizations establish an order to deploy communications assets when capabilities are disrupted or degraded. The Primary level is a typical day-to-day method of communication. Alternate is the backup to the Primary. Contingency is used if both Primary & Alternate have failed. Emergency is the fourth level if all other levels are not working.[ii] A PACE plan moves from level to level based on failures of the current communications mode. Additionally, a plan for communications failures is good practice for critical missions.

See APPENDIX L for further information about PACE plan development.

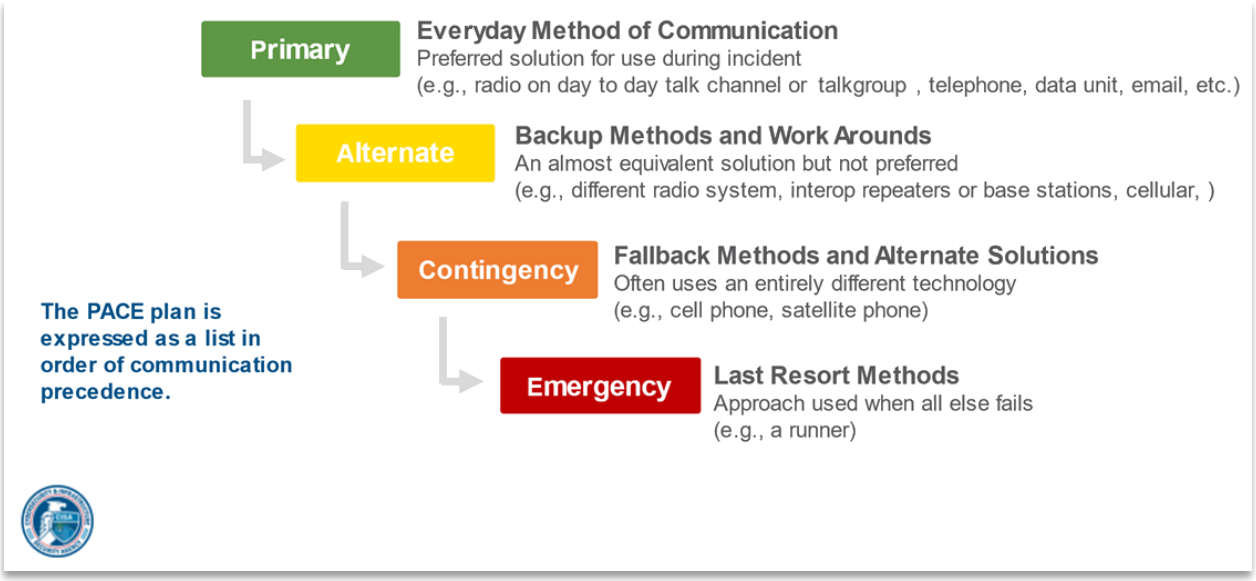

Figure 2: PACE Diagram

[i] Leveraging the PACE Plan into the Emergency Communications Ecosystem (NCSWIC, Apr. 2023).
[ii] FM 6-02 Signal Support to Operations (Headquarters, Department of the Army, September 2019).

SECTION 4 STATEWIDE AND REGIONAL COMMUNICATIONS INFRASTRUCTURE

Sec. 4-1 Statewide Interoperable Communications Platform

STARCOM21 serves as the foundation of Illinois interoperable communications, and is used for day-to-day state and local agency interoperability and statewide interoperability for incidents and events at and above Level 3.

The STARCOM21 Project 25 (P25) network is a 700/800 MHz trunked voice radio platform that is owned, operated, and maintained by Motorola. The network consists of over 300 linked sites and provides radio communications, services, and interoperability to federal, state, county, and local public safety entities participating on the system. STARCOM21 provides mobile radio coverage in more than 95 percent of the geographic area of Illinois with a grade-of-service level of five percent or greater.

Sec. 4-1(a) Statewide Encryption

The SIEC has acknowledged the need to provide communications and operational security under certain circumstances that affect interoperable communications between multiple agencies or jurisdictions. As a result, the SIEC has approved the use of P25 standard Advanced Encryption Standard (AES)-256 encryption for interoperability and has assigned encrypted STARCOM21 talkgroups and channels for use by agencies for interoperable communications where operational security needs to be maintained. Encryption keys for these talkgroups and channels may be provided as authorized by the SWIC. Encrypted interoperability talkgroups and channels are listed in APPENDIX C.

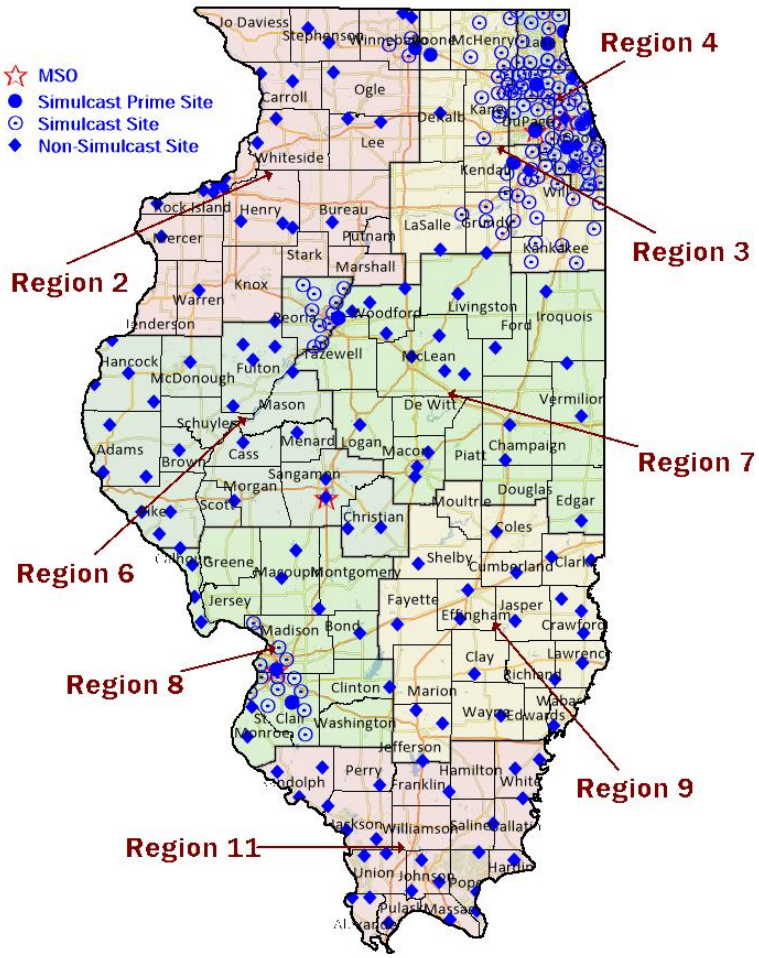

Figure 3: Statewide STARCOM21 Site Map

Sec. 4-2 Illinois Statewide Interoperability Template (SWIT) and Priority Programming Guide

The Illinois SWIT is the primary method of interoperability in Illinois. The Channel Plan provides interoperable channels across the Very High Frequency (VHF), Ultra High Frequency (UHF), and 700 MHz frequency bands, and can be found in APPENDIX C.

The Illinois SWIT replaces the legacy ITTF template, which may still be used until the deadline (currently established as the end of 2025). To ease the transition from the old template to the SWIT, the recommended transitional programming template is provided in App. C-4. Once the transition process is complete and the SWIT programming deadline has passed, the legacy zones may be removed from STARCOM21 radios.

For the purposes of this section, unless otherwise stated, authorized radios shall be limited to those controlled by a first responder, emergency management organization, transportation or public works governmental entity, a hospital, or other non-governmental organization as approved by the Illinois SWIC.

Further restrictions according to agency discipline may also be applicable and are identified in APPENDIX C.

Sec. 4-3 Nationwide Interoperability Channels

The Federal Communications Commission (FCC) has predefined a set of non-federal nationwide interoperability channels in designated public safety spectrum bands. These channels are designed to provide the public safety community with a set of channels with predetermined operational parameters that serve as a basis for initial on-the-scene coordination and resolution of local interoperability issues.

These nationwide mutual aid channels are designed to provide multiple agencies with a common set of operating frequencies and parameters for specific uses in an incident location for fire, police, or emergency medical services.

Based on FCC regulations, local governmental agencies that have a valid Part 90 license may install these channels in existing mobile and portable radios. When responding to an emergency where the need for interoperability is demonstrated, responders may use one or more of the available frequencies as warranted by the incident.

The responsibility for management and assignment of available frequencies rests with the Communications Unit Leader (COML) and/or the designee. Nationwide shared channels are listed in APPENDIX D of this Plan. These channels and their usage requirements are also detailed in the National Interoperability Field Operations Guide (NIFOG).

Sec. 4-4 Nationwide Mutual Aid or Common Channels

In addition to the Nationwide Interoperability channels, the FCC has also set aside channels for use by specific disciplines operating under statewide plans. Nationwide Mutual Aid or Common channels are listed in APPENDIX D of this Plan. These channels and their usage requirements are also detailed in the NIFOG.

Sec. 4-5 Federal Interoperability Channel Plan

Federal Interoperability Channels are available for use between federal agencies or between federal and non-federal agencies to enable interoperable communications for incident or law enforcement response.

These channels are limited to interoperability with federal entities. Interoperability between non-federal agencies is not authorized. These channels are identified in APPENDIX E, and their usage and requirements are further detailed in the NIFOG.

Sec. 4-6 Department of Justice (DOJ) Shared Channels

The US Department of Justice has established a series of interoperability VHF High band digital P25 repeaters in 25 metropolitan areas throughout the United States, known collectively as the DOJ 25 Cities project. The DOJ 25 Cities repeaters servicing areas in and around Illinois are listed in App. E-5 of this Plan.

SECTION 5 COMMUNICATIONS RESOURCES

Sec. 5-1 Interoperability Repeaters and Base Stations

Some jurisdictions deployed radio repeaters and/or base stations that operate on one or more interoperable channels, allowing efficient coordination of first responders during an incident or planned event. These may be in fixed positions using permanent towers or may be transportable, allowing for deployment at or near the incident scene. Interoperability repeaters and base stations are listed in APPENDIX G.

Sec. 5-2 Strategic Technology Reserve (STR)

The state of Illinois has developed the STR: pre-positioned, interoperable communications assets that support interoperable communications and can restore basic communications when terrestrial communications are non-existent or severely compromised. The STR equipment includes Mission Ready Packages (MRPs) and Deployable Communications Resources, which are described in APPENDIX I.

All STR assets are statewide resources, and as such should be requested during a major event through the IEMA & OHS Operations Center at 217-782-7860.

Sec. 5-2(a) Mission Ready Packages (MRP)

MRPs streamline the process of obtaining and providing mutual aid by identifying all the resources available to assist other jurisdictions during a critical incident. MRPs in Illinois are based on either a Unified Command Post (UCP) platform or an Illinois Transportable Emergency Communications System (ITECS) platform and one or more communications gateways, deployable interoperability repeaters, and radio caches. More detailed information on MRPs available for deployment in Illinois can be found in App. I-2.

Sec. 5-2(b) Deployable Communications Resources

Deployable Communications Resources include gateways, radio caches, portable repeaters, mobile communications units, and other communications support equipment. These are described in the following sub-sections.

Sec. 5-2(b-1) GATEWAYS

Gateway systems interconnect (patch) channels of disparate systems (whether on different frequency bands or radio operating modes), allowing public safety using their existing radios and channels to be interconnected with the channels of other users outside of their agency. Dispatch consoles that can create patches are also shown here as gateways.

Available fixed and mobile gateways available in Illinois are listed in SECTION 7App. I-3(b) of this document. The general procedures and best practices for the request, deployment, and use of these gateways and any other communications resources are provided in App. I-3(b).

Sec. 5-2(b-2) CACHE RADIOS

Cache radios, also known as “swap radios,” refer to a reserve of standby radios that can be deployed to support interoperable communications during an incident or event. Cache radios allow all responders to use common, compatible equipment during an incident or event. Specific radio caches within Illinois are listed in detail in App. I-3(c).

The general procedures and best practices for the request, deployment, and use of these caches and any other communications resources are provided in APPENDIX J of this Plan.

Sec. 5-2(b-2)(a) Cache Radio Programming

Illinois cache radio programming will incorporate the frequency band applicable portion of the SWIT, as described in APPENDIX C.

Sec. 5-2(c) Mobile Communications Unit (MCU)

An MCU, which is also known as a Mobile Communications Center (MCC), Mobile Communications Vehicle (MCV), or Mobile Emergency Operations Center (MEOC), refers to any vehicular asset that can be deployed to provide or supplement communications capabilities in an incident area.

Examples of the types of communications devices an MCU can house include:

- Subscriber and base station radios of various frequency bands
- Gateway devices
- Satellite phones
- Wireless computer networks
- Video broadcasting/receiving equipment

Typically, these communications devices are permanently located/stored in the MCUs when not used. The MCU should also be able to temporarily provide the electrical power required to operate the communications devices. Detailed technical specifications on each MCU are provided in App. I-3(e).

Sec. 5-3 Amateur Radio

Sec. 5-3(a) Auxiliary Communications (AUXCOMM)

AUXCOMM groups, supporting either emergency operations or planned events, are composed of knowledgeable individuals who are familiar with various aspects of radio communications in their area of responsibility and who can provide multiple and redundant communications avenues in case of emergency deployment. Members may also be able to address problems/issues associated with their radio systems that may arise because of the emergency. Auxiliary communicators can be a valuable backup communications resource for both planned and unplanned events.

AUXCOMMs can use a variety of frequency bands that typically include systems such as amateur radio, citizens band radio, satellite communications (SATCOM), general mobile radio service (GMRS), family radio service (FRS), and multi-use radio service (MURS). Auxiliary communicators can bring significant expertise to the operations planning process but are used primarily when primary communications become significantly disrupted or are to be used for a planned event (e.g., parades, marathons, exercises, etc.).

Sec. 5-3(b) AUXCOMM Guidelines

The following general guidelines should be met to ensure auxiliary communicators (AUXC) work seamlessly with NIMS/ICS personnel in an Emergency Operations Center (EOC) or out in the field:

- AUXCs should be formally trained on NIMS/ICS prior to working with public safety personnel. At a minimum, ICS-100, 200, 700, and 800 should have been completed by the individual. Should additional training be required for these communicators, it should be documented as such within an SOP, MOU, or MOA.
- While most AUXCs are volunteers, all AUXCs must follow the directions of the COML and/or their designee.
- The COML should brief AUXCs on what is expected of them during activation so that they are fully aware of the requirements. This way, should any AUXCs be unable to accept those requirements, the COML can make the decision as to whether that individual should participate during the incident/event.
- AUXCs should only use the NIMS/ICS forms authorized by FEMA during training or activation to ensure standardization with the rest of the command staff administrative procedures.
- Unless authorized by the emergency manager or the COML, the AUXCs should not bring their organization/club brand or their personal equipment into an operational environment.
- If several different AUXCOMM groups are available in an area, consider creating a coalition group. Representatives from several groups can sometimes work more effectively than only one group. Designate one AUXCOMM manager to work directly with the COML under these conditions.
- AUXCOMMs are not encrypted, so anything they may send could be listened to by the average citizen. No sensitive information should ever be sent via AUXCOMM.

Sec. 5-4 Communications Alternatives

The following alternative communications methods may be considered, based upon local communications requirements.

- **Telephone Conference Bridges** permit direct communication among several users, assuming they have access to telephone services.
- **Video Conferencing** permits direct communication among several users, assuming they have access to video conference services.
- **Cellular/Push-to-Talk (PTT) Commercial Wireless Technology** is available as an adjunct to interoperable communications. During emergencies, cellular networks can experience congestion due to increased call volumes and/or damage to network facilities, severely curtailing the ability of first responders to make emergency calls. Use of cellular technology should be discouraged unless necessary.
- **Wireless Priority Service (WPS)** is available to key federal, state, local, and tribal government, and critical infrastructure personnel. Typical users are responsible for the command-and-control functions critical to management of and response to national security and emergency situations. WPS is an easy-to-use, add-on feature subscribed on a per-cell phone basis; no special phones are required.
- **Computerized Emergency Notification Systems** can be programmed to contact specific individuals and agencies, depending on the nature of the incident. This includes appropriate media outlets, which could be used to inform the public of situation updates, specific instructions, and/or emergency locations, if warranted. Each PSAP has the capability to broadcast emergency notifications, such as NIXLE or reverse 911 systems.
- **Internet/Email** leverages the reliability and usefulness of the internet and email and can provide an invaluable service to the public when other communications services are damaged or overwhelmed,
- **Law Enforcement Agencies Data Systems** allow law enforcement agencies to send Directed Messages from terminal to terminal. Most law enforcement communications centers have these connection capabilities.
- **Satellite Phones** connect to orbiting satellites instead of cell sites. Some satellite phone services depend on the terrestrial phone system for message transmission, while others offer direct satellite-to-satellite message transmission.
- **Dispatch Center to Dispatch Center Messaging** may be available when dispatch centers often share a common computer-aided dispatch (CAD) system capable of providing text messaging between centers.
- **Computer Aided Dispatch (CAD)-to-CAD Interface Systems** allow for a real-time interface between each of the CAD Systems used by dispatch centers, providing users of one CAD system the ability to keep informed of critical incidents being handled in nearby jurisdictions.
- **Homeland Security Information Network (HSIN) Connect** is an electronic collaboration and situational awareness system provided through HSIN, operated by the Department of Homeland Security (DHS). HSIN Connect allows people to view and participate in online briefings and discussions. The HSIN State and Local Intelligence Community (SLIC) offers quick links to regional and national-level web conferencing rooms to allow users to connect with their peers. Users may also create or participate in their own meetings at any time to conduct interactive online meetings and share content with anyone, regardless of whether they are a HSIN user.
- **Electronic Incident Management** can provide incident management and situational awareness for active incidents and events. These systems may be used to manage incidents, provide timely notifications and incident updates to critical staff as well as internal staff and the public.
- **Runners** can be employed to carry messages from one party to another and can be used when other communications methods are unavailable.

SECTION 6 INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) BRANCH

The ICT function manages the infrastructure and systems that support and enable communications, information management processes, and applications required by the responders managing an incident.

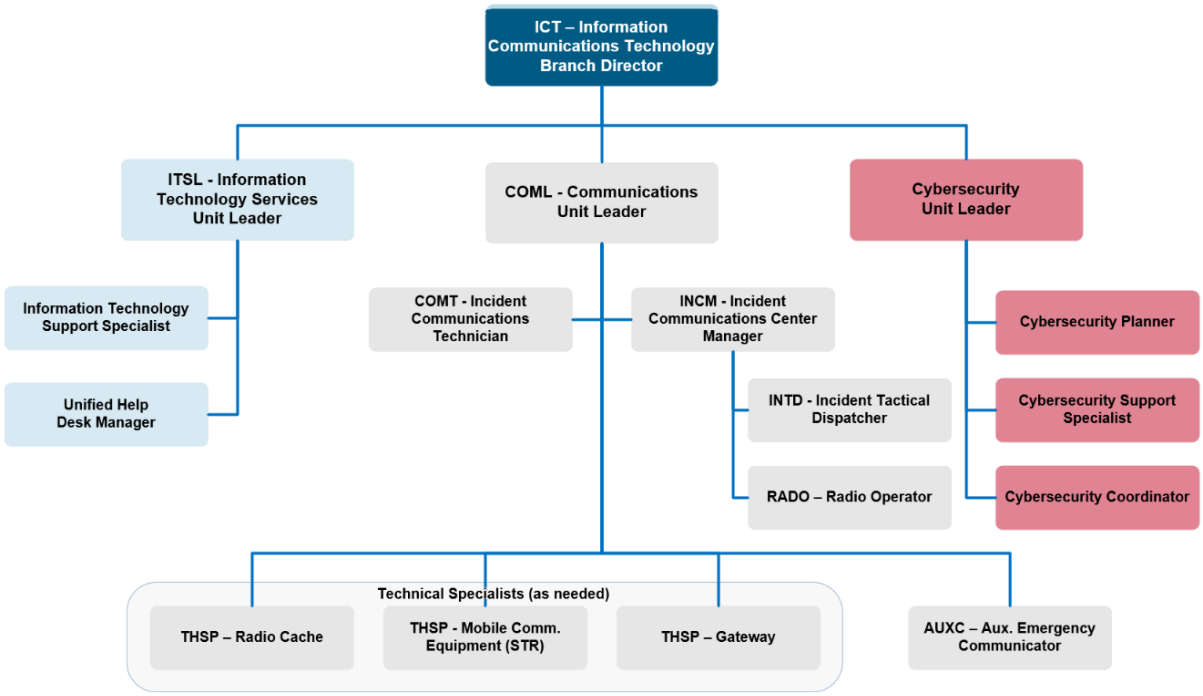

Figure 4: ICT Branch Org Chart (example)

Sec. 6-1 Communications Unit

The Communications Unit oversees the delivery of interoperable communications, including the management of radio and telephone equipment.

Communications Unit Leader (COML) – Plans and manages the technical and operational aspects of meeting the communications needs of an incident or event; supervises unit personnel and is responsible for performance of subordinate position duties that are not filled or delegated; participates in incident action planning meetings; prepares the Incident Radio Communications Plan (ICS Form 205); establishes and supports communication capabilities; establishes an ICC; requests communications personnel, equipment, supplies, and services; and coordinates with the Information Technology Service Unit Leader (ITSL).

Incident Communications Center Manager (INCM) – Manages an ICC; supervises incident tactical dispatcher (INTD) and radio operator (RADO) positions in the ICC; and provides support and assistance to the COML.

Incident Tactical Dispatcher (INTD) – Operates in an ICC and leverages the multi-tasking, communication, accountability, and documentation skills of successful telecommunicators to provide public safety communications expertise and support at planned events and extended incidents; manages for all radio traffic, telephone call processing, data communications and various forms of documentation tasked to the ICC; and supports the ICC as a single resource or as part of an incident tactical dispatch team.

Radio Operator (RADO) – Manages radio traffic, telephone call processing, data communications, and various forms of documentation tasked to the ICC.

Communications Technician (COMT) – Provides guidance and support to the COML in developing the Communications Plan; assesses and determines radio system coverage requirements or capabilities; installs, tests, and troubleshoots communications equipment and systems; programs or verifies programming of radio equipment; maintains and repairs equipment; manages cache equipment, batteries, and gateways; distributes and tracks equipment; resolves interference issues; and trains users on equipment.

Auxiliary Communicator (AUXC) – Installs appropriate/approved AUXCOMM equipment per discussion with the COML or INCM; tests all components of AUXCOMM equipment to ensure systems are operational; operates AUXCOMM equipment for voice and data communications; establishes AUXCOMM area(s) of operation; and interacts and coordinates with appropriate AUXCOMM operational personnel.

Technical Specialist (THSP) – Allows for the incorporation of personnel who may not be formally certified in any specific NIMS/ICS position. THSPs may include Local Agency Radio Technicians (as opposed to the COMT), Telephone Specialists, Gateway Specialists, Data/IT Specialists, and/or Cache Radio Specialists.

Sec. 6-2 NIMS Communications Unit Training

Sec. 6-2(a) Coordinators and Technicians

Minimum training for all Communications Unit positions shall include as a prerequisite the following classes:

- IS-100.b – (ICS 100) Introduction to Incident Command System
- IS-200.b – (ICS 200) ICS for Single Resources and Initial Action Incidents
- IS-700.a – (ICS 700) National Incident Management System (NIMS), an Introduction
- IS-800.b – (ICS 800) National Response Framework (NRF), an Introduction

Sec. 6-2(b) Communication Unit Leaders

Minimum training for all Communicattions Unit Leader positions shall include as a prerequisite the following classes:

- ICS-300 – Intermediate ICS for Expanding Incidents, in addition to the above

Sec. 6-3 Information Technology Services Unit

The Information Technology Services Unit delivers data services, including by managing the Unified Help Desk and securing data network systems.

Information Technology Service Unit Leader (ITSL) – Plans and manages the technical and operational aspects of meeting the data and application needs of an incident or event; supervises unit personnel; performs subordinate position duties that are not filled or delegated; participates in incident action planning meetings; prepares the Information Technology Plan; establishes and supports on-scene IT infrastructure and application capabilities; establishes the Unified Help Desk; coordinates support with the IT departments of all responding agencies; and orders or requests personnel, supplies, and equipment.

Information Technology Support Specialist – Establishes and maintains networks sufficient to support incident needs; installs and configures IT hardware, and software components; responds to work tickets generated by the Unified Help Desk; identifies, assesses, and mitigates cybersecurity threats and vulnerabilities; performs daily IT support functions to include connectivity checks, software upgrades, system backups, and server functions; troubleshoots system and equipment errors and connectivity problems and resolves most problems; and provides initial computer training, including instructions on logging on and accessing network services.

Unified Help Desk Manager – Establishes a Unified Help Desk function; uses an established process for receiving and tracking work order tickets; uses system established by the ICT branch director, ITSL, and/or COML to prioritize, route, or escalate Help Desk work order tickets to proper tier or THSP for analysis and resolution; and assists the ITSL with forms and documentation.

Sec. 6-4 Cybersecurity Unit

The Cybersecurity Unit identifies cybersecurity risks and vulnerabilities and assesses threats to the ICT infrastructure and the incident management organization.

Cybersecurity Unit Leader– Plans and manages the technical and operational aspects of meeting the cybersecurity needs of an incident or event; supervises unit personnel and is responsible for performance of subordinate position duties that are not filled or delegated; participates in incident action planning meetings; develops and publishes a basic cybersecurity plan; establishes and supports on-scene cyber defense and application capabilities; coordinates support with the cybersecurity departments of all responding agencies; orders or requests personnel, supplies, and equipment; and documents and escalates incidents that may cause ongoing and immediate impacts to the environment

Cybersecurity Planner – Assesses planning needs and collaborates with stakeholders to develop cybersecurity related policies, plans, practices, and guidelines for implementation; analyzes organization's cyber defense policies; configures and evaluates compliance with regulations and organizational directives; integrates applicable laws, statutes, and regulatory documents into policies, plans, practices, and guidelines; promotes awareness of cybersecurity plans and strategies, as appropriate, among command and other stakeholders; monitors the implementation of cybersecurity policies, principles, practices, and guidelines in the planning process; provides guidance and support to command during the development of cyber-related plans and policies; communicates threat and risk reports to incident command; develops strategies and plans for mitigating identified vulnerabilities and threats; develops security monitoring plan to detect potential malicious or suspicious activity that could impact response activities; and assists ITSL with preparing the Information Technology Plan.

Cybersecurity Support Specialist – Performs system administration on specialized cyber defense applications and systems or virtual devices; assists in identifying, prioritizing, and implementing technical infrastructure and key resources utilized in cyber defense efforts; builds, installs, configures, and tests dedicated cyber defense hardware and services; assists in assessing the operational impact of implementing and sustaining cyber defense infrastructure; assesses and evaluates applications, hardware infrastructure, prevention, and detection tools; accesses controls and configurations platforms managed by service providers; and implements security monitoring plan.

Cybersecurity Coordinator – Coordinates the development, promotion, and sharing of cybersecurity information both within and outside the ICT Branch and the responding organizations; coordinates the integration of competing requirements and priorities from multiple agencies and internal/external stakeholders; identifies gaps and impediments across internal and external partner organizations or third-party services; coordinates with technical and operational personnel to ensure the implementation and updating of specialized cyber defense applications based upon identified threats and vulnerabilities; coordinates with public information officers (PIO) for social media monitoring inputs; liaises with supporting IT and cybersecurity organizations, including vendors, volunteers, insurance companies, and other outside partners; and manages documentation and ensures sensitive security information is properly controlled (e.g., PII, PHI, and PCII).

SECTION 7 COMMUNICATIONS ASSETS SURVEY AND MAPPING (CASM)

Communications Assets Survey and Mapping (CASM) is a web-based software application that allows public safety agencies to inventory and access communications data entered by a broad spectrum of users nationwide through a single, consolidated tool. CASM provides the common operational picture that integrates many sources of information into a single application allowing for effective, efficient, and rapid resource utilization prior to and during a planned event or disaster response.

CASM features a comprehensive emergency communications database that provides a national-level view of communications information that can be easily accessed and shared between any variety of jurisdictions and government types. CASM provides access for approved local, state, tribal, federal, and non-governmental organization (NGO) users to information including:

- Repeaters and Base Stations
- Trunked Radio Systems
- Shared Channels and Talkgroups
- Mobile Resources (Mobile Units, Radio Caches, etc.)
- Communications Unit Personnel
- Radio System Comm Sites and Infrastructure
- Public Safety Agencies
- System Metrics

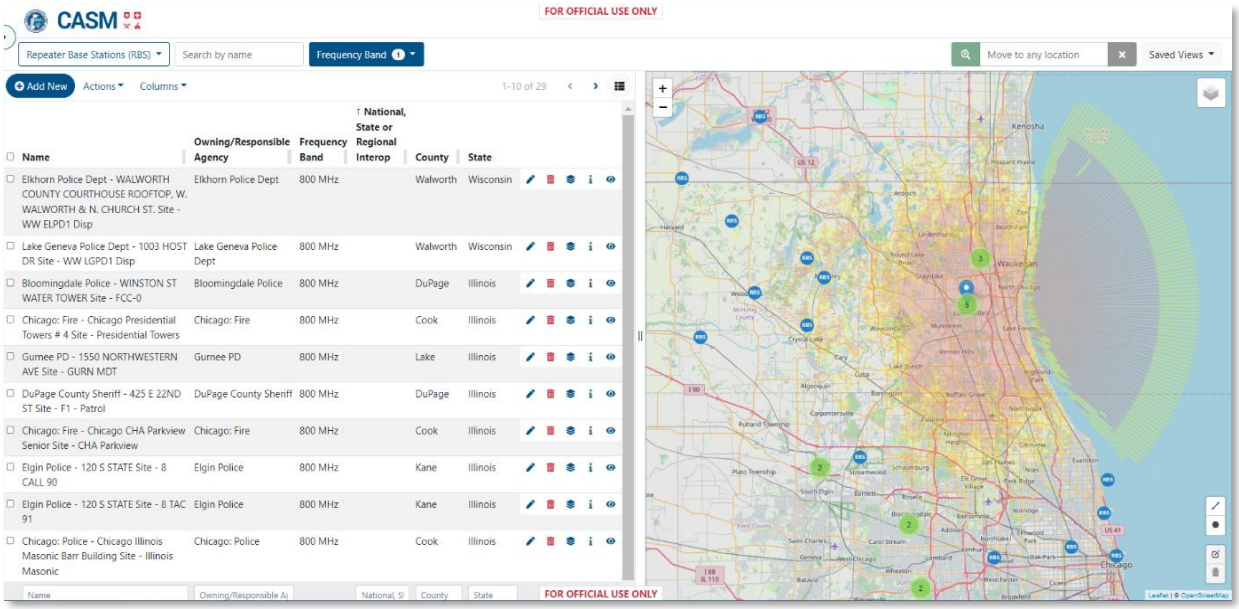

Figure 5: CASM Repeater Base Station Screenshot

CASM data is filterable by type and can be overlaid on a Google Maps interface or accessed through standardized tables. A single consolidated user interface provides a common look and feel for all screens. Access is profile-based so that users only have access to information that they are authorized to view and/or edit. The system is virtually hosted, eliminating the need for dedicated hardware, reducing costs, streamlining maintainability, and increasing overall availability.

Table 1: CASM Key Features and Capabilities

Feature	Description
User Access Availability and Data Security	• Provides a high-availability web-based automated communication planning capability for representatives of public safety practitioners at all jurisdictional levels. • User access to CASM requires user account sign-in, access controlled with username and password. • CASM employs advanced encryption protocols to protect the security of public safety data transferred across the internet.
User Access Control	• Provides comprehensive access control managed and vetted by organizational administrative personnel.
	• Allows organizational administrative managers the ability to grant, modify or remove information sharing privileges for their organization's data types to users associated with agencies related to specific organization nodes.
Data Entry/Edit	• Using a consistent user interface CASM provides the capability to enter, edit, or delete public safety radio and data communications assets, including fixed and deployable equipment, infrastructure, users, spectrum usage, owners, locations, and capabilities nationwide.
Data Export/Reporting	• CASM reports, and export features include public safety radio and data communications assets, including equipment, infrastructure, users, spectrum usage, owners, locations, and capabilities nationwide. • CASM provides users with the ability to rapidly generate planning and operational documents such as ICS 217A Reports and TICP Reports.
Data Display	• Communications resources and equipment of all types are filtered and displayed graphically using a map-based interface which can also be toggled to provide a table view for enhanced filtering and identification.
Coverage Plot Generation	• CASM provides the ability to generate predictive coverage plots which show the estimated areas of radio coverage for base station radios.

Authorization to access CASM and view statewide or regional data for Illinois is controlled by the Illinois Emergency Management Agency's Communications Branch. Each user must have a unique username and password and sharing log on information is prohibited.

Table 2: CASM POC Information

CASM Area of Responsibility	Name		Email
Statewide	Statewide Interoperability Coordinator		ema.swic@illinois.gov

APPENDIX A MAPS

This section includes maps that provide a visual representation of areas of responsibility and locations of interest in the state of Illinois.

App. A-1 IEMA & OHS Regions

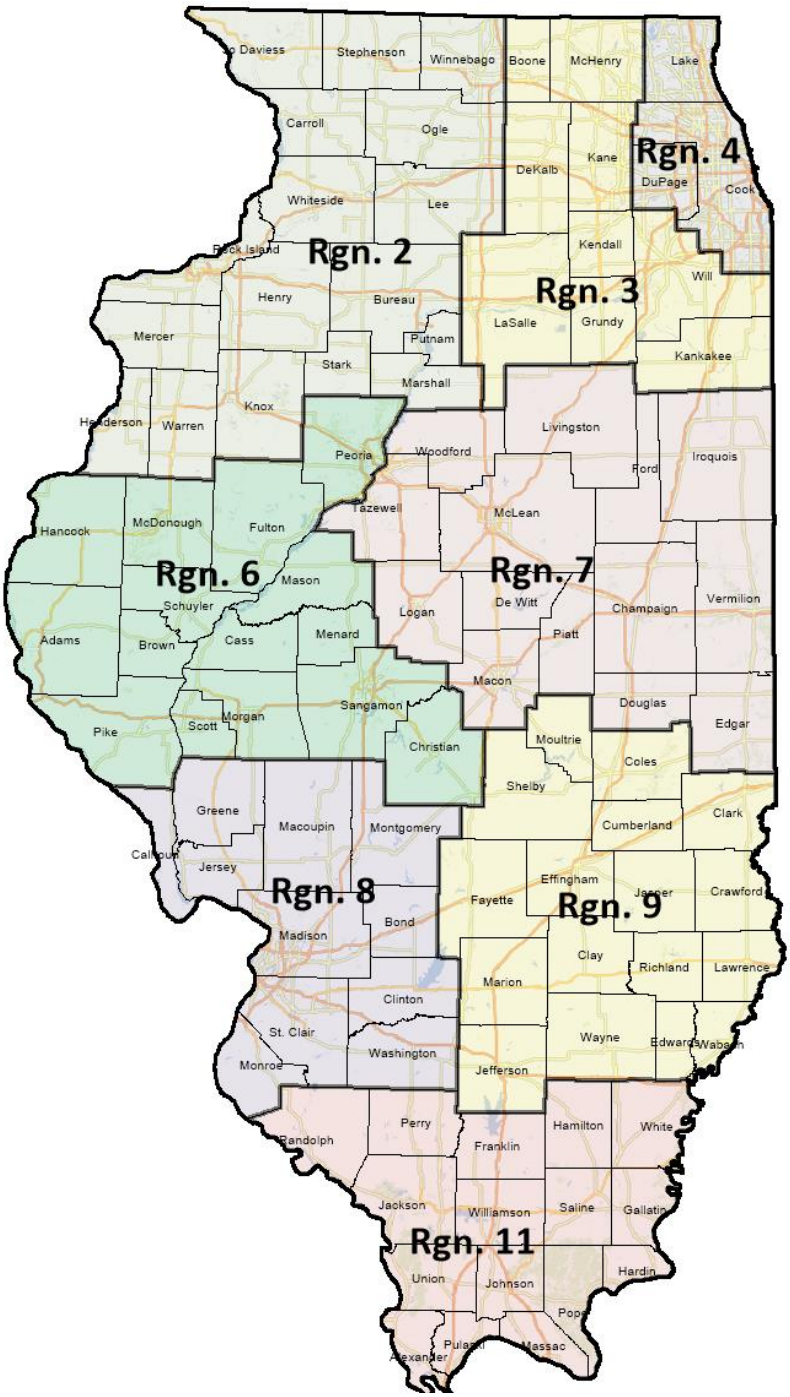

Figure 6: IEMA & OHS Regions

App. A-2 Illinois State Police Troops

Figure 7: Illinois State Police Troop Map

App. A-3 Illinois Department of Public Health Regions

Figure 8: Illinois Department of Public Health Regions

App. A-4 Illinois Department of Transportation Regions and Districts

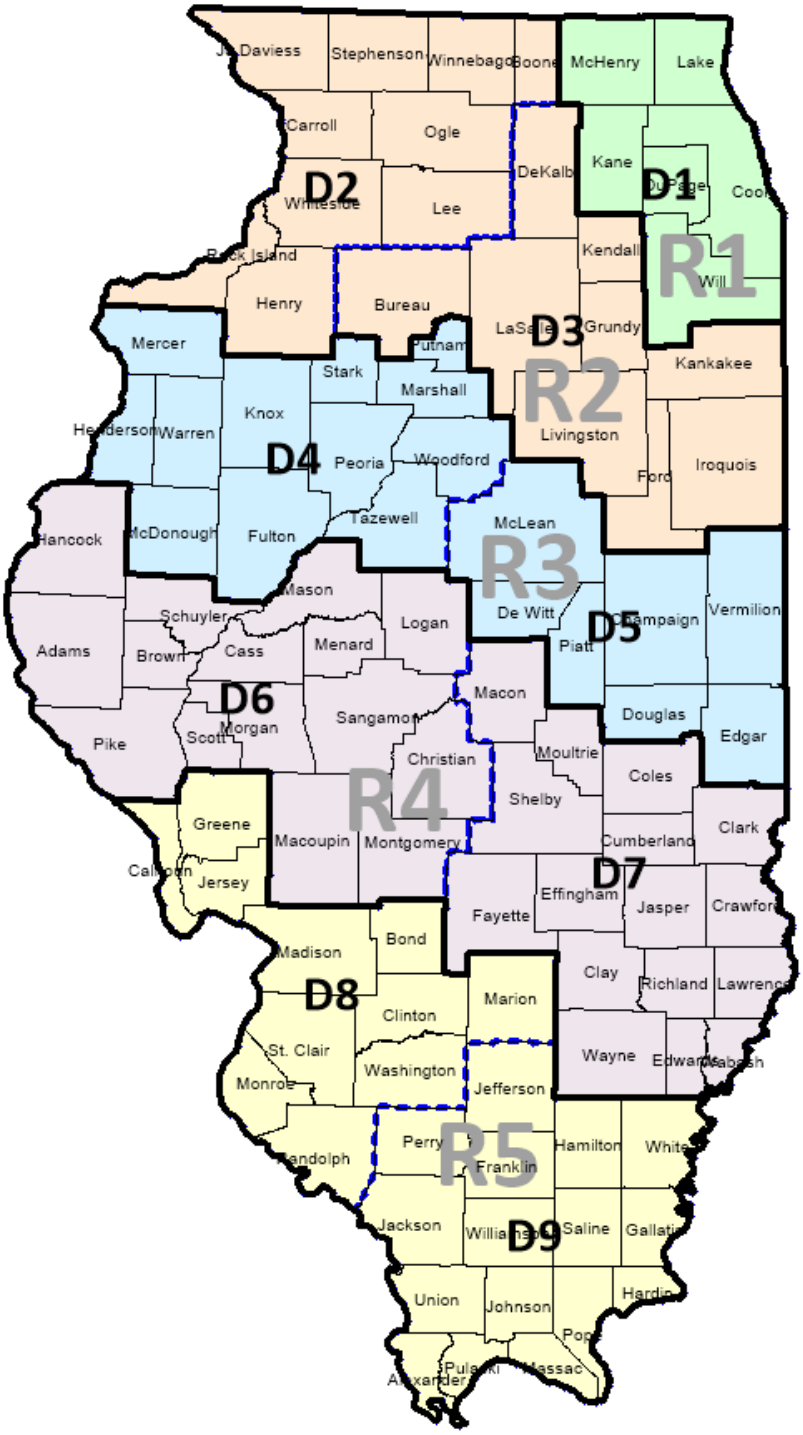

Figure 9: Illinois Department of Transportation Regions and Districts

App. A-5 STARCOM21 Regional Site Maps

App. A-5(a) IEMA & OHS Region 2

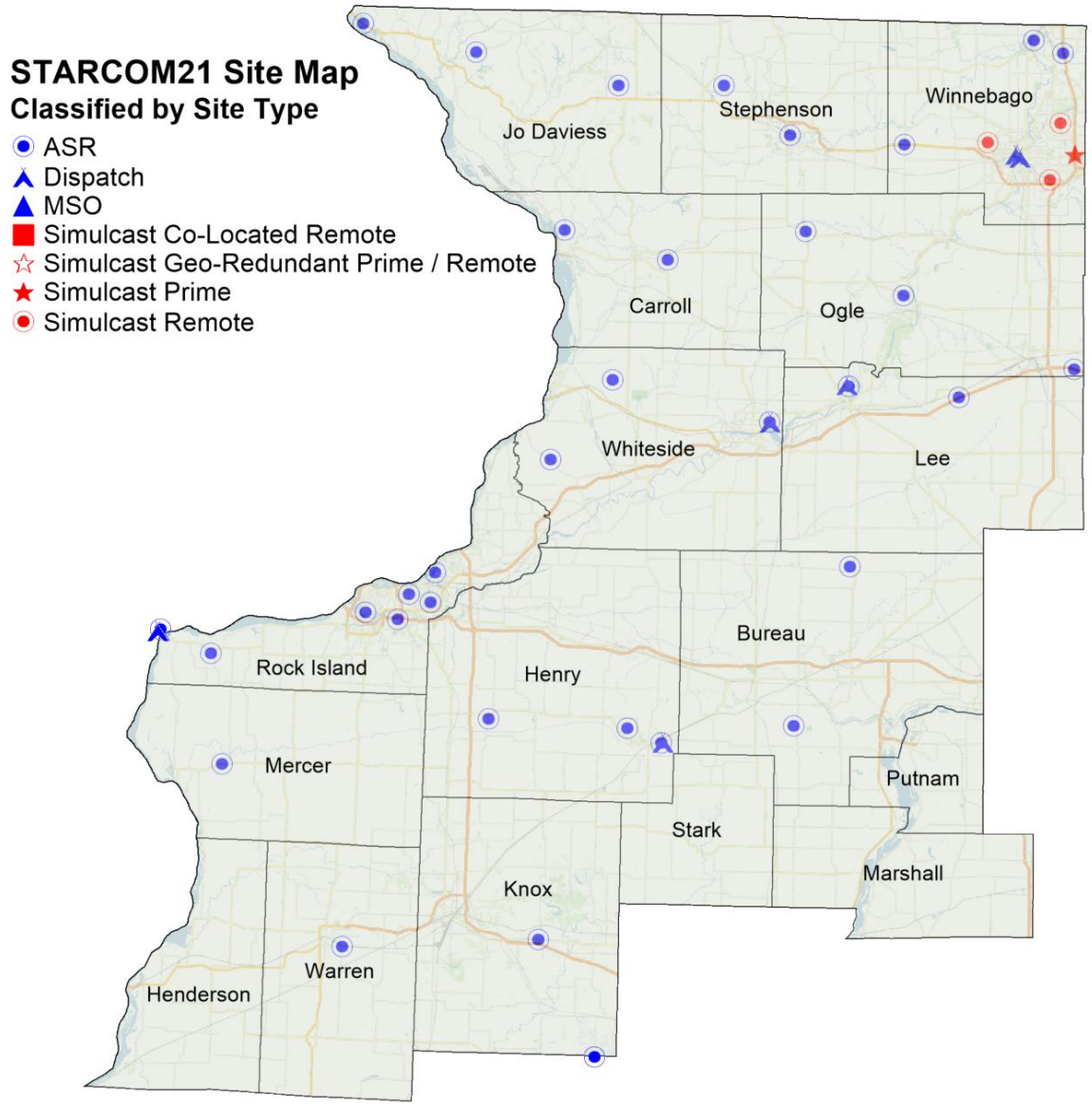

Figure 10: STARCOM21 Site Locations - IEMA & OHS Region 2

App. A-5(b) IEMA & OHS Region 3

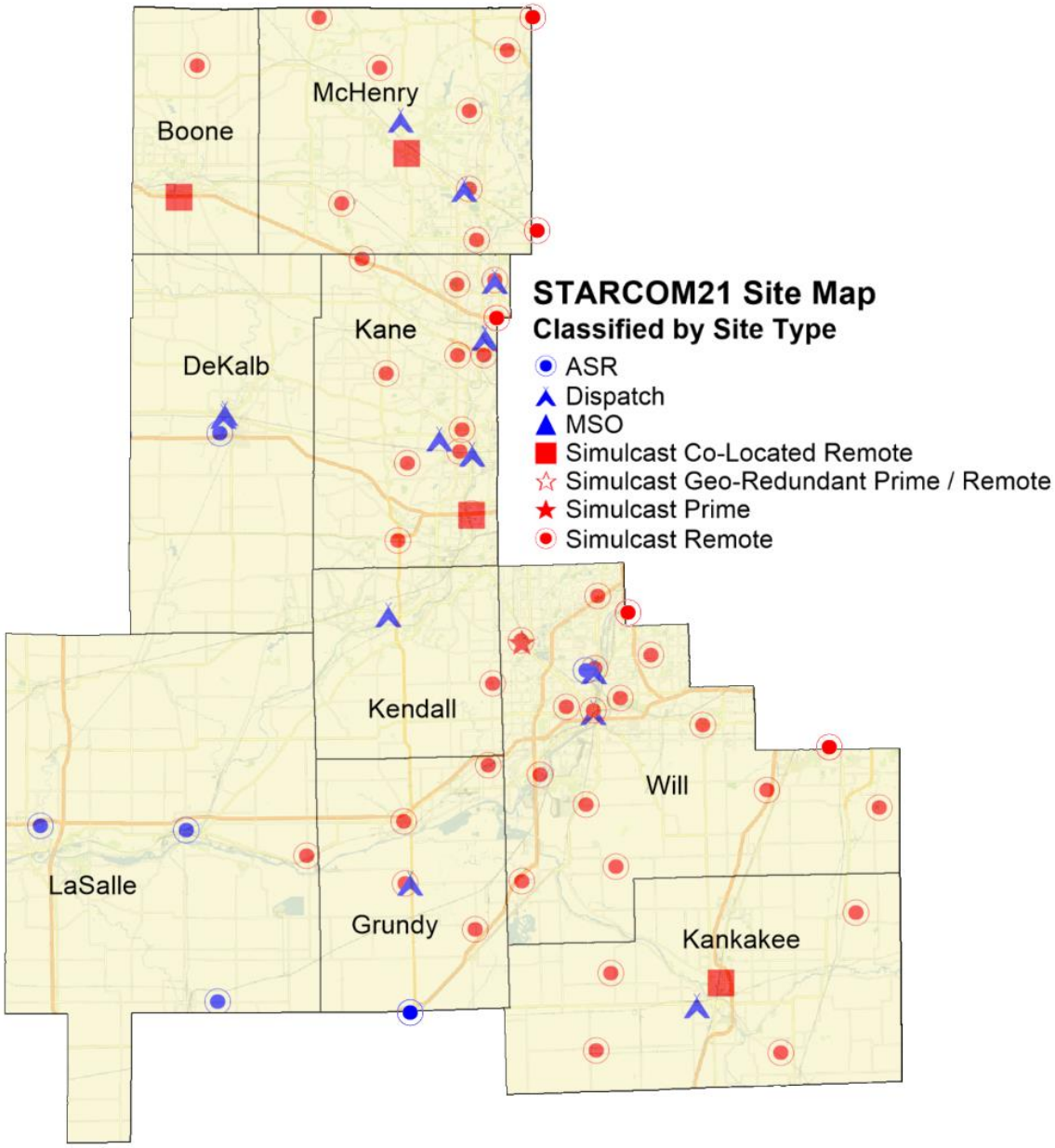

Figure 11: STARCOM21 Site Locations - IEMA & OHS Region 3

App. A-5(c) IEMA & OHS Region 4

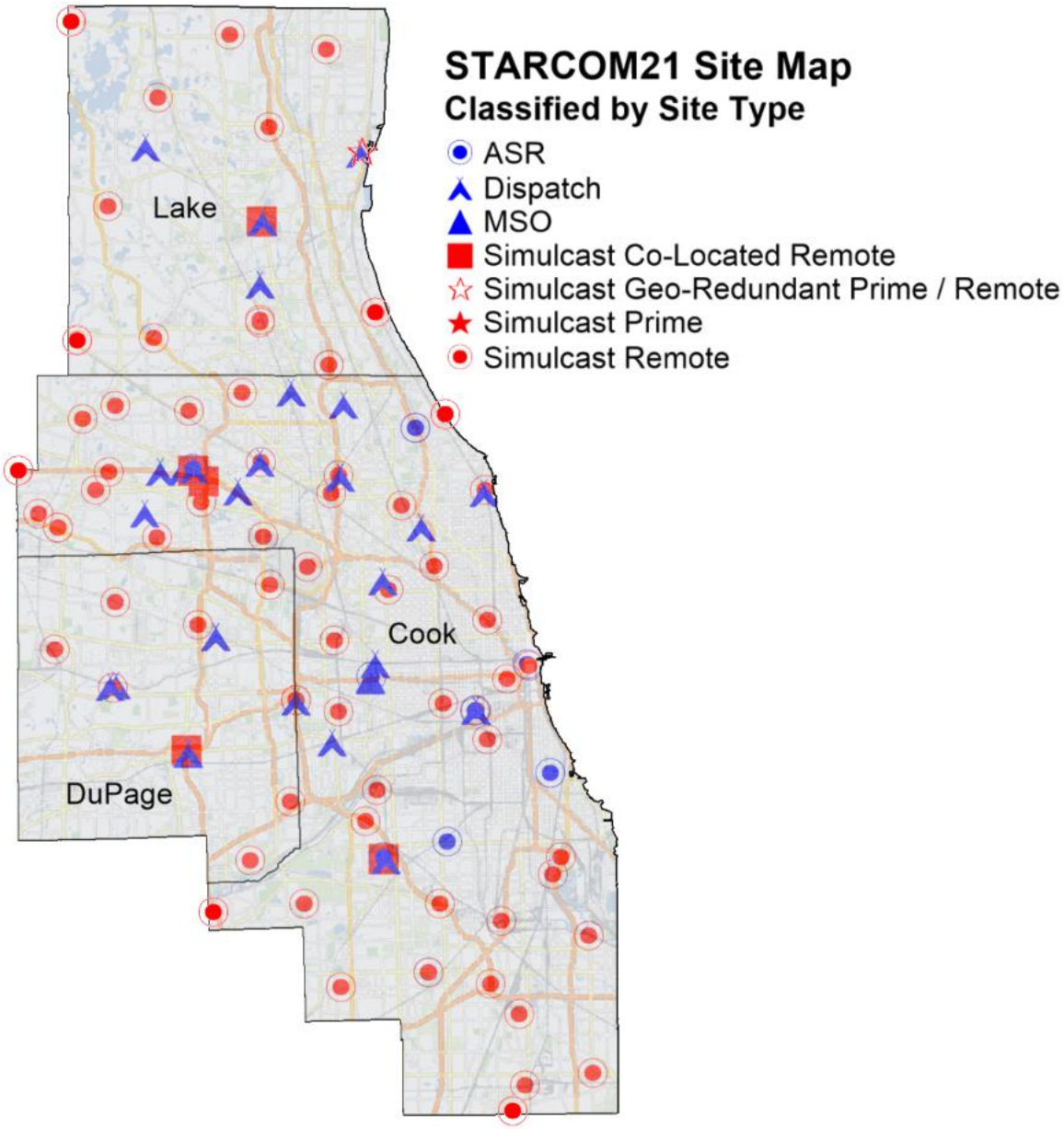

Figure 12: STARCOM21 Site Locations - IEMA & OHS Region 4

App. A-5(d) IEMA & OHS Region 6

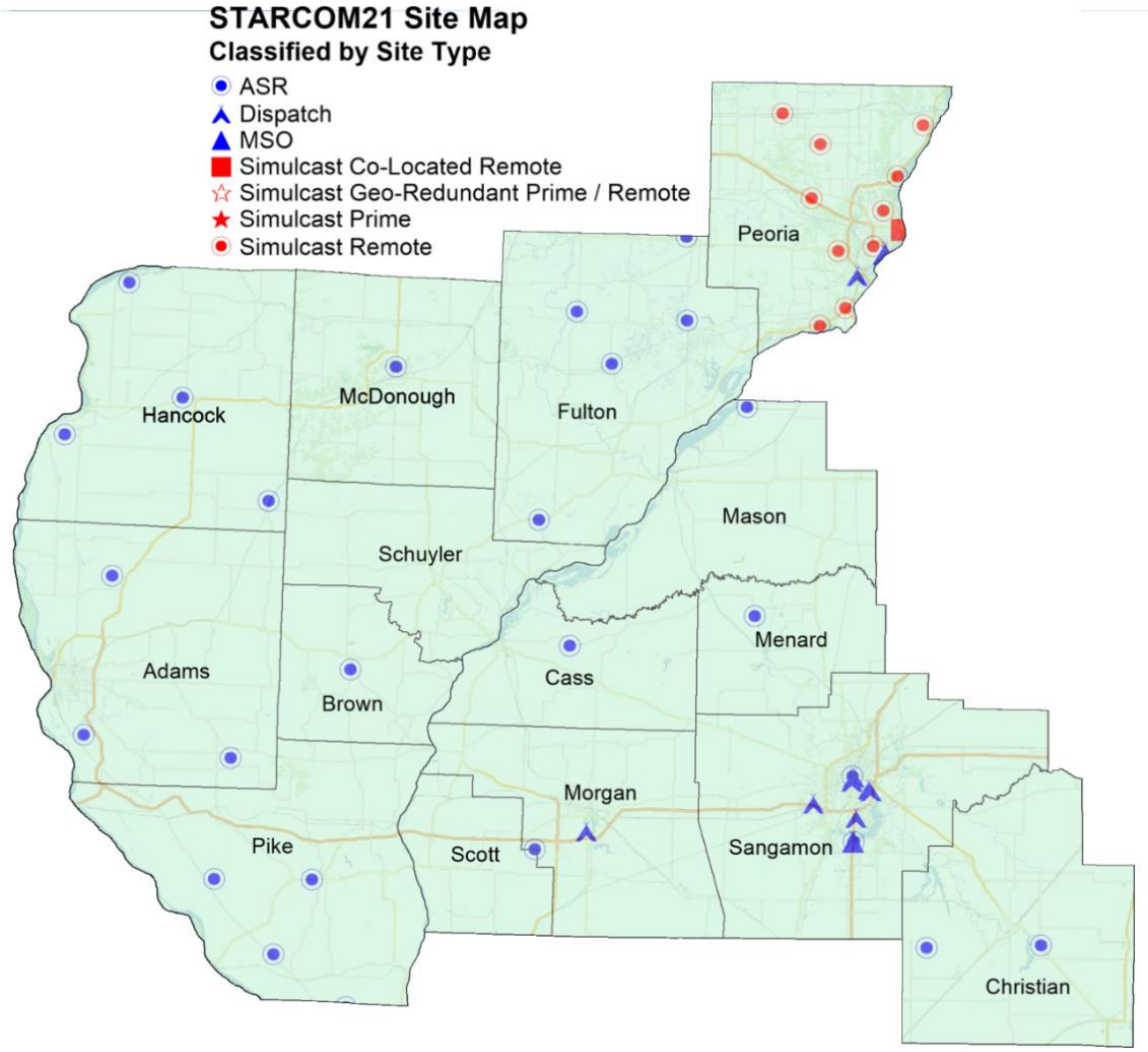

Figure 13: STARCOM21 Site Locations - IEMA & OHS Region 6

App. A-5(e) IEMA & OHS Region 7

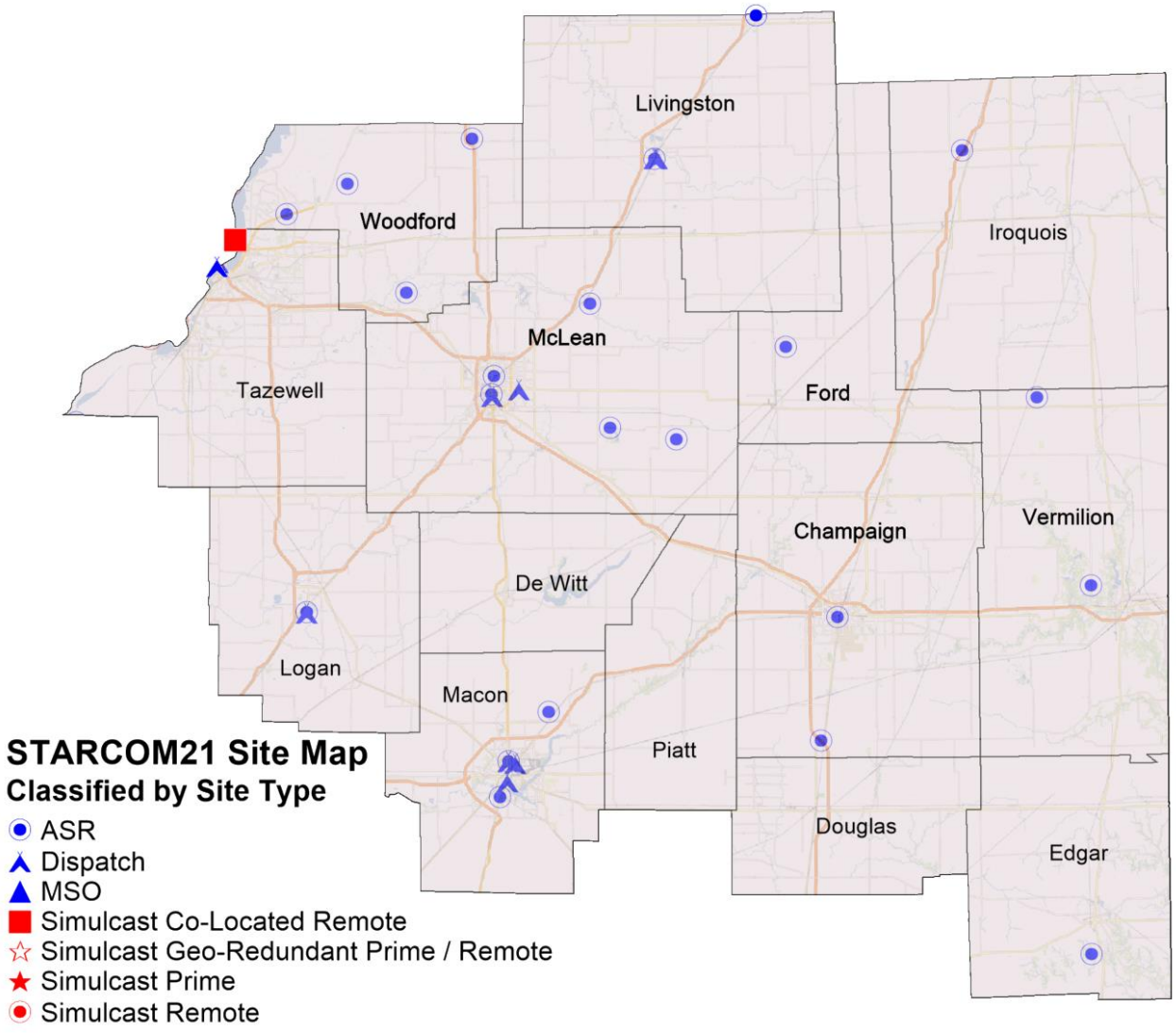

Figure 14: STARCOM21 Site Locations - IEMA & OHS Region 7

App. A-5(f) IEMA & OHS Region 8

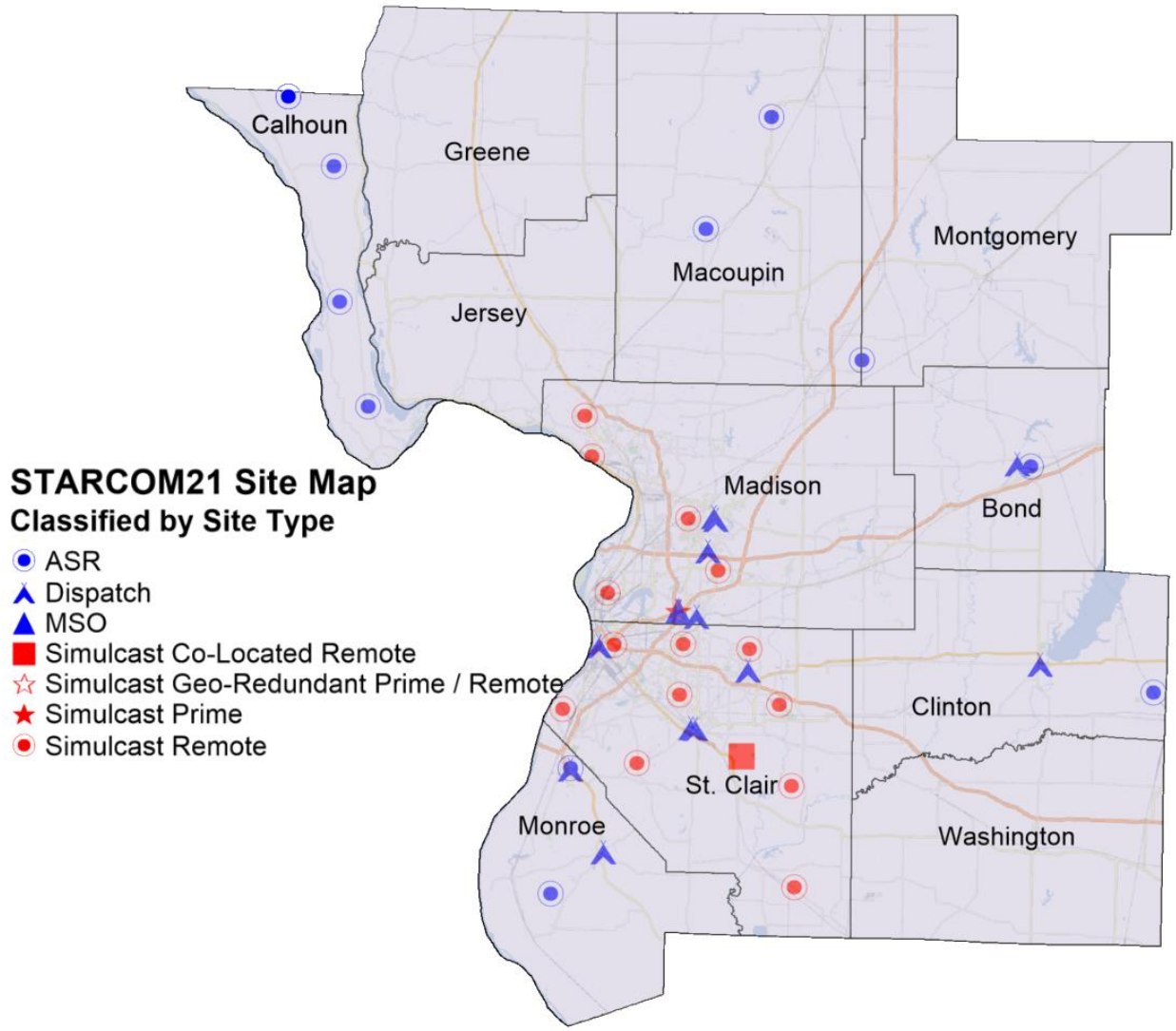

Figure 15: STARCOM21 Site Locations - IEMA & OHS Region 8

App. A-5(g) IEMA & OHS Region 9

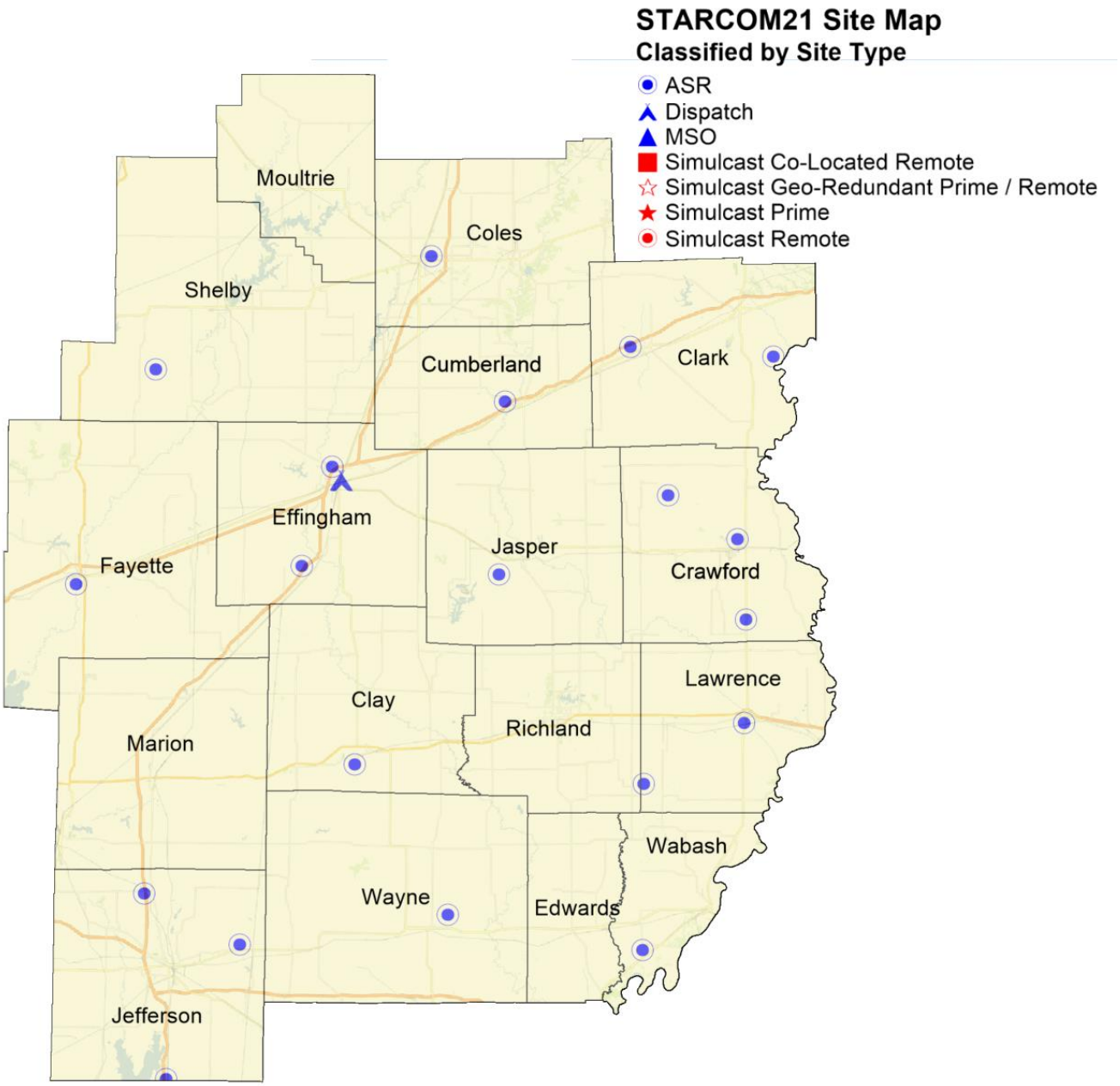

Figure 16: STARCOM21 Site Locations - IEMA & OHS Region 9

App. A-5(h) IEMA & OHS Region 11

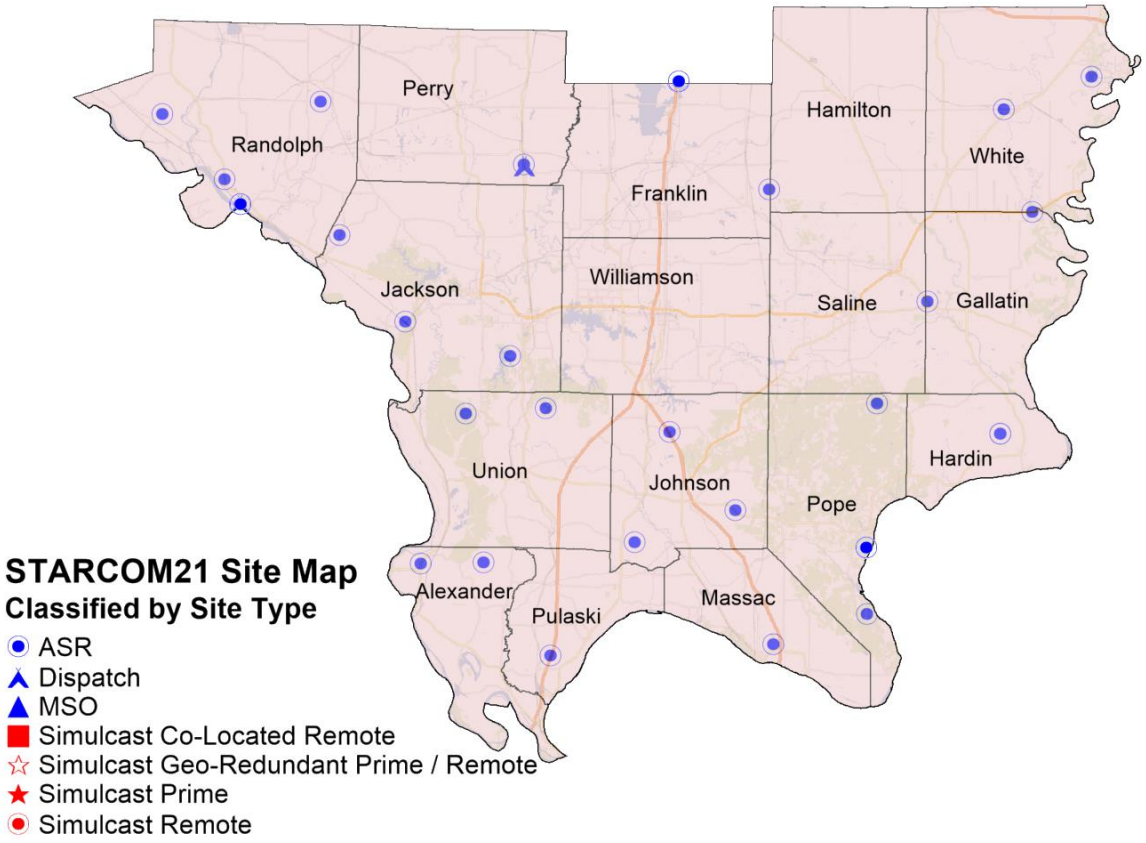

Figure 17: STARCOM21 Site Locations - IEMA & OHS Region 11

APPENDIX B DISPATCH CENTERS

App. B-1 State Agency Dispatch Centers

App. B-1(a) Illinois State Police

See APPENDIX A for a map of Illinois State Police troops.

Table 3: State Police Troops and Dispatch Centers

Troop	Dispatch Center	Counties Served	24/7 Phone
1	Sterling	Carroll, Ogle, Lee, Whiteside	815-632-4010
		Jo Daviess, Stephenson, Winnebago	815-239-1152
2	Sterling	Henry, Mercer, Rock Island	309-752-4915
		Bureau, LaSalle, Putnam	815-224-1171
3	Chicago	Cook	847-294-4708
		DeKalb, Kane, Lake, McHenry, DuPage, Boone	847-931-2495
		Grundy, Kendall, Will	815-726-6377
4	Pontiac	Marshall, Peoria, Stark, Tazewell, Woodford, Knox	309-383-2131
		Fulton, Hancock, Henderson, McDonough, Warren	309-833-2141
5	Pontiac	DeWitt, Livingston, McLean	815-844-3131
		Ford, Iroquois, Kankakee	815-698-2315
6	Springfield	Cass, Christian, Logan, Mason, Menard, Morgan, Sangamon	217-786-7107
		Adams, Brown, Pike, Schuyler, Scott	217-285-2034
7	Pontiac	Champaign, Coles, Douglas, Edgar, Macon, Moultrie, Piatt, Shelby, Vermillion	217-867-2211
8	Collinsville	Bond, Clinton, Madison, Monroe, St. Clair, Washington	618-346-3990
		Calhoun, Greene, Jersey, Macoupin, Montgomery	618-346-3990
9	Du Quoin	Clark, Crawford, Cumberland, Effingham, Fayette, Jasper, Marion	618-542-1454
		Clay, Richland, Lawrence, Wayne, Edwards, Wabash, Hamilton, White	618-542-1486
10	Du Quoin	Franklin, Jackson, Jefferson, Perry, Randolph, Williamson, Gallatin, Saline	618-542-1483
		Alexander, Hardin, Johnson, Massac, Pope, Pulaski, Union	618-542-1483
ISP Command Center		Statewide	217-786-6677

App. B-1(b) Other State Agencies

Table 4: Other State Agency Offices

AGENCY	DIVISION	LOCATION	PHONE
Illinois Emergency Management Agency	Operations Center	Springfield	217-782-7860
Illinois Dept. of Corrections	Operations	Springfield	217-558-2200
Illinois Toll Highway Authority	All	Downers Grove	630-241-6800
Illinois Dept. of Transportation	District 1	Schaumburg	847-705-4602
Illinois Dept. of Transportation	District 2	Dixon	815-284-5401
Illinois Dept. of Transportation	District 3	Ottawa	815-434-8431
Illinois Dept. of Transportation	District 4	Peoria	309-671-4487
Illinois Dept. of Transportation	District 5	Paris	217-466-7294
Illinois Dept. of Transportation	District 6	Springfield	217-782-7316
Illinois Dept. of Transportation	District 7	Effingham	217-342-8272
Illinois Dept. of Transportation	District 8	Collinsville	618-346-3237
Illinois Dept. of Transportation	District 9	Carbondale	618-351-5338
Illinois Dept. of Transportation	Statewide	Springfield	217-782-2937
Illinois Department of Natural Resources	Statewide	Springfield	217-782-6302
Illinois Department of Natural Resources	Region 1	Springfield	217-782-6752
Illinois Department of Natural Resources	Region 2	Bartlett	847-608-3100
Illinois Department of Natural Resources	Region 4	Grafton	618-786-3323
Illinois Department of Natural Resources	Region 5	Benton	618-435-8138
Illinois Secretary of State Police	Statewide	Springfield	217-524-0200

APPENDIX C ILLINOIS SWIT[1]

The Illinois SIEC has approved a SWIT to support improved interoperable communications options throughout the state of Illinois. It is the suggestion of the SIEC that each agency include these channels in their radios.

The tables listed in App. C-2 define each STARCOM21 talkgroup and conventional channel in the SWIT, followed by a visor card which provides guidance on STARCOM21 radio interoperability programming.

App. C-1 Overall Guidelines

- Appropriate state and national interoperable channels should be programmed into all public safety portable and mobile radios. Recommended zones shown in this document are intended for 16 channel per zone portable radios. Departments with higher capacity mobile radios may desire to program all appropriate VHF and/or UHF interoperability channels in a single I/O (Interoperability) zone. 700/800 MHz interoperability zones should follow the SWIT-BC through SWIT-BY template as published within this document.
- Not all radios in use today will be capable of using the P25 digital or secure (encrypted) channels listed in this document. Agencies should ensure that all appropriate channels for use by their discipline that the radio is capable of are programmed.
- Per FCC rule, if a radio is programmed with any of the 700 MHz interoperability channels, the radio must be programmed to operate on all of the nationwide narrowband interoperability channels. (47 CFR 90.547)
- All 700/800 MHz mobile and portable radios should be programmed with the 700/800 MHz interoperability channels contained herein, regardless of whether are using STARCOM21 or another primary radio system.
- Tone (CTCSS) frequencies listed in the table are in Hertz (Hz). A "D" followed by a three-digit number represents a Digital Coded Squelch (DCS) code. For example, D156 is DCS code 156 (normal). No inverted DCS codes are utilized.
- All STARCOM21 radios used by field personnel must be programmed with the Calling, Incident A, Incident B, and Reserve zones.
- Encrypted channels listed in this template require P25 digital radios with AES-256 multi-key hardware encryption.
- All new radios purchased for use on the STARCOM21 system must be equipped with AES-256 multi-key encryption. All AES-256 multi-key equipped field radios must be programmed with the SECURE A and SECURE B and SWIT-BY zones.
- The following color coding is used in the non-trunked portion of this document to assist with identification of conventional analog, P25 digital and P25 digital secure (encrypted) channels:

Conventional Analog	P25 Digital	P25 Digital Secure

- The following color coding is used in the trunking portion of this document to assist with the identification of general use talkgroups and secure (encrypted) talkgroups.

Trunked General Use	Trunked Secure

- P25 NAC codes listed in the following tables are presented in a hexadecimal format. The talkgroup ID for all P25 channels should be programmed as Hex $00001. Radios should be programmed to receive any talkgroup ID on the conventional channels.
- Programming of encryption keys must be in compliance with SIEC policies and procedures. Law enforcement, fire, and 911 keys have special restrictions. SIEC encryption keys must be used; local encryption keys are not permitted on SWIT defined interoperable frequencies.

[1] Statewide Interoperability Template (SWIT), Updated: May 29, 2024, Illinois Statewide Interoperability Executive Committee, SIEC Technology Sub-Committee.

- Channel positions labeled "RESERVED" should remain unprogrammed in radios. This will permit COM-L and/or COM-T reprogramming in the field to meet the needs of a major incident or event.
- For the VFED-IR, VFED-LE, and UFED-LE channels identified in the SWIT with encryption as "Selectable," be advised that encryption is optional and may be used. If desired, radios should be programmed for selectable encryption with the SLN/CKR identified in the SWIT.
- Initial and ongoing training for interoperable communications is imperative for successful outcomes of major incidents, disasters, and events. All public safety radio users should receive adequate initial and annual training regarding the SWIT and the operation of their communications equipment.
- Zones should be programmed into radios in the order shown on the Visor Reference Card at the end of this document. Local use zones can be added before and/or after the SWIT zones.

App. C-1(a) Statewide Interoperability Template Programming Guides by Discipline and Type

The following link provides access to the SWIT programming guides for STARCOM radios according to public safety discipline or type of radio:

https://iemaohs.illinois.gov/hs/interoperability/committee.html. Agencies programming STARCOM radios must use the programming guide appropriate to their discipline.

App. C-1(b) State Encryption Keys

State encryption keys shall not be added to any radio or other device, except as authorized by the Statewide Interoperability Coordinator (SWIC) or designee.

App. C-2 VHF High Band and UHF Conventional Channels

Table 5: SWIT VCALL Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE VCALL PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	VCALL10	VCALL10	155.7525	156.7	155.7525	156.7	No	No	N/A
2	VTAC11	VTAC11	151.1375	156.7	151.1375	156.7	No	No	N/A
3	VTAC12	VTAC12	154.4525	156.7	154.4525	156.7	No	No	N/A
4	VTAC13	VTAC13	158.7375	156.7	158.7375	156.7	No	No	N/A
5	VTAC14	VTAC14	159.4725	156.7	159.4725	156.7	No	No	N/A
6	VTAC33 (VTAC14/11)	VTAC33	159.4725	156.7	151.1375	136.5	No	No	N/A
7	VTAC34 (VTAC13/12)	VTAC34	158.7375	156.7	154.4525	136.5	No	No	N/A
8	VTAC35 (VTAC14/13)	VTAC35	159.4725	156.7	158.7375	136.5	No	No	N/A
9	VTAC36 (VTAC11/14)	VTAC36	151.1375	156.7	159.4725	136.5	No	No	N/A
10	VTAC37 (VTAC12/13)	VTAC37	154.4525	156.7	158.7375	136.5	No	No	N/A
11	VTAC38 (VTAC13/14)	VTAC38	158.7375	156.7	159.4725	136.5	No	No	N/A
12	STL CALL	STL CALL	171.4375	$653	162.8750	$653	Yes	Selectable	N/A
13	STL TAC	STL TAC	171.6875	$653	163.8375	$653	Yes	Selectable	N/A
14	IEMA VHF1	VHF 1	155.9250	CSQ	155.9250	CSQ	No	No	N/A
15	ESMARN	ESMARN	155.0250	123.0	155.0250	123.0	No	No	N/A
16	IREACH	IREACH	155.0550	D156	155.0550	D156	No	No	N/A

- ESMARN and IREACH channels require local FCC radio authorizations at this time. IEMA & OHS VHF1 authorization is held by the State of Illinois.
- STL CALL and STL TAC are part of the Federal 25 Cities interoperability plan for the St. Louis MO metro area as managed by the Federal Bureau of Investigation. These channels are for interdisciplinary coordination between federal agencies and state and local public safety agencies.

Table 6: SWIT VLAW Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE VLAW PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	ISPERN (VLAW31)	ISPERN	155.4750	CSQ	155.4750	D156	No	No	N/A
2	IREACH	IREACH	155.0550	D156	155.0550	D156	No	No	N/A
3	ISP HF4	ISP HF4	155.4600	CSQ	155.4600	CSQ	No	No	N/A
4	ESMARN	ESMARN	155.0250	123.0	155.0250	123.0	No	No	N/A
5	VLAW31	VLAW31	155.4750	CSQ	155.4750	156.7	No	No	N/A
6	VLAW32	VLAW32	155.4825	CSQ	155.4825	156.7	No	No	N/A
7	VSAR16[3]	VSAR16	155.1600	127.3	155.1600	127.3	No	No	N/A
8	RESERVED								
9	RESERVED								
10	RESERVED								
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

- ISPERN is governed by rules and regulations promulgated by the Illinois State Police and the State Police Radio Act.
- ISPERN, VLAW31 and VLAW32 are restricted to Law Enforcement use only.
- ESMARN and IREACH channels require local FCC radio authorizations at this time.

Table 7: SWIT VFIRE Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) – VFIRE ZONE VFIRE PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	IFERN[2] (VFIRE22)	IFERN	154.2650	210.7	154.2650	210.7	No	No	N/A
2	IFERN2[2] (VFIRE26)	IFERN2	154.3025	67.0	154.3025	67.0	No	No	N/A
3	VFIRE21	VFIRE21	154.2800	CSQ	154.2800	156.7	No	No	N/A
4	VFIRE22	VFIRE22	154.2650	CSQ	154.2650	156.7	No	No	N/A
5	VFIRE23	VFIRE23	154.2950	CSQ	154.2950	156.7	No	No	N/A
6	VFIRE24	VFIRE24	154.2725	CSQ	154.2725	156.7	No	No	N/A
7	VFIRE25	VFIRE25	154.2875	CSQ	154.2875	156.7	No	No	N/A
8	VFIRE26	VFIRE26	154.3025	CSQ	154.3025	156.7	No	No	N/A
9	IREACH	IREACH	155.0550	D156	155.0550	D156	No	No	N/A
10	ESMARN	ESMARN	155.0250	123.0	155.0250	123.0	No	No	N/A
11	GRAY FG[2] (VFIRE25)	GRAY FG	154.2875	136.5	154.2875	136.5	No	No	N/A
12	BLACK FG[2] (VFIRE24)	BLACK FG	154.2725	94.8	154.2725	94.8	No	No	N/A
13	GOLD FG	GOLD FG	153.8375	91.5	153.8375	91.5	No	No	N/A
14	BLUE FG[2] (VFIRE23)	BLUE FG	154.2950	85.4	154.2950	85.4	No	No	N/A
15	WHITE FG[2] (VFIRE21)	WHITE FG	154.2800	74.4	154.2800	74.4	No	No	N/A
16	RED FG	RED FG	153.8300	69.3	153.8300	69.3	No	No	N/A

- VFIRE restricted to fire department use only.
- IFERN, IFERN2 and FG (fireground) Channels restricted to MABAS member agencies. MABAS holds FCC authorization(s) for statewide use of MABAS, IREACH & ESMARN frequencies for member agencies.

Table 8: SWIT VMED Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE VMED PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	MERCI340[2] (VMED28)	MERCI340	155.3400	CSQ	155.3400	210.7	No	No	N/A
2	MERCI400	MERCI400	155.4000	CSQ	155.4000	210.7	No	No	N/A
3	VMED28	VMED28	155.3400	CSQ	155.3400	156.7	No	No	N/A
4	VMED29	VMED29	155.3475	CSQ	155.3475	156.7	No	No	N/A
5	VSAR16[3]	VSAR16	155.1600	127.3	155.1600	127.3	No	No	N/A
6	RESERVED								
7	RESERVED								
8	RESERVED								
9	RESERVED								
10	RESERVED								
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

- VMED restricted to licensed emergency medical services providers only.
- MERCI340 and MERCI400 channels require local FCC radio authorizations at this time.

[2] These channels use the same frequency as the Common and Mutual Aid Channels listed in the NIFOG, but with different CTCSS tones.
[3] Used in some regions as MERCI160, but with different CTCSS tones.

Table 9: SWIT VFED Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE VFED PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	NC 1	NC 1	169.5375	CSQ	164.7125	167.9	No	No	N/A
2	IR 1	IR 1	170.0125	CSQ	165.2500	167.9	No	No	N/A
3	IR 2	IR 2	170.4125	CSQ	165.9625	167.9	No	No	N/A
4	IR 3	IR 3	170.6875	CSQ	166.5750	167.9	No	No	N/A
5	IR 4	IR 4	173.0375	CSQ	167.3250	167.9	No	No	N/A
6	IR 5	IR 5	169.5375	CSQ	169.5375	167.9	No	No	N/A
7	IR 6	IR 6	170.0125	CSQ	170.0125	167.9	No	No	N/A
8	IR 7	IR 7	170.4125	CSQ	170.4125	167.9	No	No	N/A
9	IR 8	IR 8	170.6875	CSQ	170.6875	167.9	No	No	N/A
10	IR 9	IR 9	173.0375	CSQ	173.0375	167.9	No	No	N/A
11	CG-COM-N	CGCOM-N	170.8125	$653	163.6500	$653	Yes	Selectable	N/A
12	CG-COM-C	CGCOM-C	171.6875	$653	163.6500	$653	Yes	Selectable	N/A
13	CG-COM-S	CGCOM-S	171.4375	$653	163.6500	$653	Yes	Selectable	N/A
14	CG-TAC-N	CGTAC-N	168.8875	$653	163.7000	$653	Yes	Selectable	N/A
15	CG-TAC-C	CGTAC-C	172.2125	$653	163.7000	$653	Yes	Selectable	N/A
16	CG-TAC-S	CGTAC-S	168.9125	$653	163.7000	$653	Yes	Selectable	N/A

- G-COM and CG-TAC are part of the Federal 25 Cities interoperability plan for the Chicago metro area as managed by the Federal Bureau of Investigation. CG-COM and CG-TAC are comprised of a three-site multicast voted system. These channels are for interdisciplinary coordination between federal agencies and state and local public safety agencies. Federal agencies occasionally utilize encryption on 25 cities.

Table 10: SWIT VFED-LE Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE VFED-LE PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	LE A	LE A	167.0875	CSQ	167.0875	167.9	No	No	N/A
2	LE 1	LE 1	167.0875	CSQ	162.0875	167.9	No	No	N/A
3	LE 2	LE 2	167.2500	$68F	162.2625	$68F	Yes	Selectable	
4	LE 3	LE 3	167.7500	$68F	162.8375	$68F	Yes	Selectable	
5	LE 4	LE 4	168.1125	$68F	163.2875	$68F	Yes	Selectable	
6	LE 5	LE 5	168.4625	$68F	163.4250	$68F	Yes	Selectable	
7	LE 6	LE 6	167.2500	$68F	167.2500	$68F	Yes	Selectable	
8	LE 7	LE 7	167.7500	$68F	167.7500	$68F	Yes	Selectable	
9	LE 8	LE 8	168.1125	$68F	168.1125	$68F	Yes	Selectable	
10	LE 9	LE 9	168.4625	$68F	168.4625	$68F	Yes	Selectable	
11	CG-COM-N	CGCOM-N	170.8125	$653	163.6500	$653	Yes	Selectable	N/A
12	CG-COM-C	CGCOM-C	171.6875	$653	163.6500	$653	Yes	Selectable	N/A
13	CG-COM-S	CGCOM-S	171.4375	$653	163.6500	$653	Yes	Selectable	N/A
14	CG-TAC-N	CGTAC-N	168.8875	$653	163.7000	$653	Yes	Selectable	N/A
15	CG-TAC-C	CGTAC-C	172.2125	$653	163.7000	$653	Yes	Selectable	N/A
16	CG-TAC-S	CGTAC-S	168.9125	$653	163.7000	$653	Yes	Selectable	N/A

- Federal LE channels restricted to Law Enforcement use only.
- LE2 through LE9 and 25 Cities are P25 digital.
- CG-COM and CG-TAC are part of the Federal 25 Cities interoperability plan for the Chicago metro area as managed by the Federal Bureau of Investigation. CG-COM and CG-TAC are comprised of a three-site multicast voted system. These channels are for interdisciplinary coordination between federal agencies and state and local public safety agencies. Federal agencies occasionally utilize encryption on 25 cities.
- Some Federal LE channels may utilize AES256 encryption. Users authorized by a federal agency may utilize the appropriate encryption key(s).

Table 11: SWIT UCALL Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE UCALL PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	UCALL40D	UCALL40D	453.2125	156.7	453.2125	156.7	No	No	N/A
2	UTAC41D	UTAC41D	453.4625	156.7	453.4625	156.7	No	No	N/A
3	UTAC42D	UTAC42D	453.7125	156.7	453.7125	156.7	No	No	N/A
4	UTAC43D	UTAC43D	453.8625	156.7	453.8625	156.7	No	No	N/A
5	UCALL40	UCALL40	453.2125	156.7	458.2125	156.7	No	No	N/A
6	UCALL41	UCALL41	453.4625	156.7	458.4625	156.7	No	No	N/A
7	UCALL42	UCALL42	453.7125	156.7	458.7125	156.7	No	No	N/A
8	UCALL43	UCALL43	453.8625	156.7	458.8625	156.7	No	No	N/A
9	RESERVED								
10	RESERVED								
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

Table 12: SWIT UFED-IR Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE UFED-IR PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	NC 2	NC 2	410.2375	CSQ	419.2375	167.9	No	No	N/A
2	IR 10	IR 10	410.4375	CSQ	419.4375	167.9	No	No	N/A
3	IR 11	IR 11	410.6375	CSQ	419.6375	167.9	No	No	N/A
4	IR 12	IR 12	410.8375	CSQ	419.8375	167.9	No	No	N/A
5	IR 13	IR 13	413.1875	CSQ	413.1875	167.9	No	No	N/A
6	IR 14	IR 14	413.2125	CSQ	413.2125	167.9	No	No	N/A
7	IR 15	IR 15	410.2375	CSQ	410.2375	167.9	No	No	N/A
8	IR 16	IR 16	410.4375	CSQ	410.4375	167.9	No	No	N/A
9	IR 17	IR 17	410.6375	CSQ	410.6375	167.9	No	No	N/A
10	IR 18	IR 18	410.8375	CSQ	410.8375	167.9	No	No	N/A
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

Table 13: SWIT UFED-LE Programming Guide

IL-SIEC STATEWIDE INTEROPERABILITY TEMPLATE (SWIT) ZONE UFED-LE PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	LE B	LE B	414.0375	CSQ	414.0375	167.9	No	No	N/A
2	LE 10	LE 10	409.9875	CSQ	418.9875	167.9	No	No	N/A
3	LE 11	LE 11	410.1875	$68F	419.1875	$68F	Yes	Selectable	
4	LE 12	LE 12	410.6125	$68F	419.6125	$68F	Yes	Selectable	
5	LE 13	LE 13	414.0625	$68F	414.0625	$68F	Yes	Selectable	
6	LE 14	LE 14	414.3125	$68F	414.3125	$68F	Yes	Selectable	
7	LE 15	LE 15	414.3375	$68F	414.3375	$68F	Yes	Selectable	
8	LE 16	LE 16	409.9875	$68F	409.9875	$68F	Yes	Selectable	
9	LE 17	LE 17	410.1875	$68F	410.1875	$68F	Yes	Selectable	
10	LE 18	LE 18	410.6125	$68F	410.6125	$68F	Yes	Selectable	
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

- Federal LE channels restricted to Law Enforcement use only.
- LE11 through LE18 are P25 digital.
- Some Federal LE channels may utilize AES256 encryption. Users authorized by a federal agency may utilize the appropriate encryption key(s).

App. C-3 700/800 MHz Interoperability Special Information

AES-256 encryption is authorized on many 700 MHz interoperability frequencies. Zone SWIT-SECURE BY has been established to provide 700 MHz interoperable secure conventional communications in Illinois. Encryption for other 700 MHz frequencies/zones in Illinois is discouraged.

The following information details the Primary Use for the 700/800 channels based on the embedded code within the channel name. For example: 8**CALL**90 is a "Calling Channel".

CALL	Calling Channel
TAC	General Public Safety - Tactical/Coordination
LAW	Law Enforcement
FIRE	Fire Department
EMS	Emergency Medical Services
GTAC	Other Public Service
MOB	Mobile Repeater
DATA	Mobile Data
AG	Air-Ground
FTAC	Fire Tactical (analog)
LTAC	Law Tactical (analog)
MTAC	EMS/Medical Tactical (analog)
US	National Itinerant - Convoy Operations (analog or digital)

Refer to the discipline specific programming guide information in App. C-4 for further programming guidance.

Table 14: SWIT-BC Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BC PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	8CALL90D	8CALL90D	851.0125	156.7	851.0125	156.7	No	No	N/A
2	8TAC91D	8TAC91D	851.5125	156.7	851.5125	156.7	No	No	N/A
3	8TAC92D	8TAC92D	852.0125	156.7	852.0125	156.7	No	No	N/A
4	8TAC93D	8TAC93D	852.5125	156.7	852.5125	156.7	No	No	N/A
5	8TAC94D	8TAC94D	853.0125	156.7	853.0125	156.7	No	No	N/A
6	8CALL90	8CALL90	851.0125	156.7	806.0125	156.7	No	No	N/A
7	8TAC91	8TAC91	851.5125	156.7	806.5125	156.7	No	No	N/A
8	8TAC92	8TAC92	852.0125	156.7	807.0125	156.7	No	No	N/A
9	8TAC93	8TAC93	852.5125	156.7	807.5125	156.7	No	No	N/A
10	8TAC94	8TAC94	853.0125	156.7	808.0125	156.7	No	No	N/A
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								
• Zone SWIT-BC is equivalent to ITTF-BC.									

Table 15: SWIT-BD Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BD PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7CALL50D	7CALL50D	769.24375	$F7E	769.24375	$293	Yes	No	N/A
2	7TAC51D	7TAC51D	769.14375	$F7E	769.14375	$293	Yes	No	N/A
3	7TAC52D	7TAC52D	769.64375	$F7E	769.64375	$293	Yes	No	N/A
4	7TAC53D	7TAC53D	770.14375	$F7E	770.14375	$293	Yes	No	N/A
5	7TAC54D	7TAC54D	770.64375	$F7E	770.64375	$293	Yes	No	N/A
6	7TAC55D	7TAC55D	769.74375	$F7E	769.74375	$293	Yes	No	N/A
7	7TAC56D	7TAC56D	770.24375	$F7E	770.24375	$293	Yes	No	N/A
8	7GTAC57D	7GTAC57	770.99375	$F7E	800.99375	$293	Yes	No	N/A
9	7CALL50	7CALL50	769.24375	$F7E	799.24375	$293	Yes	No	N/A
10	7TAC51	7TAC51	769.14375	$F7E	799.14375	$293	Yes	No	N/A
11	7TAC52	7TAC52	769.64375	$F7E	799.64375	$293	Yes	No	N/A
12	7TAC53	7TAC53	770.14375	$F7E	800.14375	$293	Yes	No	N/A
13	7TAC54	7TAC54	770.64375	$F7E	800.64375	$293	Yes	No	N/A
14	7TAC55	7TAC55	769.74375	$F7E	799.74375	$293	Yes	No	N/A
15	7TAC56	7TAC56	770.24375	$F7E	800.24375	$293	Yes	No	N/A
16	7GTAC57	7GTAC57	770.99375	$F7E	800.99375	$293	Yes	No	N/A
• 7CALL50 and 7CALL50D is the recommended PRIMARY calling channel for the 700 MHz band. • Zone SWIT-BD is equivalent to ITTF-BD.									

Table 16: SWIT-BE Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BE PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7MOB59D	7MOB59D	770.89375	$F7E	770.89375	$293	Yes	No	N/A
2	7DATA69D	7DATA69D	770.74375	$F7E	770.74375	$293	Yes	No	N/A
3	7LAW61D	7LAW61D	770.39375	$F7E	770.39375	$293	Yes	No	N/A
4	7LAW62D	7LAW62D	770.49375	$F7E	770.49375	$293	Yes	No	N/A
5	7FIRE63D	7FIRE63D	769.89375	$F7E	769.89375	$293	Yes	No	N/A
6	7FIRE64D	7FIRE64D	769.99375	$F7E	769.99375	$293	Yes	No	N/A
7	7MED65D	7MED65D	769.39375	$F7E	769.39375	$293	Yes	No	N/A
8	7MED66D	7MED66D	769.49375	$F7E	769.49375	$293	Yes	No	N/A
9	7MOB59	7MOB59	770.89375	$F7E	800.89375	$293	Yes	No	N/A
10	7DATA69	7DATA69	770.74375	$F7E	800.74375	$293	Yes	No	N/A
11	7LAW61	7LAW61	770.39375	$F7E	800.39375	$293	Yes	No	N/A
12	7LAW62	7LAW62	770.49375	$F7E	800.49375	$293	Yes	No	N/A
13	7FIRE63	7FIRE63	769.89375	$F7E	799.89375	$293	Yes	No	N/A
14	7FIRE64	7FIRE64	769.99375	$F7E	799.99375	$293	Yes	No	N/A
15	7MED65	7MED65	769.39375	$F7E	799.39375	$293	Yes	No	N/A
16	7MED66	7MED66	769.49375	$F7E	799.49375	$293	Yes	No	N/A
• Voice communications are permitted on 7DATA69 and 7DATA69D on a secondary basis. (FCC Rule 90.531(b)(1)(i)) • Zone SWIT-BE is equivalent to ITTF-BE except for 7DATA69D & 7DATA69 that have been added in Channels 2 & 10 respectively.									

Table 17: SWIT-BF Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BF PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7CALL70D	7CALL70D	773.25625	$F7E	773.25625	$293	Yes	No	N/A
2	7TAC71D	7TAC71D	773.10625	$F7E	773.10625	$293	Yes	No	N/A
3	7TAC72D	7TAC72D	773.60625	$F7E	773.60625	$293	Yes	No	N/A
4	7TAC73D	7TAC73D	774.10625	$F7E	774.10625	$293	Yes	No	N/A
5	7TAC74D	7TAC74D	774.60625	$F7E	774.60625	$293	Yes	No	N/A
6	7TAC75D	7TAC75D	773.75625	$F7E	773.75625	$293	Yes	No	N/A
7	7TAC76D	7TAC76D	774.25625	$F7E	774.25625	$293	Yes	No	N/A
8	7GTAC77D	7GTAC77D	774.85625	$F7E	774.85625	$293	Yes	No	N/A
9	7CALL70	7CALL70	773.25625	$F7E	803.25625	$293	Yes	No	N/A
10	7TAC71	7TAC71	773.10625	$F7E	803.10625	$293	Yes	No	N/A
11	7TAC72	7TAC72	773.60625	$F7E	803.60625	$293	Yes	No	N/A
12	7TAC73	7TAC73	774.10625	$F7E	804.10625	$293	Yes	No	N/A
13	7TAC74	7TAC74	774.60625	$F7E	804.60625	$293	Yes	No	N/A
14	7TAC75	7TAC75	773.75625	$F7E	803.75625	$293	Yes	No	N/A
15	7TAC76	7TAC76	774.25625	$F7E	804.25625	$293	Yes	No	N/A
16	7GTAC77	7GTAC77	774.85625	$F7E	804.85625	$293	Yes	No	N/A
• 7CALL70 and 7CALL70D are the recommended SECONDARY calling channels for the 700 MHz band. • Zone SWIT-BF is equivalent to ITTF-BF									

Table 18: SWIT-BG Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BG PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7MOB79D	7MOB79D	774.50625	$F7E	774.50625	$293	Yes	No	N/A
2	7DATA89D	7DATA89D	774.75625	$F7E	774.75625	$293	Yes	No	N/A
3	7LAW81D	7LAW81D	774.00625	$F7E	774.00625	$293	Yes	No	N/A
4	7LAW82D	7LAW82D	774.35625	$F7E	774.35625	$293	Yes	No	N/A
5	7FIRE83D	7FIRE83D	773.50625	$F7E	773.50625	$293	Yes	No	N/A
6	7FIRE84D	7FIRE84D	773.85625	$F7E	773.85625	$293	Yes	No	N/A
7	7MED86D	7MED86D	773.00625	$F7E	773.00625	$293	Yes	No	N/A
8	7MED87D	7MED87D	773.35625	$F7E	773.35625	$293	Yes	No	N/A
9	7MOB79	7MOB79	774.50625	$F7E	804.50625	$293	Yes	No	N/A
10	7DATA89	7DATA89	774.75625	$F7E	804.75625	$293	Yes	No	N/A
11	7LAW81	7LAW81	774.00625	$F7E	804.00625	$293	Yes	No	N/A
12	7LAW82	7LAW82	774.35625	$F7E	804.35625	$293	Yes	No	N/A
13	7FIRE83	7FIRE83	773.50625	$F7E	803.50625	$293	Yes	No	N/A
14	7FIRE84	7FIRE84	773.85625	$F7E	803.85625	$293	Yes	No	N/A
15	7MED86	7MED86	773.00625	$F7E	803.00625	$293	Yes	No	N/A
16	7MED87	7MED87	773.35625	$F7E	803.35625	$293	Yes	No	N/A
• Voice communications are permitted on 7DATA89 and 7DATA89D on a secondary basis. (FCC Rule 90.531(b)(1)(i) • Zone SWIT-BG is equivalent to ITTF-BG except for 7DATA89D & 7DATA89 that have been added in Channels 2 & 10 respectively.									

Table 19: SWIT-BH Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BH PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7FTAC1D	7FTAC1D	769.00625	156.7	769.00625	156.7	No	No	N/A
2	7FTAC2D	7FTAC2D	774.93125	156.7	774.93125	156.7	No	No	N/A
3	7FTAC3D	7FTAC3D	769.04375	156.7	769.04375	156.7	No	No	N/A
4	7GTAC4D	7GTAC4D	769.03125	156.7	769.03125	156.7	No	No	N/A
5	7GTAC5D	7GTAC5D	774.95625	156.7	774.95625	156.7	No	No	N/A
6	7LTAC6D	7LTAC6D	769.01875	156.7	769.01875	156.7	No	No	N/A
7	7LTAC7D	7LTAC7D	774.94375	156.7	774.94375	156.7	No	No	N/A
8	7LTAC8D	7LTAC8D	774.98125	156.7	774.98125	156.7	No	No	N/A
9	7FTAC1	7FTAC1	769.00625	156.7	799.00625	156.7	No	No	N/A
10	7FTAC2	7FTAC2	774.93125	156.7	804.93125	156.7	No	No	N/A
11	7FTAC3	7FTAC3	769.04375	156.7	799.04375	156.7	No	No	N/A
12	7GTAC4	7GTAC4	769.03125	156.7	799.03125	156.7	No	No	N/A
13	7GTAC5	7GTAC5	774.95625	156.7	804.95625	156.7	No	No	N/A
14	7LTAC6	7LTAC6	769.01875	156.7	799.01875	156.7	No	No	N/A
15	7LTAC7	7LTAC7	774.94375	156.7	804.94375	156.7	No	No	N/A
16	7LTAC8	7LTAC8	774.98125	156.7	804.98125	156.7	No	No	N/A

- Zone BH channels are conventional analog and limited to two (2) watts ERP.
- These channels are not nationwide interoperability channels and require FCC authorization and coordination with Regional Planning Committee Regions 13 & 54. The State of Illinois holds FCC Authorization WQZX653 that includes the frequencies listed herein and is granting the use of these frequencies to public safety and governmental users in compliance with this SWIT.
- Zone SWIT-BH is equivalent to ITTF-BH.

Table 20: SWIT-BI Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BI PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7MTAC9D	7MTAC9D	774.96875	156.7	774.96875	156.7	No	No	N/A
2	A7-US-01D	A7US01D	769.05625	156.7	769.05625	156.7	No	No	N/A
3	A7-US-02D	A7US02D	769.06875	156.7	769.06875	156.7	No	No	N/A
4	A7-US-03D	A7US03D	774.99375	156.7	774.99375	156.7	No	No	N/A
5	7MTAC9	7MTAC9	774.96875	156.7	804.96875	156.7	No	No	N/A
6	A7-US-01	A7US01	769.05625	156.7	799.05625	156.7	No	No	N/A
7	A7-US-02	A7US02	769.06875	156.7	799.06875	156.7	No	No	N/A
8	A7-US-03	A7US03	774.99375	156.7	804.99375	156.7	No	No	N/A
9	7-US-01D	7US01D	769.05625	$F7E	769.05625	$293	Yes	No	N/A
10	7-US-02D	7US02D	769.06875	$F7E	769.06875	$293	Yes	No	N/A
11	7-US-03D	7US03D	774.99375	$F7E	774.99375	$293	Yes	No	N/A
12	7-US-01	7US01	769.05625	$F7E	799.05625	$293	Yes	No	N/A
13	7-US-02	7US02	769.06875	$F7E	799.06875	$293	Yes	No	N/A
14	7-US-03	7US03	774.99375	$F7E	804.99375	$293	Yes	No	N/A
15	RESERVED								
16	RESERVED								

- The 7-US- frequencies are 700 MHz Low Power Itinerant Channels licensed for itinerant mobile use (convoy operations).
- These channels are not nationwide interoperability channels. The State of Illinois (SIEC) is responsible for the administration of these Transmit power for 7-US- channels, in either analog or digital mode, is limited to 2 watts ERP.
- It is recommended that radios are programmed for "mixed-mode" (analog & digital) receive for the 7-US- itinerant channels. Zone SWIT-BI Channels 1-8 are analog and are equivalent to ITTF-BI Channels 1-8.
- Zone SWIT-BI Channels 9-14 are digital equivalents to their matching analog Channels.

Table 21: SWIT-BJ Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BJ PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7AG58D	7AG58D	769.13125	$F7E	769.13125	$293	Yes	No	N/A
2	7AG60D	7AG60D	769.63125	$F7E	769.63125	$293	Yes	No	N/A
3	7AG67D	7AG67D	770.13125	$F7E	770.13125	$293	Yes	No	N/A
4	7AG68D	7AG68D	770.63125	$F7E	770.63125	$293	Yes	No	N/A
5	7AG78D	7AG78D	773.11875	$F7E	773.11875	$293	Yes	No	N/A
6	7AG80D	7AG80D	773.61875	$F7E	773.61875	$293	Yes	No	N/A
7	7AG85D	7AG85D	774.11875	$F7E	774.11875	$293	Yes	No	N/A
8	7AG88D	7AG88D	774.61875	$F7E	774.61875	$293	Yes	No	N/A
9	7AG58	7AG58	769.13125	$F7E	799.13125	$293	Yes	No	N/A
10	7AG60	7AG60	769.63125	$F7E	799.63125	$293	Yes	No	N/A
11	7AG67	7AG67	770.13125	$F7E	800.13125	$293	Yes	No	N/A
12	7AG68	7AG68	770.63125	$F7E	800.63125	$293	Yes	No	N/A
13	7AG78	7AG78	773.11875	$F7E	803.11875	$293	Yes	No	N/A
14	7AG80	7AG80	773.61875	$F7E	803.61875	$293	Yes	No	N/A
15	7AG85	7AG85	774.11875	$F7E	804.11875	$293	Yes	No	N/A
16	7AG88	7AG88	774.61875	$F7E	804.61875	$293	Yes	No	N/A

- These channels are reserved for air-ground communications to be used by low-altitude aircraft and ground-based units.
- Airborne use of these channels is limited to aircraft flying at or below 1500 feet (457 meters) above ground level. Aircraft are limited to 2 watts effective radiated power on the air-ground channels while airborne.
- Aircraft may transmit on either the mobile or base transmit side of the channel pair.
- 7AG88D is recommended for landing zone use. Use of 7AG88 (repeated) is not recommended during landing zone operations. These channels are not nationwide interoperability channels.

Table 22: SWIT-BY Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE BY PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Receive Frequency	Receive Tone/NAC	Transmit Frequency	Transmit Tone/NAC	P25 Digital	Encrypted	SLN/ CKR
1	7MOB59DE	7MOB59DE	770.89375	$F7E	770.89375	$293	Yes	Yes	1401
2	7MOB79DE	7MOB79DE	774.50625	$F7E	774.50625	$293	Yes	Yes	1401
3	7LAW81DE	7LAW81DE	774.00625	$F7E	774.00625	$293	Yes	Yes	1402
4	7LAW82DE	7LAW82DE	774.35625	$F7E	774.35625	$293	Yes	Yes	1402
5	7FIRE83DE	7FIRE83DE	773.50625	$F7E	773.50625	$293	Yes	Yes	1403
6	7FIRE84DE	7FIRE84DE	773.85625	$F7E	773.85625	$293	Yes	Yes	1403
7	7MED86DE	7MED86DE	773.00625	$F7E	773.00625	$293	Yes	Yes	1403
8	7MED87DE	7MED87DE	773.35625	$F7E	773.35625	$293	Yes	Yes	1403
9	7MOB59E	7MOB59E	770.89375	$F7E	800.89375	$293	Yes	Yes	1401
10	7MOB79E	7MOB79E	774.50625	$F7E	804.50625	$293	Yes	Yes	1401
11	7LAW81E	7LAW81E	774.00625	$F7E	804.00625	$293	Yes	Yes	1402
12	7LAW82E	7LAW82E	774.35625	$F7E	804.35625	$293	Yes	Yes	1402
13	7FIRE83E	7FIRE83E	773.50625	$F7E	803.50625	$293	Yes	Yes	1403
14	7FIRE84E	7FIRE84E	773.85625	$F7E	803.85625	$293	Yes	Yes	1403
15	7MED86E	7MED86E	773.00625	$F7E	803.00625	$293	Yes	Yes	1403
16	7MED87E	7MED87E	773.35625	$F7E	803.35625	$293	Yes	Yes	1403

- Use of SWIT-SECURE BY frequencies must be approved through the SWIC/IEMA & OHS Operations Center. Requests should be made via the IL-CALL SC21 Talkgroup, 217-782-7860 and/or ema.dispatcher@illinois.gov.
- The intent of this zone is to operate in encrypted mode. Current FCC rules require that radios must be programmed with a button or feature that disables encryption on each channel in this zone without physically changing zones

Table 23: SWIT-CALLING Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE ZONE CALLING PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-CALL	CALL	IESMA	BA	7678	30328	Yes	N/A	No
2	ILEAS	ILEAS	ILEAS	BA	7679	30329	Yes	N/A	No
3	MABAS	MABAS	MABAS	BA	767A	30330	Yes	N/A	No
4	IDPH	IDPH	IDPH	BA	767B	30331	Yes	N/A	No
5	IPWMAN	IPWMAN	IPWMAN	BA	7683	30339	Yes	N/A	No
6	EMA	EMA	NORTH A	BA	765C	30300	Yes	N/A	No
7	IL-RGN 2	RGN 2	RGN 2B	BB	7660	30304	Yes	N/A	No
8	IL-RGN 3	RGN 3	RGN 3B	BB	7662	30306	Yes	N/A	No
9	IL-RGN 4	RGN 4	RGN 4B	BB	7670	30320	Yes	N/A	No
10	IL-RGN 6	RGN 6	RGN 6B	BB	7672	30322	Yes	N/A	No
11	IL-RGN 7	RGN 7	RGN 7B	BB	7674	30324	Yes	N/A	No
12	IL-RGN 8	RGN 8	RGN 8B	BB	7676	30326	Yes	N/A	No
13	IL-RGN 9	RGN 9	RGN 9B	BB	7680	30336	Yes	N/A	No
14	IL-RGN11	RGN 11	RGN 11B	BB	7682	30338	Yes	N/A	No
15	IL-102A	102A	SOUTH A	BA	765E	30302	Yes	N/A	No
16	IL-102B	102B	SOUTH B	BA	7688	30344	Yes	N/A	No
• All STARCOM21 radios used by field personnel must be programmed with the Calling, Incident A, Incident B and Reserve zones. All new radios purchased must be equipped with AES-256 multi-key encryption. All AES-256 multi-key equipped field radios must be programmed with the SECURE A and SECURE B and SWIT-BY zones.									

Table 24: SWIT INCIDENT A Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE INCIDENT A PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-INC A1	INC A1	INCIDNT1	BA	767C	30332	Yes	N/A	No
2	IL-INC A2	INC A2	INCIDNT2	BA	767D	30333	Yes	N/A	No
3	IL-INC A3	INC A3	INCIDNT3	BA	767E	30334	Yes	N/A	No
4	IL-INC A4	INC A4	INCIDNT4	BA	7684	30340	Yes	N/A	No
5	IL-INC A5	INC A5	INCIDNT5	BA	7685	30341	Yes	N/A	No
6	IL-INC A6	INC A6	RGN 2A	BB	765F	30303	Yes	N/A	No
7	IL-INC A7	INC A7	RGN 3A	BB	7661	30305	Yes	N/A	No
8	IL-INC A8	INC A8	RGN 4A	BB	7663	30307	Yes	N/A	No
9	IL-INC A9	INC A9	RGN 6A	BB	7671	30321	Yes	N/A	No
10	IL-INC A10	INC A10	RGN 7A	BB	7673	30323	Yes	N/A	No
11	IL-INC A11	INC A11	RGN 8A	BB	7675	30325	Yes	N/A	No
12	IL-INC A12	INC A12	RGN 9A	BB	767F	30335	Yes	N/A	No
13	IL-INC A13	INC A13	RGN 11A	BB	7681	30337	Yes	N/A	No
14	IL-INC A14	INC A14	NORTH B	BA	7686	30342	Yes	N/A	No
15	IL-INC A15	INC A15	CENTER A	BA	765D	30301	Yes	N/A	No
16	IL-INC A16	INC A16	CENTER B	BA	7687	30343	Yes	N/A	No
• Use of INCIDENT A talkgroups must be approved through the SWIC/IEMA & OHS Operations Center. Requests should be made via the IL-CALL SC21 Talkgroup, 217-782-7860 and/or ema.dispatcher@illinois.gov.									

Table 25: SWIT INCIDENT B Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE INCIDENT B PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-INC B1	INC B1	(NEW)	N/A	90F4	37108	Yes	N/A	No
2	IL-INC B2	INC B2	(NEW)	N/A	90F5	37109	Yes	N/A	No
3	IL-INC B3	INC B3	(NEW)	N/A	90F6	37110	Yes	N/A	No
4	IL-INC B4	INC B4	(NEW)	N/A	90F7	37111	Yes	N/A	No
5	IL-INC B5	INC B5	(NEW)	N/A	90F8	37112	Yes	N/A	No
6	IL-INC B6	INC B6	(NEW)	N/A	90F9	37113	Yes	N/A	No
7	IL-INC B7	INC B7	(NEW)	N/A	90FA	37114	Yes	N/A	No
8	IL-INC B8	INC B8	(NEW)	N/A	90FB	37115	Yes	N/A	No
9	IL-INC B9	INC B9	(NEW)	N/A	90FC	37116	Yes	N/A	No
10	IL-INC B10	INC B10	(NEW)	N/A	90FD	37117	Yes	N/A	No
11	IL-INC B11	INC B11	(NEW)	N/A	90FE	37118	Yes	N/A	No
12	IL-INC B12	INC B12	(NEW)	N/A	90FF	37119	Yes	N/A	No
13	IL-INC B13	INC B13	(NEW)	N/A	9100	37120	Yes	N/A	No
14	IL-INC B14	INC B14	(NEW)	N/A	9101	37121	Yes	N/A	No
15	IL-INC B15	INC B15	(NEW)	N/A	9102	37122	Yes	N/A	No
16	IL-INC B16	INC B16	(NEW)	N/A	9103	37123	Yes	N/A	No
• Use of INCIDENT B talkgroups must be approved through the SWIC/IEMA & OHS Operations Center. Requests should be made via the IL-CALL SC21 Talkgroup, 217-782-7860 and/or ema.dispatcher@illinois.gov.									

Table 26: SWIT RESERVE A Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE RESERVE A PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-RSV 1	RSV 1	(NEW)	N/A	9104	37124	Yes	N/A	No
2	IL-RSV 2	RSV 2	(NEW)	N/A	9105	37125	Yes	N/A	No
3	IL-RSV 3	RSV 3	(NEW)	N/A	9106	37126	Yes	N/A	No
4	IL-RSV 4	RSV 4	(NEW)	N/A	9107	37127	Yes	N/A	No
5	IL-RSV 5	RSV 5	(NEW)	N/A	9108	37128	Yes	N/A	No
6	IL-RSV 6	RSV 6	(NEW)	N/A	9109	37129	Yes	N/A	No
7	IL-RSV 7	RSV 7	(NEW)	N/A	910A	37130	Yes	N/A	No
8	IL-RSV 8	RSV 8	(NEW)	N/A	910B	37131	Yes	N/A	No
9	IL-RSV 9	RSV 9	(NEW)	N/A	910C	37132	Yes	N/A	No
10	IL-RSV 10	RSV 10	(NEW)	N/A	910D	37133	Yes	N/A	No
11	IL-RSV 11	RSV 11	(NEW)	N/A	910E	37134	Yes	N/A	No
12	IL-RSV 12	RSV 12	(NEW)	N/A	910F	37135	Yes	N/A	No
13	IL-RSV 13	RSV 13	(NEW)	N/A	9110	37136	Yes	N/A	No
14	IL-RSV 14	RSV 14	(NEW)	N/A	9111	37137	Yes	N/A	No
15	IL-RSV 15	RSV 15	(NEW)	N/A	9112	37138	Yes	N/A	No
16	IL-RSV 16	RSV 16	(NEW)	N/A	9113	37139	Yes	N/A	No
• Use of RESERVE A talkgroups must be approved through the SWIC/IEMA & OHS Operations Center. Requests should be made via the IL-CALL SC21 Talkgroup, 217-782-7860 and/or ema.dispatcher@illinois.gov. • RESERVE A talkgroups should be pre-programmed in STARCOM21 capable radios. These talkgroups will not be active unless needed as determined by the SWIC									

Table 27: SWIT SECURE A Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE SECURE A PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-SEC A1	SEC A1	SECURE1	BZ	1749	5961	Yes	1401	Yes
2	IL-SEC A2	SEC A2	SECURE2	BZ	174A	5962	Yes	1401	Yes
3	IL-SEC A3	SEC A3	SECURE3	BZ	174B	5963	Yes	1401	Yes
4	IL-SEC A4	SEC A4	SECURE4	BZ	174C	5964	Yes	1401	Yes
5	IL-SEC A5	SEC A5	SECURE5	BZ	174D	5965	Yes	1401	Yes
6	IL-SEC A6	SEC A6	SECURE6	BZ	174E	5966	Yes	1401	Yes
7	IL-SECLAW7	SECLAW7	SECLAW1	BZ	1751	5969	Yes	1402	Yes
8	IL-SECLAW8	SECLAW8	SECLAW2	BZ	1752	5970	Yes	1402	Yes
9	IL-SECLAW9	SECLAW9	SECURE7	BZ	174F	5967	Yes	1402	Yes
10	IL-SECLAW10	SECLAW10	SECURE8	BZ	1750	5968	Yes	1402	Yes
11	IL-SECFIRE11	SECFIRE11	SECFIRE1	BZ	1753	5971	Yes	1403	Yes
12	IL-SECFIRE12	SECFIRE12	SECFIRE2	BZ	1754	5972	Yes	1403	Yes
13	IL-SECEMA13	SECEMA13	SECEMA1	BZ	1755	5973	Yes	1404	Yes
14	IL-SECEMA14	SECEMA14	SECEMA2	BZ	1756	5974	Yes	1404	Yes
15	IL-SECDOT15	SECDOT15	SECDOT1	BZ	1757	5975	Yes	1405	Yes
16	IL-SECDOT16	SECDOT16	SECDOT2	BZ	1758	5976	Yes	1405	Yes

- Use of SECURE A talkgroups must be approved through the SWIC/IEMA & OHS Operations Center. Requests should be made via the IL-CALL SC21 Talkgroup, 217-782-7860 and/or ema.dispatcher@illinois.gov.
- Use of these talkgroups will require radios equipped with AES-256 multi-key hardware encryption.
- Programming of encryption keys must be in compliance with SIEC policies and procedures. Law enforcement, fire keys and 9-1-1 keys have special restrictions. Law Talkgroups/Keys are restricted to authorized Law, COM-L, and cache radios. Fire Talkgroups/Keys are restricted to authorized Fire, COM-L, and cache radios.
- IL-SEC A1 and IL-SEC A2 may be programmed into dispatch consoles. No other SECURE A or SECURE B talkgroups may be programmed into dispatch radios or be recorded.

Table 28: SWIT SECURE B Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE SECURE B PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-SEC B1	SEC B1	(NEW)	N/A	9114	37140	Yes	1401	Yes
2	IL-SEC B2	SEC B2	(NEW)	N/A	9115	37141	Yes	1401	Yes
3	IL-SEC B3	SEC B3	(NEW)	N/A	9116	37142	Yes	1401	Yes
4	IL-SEC B4	SEC B4	(NEW)	N/A	9117	37143	Yes	1401	Yes
5	IL-SEC B5	SEC B5	(NEW)	N/A	9118	37144	Yes	1401	Yes
6	IL-SEC B6	SEC B6	(NEW)	N/A	9119	37145	Yes	1401	Yes
7	IL-SEC B7	SEC B7	(NEW)	N/A	911A	37146	Yes	1401	Yes
8	IL-SEC B8	SEC B8	(NEW)	N/A	911B	37147	Yes	1401	Yes
9	IL-SEC B9	SEC B9	(NEW)	N/A	911C	37148	Yes	1401	Yes
10	IL-SEC B10	SEC B10	(NEW)	N/A	911D	37149	Yes	1401	Yes
11	IL-SEC B11	SEC B11	(NEW)	N/A	911E	37150	Yes	1401	Yes
12	IL-SEC B12	SEC B12	(NEW)	N/A	911F	37151	Yes	1401	Yes
13	IL-SEC B13	SEC B13	(NEW)	N/A	9120	37152	Yes	1401	Yes
14	IL-SEC B14	SEC B14	(NEW)	N/A	9121	37153	Yes	1401	Yes
15	IL-SEC B15	SEC B15	(NEW)	N/A	9122	37154	Yes	1401	Yes
16	IL-SEC B16	SEC B16	(NEW)	N/A	9123	37155	Yes	1401	Yes

- All notes for zone SECURE A also apply to zone SECURE B..

Table 29: SWIT NWS Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE NWS PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	NWS-CHI	NWSCHI	(NEW)	N/A	9124	37156	Yes	N/A	No
2	NWS-QUAD	NWSQUAD	(NEW)	N/A	9125	37157	Yes	N/A	No
3	NWS-LINC	NWSLINC	(NEW)	N/A	9126	37158	Yes	N/A	No
4	NWS-STL	NWSSTL	(NEW)	N/A	9127	37159	Yes	N/A	No
5	NWS-PDK	NWSPDK	(NEW)	N/A	9128	37160	Yes	N/A	No
6	NWS-MKE	NWSMKE	(NEW)	N/A	9129	37161	Yes	N/A	No
7	NWS-SW	NWS-SW	(NEW)	N/A	912A	37162	Yes	N/A	No
8	RESERVED								
9	RESERVED								
10	RESERVED								
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

- Governance for National Weather Service talkgroups is pending.
- NWS talkgroups may also be programmed into local zones to facilitate ease of operation by the end-user.

Table 30: SWIT MABAS Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE MABAS PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	MABAS	MABAS	MABAS	BA	767A	30330	Yes		No
2	MABAS SEC	MAB SEC	MABASSEC	MABAS	12DF	4831	Yes	1501	Yes
3	MABAS OPS1	OPS1	OPS	MABAS	12DE	4830	Yes		No
4	MABAS OPS2	OPS2	(NEW)	N/A	12E7	4839	Yes		No
5	MABAS OPS3E	OPS3E	OPS SEC	MABAS	12E4	4836	Yes	1501	Yes
6	MABAS OPS4E	OPS4E	(NEW)	N/A	12E8	4840	Yes	1501	Yes
7	IL-HZMT	HZMT	HAZMAT	MABAS	12DB	4827	Yes		No
8	IL-HZMT SEC	HZMT SEC	HZMT SEC	MABAS	12E1	4833	Yes	1501	Yes
9	IL-TRT	TRT	TRT	MABAS	12DC	4828	Yes		No
10	IL-TRT SEC	TRT SEC	TRT SEC	MABAS	12E2	4834	Yes	1501	Yes
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

- Channels 1 - 11 approved for general programming in all Fire Department, Fire Dispatch, COM-L, and authorized cache radios.
- Channels 12 through 16 as determined by MABAS only. Not for general programming.
- Use of the encrypted talkgroups will require radios equipped with AES-256 multi-key hardware encryption.

Table 31: SWIT 9-1-1 Programming Guide

IL-SIEC STATEWIDE 700/800 MHZ INTEROPERABILITY TEMPLATE (SWIT) ZONE 9-1-1 PROGRAMMING GUIDE									
Channel Position	Front Display	Top Display	Legacy Name	Legacy Zone	Talkgroup Hex ID	Talkgroup Dec. ID	Talkgroup Statewide	SLN/ CKR	Always AES
1	IL-TERT N	TERT N	(NEW)	N/A	90F1	37105	Yes	1409	Yes
2	IL-TERT C	TERT C	(NEW)	N/A	90F2	37106	Yes	1409	Yes
3	IL-TERT S	TERT S	(NEW)	N/A	90F3	37107	Yes	1409	Yes
4	911 CAC	911CAC	(NEW)	N/A	90ED	37101	Yes	1407	Yes
5	911 SUP	911SUP	(NEW)	N/A	90EE	37102	Yes	1407	Yes
6	911 TECH	911TECH	(NEW)	N/A	90EF	37103	Yes	1407	Yes
7	R-TECH	RTECH	(NEW)	N/A	90F0	37104	Yes	1408	Yes
8	RESERVED								
9	RESERVED								
10	RESERVED								
11	RESERVED								
12	RESERVED								
13	RESERVED								
14	RESERVED								
15	RESERVED								
16	RESERVED								

- Not for general programming/use.
- Zone is restricted to 9-1-1 PSAP personnel and radio technicians as determined by SIEC governance.
- 9-1-1 talkgroups may also be programmed into local zones to facilitate ease of operation by the end-user. Use of 9-1-1 talkgroups will require radios equipped with AES-256 multi-key hardware encryption.

App. C-4 Statewide Interoperability Template Programming Guides by Discipline and Type

The following link provides access to the SWIT programming guides for STARCOM radios according to public safety discipline or type of radio:

https://iemaohs.illinois.gov/hs/interoperability/committee.html. Agencies programming STARCOM radios must use the programming guide appropriate to their discipline.

App. C-5 Suggested SWIT Transitional Programming for STARCOM21 Radios

The tables in this section illustrate zone and channel programming for STARCOM21 radios, which are recommended to ease the transition from the legacy ITTF template to the SWIT. Once the transition process is complete and the SWIT programming deadline has passed, the zones listed below as "ITTF Old (All Radios)" may be removed from STARCOM21 radios.

Table 32: SWIT TRANSITION ZONES Programming Guide

ITTF/SWIT TRANSITION - STARCOM21 RADIO PROGRAMMING										
	SWIT BASIC (ALL RADIOS)				SWIT SECURE (OPTIONAL)		(OPTIONAL)	ITTF OLD (ALL RADIOS) *REMOVE AFTER DEADLINE*		
Zone à Pos. â	SWIT CALLING	SWIT INCIDENT A	SWIT INCIDENT B	SWIT RESERVE A	SWIT SECURE A	SWIT SECURE B	SWIT NWS	ITTF BA	ITTF BB	ITTF BZ
1	IL-CALL	IL-INC A1	IL-INC B1	IL-RSV 1	IL-SEC A1	IL-SEC B1	NWS-CHI	IESMA	RGN 2A	SECURE 1
2	ILEAS	IL-INC A2	IL-INC B2	IL-RSV 2	IL-SEC A2	IL-SEC B2	NWS-QUAD	ILEAS	RGN 2B	SECURE 2
3	MABAS	IL-INC A3	IL-INC B3	IL-RSV 3	IL-SEC A3	IL-SEC B3	NWS-LINC	MABAS	RGN 3A	SECURE 3
4	IDPH	IL-INC A4	IL-INC B4	IL-RSV 4	IL-SEC A4	IL-SEC B4	NWS-STL	Pub Hlth	RGN 3B	SECURE 4
5	IPWMAN	IL-INC A5	IL-INC B5	IL-RSV 5	IL-SEC A5	IL-SEC B5	NWS-PDK	IPWMAN	RGN 4A	SECURE 5
6	EMA	IL-INC A6	IL-INC B6	IL-RSV 6	IL-SEC A6	IL-SEC B6	NWS-MKE	Incidnt1	RGN 4B	SECURE 6
7	IL-RGN 2	IL-INC A7	IL-INC B7	IL-RSV 7	IL-SECLAW7	IL-SEC B7	NWS-SW	Incidnt2	RGN 6A	SECURE 7
8	IL-RGN 3	IL-INC A8	IL-INC B8	IL-RSV 8	IL-SECLAW8	IL-SEC B8		Incidnt3	RGN 6B	SECURE 8
9	IL-RGN 4	IL-INC A9	IL-INC B9	IL-RSV 9	IL-SECLAW9	IL-SEC B9		Incidnt4	RGN 7A	SECLAW 1
10	IL-RGN 6	IL-INC A10	IL-INC B10	IL-RSV 10	IL-SECLAW10	IL-SEC B10		Incidnt5	RGN 7B	SECLAW 2
11	IL-RGN 7	IL-INC A11	IL-INC B11	IL-RSV 11	IL-SECFIRE11	IL-SEC B11		North A	RGN 8A	SECFIR 1
12	IL-RGN 8	IL-INC A12	IL-INC B12	IL-RSV 12	IL-SECFIRE12	IL-SEC B12		North B	RGN 8B	SECFIR 2
13	IL-RGN 9	IL-INC A13	IL-INC B13	IL-RSV 13	IL-SECEMA13	IL-SEC B13		Center A	RGN 9A	SECEMA 1
14	IL-RGN11	IL-INC A14	IL-INC B14	IL-RSV 14	IL-SECEMA14	IL-SEC B14		Center B	RGN 9B	SECEMA 2
15	IL-102A	IL-INC A15	IL-INC B15	IL-RSV 15	IL-SECDOT15	IL-SEC B15		South A	RGN 11A	SECDOT 1
16	IL-102B	IL-INC A16	IL-INC B16	IL-RSV 16	IL-SECDOT16	IL-SEC B16		South B	RGN 11B	SECDOT 2

Zone à Pos. â	SWIT BC	SWIT BD	SWIT BE	SWIT BF	SWIT BG	SWIT BH	SWIT BI	SWIT BJ	SWIT BY
1	8CALL90D	7CALL50D	7MOB59D	7CALL70D	7MOB79D	7FTAC1D	7MTAC9D	7AG58D	7MOB59DE
2	8TAC91D	7TAC51D	7DATA69D	7TAC71D	7DATA89D	7FTAC2D	A7-US-01D	7AG60D	7MOB79DE
3	8TAC92D	7TAC52D	7LAW61D	7TAC72D	7LAW81D	7FTAC3D	A7-US-02D	7AG67D	7LAW81DE
4	8TAC93D	7TAC53D	7LAW62D	7TAC73D	7LAW82D	7GTAC4D	A7-US-03D	7AG68D	7LAW82DE
5	8TAC94D	7TAC54D	7FIRE63D	7TAC74D	7FIRE83D	7GTAC5D	7MTAC9	7AG78D	7FIRE83DE
6	8CALL90	7TAC55D	7FIRE64D	7TAC75D	7FIRE84D	7LTAC6D	A7-US-01	7AG80D	7FIRE84DE
7	8TAC91	7TAC56D	7MED65D	7TAC76D	7MED86D	7LTAC7D	A7-US-02	7AG85D	7MED86DE
8	8TAC92	7GTAC57D	7MED66D	7GTAC77D	7MED87D	7LTAC8D	A7-US-03	7AG88D	7MED87DE
9	8TAC93	7CALL50	7MOB59	7CALL70	7MOB79	7FTAC1	7-US-01D	7AG58	7MOB59E
10	8TAC94	7TAC51	7DATA69	7TAC71	7DATA89	7FTAC2	7-US-02D	7AG60	7MOB79E
11		7TAC52	7LAW61	7TAC72	7LAW81	7FTAC3	7-US-03D	7AG67	7LAW81E
12		7TAC53	7LAW62	7TAC73	7LAW82	7GTAC4	7-US-01	7AG68	7LAW82E
13		7TAC54	7FIRE63	7TAC74	7FIRE83	7GTAC5	7-US-02	7AG78	7FIRE83E
14		7TAC55	7FIRE64	7TAC75	7FIRE84	7LTAC6	7-US-03	7AG80	7FIRE84E
15		7TAC56	7MED65	7TAC76	7MED86	7LTAC7		7AG85	7MED86E
16		7GTAC57	7MED66	7GTAC77	7MED87	7LTAC8		7AG88	7MED87E

STARCOM TALKGROUP		NON-STARCOM CHANNEL		
UNENCRYPTED (CLEAR)	ENCRYPTED (SECURE)	NON-DIGITAL (CLEAR)	DIGITAL P25 (CLEAR)	P25 ENCRYPTED (SECURE)

APPENDIX D NATIONAL INTEROPERABILITY CHANNELS

The FCC has set aside channels in each frequency band for the purposes of providing interoperable communications. These channels are listed in the tables below.

All frequency listings for repeated channels are shown as they would be programmed for a subscriber radio. Repeaters would be programmed in the opposite way.

Table 33: Nationwide Interoperability Channels (VHF-Low)

VHF NATIONAL INTEROPERABILITY CHANNELS Low Band – LLAW & LFIRE					
ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Law Enforcement	LLAW1	39.460	156.7	45.860	156.7
Law Enforcement	LLAW1D	39.460	156.7	39.460	156.7
Fire *	LFIRE2	39.480	156.7	45.880	156.7
Fire *	LFIRE2D	39.480	156.7	39.480	156.7
Law Enforcement	LLAW3	45.860	156.7	39.460	156.7
Law Enforcement	LLAW3D	45.860	156.7	45.860	156.7
Fire *	LFIRE4	45.880	156.7	39.480	156.7
Fire	LFIRE4D	45.880	156.7	45.880	156.7
*Proposed for use. Frequency 39.48 is pending FCC assignment for exclusive fire intersystem use.					
• Use emission – 16K0F3E (5 KHz deviation wideband analog FM)					

Table 34: Nationwide Interoperability Channels (VHF-High)

VHF NATIONAL INTEROPERABILITY CHANNELS VHF Tactical Simplex – VCALL & VTAC					
CAUTION: Ensure coordination between VTAC simplex and repeater operations. These frequencies are used to create the tactical repeater channels listed for VTAC33-38.					
ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Calling	VCALL10	155.7525	156.7	155.7525	156.7
Tactical*	VTAC11	151.1375	156.7	151.1375	156.7
Tactical*	VTAC12	154.4525	156.7	154.4525	156.7
Tactical	VTAC13	158.7375	156.7	158.7375	156.7
Tactical	VTAC14	159.4725	156.7	159.4725	156.7
• Authorized emission – 11K0F3E (2.5 KHz deviation narrowband analog FM) – 47 CFR §90.20(d)(80) • Encryption may not be used – 47 CFR §90.20(i) • Limited to 3 watts ERP North of Line A or East of Line C. • VCALL10, VTAC11-14 utilize a 156.7 Hz CTCSS Mobile TX tone which differs from the VTAC33-38 Tactical Repeater Channels which utilize a 136.5 CTCSS Mobile TX tone. *VTAC11-12 may not be used in Puerto Rico or the US Virgin Islands.					

Table 35: National Interoperability Channels – (VHF-High Repeaters)

VHF NATIONAL INTEROPERABILITY CHANNELS VHF Tactical Repeater – VTAC					
CAUTION: Ensure coordination between VTAC simplex and repeater operations. These frequencies are created by utilizing the frequencies listed for VTAC11-14.					
ASSIGNMENT	**CHANNEL NAME**	**MOB. RX FREQ. (MHZ)**	**MOBILE RX CTCSS/NAC**	**MOB. TX FREQ. (MHZ)**	**MOBILE TX CTCSS/NAC**
Tac Rptr (VTAC 14/11)	VTAC33*	159.4725	156.7	151.1375	136.5
Tac Rptr (VTAC 13/12)	VTAC34*	158.7375	156.7	154.4525	136.5
Tac Rptr (VTAC 14/13)	VTAC35	159.4725	156.7	158.7375	136.5
Tac Rptr (VTAC 11/14)	VTAC36*	151.1375	156.7	159.4725	136.5
Tac Rptr (VTAC 12/13)	VTAC37*	154.4525	156.7	158.7375	136.5
Tac Rptr (VTAC 13/14)	VTAC38	158.7375	156.7	159.4725	136.5
• Authorized emission – 11K0F3E (2.5 KHz deviation narrowband analog FM) – 47 CFR §90.20(d)(80) • Encryption may not be used – 47 CFR §90.20(i) • Limited to 3 watts ERP North of Line A or East of Line C. • VTAC33-38 utilize a 136.5 CTCSS Mobile TX tone which differs from the VTAC11-14 Simplex Channels which utilize a 156.7 CTCSS Mobile TX tone. • VTAC33-35 are the reverse of VTAC 36-38 to allow for mitigation of any potential co-site interference. • VTAC36-38 are preferred; VTAC33-35 should be used only when necessary due to interference. *VTAC33-34 and VTAC 36-37 may not be used in Puerto Rico or the US Virgin Islands.					

Table 36: National Interoperability Channels - (VHF Inland)

VHF NATIONAL INTEROPERABILITY CHANNELS VHF Inland – VTAC17					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. Use of these channels must be licensed or authorized by STA.					
ASSIGNMENT	**CHANNEL NAME**	**MOB. RX FREQ. (MHZ)**	**MOBILE RX CTCSS/NAC**	**MOB. TX FREQ. (MHZ)**	**MOBILE TX CTCSS/NAC**
Tactical	VTAC17	161.8500	156.7	157.2500	156.7
Tactical	VTAC17D	161.8500	156.7	161.8500	156.7
• For VTAC17/VTAC17D only: Base stations: 50 watts max, antenna HAAT 400 feet max. Mobile stations: 20 watts max, antenna HAAT 15 feet max. These channels are for tactical use and may not be operated on board aircraft in flight. These channels use 2.5 kHz deviation narrowband Analog FM and are available only in certain inland areas at least 100 miles from a major waterway. These channels use the same frequencies as VHF Marine channel 25, which uses 5 kHz deviation wideband Analog FM. Use only where authorized. See map on next page. In these authorized areas, interoperability communications have priority over grandfathered public coast and public safety licensees. See 47 CFR §90.20(g)(3). • Authorized emission – 11K0F3E (2.5 KHz deviation narrowband analog FM) – 47 CFR §90.20(d)(80). • Limited to 3 watts ERP North of Line A or East of Line C.					

Table 37: Nationwide Mutual Aid and Common Channels (VHF-High)

VHF PUBLIC SAFETY MUTUAL AID AND COMMON CHANNELS					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. Use of these channels must be licensed or authorized by STA. Availability subject to other licensed users in the same area.					
ASSIGNMENT	**CHANNEL NAME**	**MOB. RX FREQ. (MHZ)**	**MOBILE RX CTCSS/NAC**	**MOB. TX FREE. (MHZ)**	**MOBILE TX CTCSS/NAC**
SAR Common*	VSAR16	155.1600	127.3	155.1600	127.3
Fire Mutual Aid *(Not available in Puerto Rico and the US Virgin Islands)*	VFIRE21	154.2800		154.2800	
	VFIRE22	154.2650		154.2650	
	VFIRE23	154.2950		154.2950	
	VFIRE24	154.2725		154.2725	
	VFIRE25	154.2875		154.2875	
	VFIRE26	154.3025		154.3025	

VHF PUBLIC SAFETY MUTUAL AID AND COMMON CHANNELS					
EMS Mutual Aid	VMED28	155.3400	CSQ	155.3400	156.7
	VMED29	155.3475		155.3475	
Law Enforcement Mutual Aid	VLAW31	155.4750		155.4750	
	VLAW32	155.4825		155.4825	

- CTCSS tones vary by jurisdiction. Rules for use of these channels are contained in 47 CFR 90.20. EXCEPT for VSAR16, the recommended CTCSS tones are 156.7 receive and transmit for all channels on this page for interoperability; local use may specify other tones.

Table 38: VHF Marine Channels

VHF MARINE CHANNELS*			
CHANNEL	USAGE	MOB. RX & TX	
		FREQ. (MHZ)	CTCSS/NAC
16	International Distress, Safety and Calling	156.8000	CSQ
17	State & local govt maritime control	156.8500	CSQ
21A	U.S. Coast Guard assigned	157.0500	CSQ
23A	U.S. Coast Guard assigned	157.1500	CSQ
81A	Environmental protection ops or as assigned	157.0750	CSQ
83A	U.S. Coast Guard assigned	157.1750	CSQ

- Use VHF Marine channel 16 to make contact (30 seconds max), then move to the appropriate working channel as directed by the local USCG Sector Commander. Non-maritime use of any VHF Maritime channel requires FCC Special Temporary Authority or appropriate license. VHF marine channels use wideband FM. Emission 16K00F3E.

DIRECTION FROM USCG, FCC, OR FAA OVERRIDES INFORMATION IN THIS TABLE. THIS TABLE DOES NOT CONVEY AUTHORITY TO OPERATE.

Table 39: Nationwide Interoperability Channels (UHF Band)

UHF NATIONWIDE INTEROPERABILITY CHANNELS UCALL & UTAC					
ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Calling	UCALL40	453.2125	156.7	458.2125	156.7
Calling Direct	UCALL40D	453.2125	156.7	453.2125	156.7
Tactical Repeater	UTAC41	453.4625	156.7	458.4625	156.7
Tactical Direct	UTAC41D	453.4625	156.7	453.4625	156.7
Tactical Repeater	UTAC42	453.7125	156.7	458.7125	156.7
Tactical Direct	UTAC42D	453.7125	156.7	453.7125	156.7
Tactical Repeater	UTAC43	453.8625	156.7	458.8625	156.7
Tactical Direct	UTAC43D	453.8625	156.7	453.8625	156.7

- Authorized emission – 11K0F3E (2.5 KHz deviation narrowband analog FM) – 47 CFR §90.20(d)(80)
- Encryption may not be used – 47 CFR §90.20(i)
- Limited to 3 watts ERP North of Line A or East of Line C.

Table 40: National UHF MED Channels

UHF MEDICAL (MED, EMS) CHANNELS					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. Availability subject to other licensed users in the same area.					
ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREQ. (MHZ)	MOBILE TX CTCSS/NAC
Dispatch*	MED-9	462.9500	See Notes	467.9500	See Notes
	MED-9D	462.9500	" "	462.9500	" "
Dispatch*	MED-92	462.9625	" "	467.9625	" "
	MED-92D	462.9625	" "	462.9625	" "
Dispatch*	MED-10	462.9750	" "	467.9750	" "
	MED-10D	462.9750	" "	462.9750	" "
Dispatch*	MED-102	462.9875	" "	467.9875	" "
	MED-102D	462.9875	" "	462.9875	" "
Medical	MED-1	463.0000	" "	468.0000	" "
Medical (Direct)	MED-1D	463.0000	" "	463.0000	" "
Medical	MED-12	463.0125	" "	468.0125	" "
Medical (Direct)	MED-12D	463.0125	" "	463.0125	" "
Medical	MED-2	463.0250	" "	468.0250	" "
Medical (Direct)	MED-2D	463.0250	" "	463.0250	" "
Medical	MED-22	463.0375	" "	468.0375	" "
Medical (Direct)	MED-22D	463.0375	" "	463.0375	" "
Medical	MED-3	463.0500	" "	468.0500	" "
Medical (Direct)	MED-3D	463.0500	" "	463.0500	" "
Medical	MED-32	463.0625	" "	468.0625	" "
Medical (Direct)	MED-32D	463.0625	" "	463.0625	" "
Medical	MED-4	463.0750	" "	468.0750	" "
Medical (Direct)	MED-4D	463.0750	" "	463.0750	" "
Medical	MED-42	463.0875	" "	468.0875	" "
Medical (Direct)	MED-42D	463.0875	" "	463.0875	" "
Medical	MED-5	463.1000	" "	468.1000	" "
Medical (Direct)	MED-5D	463.1000	" "	463.1000	" "
Medical	MED-52	463.1125	" "	468.1125	" "
Medical (Direct)	MED-52D	463.1125	" "	463.1125	" "
Medical	MED-6	463.1250	" "	468.1250	" "
Medical (Direct)	MED-6D	463.1250	" "	463.1250	" "
Medical	MED-62	463.1375	" "	468.1375	" "
Medical (Direct)	MED-62D	463.1375	" "	463.1375	" "
Medical	MED-7	463.1500	" "	468.1500	" "
Medical (Direct)	MED-7D	463.1500	" "	463.1500	" "
Medical	MED-72	463.1625	" "	468.1625	" "
Medical (Direct)	MED-72D	463.1625	" "	463.1625	" "
Medical	MED-8	463.1750	" "	468.1750	" "
Medical (Direct)	MED-8D	463.1750	" "	463.1750	" "
Medical	MED-82	463.1875	" "	468.1875	" "
Medical (Direct)	MED-82D	463.1875	" "	463.1875	" "

*Used primarily for dispatch; may be used for mutual aid. 47CFR90.20(d)(65).

- Recommended CTCSS tones are 156.7 Hz receive and transmit for all channels on this page for interoperability; local use may specify other CTCSS tones as required by local plan.

Table 41: Nationwide Interoperability Channels (700 MHz)

700 MHZ NATIONWIDE INTEROPERABILITY CHANNELS					
TX NAC: $293 ($659_{10}$)	RX NAC $F7E ($3966_{10}$).		Default Talk Group ID: $0001 ($1_{10}$)		
"$" indicates hexadecimal value, "$_{10}$" subscript indicates decimal value.					
Assignment	Channel Name	Mob. RX Freq. (MHz)	Mobile RX CTCSS/NAC	Mob. TX Free. (MHz)	Mobile TX CTCSS/NAC
Calling Channel *	7CALL50	769.24375	$F7E	799.24375	$293
Calling Channel *	7CALL50D	769.24375	$F7E	769.24375	$293
General Public Safety	7TAC51	769.14375	$F7E	799.14375	$293
General Public Safety	7TAC51D	769.14375	$F7E	769.14375	$293
General Public Safety	7TAC52	769.64375	$F7E	799.64375	$293
General Public Safety	7TAC52D	769.64375	$F7E	769.64375	$293
General Public Safety	7TAC53	770.14375	$F7E	800.14375	$293
General Public Safety	7TAC53D	770.14375	$F7E	770.14375	$293
General Public Safety	7TAC54	770.64375	$F7E	800.64375	$293
General Public Safety	7TAC54D	770.64375	$F7E	770.64375	$293
General Public Safety	7TAC55	769.74375	$F7E	799.74375	$293
General Public Safety	7TAC55D	769.74375	$F7E	769.74375	$293
General Public Safety	7TAC56	770.24375	$F7E	800.24375	$293
General Public Safety	7TAC56D	770.24375	$F7E	770.24375	$293
Other Public Safety	7GTAC57	770.99375	$F7E	800.99375	$293
Other Public Safety	7GTAC57D	770.99375	$F7E	770.99375	$293
Mobile Repeater	7MOB59	770.89375	$F7E	800.89375	$293
Mobile Repeater	7MOB59D	770.89375	$F7E	770.89375	$293
Law Enforcement	7LAW61	770.39375	$F7E	800.39375	$293
Law Enforcement	7LAW61D	770.39375	$F7E	770.39375	$293
Law Enforcement	7LAW62	770.49375	$F7E	800.49375	$293
Law Enforcement	7LAW62D	770.49375	$F7E	770.49375	$293
Fire	7FIRE63	769.89375	$F7E	799.89375	$293
Fire	7FIRE63D	769.89375	$F7E	769.89375	$293
Fire	7FIRE64	769.99375	$F7E	799.99375	$293
Fire	7FIRE64D	769.99375	$F7E	769.99375	$293
EMS	7MED65	769.39375	$F7E	799.39375	$293
EMS	7MED65D	769.39375	$F7E	769.39375	$293
EMS	7MED66	769.49375	$F7E	799.49375	$293
EMS	7MED66D	769.49375	$F7E	769.49375	$293
Mobile Data ***	7DATA69	770.74375	$F7E	800.74375	$293
Mobile Data ***	7DATA69D	770.74375	$F7E	770.74375	$293
Calling Channel **	7CALL70	773.25625	$F7E	803.25625	$293
Calling Channel **	7CALL70D	773.25625	$F7E	773.25625	$293
General Public Safety	7TAC71	773.10625	$F7E	803.10625	$293
General Public Safety	7TAC71D	773.10625	$F7E	773.10625	$293
General Public Safety	7TAC72	773.60625	$F7E	803.60625	$293
General Public Safety	7TAC72D	773.60625	$F7E	773.60625	$293
General Public Safety	7TAC73	774.10625	$F7E	804.10625	$293
General Public Safety	7TAC73D	774.10625	$F7E	774.10625	$293
General Public Safety	7TAC74	774.60625	$F7E	804.60625	$293
General Public Safety	7TAC74D	774.60625	$F7E	774.60625	$293
General Public Safety	7TAC75	773.75625	$F7E	803.75625	$293
General Public Safety	7TAC75D	773.75625	$F7E	773.75625	$293
General Public Safety	7TAC76	774.25625	$F7E	804.25625	$293
General Public Safety	7TAC76D	774.25625	$F7E	774.25625	$293
Other Public Safety	7GTAC77	774.85625	$F7E	804.85625	$293
Other Public Safety	7GTAC77D	774.85625	$F7E	774.85625	$293

700 MHZ NATIONWIDE INTEROPERABILITY CHANNELS		
TX NAC: $293 ($659_{10}$)	RX NAC $F7E ($3966_{10}$).	DEFAULT TALK GROUP ID: $0001 ($1_{10}$)

"$" INDICATES HEXADECIMAL VALUE, "$_{10}$" SUBSCRIPT INDICATES DECIMAL VALUE.

ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Mobile Repeater	7MOB79	774.50625	$F7E	804.50625	$293
Mobile Repeater	7MOB79D	774.50625	$F7E	774.50625	$293
Law Enforcement	7LAW81	774.00625	$F7E	804.00625	$293
Law Enforcement	7LAW81D	774.00625	$F7E	774.00625	$293
Law Enforcement	7LAW82	774.35625	$F7E	804.35625	$293
Law Enforcement	7LAW82D	774.35625	$F7E	774.35625	$293
Fire	7FIRE83	773.50625	$F7E	803.50625	$293
Fire	7FIRE83D	773.50625	$F7E	773.50625	$293
Fire	7FIRE84	773.85625	$F7E	803.85625	$293
Fire	7FIRE84D	773.85625	$F7E	773.85625	$293
EMS	7MED86	773.00625	$F7E	803.00625	$293
EMS	7MED86D	773.00625	$F7E	773.00625	$293
EMS	7MED87	773.35625	$F7E	803.35625	$293
EMS	7MED87D	773.35625	$F7E	773.35625	$293
Mobile Data ***	7DATA89	774.75625	$F7E	804.75625	$293
Mobile Data ***	7DATA89D	774.75625	$F7E	774.75625	$293

- Authorized emission – 8K10F1E (Digital P25 Phase I Modulation) – 47 CFR §90.548(a)(1)
- Utilize normal squelch in programming which will use the default talkgroup - $0001 ($1_{10}$).
- AES Encryption permitted on all but the two nationwide interoperability calling channel. Must have accessible switch or other readily accessible control that permits the radio user to disable encryption. 47 CFR §90.553

*Recommended as PRIMARY calling channel for 700 MHz Band.
**Recommended as SECONDARY calling channel for 700 MHz Band.
***Voice communications are permitted on 7DATA89/7DATA869D on a secondary basis – 90.531(b)(1)(i).

Table 42: National Air-Ground Channels (700 MHz)

700 MHZ NATIONWIDE AIR-GROUND CHANNELS					
LICENSING REQUIRED: THESE FREQUENCIES ARE **NOT** COVERED BY THE "BLANKET AUTHORIZATION" FOR NATIONWIDE INTEROPERABILITY CHANNELS. USE OF THESE CHANNELS MUST BE LICENSED OR AUTHORIZED BY STA					
ASSIGNMENT	**CHANNEL NAME**	**MOB. RX FREQ. (MHZ)**	**MOBILE RX CTCSS/NAC**	**MOB. TX FREE. (MHZ)**	**MOBILE TX CTCSS/NAC**
Air – Ground	7AG58	769.13125	$F7E	799.13125	$293
Air – Ground	7AG58D	769.13125	$F7E	769.13125	$293
Air – Ground	7AG60	769.63125	$F7E	799.63125	$293
Air – Ground	7AG60D	769.63125	$F7E	769.63125	$293
Air – Ground	7AG67	770.13125	$F7E	800.13125	$293
Air – Ground	7AG67D	770.13125	$F7E	770.13125	$293
Air – Ground	7AG68	770.63125	$F7E	800.63125	$293
Air – Ground	7AG68D	770.63125	$F7E	770.63125	$293
Air – Ground	7AG58	769.13125	$F7E	799.13125	$293
Air – Ground	7AG58D	769.13125	$F7E	769.13125	$293
Air – Ground	7AG60	769.63125	$F7E	799.63125	$293
Air – Ground	7AG60D	769.63125	$F7E	769.63125	$293
Air – Ground	7AG78	773.11875	$F7E	803.11875	$293
Air – Ground	7AG78D	773.11875	$F7E	773.11875	$293
Air – Ground	7AG80	773.61875	$F7E	803.61875	$293
Air – Ground	7AG80D	773.61875	$F7E	773.61875	$293
Air – Ground	7AG85	774.11875	$F7E	804.11875	$293
Air – Ground	7AG85D	774.11875	$F7E	774.11875	$293
Air – Ground	7AG88	774.61875	$F7E	804.61875	$293
Air – Ground (LZ)*	7AG88D	774.61875	$F7E	774.61875	$293

*7AG88D is recommended for Landing Zone Use.

- TX NAC: $293 ($659_{10}$). RX NAC $F7E ($3966_{10}$). These channels are reserved for air-ground communications to be used by low-altitude aircraft and ground-based stations: See FCC rule 90.531(7). (i) Airborne use of these channels is limited to aircraft flying at or below 457 meters (1500 feet) above ground level. (ii) Aircraft are limited to 2 watts effective radiated power (ERP) when transmitting while airborne on these channels. (iii) Aircraft may transmit on either the mobile or base transmit side of the channel pair. (iv) States are responsible for the administration of these channels.
- Utilize normal squelch in programming which will use the default talkgroup - $0001 ($1_{10}$).

Table 43: 700 MHz Low Power Itinerant Channels

700 MHZ LOW POWER ITINERANT CHANNELS					
LICENSING REQUIRED: THESE FREQUENCIES ARE **NOT** COVERED BY THE "BLANKET AUTHORIZATION" FOR NATIONWIDE INTEROPERABILITY CHANNELS. USE OF THESE CHANNELS MUST BE LICENSED OR AUTHORIZED BY STA.					
ASSIGNMENT	**CHANNEL NAME**	**MOBILE RX**	**MOBILE RX CTCSS/NAC**	**MOBILE TX**	**MOBILE TX CTCSS/NAC**
Low Power - PS	7-US-01	769.05625	156.7/$F7E	799.05625	156.7/$293
Low Power - PS	7-US-01D	769.05625	156.7/$F7E	769.05625	156.7/$293
Low Power - PS	7-US-02	769.06875	156.7/$F7E	799.06875	156.7/$293
Low Power - PS	7-US-02D	769.06875	156.7/$F7E	769.06875	156.7/$293
Low Power - PS	7-US-03	774.99375	156.7/$F7E	804.99375	156.7/$293
Low Power - PS	7-US-03D	774.99375	156.7/$F7E	774.99375	156.7/$293
LICENSING NOTES: These Channels may be licensed for national itinerant mobile use as station class MOI. These channels may be used in either Analog or Digital mode and are limited to 2 watts (ERP). • Licensees are responsible for the administration of these channels. • Utilize normal squelch in programming which will use the default talkgroup - $0001 ($1_{10}$).					

Table 44: 700 MHz Nationwide Deployable Trunked System Channels

700 MHZ NATIONWIDE DEPLOYABLE TRUNKED SYSTEM CHANNELS					
Common Nationwide System ID: **$101 ($257_{10}$)**		Common Nationwide WACN: **$BF7CC**			
"$" indicates hexadecimal value, "$_{10}$" subscript indicates decimal value.					
ASSIGNMENT	**CHANNEL NAME**	**MOBILE RX**	**MOBILE RX CTCSS/NAC**	**MOBILE TX**	**MOBILE TX CTCSS/NAC**
	A	769.23125	----------	799.23125	----------
	B	769.38125	----------	799.38125	----------
	C*	769.73125	----------	799.73125	----------
	D*	769.88125	----------	799.88125	----------
Primary Control Channel	E	774.51875	----------	804.51875	----------
Secondary Control Channel	F	774.86875	----------	804.86875	----------
*Not available for use above the A-Line in Pennsylvania, New York, and Vermont. • NRPC is the curator of the common nationwide system keys. To apply for system keys, contact the NRPC: nrpc.us • Additional working channels separate from this list can be allocated locally to deployable systems subject to individual RPC approval. • Each deployable trunk system should coordinate their unique NAC Code with the NRPC.					

Table 45: 700 MHz Nationwide Deployable Trunked System Talkgroups- Zone YY Deploy

700 MHZ NATIONWIDE DEPLOYABLE TRUNKED SYSTEM TALKGROUPS				
RECOMMENDED TALKGROUPS - ZONE "YY DEPLOY" – SYSTEM ID $101				
POSITION	CHANNEL NAME	ELIGIBLE USERS/USAGE	TALKGROUP ID (DEC)	TALKGROUP ID (HEX)
1	CALL YY	Calling/Initial Contact TG	201	$C9
2	CMD YY	Pre-designated Command TG	202	$CA
3	TAC YY3	General/Tactical Use TG	203	$CB
4	TAC YY4	General/Tactical Use TG	204	$CC
5	TAC YY5	General/Tactical Use TG	205	$CD
6	TAC YY6	General/Tactical Use TG	206	$CE
7	TAC YY7	General/Tactical Use TG	207	$CF
8	TAC YY8	General/Tactical Use TG	208	$D0
9	TAC YY9	General/Tactical Use TG	209	$D1
10	TAC YY10	General/Tactical Use TG	210	$D2
11	TAC YY11	General/Tactical Use TG	211	$D3
12	TAC YY12	General/Tactical Use TG	212	$D4
13	TAC YY13	General/Tactical Use TG	213	$D5
14	TAC YY14	General/Tactical Use TG	214	$D6
15	TAC YY15	General/Tactical Use TG	215	$D7
16	EMER YY	EMERGENCY USE TG	216	$D8
COMMON NATIONWIDE SYSTEM ID: $101 ($257$_{10}$)		COMMON NATIONWIDE WACN: $BF7CC		
"$" INDICATES HEXADECIMAL VALUE, "$_{10}$" SUBSCRIPT INDICATES DECIMAL VALUE.				

- Each deployable trunk system should coordinate their unique NAC Code with the NRPC.
- Duplicate unit IDs with deployable trunked radio systems are a possibility. Subscriber programming resources may be needed to mitigate duplicate ID's.

Table 46: 700 MHZ Nationwide Deployable Trunked System Talkgroups - Zone ZZ Deploy

700 MHZ NATIONWIDE DEPLOYABLE TRUNKED SYSTEM TALKGROUPS				
RECOMMENDED TALKGROUPS - ZONE "ZZ DEPLOY" – SYSTEM ID $101				
POSITION	CHANNEL NAME	ELIGIBLE USERS/USAGE	TALKGROUP ID (DEC)	TALKGROUP ID (HEX)
1	CALL ZZ	Calling/Initial Contact TG	101	$65
2	CMD ZZ	Pre-designated Command TG	102	$66
3	TAC ZZ3	General/Tactical Use TG	103	$67
4	TAC ZZ4	General/Tactical Use TG	104	$68
5	TAC ZZ5	General/Tactical Use TG	105	$69
6	TAC ZZ6	General/Tactical Use TG	106	$6A
7	TAC ZZ7	General/Tactical Use TG	107	$6B
8	TAC ZZ8	General/Tactical Use TG	108	$6C
9	TAC ZZ9	General/Tactical Use TG	109	$6D
10	TAC ZZ10	General/Tactical Use TG	110	$6E
11	TAC ZZ11	General/Tactical Use TG	111	$6F
12	TAC ZZ12	General/Tactical Use TG	112	$70
13	TAC ZZ13	General/Tactical Use TG	113	$71
14	TAC ZZ14	General/Tactical Use TG	114	$72
15	TAC ZZ15	General/Tactical Use TG	115	$73
16	EMER ZZ	EMERGENCY USE TG	116	$74
COMMON NATIONWIDE SYSTEM ID: $101 ($257$_{10}$)		COMMON NATIONWIDE WACN: $BF7CC		
"$" INDICATES HEXADECIMAL VALUE, "$_{10}$" SUBSCRIPT INDICATES DECIMAL VALUE.				

- Each deployable trunk system should coordinate their unique NAC Code with the NRPC.
- Duplicate unit IDs with deployable trunked radio systems are a possibility. Subscriber programming resources may be needed to mitigate duplicate IDs.

Table 47: P25 Digital Codes

P25 DIGITAL CODES	
NAC – NETWORK ACCESS CODES	
$293 ($659_{10}$)	Default NAC
$F7E ($3966_{10}$)	Receiver will un-squelch with any incoming NAC
$F7F ($3967_{10}$)	A repeater with this NAC will allow incoming signals to be repeated with the NAC intact
TGID – TALKGROUP ID	
$0001 ($1_{10}$)	Default TGID, should be used in systems where no other talkgroups are defined
$0000 ($0_{10}$)	No-one or a talkgroup with no users – used for individual call
$FFFF (6553510)	Reserved as a talkgroup which includes everyone
UID – UNIT ID	
$000000	No-one. This value is never assigned to a radio unit
$000001-$98767F	For general use.
$989680-$FFFFFE	For talk group use or other special purposes.
$FFFFFF	Designates everyone – used when implementing a group call with a TGID
Note: Project 25 System Administrators should be aware of possible Unit ID conflicts when conducting operations with neighboring jurisdictions. System administrators should coordinate Unit IDs with agencies likely to operate on their system(s) to address any radio Unit ID conflicts. "$" indicates hexadecimal values, "$_{10}$" subscript indicates decimal value.	

Table 48: Nationwide Interoperability Channels (800 MHz)

800 MHZ NATIONWIDE INTEROPERABILITY CHANNELS					
ASSIGNMENT	**CHANNEL NAME**	**MOB. RX FREQ. (MHZ)**	**MOBILE RX CTCSS/NAC**	**MOB. TX FREE. (MHZ)**	**MOBILE TX CTCSS/NAC**
Calling	8CALL90	851.0125	156.7	806.0125	156.7
Calling Direct	8CALL90D	851.0125	156.7	851.0125	156.7
Tactical Repeater	8TAC91	851.5125	156.7	806.5125	156.7
Tactical Direct	8TAC91D	851.5125	156.7	851.5125	156.7
Tactical Repeater	8TAC92	852.0125	156.7	807.0125	156.7
Tactical Direct	8TAC92D	852.0125	156.7	852.0125	156.7
Tactical Repeater	8TAC93	852.5125	156.7	807.5125	156.7
Tactical Direct	8TAC93D	852.5125	156.7	852.5125	156.7
Tactical Repeater	8TAC94	853.0125	156.7	808.0125	156.7
Tactical Direct	8TAC94D	853.0125	156.7	853.0125	156.7

- Recommended authorized emission – 14K0F3E (4.0 kHz deviation NPSPAC analog FM) – 47 CFR §90.617(a)(1) and 47 CFR §90.619(a)(5)(i). The FCC rules allow 5 KHz deviation for the 8CALL/8TAC interoperability channels - 47 CFR §90.209(b)(5). Some Regional Planning Committees (RPCs) may limit their region to 4KHz.
- Encryption may not be used – 47 CFR §90.20(i).

APPENDIX E FEDERAL INTEROPERABILITY CHANNEL PLAN

App. E-1 Federal Interoperability Channels for Incident Response

Table 49: Federal VHF Incident Response Channels

VHF INCIDENT RESPONSE (IR) FEDERAL INTEROPERABILITY CHANNELS					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. For Interoperability with Federal Stations Only.					
SUGGESTED ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Incident Calling	NC 1	169.5375	CSQ	164.7125	167.9
Incident Command	IR 1	170.0125	CSQ	165.2500	167.9
Medical Evac. (Direct)	IR 2	170.4125	CSQ	165.9625	167.9
Logistics Control	IR 3	170.6875	CSQ	166.5750	167.9
Interagency Convoy	IR 4	173.0375	CSQ	167.3250	167.9
Incident Calling (Direct)	IR 5	169.5375	CSQ	169.5375	167.9
Incident Command (Direct)	IR 6	170.0125	CSQ	170.0125	167.9
Medical Evacuation	IR 7	170.4125	CSQ	170.4125	167.9
Logistics Control (Direct)	IR 8	170.6875	CSQ	170.6875	167.9
Interagency Convoy (Direct)	IR 9	173.0375	CSQ	173.0375	167.9
• See "Conditions for Use of Federal Interoperability Channels" on pages 19-22 (NIFOG). • Default operation should be carrier squelch receive; CTCSS 167.9 transmit. If the user can enable/disable CTCSS without reprogramming the radio, the indicated CTCSS tone also could be programmed for receive, and the user instructed how and when to enable/disable.					

Table 50: Federal UHF Incident Response Channels

UHF INCIDENT RESPONSE (IR) FEDERAL INTEROPERABILITY CHANNELS					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. For Interoperability with Federal Stations Only.					
SUGGESTED ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Incident Calling	NC 2	410.2375	CSQ	419.2375	167.9
Ad hoc Assignment	IR 10	410.4375	CSQ	419.4375	167.9
Ad hoc Assignment	IR 11	410.6375	CSQ	419.6375	167.9
SAR Incident Command	IR 12	410.8375	CSQ	419.8375	167.9
Ad hoc Assignment	IR 13	413.1875	CSQ	413.1875	167.9
Interagency Convoy	IR 14	413.2125	CSQ	413.2125	167.9
Incident Calling (Direct)	IR 15	410.2375	CSQ	410.2375	167.9
Ad hoc (Direct for IR 10)	IR 16	410.4375	CSQ	410.4375	167.9
Ad hoc (Direct for IR 11)	IR 17	410.6375	CSQ	410.6375	167.9
SAR Inc. Command (Direct)	IR 18	410.8375	CSQ	410.8375	167.9
• See "Conditions for Use of Federal Interoperability Channels" on pages 19-22 (NIFOG). • Default operation should be carrier squelch receive; CTCSS 167.9 transmit. If the user can enable/disable CTCSS without reprogramming the radio, the indicated CTCSS tone also could be programmed for receive, and the user instructed how and when to enable/disable.					

App. E-2 Federal Interoperability Channels for Law Enforcement

Table 51: Federal VHF Law Enforcement (LE) Channels

VHF LAW ENFORCEMENT (LE) FEDERAL INTEROPERABILITY CHANNELS					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. For Interoperability with Federal Stations Only.					
SUGGESTED ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Calling (Analog)	LE A	167.0875	CSQ	167.0875	167.9
Tactical (Analog)	LE 1	167.0875	CSQ	162.0875	167.9
Tactical	LE 2	167.2500	$68F	162.2625	$68F
Tactical	LE 3	167.7500	$68F	162.8375	$68F
Tactical	LE 4	168.1125	$68F	163.2875	$68F
Tactical	LE 5	168.4625	$68F	163.4250	$68F
Tactical (Direct for LE2)	LE 6	167.2500	$68F	167.2500	$68F
Tactical (Direct for LE3)	LE 7	167.7500	$68F	167.7500	$68F
Tactical (Direct for LE4)	LE 8	168.1125	$68F	168.1125	$68F
Tactical (Direct for LE5)	LE 9	168.4625	$68F	168.4625	$68F
• See "Conditions for Use of Federal Interoperability Channels" on pages 19-22 (NIFOG). • CTCSS on receive only if user selectable; else CSQ. • "$" indicates hexadecimal value					

Table 52: Federal UHF Law Enforcement (LE) Channels

UHF LAW ENFORCEMENT (LE) FEDERAL INTEROPERABILITY CHANNELS					
LICENSING REQUIRED: These frequencies are NOT covered by the "Blanket Authorization" for nationwide interoperability channels. For Interoperability with Federal Stations Only.					
SUGGESTED ASSIGNMENT	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
Calling (Analog)	LE B	414.0375	CSQ	414.0375	167.9
Tactical (Analog)	LE 10	409.9875	CSQ	418.9875	167.9
Tactical	LE 11	410.1875	$68F	419.1875	$68F
Tactical	LE 12	410.6125	$68F	419.6125	$68F
Tactical	LE 13	414.0625	$68F	414.0625	$68F
Tactical	LE 14	414.3125	$68F	414.3125	$68F
Tactical	LE 15	414.3375	$68F	414.3375	$68F
Tactical (Direct for LE 10)	LE 16	409.9875	CSQ	409.9875	167.9
Tactical (Direct for LE 11)	LE 17	410.1875	$68F	410.1875	$68F
Tactical (Direct for LE 12)	LE 18	410.6125	$68F	410.6125	$68F
• See "Conditions for Use of Federal Interoperability Channels" on pages 19-22 (NIFOG). • CTCSS on receive only if user selectable; else CSQ. • "$" indicates hexadecimal value					

App. E-3 Federal Interoperability Search and Rescue

Table 53: Federal/Non-Federal SAR Command Interoperability Plan

FEDERAL/NON-FEDERAL SAR COMMAND INTEROPERABILITY PLAN					
	CHANNEL NAME	MOB. RX FREQ. (MHZ)	MOBILE RX CTCSS/NAC	MOB. TX FREE. (MHZ)	MOBILE TX CTCSS/NAC
CONNECT WITH GATEWAY	IR 12*	410.8375	CSQ	419.8375	167.9
	VTAC14	159.4725	156.7	159.4725	156.7
	UTAC43	453.8625	156.7	458.8625	156.7
	8TAC94	853.0125	156.7	808.0125	156.7
	VHF Marine Ch. 17**	156.8500	CSQ	156.8500	----------

- This table does not convey authority to operate.
- Always monitor and verify the channels are not in use prior to operating.
- If a repeater is not available, substitute the corresponding talk-around channel: IR 18 for IR 12, UTAC43D for UTAC43, 8TAC94D for 8TAC94.

*See Conditions for Use of Federal Interoperability Channels on pages 19-22 (NIFOG).
**Use of VHF Marine Ch. 17 requires an FCC STA and use emission – 16K0F3E (5 kHz deviation wideband analog FM).

Table 54: Federal/Non-Federal SAR Operations Interoperability Plan

FEDERAL/NON-FEDERAL SAR OPERATIONS INTEROPERABILITY PLAN	
Direction from USCG, FCC, or FAA overrides information in this table. This table does not convey authority to operate.	
SUGGESTED SAR FUNCTION	CHANNEL/FREQUENCY (MHZ)
Ground Operations	155.1600 MHz (VSAR16 – License Required) 2.5 kHz deviation narrowband analog FM
Maritime Operations *	157.0500 MHz or 157.1500 MHz (VHF Marine 21A or 23A) as specified by USCG Sector Commander
Air Operations - civilian	123.100 MHz AM (may not be used for tests or exercises)
Air Operations – USCG/Military	345.0 MHz AM for initial contact only, then move to 282.8 MHz AM or other working channel
Air rescue assets to air rescue assets (deconfliction)	As charted on standard air chart or MULTICOM 122.850 MHz (south or west sector) & 122.900 MHz (north or east sector), or as specified by FAA. 122.850 MHz may not be used for tests or exercises.
Ground to Air SAR Working Channel	157.1750 MHz VHF Marine 83A (21A, 23A, or 81A alternates as specified by local USCG Sector Commander **)
Ground to Maritime SAR working channel	157.0500 MHz VHF Marine 21A (23A, 81A, or 83A alternates as specified by local USCG Sector Commander **)
Maritime/Air/Ground SAR working channel *	157.1750 MHz VHF Marine 83A (21A, 23A, or 81A are alternates as specified by local USCG Sector Commander **)
EMS/Medical Support	155.3400 MHz (VMED28 – License Required) 2.5 kHz deviation narrowband analog FM
Hailing*& DISTRESS only – Maritime/Air/Ground	156.8000 MHz VHF Marine 16 *

- VHF marine channels use emission 16K0F3E (5 kHz deviation analog FM).

*Use VHF Marine Ch.16 to make contact (30 seconds max.), then move to appropriate working channel as directed by local USCG Sector Commander. Non-maritime use of any VHF Marine channel requires FCC Special Temporary Authority or appropriate license.
**VHF Marine channels: 16=156.8000 21A=157.0500 22A=157.1000 23A=157.1500 81A=157.0750 82A=157.1250 83A=157.1750.

App. E-4 National Reserved Slot Location Numbers (SLN)

The National Law Enforcement Communications Center (NLECC), a subdivision of Customs and Border Protection (CBP), generates and distributes national interoperability keys for Slot Location Numbers (SLNs) 1-20. Encryption key management is the administration of policies and procedures for protecting, storing, organizing, and distributing encryption keys. Effective encryption key management is crucial as it ensures that encryption does not impede the operability or interoperability of radio system users.

Any agencies that plan to utilize encryption as part of their interoperability plans should contact their SWIC for guidance at: ema.swic@illinois.gov.

Documents outlining best practices can be found at: https://www.cisa.gov/safecom/blog/2016/10/12/fpic-releases-encryption-documents, or by contacting CISA through your SWIC.

Table 55: National Reserved Slot Location Numbers

National Reserved Slot Location Numbers					
SLN	ALG	USAGE	SL NAME	CRYPTO PERIOD	AUTHORIZED USERS
1	DES	Pub. Safety Interoperable	ALL IO D	Annual	All Network Users
2	DES	Federal Interoperable	FED IO D	Annual	All Federal Network Users
3	AES	Public Safety Interoperable	ALL IO A	Annual	All Network Users
4	AES	Federal Interoperable	FED IO A	Annual	All Federal Network Users
5	DES	National Law Enforcement State & Local	NLE IO D	Static	All Federal, State, and Local Law Enforcement
6	AES	National Law Enforcement State & Local	NLE IO A	Static	All Federal, State, and Local Law Enforcement
7	AES	US–Canadian Federal LE Interoperability	FED CAN	Static	All US & Canadian Federal LE
8	AES	US-Canadian Public Safety Interoperability	USCAN PS	Static	All US & Canadian PS Users
9	DES	National Tactical Event	NTAC D	Single Event Use	All Federal, State, & Local Public Safety
10	AES	National Tactical Event	NTAC A	Single Event Use	All Federal, State, & Local Public Safety
11	DES	Multiple Public Safety Disciplines	PS IO D	Static	All Federal, State, & Local Public Safety
12	AES	Multiple Public Safety Disciplines	PS IO A	Static	All Federal, State, & Local Public Safety
13	DES	National Fire, EMS, & Rescue	NFER D	Static	All Fire, EMS, & Rescue Users
14	AES	National Fire, EMS, & Rescue	NFER A	Static	All Fire, EMS, & Rescue Users
15	DES	National Task Force Operations	FED TF D	One Time Usage	Federal Task Force
16	AES	National Task Force Operations	FED TF A	One Time Usage	Federal Task Force
17	DES	National Law Enforcement Task Force	NLE TF D	One Time Usage	All Federal, State and Local Law Enforcement
18	AES	National Law Enforcement Task Force	NLE TF A	One Time Usage	All Federal, State and Local Law Enforcement
19	AES	Fed–INTL LE Interoperability	FED INTL	When Needed	Federal and Visiting International LE
20	AES	Public Safety – INTL LE Interoperability	PS INTL	When Needed	All US and Visiting Int'l Public Safety

App. E-5 25 Cities Project Federal Interoperability Channels (from NIFOG)[4]

The 25 Cities Federal Interoperability Channels are VHF channels that use Federal Bureau of Investigation (FBI) fixed infrastructure to provide wide area coverage for federal, state, and local public safety users. There are currently 56 channels overseen by 31 FBI Field Offices. The primary use of the channels is for interoperable communications during both pre-planned and emergency events. The channels may also be available for internal agency communications. All pre-planned use must be coordinated with the local FBI Telecommunications Manager. All federal, state, and local public safety agencies are encouraged to program the 25 Cities frequencies into their land mobile radio subscriber devices. Most 25 Cities VHF channels are accessible by non-VHF users via permanent or ad hoc patching capabilities provided to many agencies as part of the 25 Cities Project.

Please note that in certain cities, the channels use the VHF Law Enforcement (LE) Federal Interoperability frequencies: Baltimore (BA LE 3); Boston (BS LE 4); Charlotte (CE LE 4); Honolulu (HNL LE 2, HNL LE 3, HNL LE 4, HNL LE 5); Kansas City (KC FIOLE2); Milwaukee (MW LE 4, MW LE3 GB, MW LE2 MA); Newark (NK FIO LE 2); Richmond (RH LE4); San Juan/Puerto Rico (SJ LE 2 ME, SJ LE 3 YQ, SJ LE 4 CS, SJ LE 5 CP, and SJ LE 2 STT); and Washington, D.C. (DC LE 2).

For specific information about a particular channel, please contact the FBI Telecommunications Manager at the provided FBI Field Office telephone number below. To program the channels, please request the complete list of 25 Cities frequencies from the 25 Cities Program Manager:

Brian Zuniga, DOJ/FBI

703-985-1165

BOZUNIGA@FBI.GOV

Table 56: 25 Cities Regions and Systems

REGION	CHANNEL NAME	SYSTEM DESCRIPTION	PHONE
CHICAGO	CGCOM-N	VHF P25 multicast 125-watt voted repeater system, 20 receiver sites x3	312-421-6700
	CGCOM-C		
	CGCOM-S		
	CGTAC-N	VHF P25 multicast 125-watt voted repeater system, 20 receiver sites x3	
	CGTAC-C		
	CGTAC-S		
MILWAUKEE	MW LE4	VHF P25 350-watt voted repeater system, 3 receiver sites	414-276-4684
	MW LE3	VHF P25 125-watt standalone repeater - Beloit	
	MW LE3	VHF P25 125-watt standalone repeater – Green Bay	
	MW LE2	VHF P25 125-watt standalone repeater - Madison	
ST. LOUIS	STL CALL	VHF P25 350-watt voted repeater system, 9 receiver sites x 2	314-589-2500
	STL TAC		
NATIONWIDE	J-SMART	Ligado Satellite Interoperability Talkgroup MSAT Satellite Radio PTT/one-to-many	1-888-664-6727 Network Innovations

[4] US Dept of Homeland Security, National Interoperability Field Operations Guide (Ver. 1.6.1, June 2016), 52-57.

APPENDIX F AMATEUR RADIO

App. F-1 Amateur Radio Frequencies

Amateur radio frequencies are open and not subject to the non-disclosure rules of other radio services. Therefore, these communications should be treated as "open mike" communications and sensitive information should not be sent via amateur radio.

Table 57: Illinois AUXCOMM Amateur Frequencies

AUXCOMM AMATEUR FREQUENCIES				
NAME	RX FREQ.	TX FREQ	MODE	PURPOSE
3905	3.90500	3.90500	LSB	Primary HF
7230	7.23000	7.23000	LSB	Secondary HF
IDEN	145.61000	145.61000	FM Packet 1200 Baud	WINLINK
IL2A	146.52000	146.52000	FM (Wideband)	Nationwide Calling
IL2B	147.52500	147.52500	FM (Wideband)	
IL2C	147.57000	147.57000	FM (Wideband)	
ILUHFA	446.00000	446.00000	FM (Wideband)	Nationwide Calling
ILUHFB	446.40000	446.40000	FM (Wideband)	
ILUHFC	446.70000	446.70000	FM (Wideband)	For Fritz
***Note**: Transmitting on amateur radio frequencies requires an appropriately licensed amateur radio operator. Refer to FCC Rules, Part 97, or the American Radio Relay League for more detailed information.*				

App. F-2 Illinois Amateur Radio Repeaters

Illinois has many amateur radio repeaters that can be used by licensed amateur radio operators to support all-hazards incidents. Those listed below are suggested as an initial coordination and hailing channel. Additional information on other local repeaters may be obtained by visiting http://www.ilra.net or http://www.repeaterbook.com.

Table 58: Amateur Radio VHF/UHF Repeaters (North)

ILLINOIS AMATEUR VHF/UHF REPEATERS NORTH ZONE							
COUNTY	IDENTIFIER	RRECEIVE		TRANSMIT		MODE	REMARKS
		FREQUENCY	TONE	FREQUENCY	TONE		
LAKE	LIBERTYVILLE	147.180	127.3	147.780	127.3	A	
LAKE	LIBERTYVILLE	442.525	114.8	447.525	114.8	A	
LAKE	LAKE ZURICH	443.850	114.8	448.850	114.8	A	
LAKE	-	442.975	114.8	447.975	114.8	A	
HENRY	GALVA	145.490	225.7	144.890	225.7	A/D	C4FM
HENRY	KEWANEE	442.175	225.7	447.175	225.7	A/D	C4FM
KNOX*	GALEBURG	147.000	103.5	146400	103.5	A/D	C4FM
KNOX	GALESBURG	444.450	103.5	449.450	103.5	A/D	C4FM
KNOX	GALESBURG	147.210	107.2	147.810	107.2	A/D	C4FM
COOK	PALATINE	442.800	114.8	447.800	114.8	A	
COOK	ARLINGTON	441.500	123.0	446.500	123.0	A	

Table 59: Amateur Radio VHF/UHF Repeaters (Central)

ILLINOIS AMATEUR VHF/UHF REPEATERS CENTRAL ZONE							
COUNTY	IDENTIFIER	RECEIVE		TRANSMIT		MODE	REMARKS
		FREQUENCY	TONE	FREQUENCY	TONE		
BOND*	GREENVILLE	147.165	103.5	147.765	103.5	D	P25
MACOPIN	VIRDEN	444.250	103.5	449.250	103.5	A	
MACOPIN*	CARLINVILLE	146.865	103.5	146.265	103.5	A	
MARION	CENTRALIA	442.200	103.5	447.200	103.5	A	
MACON	DECATUR	443.800	77.0	448.800	77.0	A	
MCLEAN	BLOOMINGTON	146.790	103.5	146.190	103.5	A	
OGLE*	CHANA	147.165	146.2	147.765	103.5	A/D	P25 NAC 293
CLAY*	FLORA	146.700	103.5	146.100	103.5	A	
CLAY	FLORA	442.075		442.065		A/D	C4FM
RICHLAND*	NOBLE	146.760	94.8	146.160	94.8	A/D	C4FM
RICHLAND	NOBLE	442.375	71.9	447.375	71.9	A/D	C4FM
MENARD*	ATHENS	147.045	103.5	147.645	103.5	A	
SANGAMON*	SPRINGFIELD	443.000	94.8	448.000	94.8	A	
SANGAMON	SPRINGFIELD	443.70625	CC 5	448.70625	CC 5	D	DMR
SHELBY*	WILLIAMSBURG	147.390	203.5	147.990	203.5	A	
IROQUIS *	CRESENTY CITY	147.030	103.5	147.630	103.5	A	
IROQUIS	WATSEKA	444.625	103.5	449.625	103.5	A	
MACOUPIN	GILLESPIE	444.250	103.5	449.250	103.5	A	
MACOUPIN*	CARLINVILLE	146.865	103.5	146.265	103.5	A	
MACOUPIN	GILLESPIE	146.8200	CSQ	146.2200	CSQ	A	
OGLE*	CHANA	147.1650	146.2	147.7650	146.2	A	
SANGAMON	SPRINGFIELD	146.6850	94.5	146.0850	94.5	A	
MORGAN	JACKSONVILLE	146.7750	103.5	146.1750	103.5	A	
SANGAMON	PAWNEE	146.8050	94.8	146.2050	94.8	A	
CHRISTIAN	TAYLORVILLE	146.9950	79.7	146.3950	79.7	A	
SANGAMON	SPRINGFIELD	443.78125		448.78125		D	D-STAR REF051ID
LOGAN	MT. PULASKI	443.825	94.8	448.825	94.8	A	
SANGAMON	SPRINGFIELD	444.325	94.8	449.325	94.8	D	FUSION
SANGAMON	SPRINGFIELD	444.400	103.5	449.400	103.5	D	Also DMR CC5 (link is external)
SANGAMON	CANTRALL	444.500	CC1	449.500	CC1	D	DMR

Table 60: Amateur Radio VHF/UHF Repeaters (South)

ILLINOIS AMATEUR VHF/UHF REPEATERS SOUTH ZONE							
COUNTY	IDENTIFIER	RECEIVE		TRANSMIT		MODE	REMARKS
		FREQUENCY	TONE	FREQUENCY	TONE		
JEFFERSON	MT. VERNON	147.135	88.5	147.735	88.5	A	
POPE*	HEROD	146.880	CSQ	146.280	88.5	A	LINKED TO AVA
JACKSON*	AVA	147.090	CSQ	147.690	88.5	A	LINKED TO HEROD
UNION*	ALTO PASS	146.850	CSQ	146.250	88.5	A	
JOHNSON	TUNNEL HILL	147.345	CSQ	147.945	88.5	A	
FRANKLIN	BENTON	146.805	CSQ	146.205	88.5	A	
MASSAC	METROPOLIS	146.225	CSQ	146.825	123	A	
WABASH	MT. CARMEL	146.940	94.8	146.340	94.8	A/D	C4FM
WABASH	MT. CARMEL	444.725	114.8	449.725	114.8	A	
WABASH	MT. CARMEL	444.775	114.8	449.775	114.8	A/D	C4FM
WABASH	-	443.875	151.4	448.875	151.4	A	
INDIANA	EVANSVILLE	147.150	91.5	147.750	91.5	A	

App. F-3 Amateur Global Automatic Link Establishment (ALE) HF Network

The main purpose of ALE is emergency/disaster relief communications, and the focus is to provide a framework to help the various Emergency Communications (Emcomm) and relief organizations in North America and around the world inter-operate more effectively on High Frequency (HF). All ham operators are welcome and invited to participate in the net on the air at any hour of the day or night for normal contacts (QSOs) and messages, soundings, or priority Emcomm use.

Ham radio ALE operators in North America who can potentially participate in supporting response communications at their own stations are encouraged to commence scanning operations on the ALE channels during hurricane emergency and disaster relief events. North America Emcomm ALE Voice single-sideband (SSB) frequencies are listed in the table below. During significant hurricanes in the North America region, Pilot Station Operators of the Global ALE High Frequency Network are on alert, scanning the standard ALE Data/HF-email/HF-phone-texting/HF-relay frequencies listed below.

Table 61: North America Emcomm ALE Frequencies

DESCRIPTION	NET CALL: HFN		NET CALL: HFL	
Net Type	Open Primary DATA Net		Open Primary VOICE Net	
Net Usage	Global ALE High Frequency Network		Voice Net, and International Emergency/ Disaster Relief Net	
Slots	10 Time Slots, any ham may join this net in Slot #1 only. All other slots are reserved for HFN Pilot Stations		10 Time Slots, any Ham Operator may join this net in any random Slot.	
Sounding	Automatic, scan all channels on this list		Manual, scan only the appropriate channels for your geographic area as show in this table	
Channels (KHz, Single Sideband)	3596.0 USB	International	3791.0 USB	International
	7102.0 USB	International	3845.0 USB	North America East
	10145.5 USB	International	3996.0 USB	North America West
	14109.0 USB	International	7185.5 USB	International, N. America East
	18106.0 USB	International	7296.0 USB	North America West
	21096.0 USB	International	14346.0 USB	International
	24926.0 USB	International	18117.5 USB	International
	28146.0 USB	International	21432.5 USB	International
			24932.0 USB	International
			28312.5 USB	International

The services currently provided by stations in the Global ALE High Frequency network, using Automatic Link Establishment, include HF SMS Phone Texting, Text HF Email, real-time-activity tracking, HF-to-HF Relay, Net Call-ups, Net announcements, and individual station direct HF calling. Real-time activity of who is on the air and able to communicate with each other is tracked by the network of reporting stations through what is known as "ALE Channel Zero" on the web. See http://www.hflink.com for further info.

APPENDIX G STARCOM21 TRUNKED RADIO SYSTEM

STARCOM21 serves as the foundation of Illinois interoperable communications and is used for day-to-day state and local agency interoperability and statewide interoperability for incidents and events at and above Level 3.

The STARCOM21 P25 network is a 700/800 MHz trunked voice radio platform that is owned, operated, and maintained by Motorola. STARCOM 21 consists of over 300 linked sites and provides radio communications, services, and interoperability to federal, state, county, and local public safety entities participating on the system. STARCOM21 provides mobile radio coverage in more than 95 percent of the geographic area of Illinois with a grade-of-service level of five percent or greater.

System Name	STARCOM21			
Owning/Responsible Agency	Illinois State Police Communication Services Bureau			
State/County of Origin	Illinois, Sangamon			
24/7 Phone	866-297-6342			
Primary Point of Contact (POC)	STARCOM Network Operations Center (NOC)			
POC Title				
POC Phone	(866) 297-6342			
POC Email	starcom@motorolasolutions.com			
System Frequency Band(s)	☐ VHF-High ☐ VHF-Federal ☐ 220 MHz	☐ UHF ☐ UHF-Federal ☐ Other	☐ 700 MHz ☐ HF ☒ 700/800 MHz	☐ 800 MHz ☐ VHF-Low
System Type	☐ Conventional	☒ Trunked	☐ Both	☐ Unknown
Analog or Digital	☐ Analog	☒ Digital	☐ Mixed	☐ Unknown
WACN ID (P-25 Trunked only)	BEE00			
System ID (P-25 Trunked only)	140h			
P-25 Compliance	☐ None	☒ P-25 Phase I	☒ P-25 Phase II	☐ Unknown
Bandwidth	☒ Narrowband	☐ Wideband	☐ Both	☐ Unknown
Encryption Supported	☒ AES-256 ☐ DES-OFB ☐ None	☐ ADP ☐ DES-XL	☐ DVP ☐ DVP-XL ☐ Unknown	☐ 3DES ☐ Other
ISSI/IP Gateway	☐ None	☐ ISSI	☐ IP Gateway	☐ Unknown
Notes				
Agencies Served	Agencies in all Illinois Counties			
Counties Used	Statewide			

TRUNKED SYSTEM ENCRYPTION KEYS (SWIT ONLY)												
Key Name	Key ID (Hex)	SLN/CKR (Dec.)	Encryption Algorithm Used									
			P25			NON-P25						
SIEC1401	0579	1401	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
LAW1402	057A	1402	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
FIRE1403	057B	1403	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
EMA1404	057C	1404	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
DOT1405	057D	1405	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
911_1407	057F	1407	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
TECH1408	0580	1408	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
TERT1409	0581	1409	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		
MABAS1501	05DD	1501	☒ AES-256 ☐ DES-OFB			☐ ADP ☐ DES-XL		☐ DVP ☐ DVP-XL		☐ 3DES ☐ OTHER		

INTEROPERABILITY TALKGROUPS (SWIT ONLY)						
SWIT TALKGROUP NAME	TALKGROUP ID	DEC. OR HEX	MODE	ENC. KEY (IF APPLICABLE)	ITTF TALKGROUP NAME	ZONE
IL-CALL	30328	Dec.			IESMA	CALLING
ILEAS	30329	Dec.			ILEAS	CALLING
MABAS	30330	Dec.			MABAS	CALLING
IDPH	30331	Dec.			IDPH	CALLING
IPWMAN	30339	Dec.			IPWMAN	CALLING
EMA	30300	Dec.			NORTH A	CALLING
IL-RGN 2	30304	Dec.			RGN 2B	CALLING
IL-RGN 3	30306	Dec.			RGN 3B	CALLING
IL-RGN 4	30320	Dec.			RGN 4B	CALLING
IL-RGN 6	30322	Dec.			RGN 6B	CALLING
IL-RGN 7	30324	Dec.			RGN 7B	CALLING
IL-RGN 8	30326	Dec.			RGN 8B	CALLING
IL-RGN 9	30336	Dec.			RGN 9B	CALLING
IL-RGN11	30338	Dec.			RGN 11B	CALLING
IL-102A	30302	Dec.			SOUTH A	CALLING
IL-102B	30344	Dec.			SOUTH B	CALLING
IL-INC A1	30332	Dec.			INCIDNT1	INCIDENT A
IL-INC A2	30333	Dec.			INCIDNT2	INCIDENT A
IL-INC A3	30334	Dec.			INCIDNT3	INCIDENT A
IL-INC A4	30340	Dec.			INCIDNT4	INCIDENT A
IL-INC A5	30341	Dec.			INCIDNT5	INCIDENT A
IL-INC A6	30303	Dec.			RGN 2A	INCIDENT A
IL-INC A7	30305	Dec.			RGN 3A	INCIDENT A
IL-INC A8	30307	Dec.			RGN 4A	INCIDENT A
IL-INC A9	30321	Dec.			RGN 6A	INCIDENT A
IL-INC A10	30323	Dec.			RGN 7A	INCIDENT A
IL-INC A11	30325	Dec.			RGN 8A	INCIDENT A
IL-INC A12	30335	Dec.			RGN 9A	INCIDENT A
IL-INC A13	30337	Dec.			RGN 11A	INCIDENT A
IL-INC A14	30342	Dec.			NORTH B	INCIDENT A
IL-INC A15	30301	Dec.			CENTER A	INCIDENT A
IL-INC A16	30343	Dec.			CENTER B	INCIDENT A
IL-INC B1	37108	Dec.			(NEW)	INCIDENT B
IL-INC B2	37109	Dec.			(NEW)	INCIDENT B
IL-INC B3	37110	Dec.			(NEW)	INCIDENT B
IL-INC B4	37111	Dec.			(NEW)	INCIDENT B
IL-INC B5	37112	Dec.			(NEW)	INCIDENT B
IL-INC B6	37113	Dec.			(NEW)	INCIDENT B
IL-INC B7	37114	Dec.			(NEW)	INCIDENT B
IL-INC B8	37115	Dec.			(NEW)	INCIDENT B
IL-INC B9	37116	Dec.			(NEW)	INCIDENT B
IL-INC B10	37117	Dec.			(NEW)	INCIDENT B
IL-INC B11	37118	Dec.			(NEW)	INCIDENT B
IL-INC B12	37119	Dec.			(NEW)	INCIDENT B
IL-INC B13	37120	Dec.			(NEW)	INCIDENT B
IL-INC B14	37121	Dec.			(NEW)	INCIDENT B
IL-INC B15	37122	Dec.			(NEW)	INCIDENT B
IL-INC B16	37123	Dec.			(NEW)	INCIDENT B
IL-RSV 1	37124	Dec.			(NEW)	RESERVE A
IL-RSV 2	37125	Dec.			(NEW)	RESERVE A
IL-RSV 3	37126	Dec.			(NEW)	RESERVE A
IL-RSV 4	37127	Dec.			(NEW)	RESERVE A

INTEROPERABILITY TALKGROUPS (SWIT ONLY)						
SWIT TALKGROUP NAME	TALKGROUP ID	DEC. OR HEX	MODE	ENC. KEY (IF APPLICABLE)	ITTF TALKGROUP NAME	ZONE
IL-RSV 5	37128	Dec.			(NEW)	RESERVE A
IL-RSV 6	37129	Dec.			(NEW)	RESERVE A
IL-RSV 7	37130	Dec.			(NEW)	RESERVE A
IL-RSV 8	37131	Dec.			(NEW)	RESERVE A
IL-RSV 9	37132	Dec.			(NEW)	RESERVE A
IL-RSV 10	37133	Dec.			(NEW)	RESERVE A
IL-RSV 11	37134	Dec.			(NEW)	RESERVE A
IL-RSV 12	37135	Dec.			(NEW)	RESERVE A
IL-RSV 13	37136	Dec.			(NEW)	RESERVE A
IL-RSV 14	37137	Dec.			(NEW)	RESERVE A
IL-RSV 15	37138	Dec.			(NEW)	RESERVE A
IL-RSV 16	37139	Dec.			(NEW)	RESERVE A
IL-SEC A1	5961	Dec.		SIEC1401	SECURE1	SECURE A
IL-SEC A2	5962	Dec.		SIEC1401	SECURE2	SECURE A
IL-SEC A3	5963	Dec.		SIEC1401	SECURE3	SECURE A
IL-SEC A4	5964	Dec.		SIEC1401	SECURE4	SECURE A
IL-SEC A5	5965	Dec.		SIEC1401	SECURE5	SECURE A
IL-SEC A6	5966	Dec.		SIEC1401	SECURE6	SECURE A
IL-SECLAW7	5969	Dec.		LAW1402	SECLAW1	SECURE A
IL-SECLAW8	5970	Dec.		LAW1402	SECLAW2	SECURE A
IL-SECLAW9	5967	Dec.		LAW1402	SECURE7	SECURE A
IL-SECLAW10	5968	Dec.		LAW1402	SECURE8	SECURE A
IL-SECFIRE11	5971	Dec.		FIRE1402	SECFIRE1	SECURE A
IL-SECFIRE12	5972	Dec.		FIRE1402	SECFIRE2	SECURE A
IL-SECEMA13	5973	Dec.		EMA1404	SECEMA1	SECURE A
IL-SECEMA14	5974	Dec.		EMA1404	SECEMA2	SECURE A
IL-SECDOT15	5975	Dec.		DOT1405	SECDOT1	SECURE A
IL-SECDOT16	5976	Dec.		DOT1405	SECDOT2	SECURE A
IL-SEC B1	37140	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B2	37141	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B3	37142	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B4	37143	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B5	37144	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B6	37145	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B7	37146	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B8	37147	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B9	37148	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B10	37149	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B11	37150	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B12	37151	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B13	37152	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B14	37153	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B15	37154	Dec.		SIEC1401	(NEW)	SECURE B
IL-SEC B16	37155	Dec.		SIEC1401	(NEW)	SECURE B
NWS-CHI	37156	Dec.			(NEW)	NWS
NWS-QUAD	37157	Dec.			(NEW)	NWS
NWS-LINC	37158	Dec.			(NEW)	NWS
NWS-STL	37159	Dec.			(NEW)	NWS
NWS-PDK	37160	Dec.			(NEW)	NWS
NWS-MKE	37161	Dec.			(NEW)	NWS
NWS-SW	37162	Dec.			(NEW)	NWS
MABAS	30330	Dec.			MABAS	MABAS
MABAS SEC	4831	Dec.		MABAS1501	MABASSEC	MABAS

INTEROPERABILITY TALKGROUPS (SWIT ONLY)						
SWIT TALKGROUP NAME	TALKGROUP ID	DEC. OR HEX	MODE	ENC. KEY (IF APPLICABLE)	ITTF TALKGROUP NAME	ZONE
MABAS OPS1	4830	Dec.			OPS	MABAS
MABAS OPS2	4839	Dec.			(NEW)	MABAS
MABAS OPS3E	4836	Dec.		MABAS1501	OPS SEC	MABAS
MABAS OPS4E	4840	Dec.		MABAS1501	(NEW)	MABAS
IL-HZMT	4827	Dec.			HAZMAT	MABAS
IL-HZMT SEC	4833	Dec.		MABAS1501	HZMT SEC	MABAS
IL-TRT	4828	Dec.			TRT	MABAS
IL-TRT SEC	4834	Dec.		MABAS1501	TRT SEC	MABAS
IL-TERT N	37105	Dec.		TERT1409	(NEW)	9-1-1
IL-TERT C	37106	Dec.		TERT1409	(NEW)	9-1-1
IL-TERT S	37107	Dec.		TERT1409	(NEW)	9-1-1
911 CAC	37101	Dec.		911_1407	(NEW)	9-1-1
911 SUP	37102	Dec.		911_1407	(NEW)	9-1-1
911 TECH	37103	Dec.		911_1407	(NEW)	9-1-1
R-TECH	37104	Dec.		TECH1408	(NEW)	9-1-1

APPENDIX H FIXED INTEROPERABILITY RESOURCES

Fixed interoperability resources include communications equipment that is permanently installed in a fixed location and cannot be transported to the scene of an incident or planned event. Fixed resources include Fixed Repeaters and Gateways. Fixed interoperability resources available for statewide use are described in the following sections.

App. H-1 Fixed Interoperability Repeaters

Some agencies have fixed-site repeaters to provide interoperable communications allowing efficient coordination of first responders during an incident or planned event. The tables below list the interoperability repeater(s) and are organized by frequency band. The managing agency handles requests for activation and deactivation of interoperability repeaters.

Table 62: UHF Band Interoperability Repeaters

UHF BAND INTEROPERABILITY REPEATERS					
REGION	COUNTY	AGENCY [1]	AGENCY PHONE	TOWER LOCATION	CHANNEL[2]
3	Grundy	Grundy County 911 Center	815-942-0336	IL47/IL113 Morris	UCALL40, ALL UTAC
4	DuPage	Illinois Tollway	630-241-6800	I-355/Army Trail Addison	UCALL40, ALL UTAC
4	Cook	Chicago OEMC	312-746-9241	Chicago	UCALL40, ALL UTAC[3]
4	Cook	Chicago OEMC	312-746-9241	Chicago	UCALL40, ALL UTAC[3]
4	Lake	Illinois Tollway	630-241-6800	I-94/IL137 Libertyville	UCALL40, ALL UTAC
4	Cook	Illinois Tollway	630-241-6800	I-294/I-80 Markham	UCALL40, ALL UTAC
4	Cook	Illinois Tollway	630-241-6800	I-294/55th St Western Springs	UCALL40, ALL UTAC
[1] Unless otherwise noted, make requests through the IEMA & OHS Operations Center at 217-782-7860. [2] ALL UTAC signifies that all tactical UHF channels (UTAC41 through UTAC43) are available. [3] Can be patched to VHF or UHF conventional channels.					

Table 63: 700 MHz Band Interoperability Repeaters

700 MHZ BAND INTEROPERABILITY REPEATERS					
REGION	COUNTY	AGENCY [1]	AGENCY PHONE	TOWER LOCATION	CHANNEL[2]
2	Rock Island	Rock Island County		Illinois	7TAC55
2	Rock Island	Rock Island County		Port Byron	7TAC56
[1] Unless otherwise noted, make requests through the IEMA & OHS Operations Center at 217-782-7860. [2] Can be patched to VHF or UHF conventional channels.					

Table 64: 800 MHz Band Interoperability Repeaters

800 MHZ BAND INTEROPERABILITY REPEATERS					
REGION	COUNTY	AGENCY [1]	AGENCY PHONE	TOWER LOCATION	CHANNEL[2]
2	Boone	Illinois Tollway	630-271-7586	I-90/US20, Belvidere	8CALL90 ALL 8TAC
2	Ogle	Illinois Tollway	630-271-7586	I-88/I-39, Rochelle	8CALL90 ALL 8TAC
2	Rock Island	ISP Sterling	815-632-4010	800 Hillcrest, East Moline	8CALL90, 8TAC91
3	Grundy	Grundy Co SO	815-942-0336	IL47/IL113, Morris	8CALL90, ALL 8TAC
3	Grundy	Grundy Co. SO	815-942-0336	IL47/IL113, Morris	8CALL90, 8TAC91, 8TAC92
3	Kane	Elgin PD	847-289-2700	120 S State St, Elgin	8CALL90, 8TAC91
3	Kane	Illinois Tollway	630-271-7586	I-88/IL25, Aurora	8CALL90 ALL 8TAC
3	Kankakee	ISP Pontiac	815-844-1500	500 Kinzie Ave, Bradley	8CALL90, 8TAC92
3	Will	Illinois Tollway	630-271-7586	I-355/127th St., Lemont.	8CALL90, ALL 8TAC
3	Will	Will County EMA	815-740-0911	I-355/Spring Brook Toll Plaza	8CALL90, 8TAC91 8TAC92, 8TAC94

800 MHZ BAND INTEROPERABILITY REPEATERS					
REGION	COUNTY	AGENCY [1]	AGENCY PHONE	TOWER LOCATION	CHANNEL[2]
4	Cook	Chicago OEMC	312-746-9241	Chicago	8CALL90, ALL 8TAC [3]
4	Cook	Chicago OEMC	312-746-9241	Chicago	8CALL90, ALL 8TAC [3]
4	Cook	Cook County SO	847-294-4733	26th/California, Chicago	8TAC91
4	Cook	Cook County SO	847-294-4733	IL58/Barrington Rd., Hoffman Estates	8TAC92
4	Cook	Cook County SO	847-294-4733	Ashland/Sauk Trail, Palos Park	8TAC93
4	Cook	Cook County SO	847-294-4733	McCarthy/Wolf Rd., Steger	8TAC94
4	Cook	Illinois Tollway	630-271-7586	I-294/I-80, Markham	8CALL90, ALL 8TAC
4	Cook	Illinois Tollway	630-271-7586	I-294/55th St., Western Springs	8CALL90, ALL 8TAC
4	Cook	NW Central Disp.	847-398-1130	1975 East Davis St., Arlington Hts.	8CALL90, ALL 8TAC
4	DuPage	Illinois Tollway	630-271-7586	I-355/I-88, Lisle	8TAC91, 8TAC94
4	Kane	Illinois Tollway	630-271-7586	I-90/IL25, Elgin	8CALL90, ALL 8TAC
4	Lake	Illinois Tollway	630-271-7586	I-294/ I-94, Deerfield	8CALL90, ALL 8TAC
4	Lake	Illinois Tollway	630-271-7586	I-94/IL132, Gurnee	8CALL90, ALL 8TAC
4	Lake	Lake County SO	847-549-5200	1303 N Milwaukee, Libertyville	8CALL90, ALL 8TAC
6	Christian	ISP Springfield	217-786-6677	Route 29, Taylorville	8CALL90, 8TAC92
6	Peoria	ISP Pontiac	815.844.1500	6035 N Knoxville, Peoria	8CALL90, 8TAC92
6	Sangamon	ISP Springfield	217-786-6677	3700 Lake Shore Dr., Springfield	8CALL90, 8TAC91, 8TAC92
7	McLean	ISP Pontiac	815-844-1500	Waterson Dorm, Normal	8CALL90, 8TAC92
8	St. Clair	St Clair County	618-971-5409	3001 Save Rd., Bellville	8CALL90, 8TAC91
8	St. Louis MO	St Louis PD	314-231-1212	1200 Clark, St. Louis	8CALL90, ALL 8TAC
9	Effingham	ISP Du Quoin	618-542-2171	4320 N 950th St., Mason	8CALL90, 8TAC92

[1] Unless otherwise noted, make requests through the IEMA & OHS Operations Center at 217-782-7860.
[2] ALL 8TAC signifies that all four tactical 800 MHz channels (8TAC91 through 8TAC94) are available.
[3] Can be patched to VHF or UHF conventional channels.

APPENDIX I STRATEGIC TECHNOLOGY RESERVE (STR)

The state of Illinois has developed the STR: pre-positioned, interoperable communications assets that support interoperable communications and can restore basic communications when terrestrial communications are non-existent, or severely compromised. The STR equipment includes Mission Ready Packages and Deployable Communications Resources, and are described in this Appendix.

App. I-1 STR Locations

Illinois STR Resources locations are shown by IEMA & OHS Region in the maps below.

App. I-1(a) IEMA & OHS Region 2

Figure 18: STR Locations - IEMA & OHS Region 2

App. I-1(b) IEMA & OHS Region 3

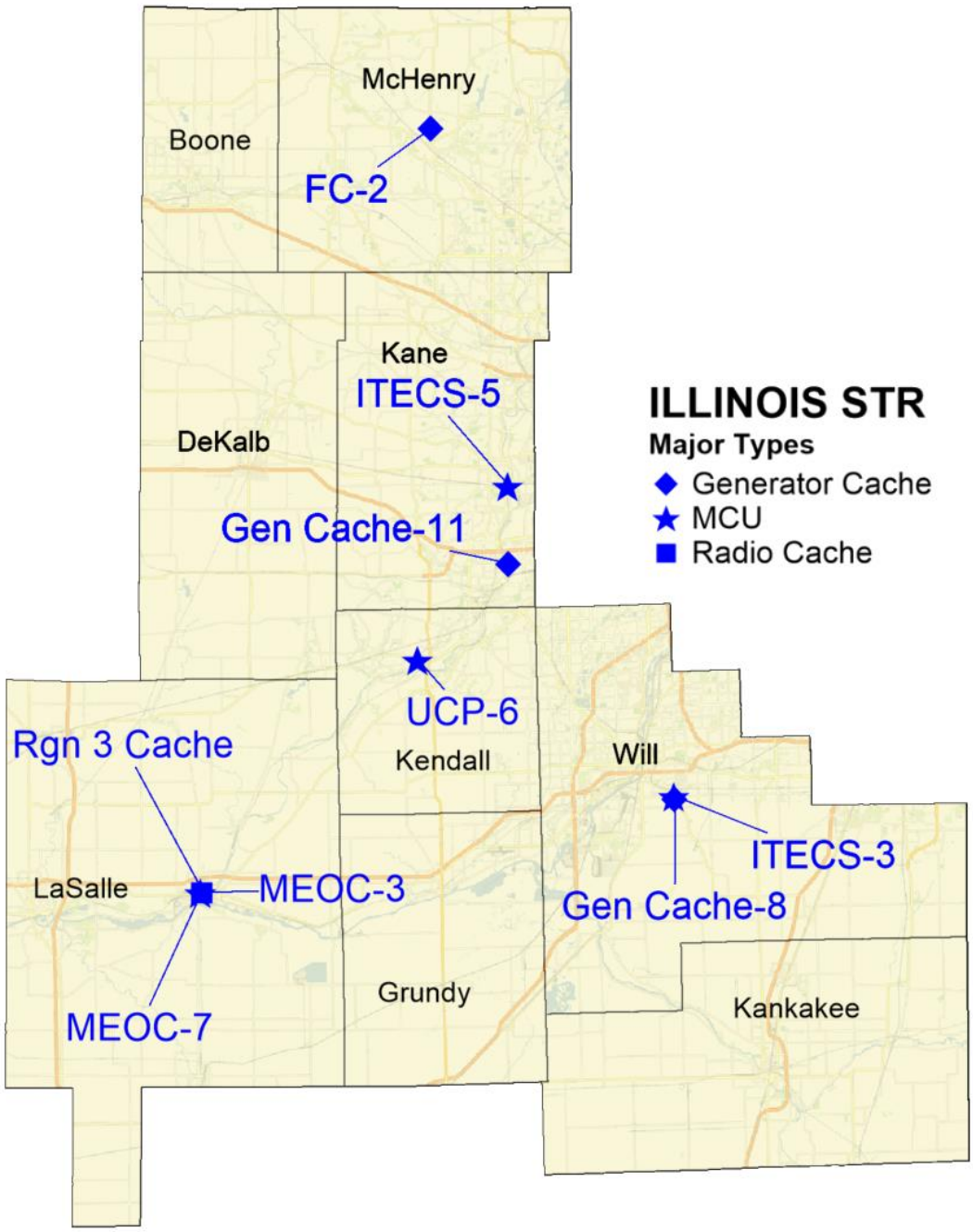

Figure 19: STR Locations - IEMA & OHS Region 3

App. I-1(c) IEMA & OHS Region 4

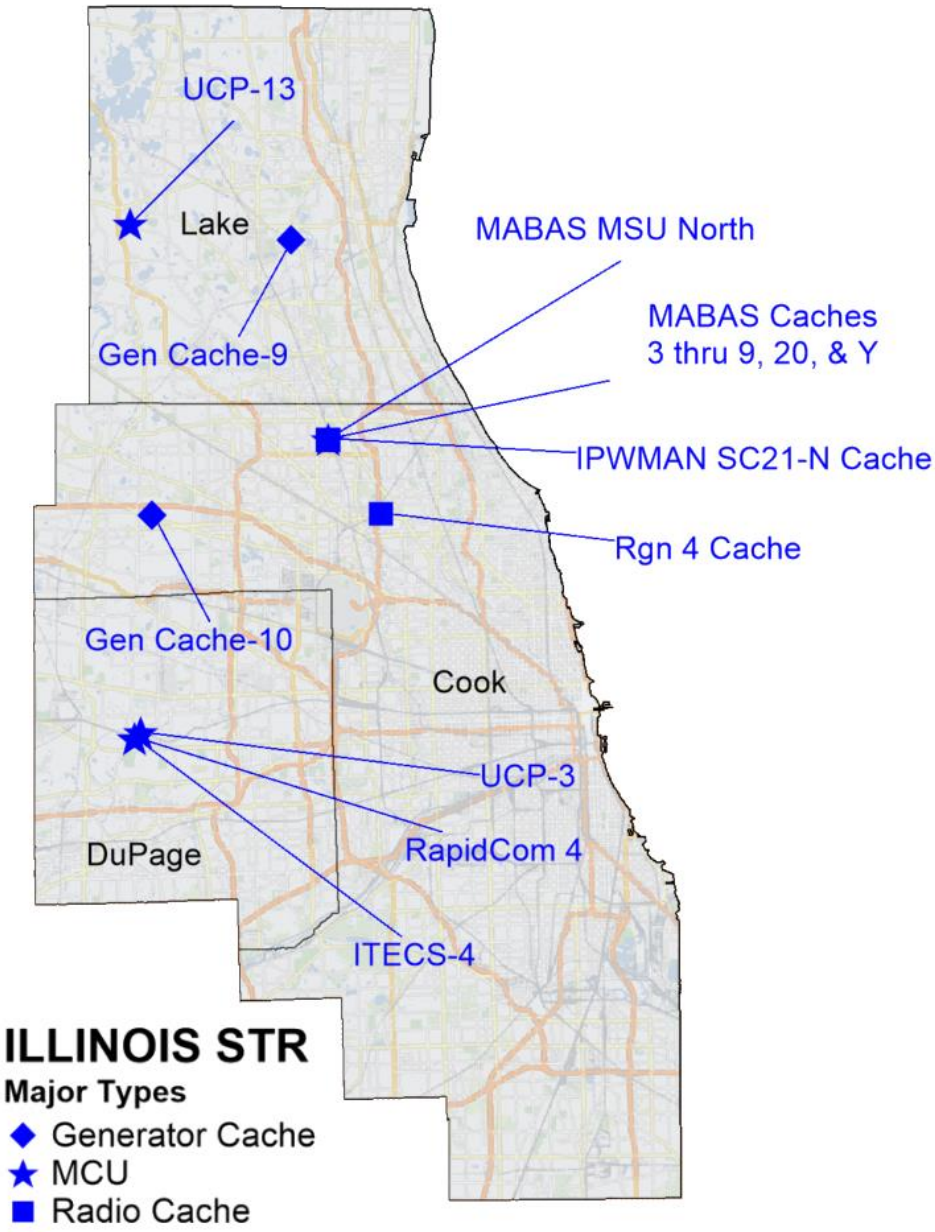

Figure 20: STR Locations - IEMA & OHS Region 4

App. I-1(d) IEMA & OHS Region 6

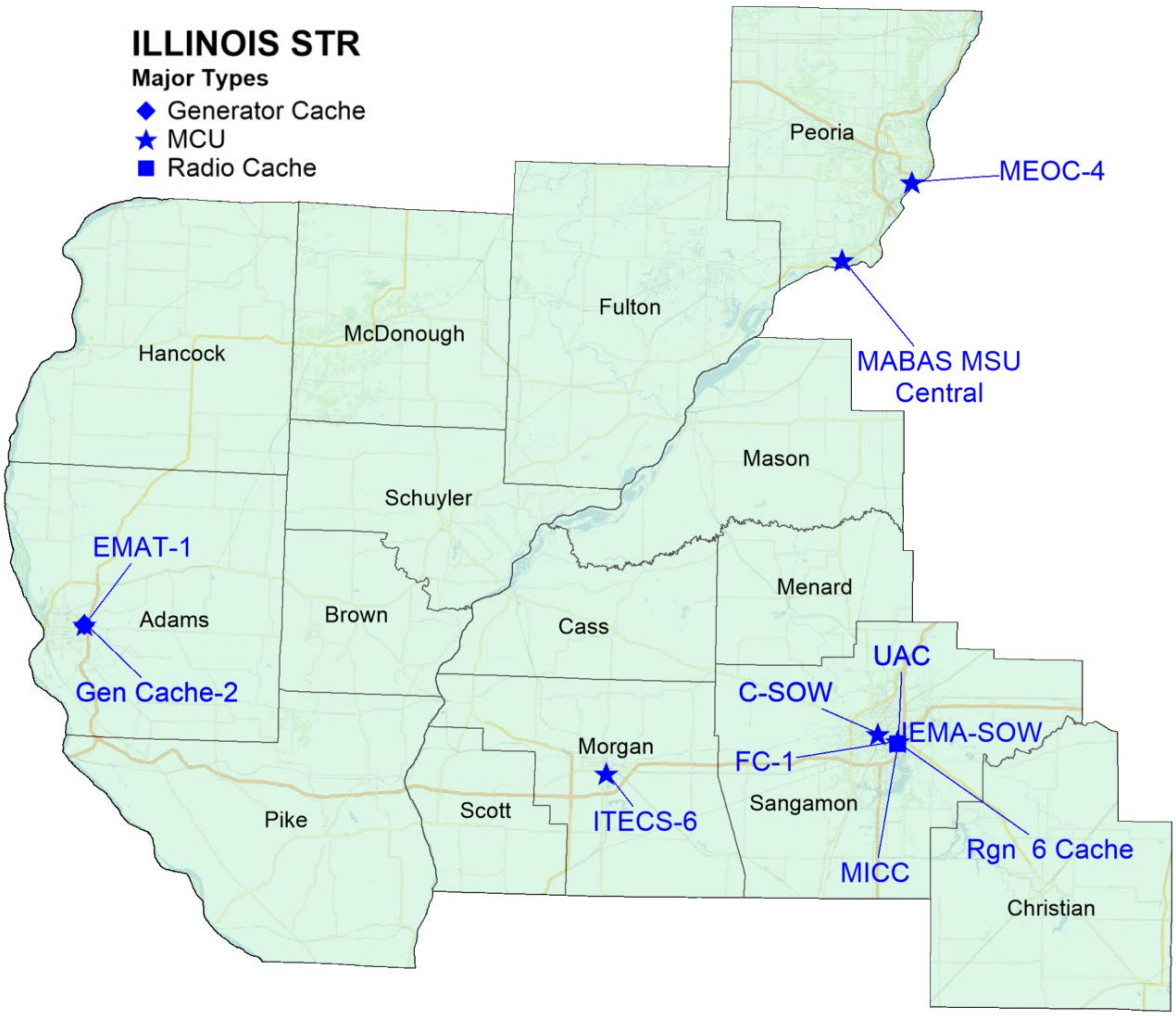

Figure 21: STR Locations - IEMA & OHS Region 6

App. I-1(e) IEMA & OHS Region 7

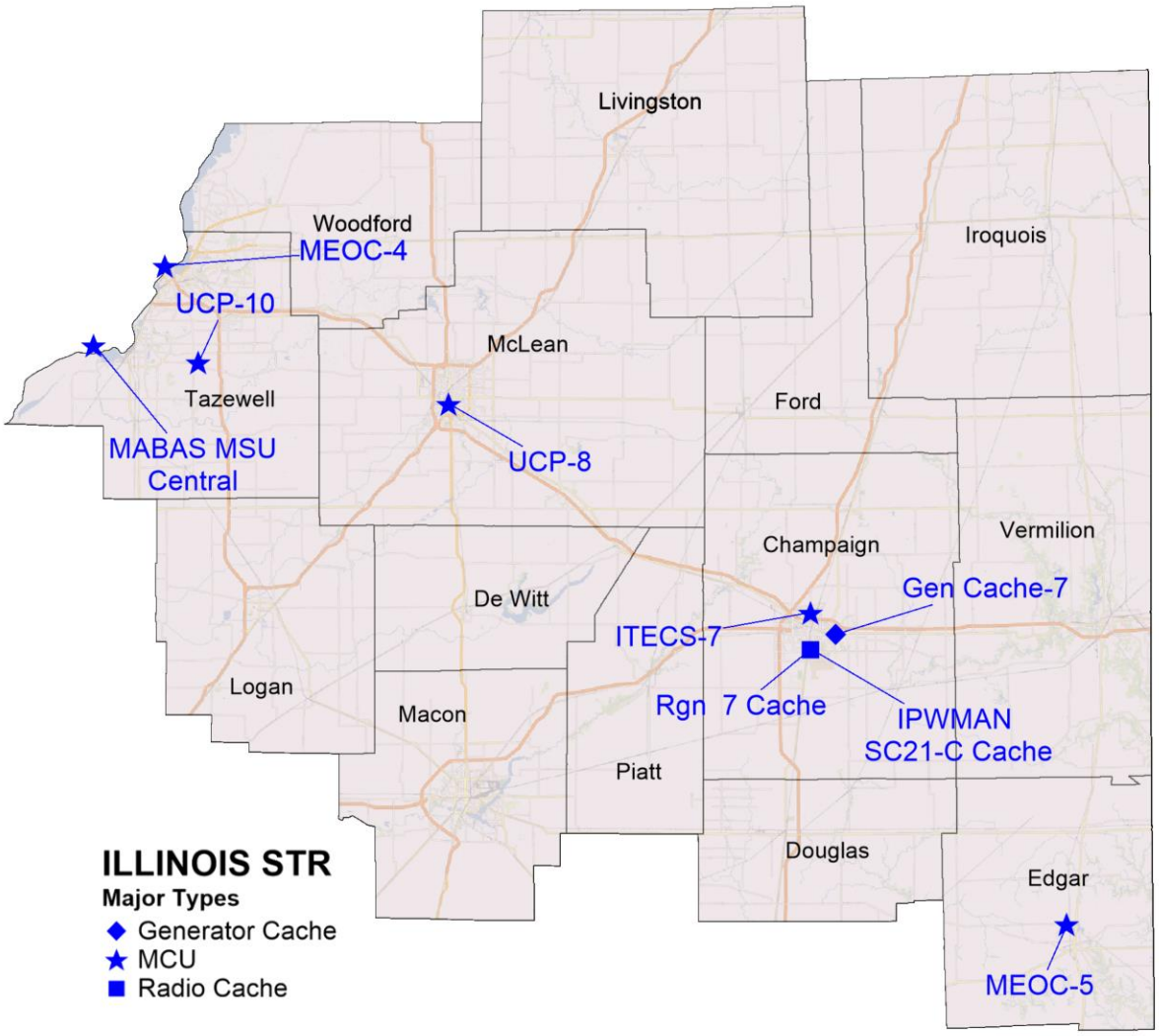

Figure 22: STR Locations - IEMA & OHS Region 7

App. I-1(f) IEMA & OHS Region 8

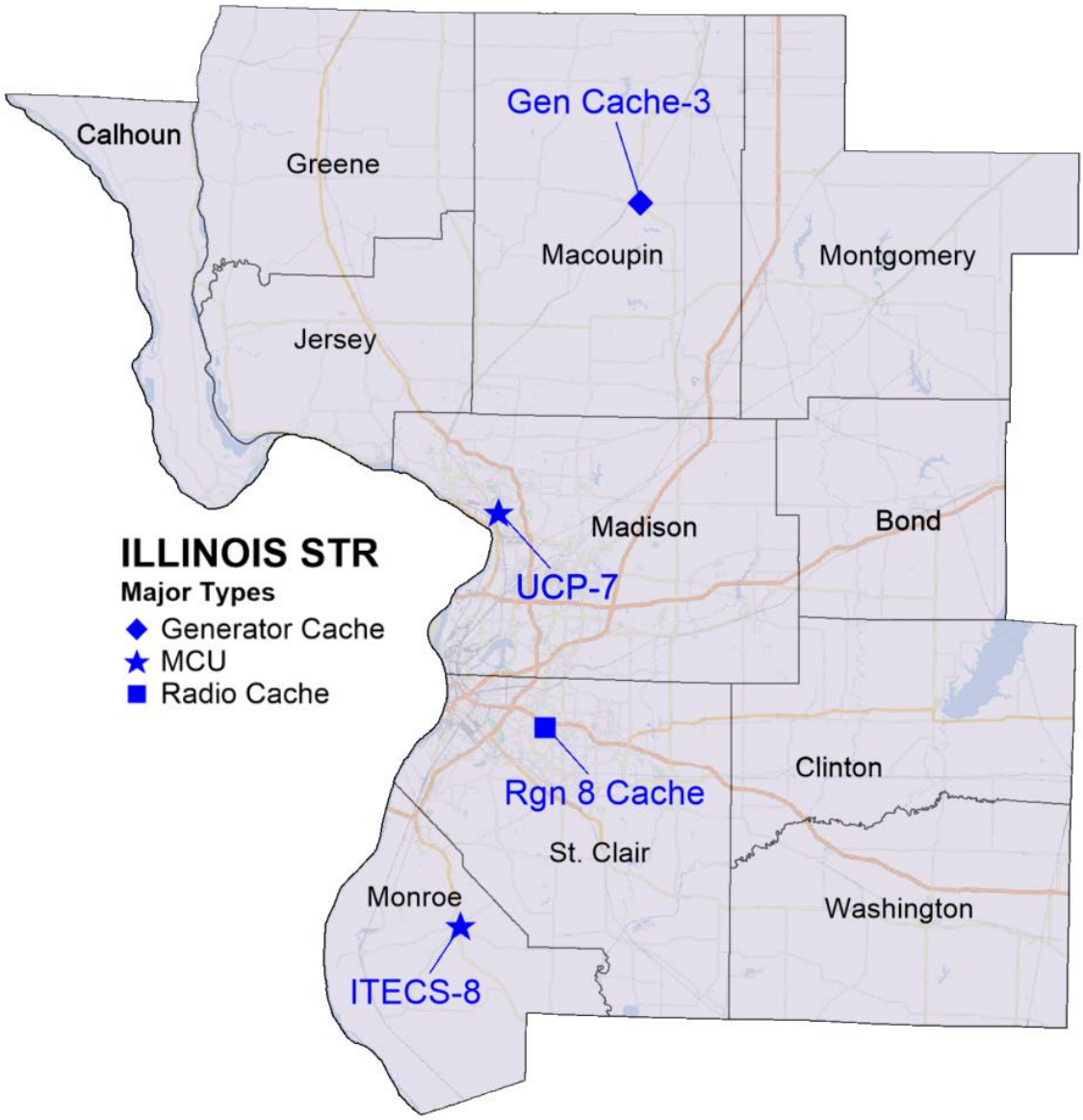

Figure 23: STR Locations - IEMA & OHS Region 8

App. I-1(g) IEMA & OHS Region 9

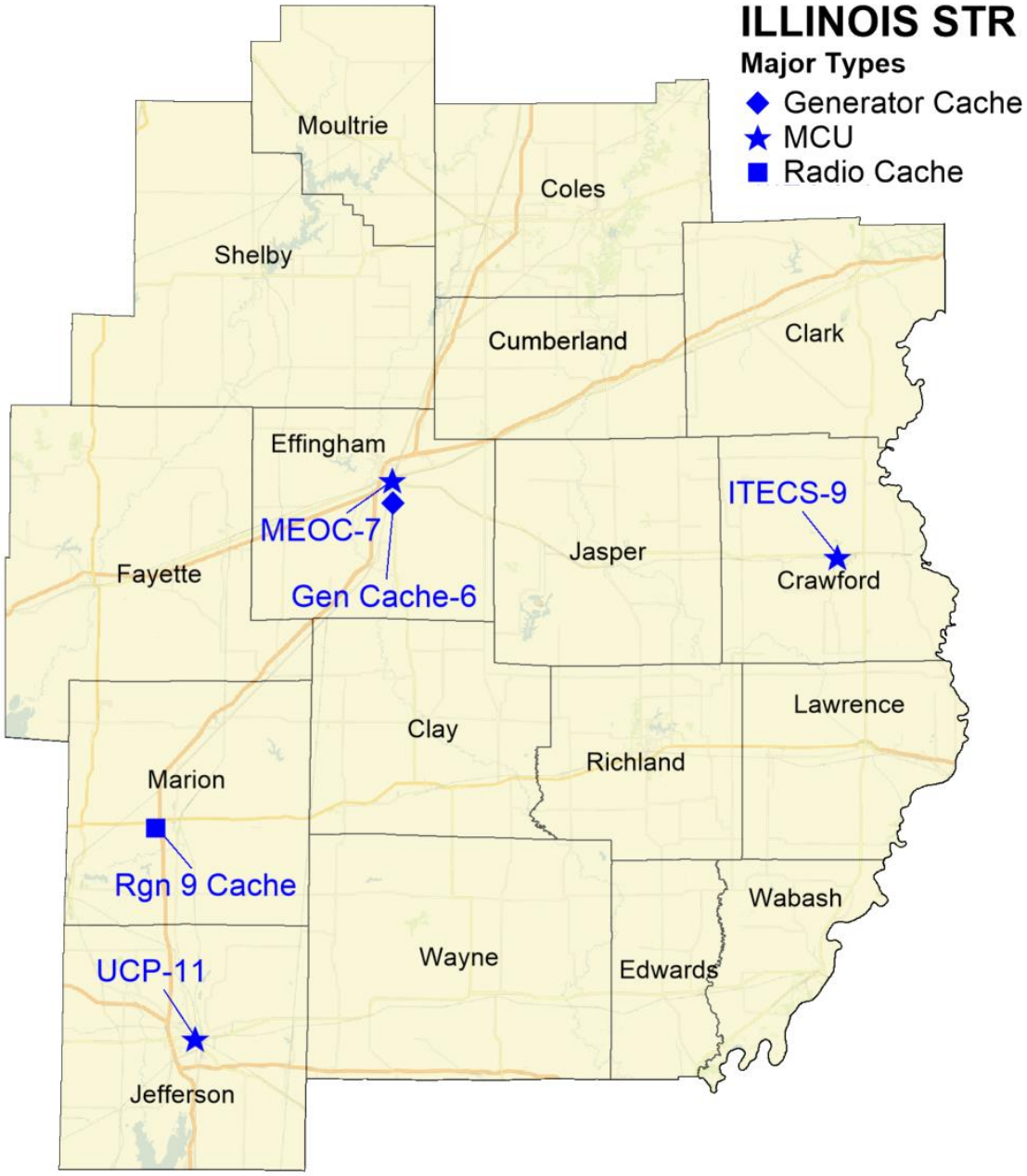

Figure 24: STR Locations - IEMA & OHS Region 9

App. I-1(h) IEMA & OHS Region 11

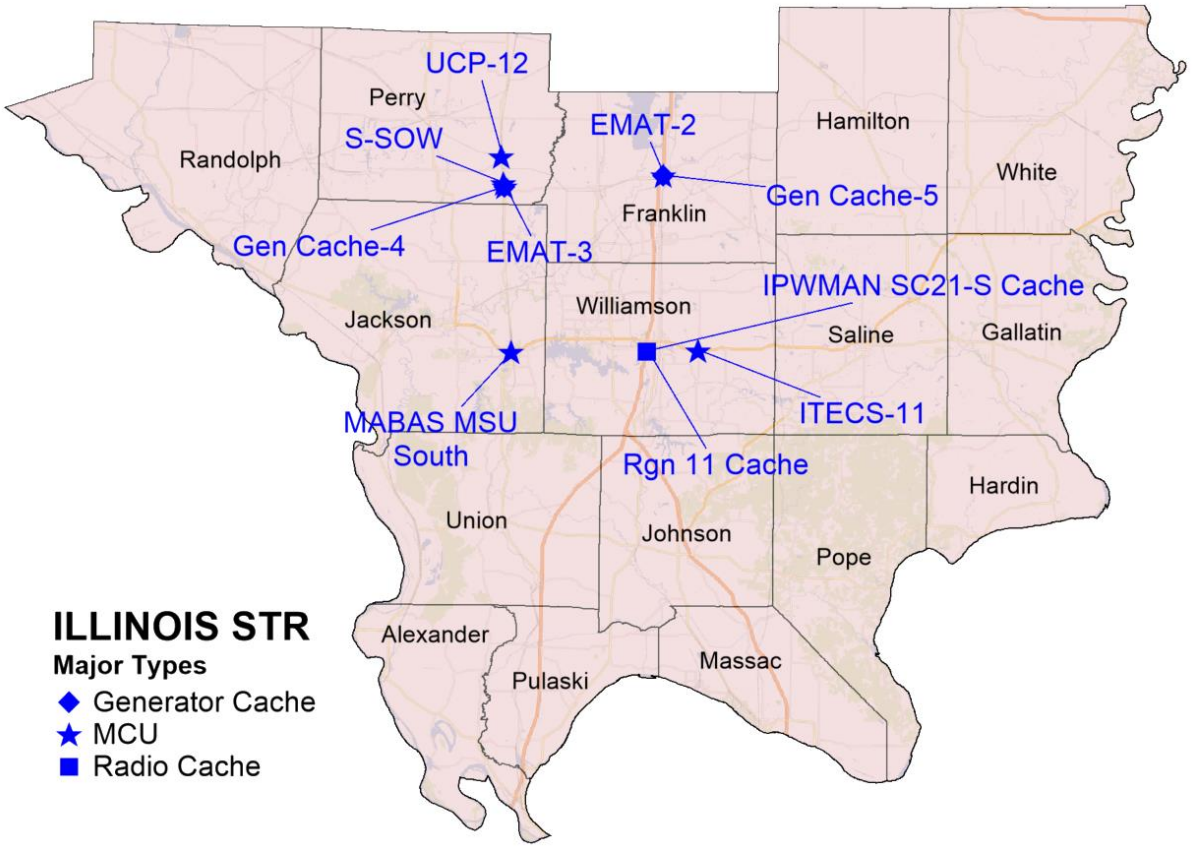

Figure 25: STR Locations - IEMA & OHS Region 11

App. I-2 Mission Ready Package (MRP)

MRPs streamline the process of obtaining and providing mutual aid by identifying all the resources available to assist other jurisdictions during a critical incident. MRPs in Illinois are based on either a Unified Command Post (UCP) platform or an Illinois Transportable Emergency Communications System (ITECS) platform and one or more communications gateways, deployable interoperability repeaters, and radio caches.

App. I-2(a) Illinois Mission Ready Package Equipment Detail

MRPs in Illinois are based on either a UCP platform, or an ITECS platform. MRPs identified in this guide contain a minimum of the following equipment shown in the following table.

Table 65: Comprehensive equipment list for the TICP document

MRP Equipment	MRP based on	
	ITECS Platform	UCP Platform
VEHICLE		
Description	Trailer Towed by Ford F550	Freightliner 40' custom body
Command seating	0	8
RADO seating	2	4
Overall dimensions	8'x16'	40 ' X 8 '
Height clearance in transit	12 ' 6"	12 ' 6"
Total weight		
Trailer tongue type	Ball Mount 2 5/16	NA
Tongue weight		NA
Minimum tow vehicle specifications	Ford F550 (Incl.)	

MRP Equipment	MRP based on ITECS Platform	UCP Platform
Type and specifications of equipment shelter	8x8 Aluminum	
Footprint required for complete deployment	30'x60' typical 120' X 120' with Guys	12' by 50'
POWER SOURCE		
Shore power connector	L14-30	L14-50
Shore power requirements	120V/240V 30A 4 Wire	120V/240V 50A 4 Wire
Generator specifications	ONAN 10Kw	ONAN 12Kw
Generator fuel type(s) supported	Diesel	Diesel
Generator fuel capacity	25 Gallons	25 Gallons
Generator run time under load	36 Hours	72 Hours
Solar power:	On Request to STR	
TOWER SPECIFICATIONS		
Type	Extendable self-supporting	
Height	55 Feet	
Wind rating		
ANTENNA HARDWARE		
Number and type of antennas supplied	9 on Tower 3 Roof Mount	Roof Mount
Feedline connector type(s)	N Connector	N Connector
Ability to install additional antennas	Yes	Yes
Antenna Analyzer	1	
Antenna Kit with LMR400 Cables	1	
CONVENTIONAL REPEATERS		
Frequency bands	VHF/UHF/700/800	
Digital modes supported	P25 700 only	
Number of stations on each band	1 on each band	
Power output	U/800 50W, 700 10W	
Ability to reprogram during deployment	V/U/800 YES, 700 NO	
Encryption types supported	AES256	
BACKHAUL CONNECTIVITY		
Methods, specifications	Satellite Voice/Data	
GATEWAY EQUIPMENT		
ACU-1000 Gateway with 10 DSP Cards	1	
C/AT-ICRI Gateway		1
RADIO CACHE EQUIPMENT		
EF Johnson VHF Conv. Portable	24	
EF Johnson UHF Conv. Portable	24	
EF Johnson 800 MHz Conv. Portable	11	
Harris XG-100 Tri-Band Portable	40	
Motorola XTS 1500 7/8 Portable		12
Motorola XTS 1500 single-unit charger		12
TACTICAL REPEATERS		
UHF Repeater 50W	1	
800 Repeater 50W	1	
700 Portable Repeater 10W	1	1
VEHICLE RADIO EQUIPMENT		
VHF Low Mobile Radio	1	1
VHF High Mobile Radio	4	4
UHF Mobile Radio	2	1
700/800 Mobile Radio	3	3
V/U/7/8 Multi-band Mobile Radio	1	1
HF Radio	1	1
Aircraft Radio	1	1
NON-LMR EQUIPMENT		

MRP Equipment	MRP based on ITECS Platform	UCP Platform
Satellite System	1	1
VOIP Phone Lines (Via Satellite_	0	0
Verizon Wireless Broadband/Phone	1	1
AT&T FirstNet Wireless Broadband/Phone	1	1
IP Phone System/12 Phones	1	1
Video Conference Capable		1
Viking Ring Generator	2	
2 Phone POE Switches	2	
COMPUTER AND IT EQUIPMENT		
24 Port Network Switch	2	
300 Ft Network Extension Cables	2	
Laptop Computer	1	1
All in one Laser Printer	1	1
Wide Format Printer	1	1
NAS Device	1	1
NOTES		
• UCP-13 Gateway and Radio Cache equipment consists of 24 APX-7000 VHF/700/800 P25 portable radios, 4 multi-unit chargers, 1 C/AT-ICRI, and 1 TCB-4 Tactical Communications Bridge. • Tactical Repeaters (App. I-3(a-1)), Gateway Equipment (0), Radio Caches (App. I-3(c-2)), and Mobile Communications Units (App. I-3(e-1)) are also listed in the applicable Appendix tables above.		

App. I-2(b) Illinois Mission Ready Package Summary

The following table identifies MRPs available for deployment in Illinois.
For MRP requests, contact the IEMA & OHS Operations Center at 217-782-7860.

Table 66: Illinois Mission Ready Packages

Illinois Mission Ready Packages					
Unit ID	Host Agency	County	Platform	EMA Region	Storage Location
ITECS 02	Ogle County Sheriff	Ogle	ITECS	02	Oregon
ITECS 03	Will County EMA	Will	ITECS	03	Joliet
ITECS 04	DuPage County OEM	DuPage	ITECS	04	Wheaton
ITECS 05	Kane County	Kane	ITECS	03	Geneva
ITECS 06	City of Jacksonville	Morgan	ITECS	06	Jacksonville
ITECS 07	Champaign Fire Dept.	Champaign	ITECS	07	Champaign
ITECS 08	Monroe County EMA	Monroe	ITECS	08	Waterloo
ITECS 09	Crawford County EMA	Crawford	ITECS	09	Robinson
ITECS 11	City of Marion	Williamson	ITECS	11	Marion
UCP 01	Adams County EMA	Adams	UCP	06	Quincy
UCP 02	Bureau County Sheriff	Bureau	UCP	02	Princeton
UCP 03	DuPage County Sheriff	DuPage	UCP	04	Wheaton
UCP 04	Galesburg Police Dept.	Knox	UCP	02	Galesburg
UCP 05	JoDaviess County EMA	JoDaviess	UCP	02	Galena
UCP 06	Kendall County Sheriff	Kendall	UCP	03	Yorkville
UCP 07	Madison County EMA	Madison	UCP	08	Wood River
UCP 08	McLean County Sheriff	McLean	UCP	07	Bloomington
UCP 09	Rock Island Co. Sheriff	Rock Island	UCP	02	Rock Island
UCP 10*	Tazewell County EMA	Tazewell	UCP	07	Pekin
UCP 11	Jefferson County Sheriff	Jefferson	UCP	09	Mt. Vernon
UCP 12	Du Quoin ESDA	Perry	UCP	11	Du Quoin
UCP 13*	Wauconda Fire	Lake	UCP	04	Volo
*See detail notes below for equipment differences.					

App. I-3 Deployable Interoperability Resources

Deployable interoperability resources include communications equipment that can be dispatched to the scene of an incident or scheduled event. Deployable resources include:

- Repeaters and Gateways.
- Radio Caches.
- Mobile Communications Units.
- Unified Command Posts (UCP), which can be deployed individually or as part of an MRP. UCP resources are also equipped with deployable gateways and radio caches, which may also be deployed individually or with the UCP.
- Illinois Transportable Emergency Communications Systems (ITECS), which can be deployed individually or as part of an MRP. ITECS resources are also equipped with deployable repeaters, gateways, and radio caches, which may also be deployed individually or with the ITECS.
- Data Communications Equipment Deployable interoperability resources available for statewide use are described in the following sections.

App. I-3(a) Deployable Repeaters

App. I-3(a-1) ITECS/UCP Repeaters

All ITECS/UCP deployable repeaters and base stations are configured as shown below. The IEMA & OHS Operations Center handles requests for deployment of ITECS resources.

24/7 Phone	217-782-7860
Primary Point of Contact (POC)	IEMA & OHS Operations Center
Email	ema.dispatcher@illinois.gov
Frequency Band	VHF, UHF, 700 MHz, or 800 MHz
Mode	700 MHz supports P25 digital. All others are analog
Power Output	700 MHz is 10 Watts. All others are 50 Watts
Power Requirements	Both self-contained power (ITECS/UCP) and 120V/240V shoreline are supported (ITECS only)
Included Antenna Equipment	55' extendable tower and antennas are included (ITECS only)
Other Comments or Notes	Conventional: Can reprogram during deployment

App. I-3(a-2) ITECS/UCP Repeaters Summary

Table 67: Transportable Interoperability Repeater Summary

Unit No.	Owning Agency	Location	Agency Phone No.	Req. Phone No. (24/7)	Freq. Band
ITECS 2	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860	VHF
ITECS 2	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860	UHF
ITECS 2	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860	700 MHz
ITECS 2	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860	800 MHz
ITECS 3	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860	VHF
ITECS 3	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860	UHF
ITECS 3	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860	700 MHz
ITECS 3	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860	800 MHz
ITECS 4	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860	VHF
ITECS 4	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860	UHF
ITECS 4	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860	700 MHz
ITECS 4	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860	800 MHz
ITECS 5	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860	VHF
ITECS 5	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860	UHF
ITECS 5	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860	700 MHz
ITECS 5	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860	800 MHz
ITECS 6	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860	VHF

Unit No.	Owning Agency	Location	Agency Phone No.	Req. Phone No. (24/7)	Freq. Band
ITECS 6	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860	UHF
ITECS 6	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860	700 MHz
ITECS 6	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860	800 MHz
ITECS 7	Champaign FD	3300 N Market, Champaign	217.333.8911	217-782-7860	VHF
ITECS 7	Champaign FD	3300 N Market, Champaign	217.333.8911	217-782-7860	UHF
ITECS 7	Champaign FD	3300 N Market, Champaign	217.333.8911	217-782-7860	700 MHz
ITECS 7	Champaign FD	3300 N Market, Champaign	217.333.8911	217-782-7860	800 MHz
ITECS 8	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681x243	217-782-7860	VHF
ITECS 8	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681 x243	217-782-7860	UHF
ITECS 8	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681 x243	217-782-7860	700 MHz
ITECS 8	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681 x243	217-782-7860	800 MHz
ITECS 9	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860	VHF
ITECS 9	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860	UHF
ITECS 9	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860	700 MHz
ITECS 9	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860	800 MHz
ITECS 11	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860	VHF
ITECS 11	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860	UHF
ITECS 11	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860	700 MHz
ITECS 11	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860	800 MHz
UCP 01	Adams Co. EMA	222 N. 52nd, Quincy		217-782-7860	700 MHz
UCP 02	Bureau Co. SO	22 Park Ave West, Princeton	815-875-3344	217-782-7860	700 MHz
UCP 03	DuPage Co. SO	418 N. County Farm Road, Wheaton	630-682-7207	217-782-7860	700 MHz
UCP 04	Galesburg PD	150 S. Broad St., Galesburg	309-343-9151	217-782-7860	700 MHz
UCP 05	JoDaviess Co. EMA	330 N. Bench St., Galena	815-777-2141	217-782-7860	700 MHz
UCP 06	Kendall Co. SO	1102 Cornell Ln., Yorkville	630-553-0911	217-782-7860	700 MHz
UCP 07	Madison Co. EMA	101 E, Edwardsville Rd., Wood River	618-296-2400	217-782-7860	700 MHz
UCP 08	McLean Co. SO	104 W. Front St., Bloomington	309-888-5030	217-782-7860	700 MHz
UCP 09	Rock Island Co. SO	1317 3rd Ave., Rock Island	309-788-8988	217-782-7860	700 MHz
UCP 10	Tazewell Co. EMA	21304 IL State Rt 9, Tremont	309-477-2234	217-782-7860	700 MHz
UCP 11	Jefferson Co. SO	911 E Casey Ave, Mt. Vernon	618-244-8004	217-782-7860	700 MHz
UCP 12	Du Quoin ESDA	304 E Poplar St, Du Quoin	618-542-2131	217-782-7860	700 MHz
UCP 13	Wauconda FD	1300 S. Gilmer Rd., Volo	847-438-2349	217-782-7860	700 MHz

App. I-3(b) Deployable Gateways

The tables below describe the deployable gateways that are available for use.

App. I-3(b-1) ITECS/UCP Deployable Gateways

All ITECS/UCP deployable gateways are configured as shown below. They are assigned to an ITECS trailer or UCP and are a component of the MRP described in App. I-2. The IEMA & OHS Operations Center handles requests for deployment of ITECS resources.

24/7 Phone (Requests)	217-782-7860
Primary Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
Gateway (ITECS Platform)	JPS Communications ACU-1000, vehicle-mounted 10 DSP cards
Gateway (UCP Platform)	C-AT ICRI 5 port, 2 net portable gateway

App. I-3(b-2) ITECS/UCP Gateway Summary

Table 68: Transportable Interoperability Repeater Summary

Unit No.	Platform	Owning Agency	Location	Agency Phone No.	Req. Phone No. (24/7)
ITECS 2	ITECS trailer	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860
ITECS 3	ITECS trailer	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860
ITECS 4	ITECS trailer	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860
ITECS 5	ITECS trailer	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860
ITECS 6	ITECS trailer	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860
ITECS 7	ITECS trailer	Champaign FD	3300 N Market, Champaign	217-333-8911	217-782-7860
ITECS 8	ITECS trailer	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681 x243	217-782-7860
ITECS 9	ITECS trailer	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860
ITECS 11	ITECS trailer	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860
UCP 01	UCP	Adams Co. EMA	222 N. 52nd, Quincy		217-782-7860
UCP 02	UCP	Bureau Co. SO	22 Park Ave West, Princeton	815-875-3344	217-782-7860
UCP 03	UCP	DuPage Co. SO	418 N. County Farm Road, Wheaton	630-682-7207	217-782-7860
UCP 04	UCP	Galesburg PD	150 S. Broad St., Galesburg	309-343-9151	217-782-7860
UCP 05	UCP	JoDaviess Co. EMA	330 N. Bench St., Galena	815-777-2141	217-782-7860
UCP 06	UCP	Kendall Co. SO	1102 Cornell Ln., Yorkville	630-553-0911	217-782-7860
UCP 07	UCP	Madison Co. EMA	101 E, Edwardsville Rd., Wood River	618-296-2400	217-782-7860
UCP 08	UCP	McLean Co. SO	104 W. Front St., Bloomington	309-888-5030	217-782-7860
UCP 09	UCP	Rock Island Co. SO	1317 3rd Ave., Rock Island	309-788-8988	217-782-7860
UCP 10	UCP	Tazewell Co. EMA	21304 IL State Rt 9, Tremont	309-477-2234	217-782-7860
UCP 11	UCP	Jefferson Co. SO	911 E Casey Ave, Mt. Vernon	618-244-8004	217-782-7860
UCP 12	UCP	Du Quoin ESDA	304 E Poplar St, Du Quoin	618-542-2131	217-782-7860
UCP 13	UCP	Wauconda FD	1300 S. Gilmer Rd., Volo	847-438-2349	217-782-7860

App. I-3(c) Radio Caches

The tables below describe the deployable radio caches that are available for use.

App. I-3(c-1) Radio Cache Programming

Illinois cache radio programming will incorporate the frequency band applicable portion of the SWIT, as described in APPENDIX C.

App. I-3(c-2) ITECS/UCP Radio Caches

All ITECS/UCP standard radio caches are configured as shown below. They are assigned to an ITECS trailer or UCP and are a component of the MRP described in App. I-2. The IEMA & OHS Operations Center handles requests for deployment of ITECS resources.

24/7 Phone (Requests)	217-782-7860	
Point of Contact (Requests)	IEMA & OHS Operations Center	
Email (Requests)	ema.dispatcher@illinois.gov	
Cache Radios	(ITECS Platform) 24 – VHF EF Johnson 24 – UHF EF Johnson 11 – 800 MHz EF Johnson 40 – Harris XG-100 multiband	(UCP Platform) 12 – 700/800 MHz Motorola XTS1500

App. I-3(c-3) ITECS/UCP Radio Caches Summary

Table 69: ITECS/UCP Radio Cache Summary

Unit No.	Platform	Owning Agency	Location	Agency Phone No.	Req. Phone No. (24/7)
ITECS 2	ITECS trailer	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860
ITECS 3	ITECS trailer	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860
ITECS 4	ITECS trailer	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860
ITECS 5	ITECS trailer	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860
ITECS 6	ITECS trailer	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860
ITECS 7	ITECS trailer	Champaign FD	3300 N Market, Champaign	217-333-8911	217-782-7860
ITECS 8	ITECS trailer	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681 x243	217-782-7860
ITECS 9	ITECS trailer	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860
ITECS 11	ITECS trailer	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860
UCP 01	UCP	Adams Co. EMA	222 N. 52nd, Quincy		217-782-7860
UCP 02	UCP	Bureau Co. SO	22 Park Ave West, Princeton	815-875-3344	217-782-7860
UCP 03	UCP	DuPage Co. SO	418 N. County Farm Road, Wheaton	630-682-7207	217-782-7860
UCP 04	UCP	Galesburg PD	150 S. Broad St., Galesburg	309-343-9151	217-782-7860
UCP 05	UCP	JoDaviess Co. EMA	330 N. Bench St., Galena	815-777-2141	217-782-7860
UCP 06	UCP	Kendall Co. SO	1102 Cornell Ln., Yorkville	630-553-0911	217-782-7860
UCP 07	UCP	Madison Co. EMA	101 E, Edwardsville Rd., Wood River	618-296-2400	217-782-7860
UCP 08	UCP	McLean Co. SO	104 W. Front St., Bloomington	309-888.5030	217-782-7860
UCP 09	UCP	Rock Island Co. SO	1317 3rd Ave., Rock Island	309-788-8988	217-782-7860
UCP 10	UCP	Tazewell Co. EMA	21304 IL State Rt 9, Tremont	309-477-2234	217-782-7860
UCP 11	UCP	Jefferson Co. SO	911 E Casey Ave, Mt. Vernon	618-244-8004	217-782-7860
UCP 12	UCP	Du Quoin ESDA	304 E Poplar St, Du Quoin	618-542-2131	217-782-7860
UCP 13	UCP	Wauconda FD	1300 S. Gilmer Rd., Volo	847-438-2349	217-782-7860

App. I-3(c-4) IEMA & OHS Radio Caches

IEMA & OHS maintains a cache of 36 radios at each regional office and are configured as shown below. The IEMA & OHS Operations Center handles requests for deployment these resources.

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
Radio Mfg./Model	Motorola XTS5000
Frequency Band(s)	700/800 MHz

App. I-3(c-5) IEMA & OHS Radio Caches Summary

Table 70: IEMA & OHS Radio Cache Summary

Region.	No. of Radios	IEMA & OHS Office	Location	Phone No.	Req. Phone No. (24/7)
2	36	Dixon	1325 N Galena Ave Dixon	815-288-1455	217-782-7860
3	36	Ottawa	1639 Champlain St., Ottawa	815-433-7161	217-782-7860
4	36	Des Plaines	9511 W Harrison St., Des Plaines	847-294-4717	217-782-7860
6	36	Springfield	2200 South Dirksen Parkway Springfield	217-782-0922	217-782-7860
7	36	Champaign	2125 South First St., Ste 309, Champaign	217-278-3535	217-782-7860
8	36	Fairview Heights	10045 Bunkum Road, Fairview Heights	618-394-2233	217-782-7860
9	36	Salem	327 South Hotze Road, Salem	618-662-4474	217-782-7860
11	36	Marion	2309 W Main St., Ste 110, Marion	618-662-4474	217-782-7860

App. I-3(c-6) IPWMAN/MABAS Radio Caches

IPWMAN and MABAS maintain radio caches as as shown below.

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
Radio Mfg./Model	Motorola

App. I-3(c-7) IPWMAN/MABAS Radio Caches Summary

Table 71: IPWMAN/MABAS Radio Cache Summary

Unit No.	No. of Radios	Location	Model	Bands	Req. Phone No. (24/7)
IPWMAN SC21-N	18	Wheeling, IL (MABAS?)	APX7000	VHF, 700/800	217-782-7860
IPWMAN SC21-C	18	Champaign, IL (Need address)	APX7000	VHF, 700/800	217-782-7860
IPWMAN SC21-S	18	Marion, IL (Need address)	APX7000	VHF, 700/800	217-782-7860
MABAS Cache 3	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache 4	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache 5	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache 6	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache 7	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache 8	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache 9	12	233 W Hintz Rd., Wheeling	APX7000	VHF, 700/800	847-724-5700
MABAS Cache Y	50	233 W Hintz Rd., Wheeling	XTS5000	700/800	847-724-5700
MABAS Cache 20	100	233 W Hintz Rd., Wheeling	APX8000	VHF, UHF, 700/800	847-724-5700

App. I-3(d) Data Communications Devices

Data Communications devices such as broadband telephone equipment and CradlePoint routers are identified in this section.

App. I-3(d-1) ITECS/UCP Data Communications Devices

All ITECS and UCPs are equipped with the Data Communications Devices as shown below. They are assigned to an ITECS trailer or UCP and are a component of the Mission Ready Package described in App. I-2. The IEMA & OHS Operations Center handles requests for deployment of ITECS resources.

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
Satellite Data/Voice Systems	Satellite-based data system
Broadband Telephone	Verizon Broadband Phone FirstNet (AT&T) Broadband Phone

App. I-3(e) Mobile Communications Units

App. I-3(e-1) ITECS/UCP Mobile Communications Units Features

All ITECS/UCP resources are configured as shown below. They are a component of the Mission Ready Package described in App. I-2. The IEMA & OHS Operations Center handles requests for deployment of ITECS resources.

Table 72: ITECS Features

MCU Name/Unit ID	ITECS (Region No.)							
Request Through	IEMA & OHS Operations Center							
Request Phone	217-782-7860							
Request Email	ema.dispatcher@illinois.gov							
Time to Deploy	1 hour setup upon arrival							
Deployment Method	☐	Driven	☒	Towed				
Vehicle Type	☐	RV/Custom/Bus	☐	SUV/Lt. Truck	☒	Trailer	☐	Other
No. of Conference Seats								
No. of Dispatch Seats								
SATCOM Equipment	☐	Sat Phone	☒	Sat Dish	☐	None		
Telephone Equipment	☐	Landline	☐	FAX	☐	Cellular	☒	VOIP
No. of Telephone Lines	12 set IP Phone System							
Internet Equipment	☒	Satellite	☒	Cellular	☐	Other	☐	None
Internet Hotspot	☐	Can Provide	☐	None				
Broadband Equip Desc.	AT&T FirstNet Wireless Broadband Phone Verizon Wireless Broadband Phone					*Broadband equipment used to provide on-scene wireless connectivity.* *CTN - Broadband equipment cellular telephone number (required for uplift)*		
Broadband Equip. SSID								
Broadband Equip. CTN	AT&T Device Verizon Device							
Video Conference Equip.								
Video Capabilities	☐	Off-Air	☐	Satellite Dish	☐	Cable	☐	Able to Record
	☐	Streaming	☐	Vehicle CCTV	☐	Other	☐	None
Shoreline Power	☒	240 VAC	☒	120 VAC	☐	Other	☐	None
Generator (kW)	☐	None	☐	<5 kW	☐	5-9 kW	☒	10-14 kW
	☐	15-24 kW	☐	25> kW	☐	Other		
Generator Fuel Type	☐	Vehicle Fuel	☒	Diesel	☐	Gasoline	☐	Other
Generator Fuel (Hrs.)	72							
Gateway Equipment	JPS ACU-1000							
Radio Cache(s)	☐	VHF-Low	☒	VHF	☒	UHF	☐	Other
	☒	700 MHz	☒	800 MHz	☒	Multiband		
Interoperability Repeaters	☐	VHF-Low	☐	VHF	☒	UHF	☐	Other
	☐	700 MHz	☒	800 MHz	☐	Multiband		
Radio Communications Capabilities	☒	VHF-Low	☒	VHF	☒	UHF	☐	Other
	☒	700 MHz	☒	800 MHz	☐	Amateur	☒	HF
	☐	Marine	☒	Aircraft	☒	STARCOM21		
Extendable Mast Height	☐	<10 Feet	☐	10-35 Feet	☐	36-50 Feet	☒	>50 Feet
	☐	Other	☐	No Mast				
Notes								

Table 73: UCP Features

MCU NAME/UNIT ID	UCP (Number)							
REQUEST THROUGH	IEMA & OHS Operations Center							
REQUEST PHONE	217-782-7860							
REQUEST EMAIL	ema.dispatcher@illinois.gov							
TIME TO DEPLOY	Varies							
DEPLOYMENT METHOD	☒	Driven	☐	Towed				
VEHICLE TYPE	☒	RV/Custom/Bus	☐	SUV/Lt. Truck	☐	Trailer	☐	Other
NO. OF CONFERENCE SEATS	8							
NO. OF DISPATCH SEATS	4							
SATCOM EQUIPMENT	☐	Sat Phone	☒	Sat Dish	☐	None		
TELEPHONE EQUIPMENT	☐	Landline	☐	FAX	☐	Cellular	☒	VOIP
NO. OF TELEPHONE LINES	12 set IP Phone System							
INTERNET EQUIPMENT	☒	Satellite	☒	Cellular	☐	Other	☐	None
INTERNET HOTSPOT	☐	Can Provide	☐	None				
BROADBAND EQUIP DESC.	AT&T FirstNet Wireless Broadband Phone Verizon Wireless Broadband Phone					*Broadband equipment used to provide on-scene wireless connectivity.* *CTN - Broadband equipment cellular telephone number (required for uplift)*		
BROADBAND EQUIP. SSID								
BROADBAND EQUIP. CTN	AT&T Device Verizon Device							
VIDEO CONFERENCE EQUIP.								
VIDEO CAPABILITIES	☐	Off-Air	☐	Satellite Dish	☐	Cable	☐	Able to Record
	☐	Streaming	☐	Vehicle CCTV	☐	Other	☐	None
SHORELINE POWER	☒	240 VAC	☒	120 VAC	☐	Other	☐	None
GENERATOR (KW)	☐	None	☐	<5 kW	☐	5-9 kW	☒	10-14 kW
	☐	15-24 kW	☐	25> kW	☐	Other		
GENERATOR FUEL TYPE	☐	Vehicle Fuel	☒	Diesel	☐	Gasoline	☐	Other
GENERATOR FUEL (HRS.)	72							
GATEWAY EQUIPMENT	C/AT ICRI							
RADIO CACHE(S)	☐	VHF-Low	☐	VHF	☐	UHF	☐	Other
	☐	700 MHz	☐	800 MHz	☒	Multiband		
INTEROPERABILITY REPEATERS	☐	VHF-Low	☐	VHF	☐	UHF	☐	Other
	☒	700 MHz	☐	800 MHz	☐	Multiband		
RADIO COMMUNICATIONS CAPABILITIES	☒	VHF-Low	☒	VHF	☒	UHF	☐	Other
	☒	700 MHz	☒	800 MHz	☐	Amateur	☒	HF
	☐	Marine	☒	Aircraft	☒	STARCOM21		
EXTENDABLE MAST HEIGHT	☐	<10 Feet	☒	10-35 Feet	☐	36-50 Feet	☐	>50 Feet
	☐	Other	☐	No Mast				
NOTES								

App. I-3(e-2) ITECS/UCP Mobile Communications Units

Table 74: ITECS/UCP Summary

Unit No.	Platform	Owning Agency	Location	Agency Phone No.	Req. Phone No. (24/7)
ITECS 2	ITECS trailer	Ogle Co. SO	202 S. 1st St., Oregon	815-732-1101	217-782-7860
ITECS 3	ITECS trailer	Will Co. EMA	22456 Cherry Hill Rd., Joliet	815-740-0911	217-782-7860
ITECS 4	ITECS trailer	DuPage Co. OEM	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860
ITECS 5	ITECS trailer	Kane Co. SO	719 S. Batavia Ave., Geneva	630-232-5986	217-782-7860
ITECS 6	ITECS trailer	Jacksonville, IL	866 Hardin Ave, Jacksonville	217-479-3570	217-782-7860
ITECS 7	ITECS trailer	Champaign FD	3300 N Market, Champaign	217-333-8911	217-782-7860
ITECS 8	ITECS trailer	Monroe Co. EMA	235 E. 3rd St, Waterloo	618-939-8681 x243	217-782-7860
ITECS 9	ITECS trailer	Crawford Co. EMA	402 South Jackson St, Robinson	618-546-1515	217-782-7860
ITECS 11	ITECS trailer	Marion, IL	NW Corner of Route 166 and Route 13	618-925-6391	217-782-7860
UCP 01	UCP	Adams Co. EMA	222 N. 52nd, Quincy		217-782-7860
UCP 02	UCP	Bureau Co. SO	22 Park Ave West, Princeton	815.875.3344	217-782-7860
UCP 03	UCP	DuPage Co. SO	418 N. County Farm Rd, Wheaton	630-682-7207	217-782-7860
UCP 04	UCP	Galesburg PD	150 S. Broad St., Galesburg	309-343-9151	217-782-7860
UCP 05	UCP	JoDaviess Co. EMA	330 N. Bench St., Galena	815-777-2141	217-782-7860
UCP 06	UCP	Kendall Co. SO	1102 Cornell Ln., Yorkville	630-553-0911	217-782-7860
UCP 07	UCP	Madison Co. EMA	101 E, Edwardsville Rd., Wood River	618-296-2400	217-782-7860
UCP 08	UCP	McLean Co. SO	104 W. Front St., Bloomington	309-888.5030	217-782-7860
UCP 09	UCP	Rock Island Co. SO	1317 3rd Ave., Rock Island	309-788-8988	217-782-7860
UCP 10	UCP	Tazewell Co. EMA	21304 IL State Rt 9, Tremont	309-477-2234	217-782-7860
UCP 11	UCP	Jefferson Co. SO	911 E Casey Ave, Mt. Vernon	618-244-8004	217-782-7860
UCP 12	UCP	Du Quoin ESDA	304 E Poplar St, Du Quoin	618-542-2131	217-782-7860
UCP 13	UCP	Wauconda FD	1300 S. Gilmer Rd., Volo	847-438-2349	217-782-7860

App. I-3(f) IDOT Mobile EOC (MEOC)

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	Mobile EOC
Deployment Method	Towed
Shoreline	100 ft. provided with assorted NEMA connectors, 12A draw
Generator	Gasoline-powered with 8 hrs. of fuel provided (5 gal.)
Voice/Data Communications	2 voice lines (external)/Cellular data (Cradlepoint)
Time to Setup and Deploy	1 hr.

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Gateway
IDOT D2 MEOC	Dixon, IL	1	4-6	L/V/U/7/8	Yes	22 ft.	Yes
IDOT D3 MEOC	Ottawa, IL	1	4-6	L/V/U/7/8	Yes	22 ft.	Yes
IDOT D4 MEOC	Peoria, IL	1	4-6	L/V/U/7/8	Yes	22 ft.	Yes
IDOT D5 MEOC	Paris, IL	1	4-6	L/V/U/7/8	Yes	22 ft.	Yes
IDOT D7 MEOC	Effingham, IL	1	4-6	L/V/U/7/8	Yes	22 ft.	Yes

App. I-3(g) IDOT Mobile Incident Command Center (MICC)

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	Mobile EOC
Shoreline	100 ft. provided with assorted NEMA connectors, 12A draw
Deployment Method	Driven
Generator	Gasoline-powered with 8 hrs. of fuel provided (5 gal.)
Voice/Data Communications	2 voice lines (external)/Cellular data (Cradlepoint)
Time to Setup and Deploy	1 hr.

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Gateway
IDOT D3 MICC	Ottawa, IL	2	4	L/V/U/7/8	Yes	22 ft.	Yes

App. I-3(h) IEMA & OHS Field Command

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	Incident Command
Shoreline	75 ft. provided.
Deployment Method	Driven
Generator	None
Voice/Data Communications	8 PBX voice lines VoIP/Cellular/Landline Satellite, Cellular, and Wired Internet
Time to Setup and Deploy	1 hr.

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Other
IEMA & OHS Field Command 1	Springfield, IL	1	15	L/V/U/7/8	Yes	50 ft.	CCTV
IEMA & OHS Field Command 2	Springfield, IL	1	15	L/V/U/7/8	Yes	50 ft.	CCTV

App. I-3(i) IEMA & OHS Unified Area Command (UAC)

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	Areawide Command
Shoreline	75 ft. provided. Requires 208 VAC and electrician to wire
Deployment Method	Driven
Generator	Diesel-powered with 72 hrs. of fuel provided (100 gal.)
Voice/Data Communications	30 PBX voice lines VoIP/Cellular/Landline Satellite, Cellular, and Wired Internet
Time to Setup and Deploy	1 hr.

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Other
IEMA & OHS UAC	Springfield, IL	2	20	L/V/U/7/8	Yes	45 ft.	CCTV

App. I-3(j) IESMA EMAT Trailer

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	EMAT Incident Command
Shoreline	
Deployment Method	Towed
Generator	EMAT 3 and 4 are equipped with propane-powered 5,500-watt generators.
Voice/Data Communications	Cellular voice/data (LTE)
Time to Setup and Deploy	1 hr.

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Generator
EMAT 1	Quincy, IL	2	6	L/V/U/7/8	Yes	40 ft.	None
EMAT 2	Benton, IL	2	6	L/V/U/7/8	Yes	40 ft.	None
EMAT 3	Du Quoin, IL	2	6	L/V/U/7/8	Yes		5.5 kW
EMAT 4	Princeton, IL	2	6	L/V/U/7/8	Yes		5.5 kW

App. I-3(k) MABAS Mobile Support Units (MSU)

24/7 Phone (Requests)	847-724-5700
Point of Contact (Requests)	R.E.D Center
Email (Requests)	
STR Purpose	Mobile Workspace/Command Post
Deployment Method	Driven
Shoreline	50 ft. provided with assorted NEMA connectors
Generator	Diesel-powered, draws from main diesel tank
Voice/Data Communications	1 external VoIP line, Starlink data Cellular data (CradlePoint), FirstNet and Verizon VHF and Starcom radios (front and rear) APX6000 STARCOM Portables (6) Large plotter, Credentialing system
Time to Setup and Deploy	30mins

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Gateway
MSU North	Wheeling, IL	1	5	V/7/8	Yes	none	none
MSU Northwest	Shannon, IL	1	5	V/7/8	Yes	none	none
MSU Central	Mapleton, IL	1	5	V/7/8	Yes	none	none
MSU South	Carbondale, IL	1	5	V/7/8	Yes	none	none

App. I-3(l) RapidComm

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	Communications Support
Shoreline	120V VAC
Deployment Method	Driven
Generator	Gasoline-powered with 24 hrs. of fuel provided.
Voice/Data Communications	• 4 SIP on IP Phone system with 12-36 IP Phones, 2 SIP Phones in Command Case. • PepWave Modem with FirstNet & Verizon • WiFi at vehicle and provide remote WiFi in CP. • Wireless bridges to extend IP functionality. • VHF, UHF, 700 MHz, and 800 MHz repeaters.
Time to Setup and Deploy	1 hr.

		Avail. Seating					
Identifier	Location Kept	RADO	Command	Radios	STARCOM	Mast Ht.	Other
RapidComm 4	Wheaton, IL	0	0	L/V/U/7/8	Yes	21 ft	ACU-2000

App. I-3(m) STARCOM21 Site on Wheels (SOW)

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	STARCOM21 trunked radio site
Shoreline	Not specified
Deployment Method	Towed or Airlift
Generator	Diesel-powered with 36 hrs. of fuel provided (25 gal.)
Voice/Data Communications	Satellite-based and 4G LTE backhaul to STARCOM21
Time to Setup and Deploy	1 hr.

Identifier	Location Kept	Satellite Data	Generator	Mast Ht.	Conv. Repeater Channel
North SOW	Sterling, IL	Backhaul only	Included	60 ft.	8TAC91
Central SOW	Springfield, IL	Backhaul only	Included	60 ft.	8TAC92
IEMA & OHS SOW	Springfield, IL	Backhaul only	Included	60 ft.	8TAC94
South SOW	Du Quoin, IL	Backhaul only	Included	60 ft.	8TAC93

App. I-3(n) Mobile Generators

24/7 Phone (Requests)	217-782-7860
Point of Contact (Requests)	IEMA & OHS Operations Center
Email (Requests)	ema.dispatcher@illinois.gov
STR Purpose	Deployable generator
Deployment Method	Towed
Time to Setup and Deploy	1 hr.

			Output Power (kVA)					Fuel
Region	Host Agency	Location Kept	30	45	60	100	Other	Type
2	Lee Co EMA	Dixon			4			Diesel
3	Aurora EMA	Aurora	1		4			Diesel
3	Will Co EMA	Joliet	1		4	1		Diesel
3	McHenry Co EMA	Woodstock			5	1		Diesel
4	Hoffman Estates EMA	Hoffman Estates	1		4			Diesel
4	Lake Co EMA	Libertyville	1		3	1		Diesel
6	Adams Co EMA	Quincy	1		4	1		Diesel
7	Champaign Co EMA	Urbana	1		4	1		Diesel
8	Macoupin Co EMA	Carlinville	1		4	1		Diesel
9	Effingham Co EMA	Effingham			5	1		Diesel
11	Franklin Co EMA	Benton	1		5	1		Diesel
11	Du Quoin EMA	Du Quoin	1		5	1		Diesel

APPENDIX J EMERGENCY WIRELESS CARRIER SERVICES

Interoperable communications needs for response to many incidents and planned events can be handled with the coordinated response of local, regional, and state resources. However, other responses and events may require additional support due to their location, scope, or other factors. Some national wireless carrier providers provide emergency response services and capabilities to meet these needs. Coordination of resource deployments by wireless carrier services should be coordinated through the IEMA & OHS Operations Center at 217-782-7860.

App. J-1 Information Required and Considerations for Requesting Deployable Wireless Support

- What are the communications needs?
- What issues or problems are you facing?
- Where is the coverage needed?
- What are the number of users and/or devices required?
- What will the devices be doing?
- What are the incident conditions, including environmental concerns and size?
- What is terrain and access?
- Is the roadway accessible?
- Height/weight restrictions, turning radius adequate?
- Will there be an escort required?
- Where is the desired site setup?
- Is the site secure?
- Is the site a level clear area with 100’ x 100’ minimum space with a southern view?

App. J-2 Typical Customer Support Request Information

- Short Summary of Situation
- Incident Name
- Requesting Agency Name
- Support Location Address or Lat/Long
- Start and End Dates
- Location POC Name, Phone, and Email (if available)
- Do you need Data?
- Connection Type (Wired/Wireless/Both)
- Wi-Fi coverage requirements (indoor and outdoor)
- The approximate number of end users needing support (indoor, outdoor, or both)
- Power Availability (domestic grid, generator, or other)
- Do you need cellular coverage?
- Quantity and type of devices needed, if any

App. J-3 Emergency Wireless Service Providers

App. J-3(a) FirstNet

Table 75: FirstNet Contact Information

Wireless Service Provider	24/7 Phone	Email
FirstNet	800-574-7000	www.firstnet.com

App. J-3(a-1) Services Offered

- Agencies subscribing to FirstNet services can request deployable support 24/7 for disasters, critical incidents, and planned events.
- Services provided at no cost to FirstNet subscriber agencies, including associated support costs (fuel, personnel, satellite airtime).
- More than 100 assets dedicated to FirstNet users, built with 4G LTE solutions, which are strategically distributed throughout the United States.
  - Satellite-connected Cells on Light Trucks (SatCOLTs)
  - Satellite Cells on Wheels (SatCOWs)
  - Emergency Communications Vehicles
  - FirstNet One (aerostat)
  - Compact Rapid Deployables (CRDs)
  - Mobile Deployment Kits
  - Cel-Fi Go Red Kits (FirstNet Cellular Signal Booster)

App. J-3(a-2) How do FirstNet Deployables work?

- Can provide several miles of coverage (dependent upon site conditions and terrain).
- Typically, radiates Band 14 for best public safety experience.
- Locked to the FirstNet Black SIM card.
- SatCOLTs and Sat COWs establish backhaul via satellite.
- Provide voice, including Voice over IP, VoLTE, data, location, and messaging.
- 14-hour window for arrival and operational status for emergent incident responses.
- 30-day notice required for planned events.
- Deployables are intended to support FirstNet users with FirstNet capable devices – not consumer cellular traffic.

App. J-3(a-3) How do you request a FirstNet Deployable?

- Call the 24/7 FirstNet Help Desk: 800-574-7000.
- Be prepared to provide your FAN (Foundation Account Number).
- Initial information will be referred to the FirstNet Response Operations Group at AT&T who will process the request on behalf of AT&T.

App. J-3(a-4) FIRSTNET CENTRAL: UPLIFT PORTAL AND INCIDENT MANAGEMENT

FirstNet Central is a web portal for FirstNet's public safety users and offers a collection of administrative tools, training resources, and operational tools on a single platform. FirstNet Central is designed to help public safety and emergency management entities with increased situational awareness, identify potential impact to operations, and guide decisions on use of resources. It can be found at: https://localcontrol.firstnet.att.com.

The Network Status Map, including an Advanced Network View, provides FirstNet public safety users the ability to view the status of the network, and offers additional information and features that can be customized by the user, including the ability to view cell site-level detail. Users can subscribe to receive alerts for unplanned network outages via text, email, or push notification to the FirstNet Assist app.

The Uplift Request Tool can be used by designated Uplift Managers to temporarily raise the tier of a FirstNet device (any device provisioned with a FirstNet SIM) to grant all three benefits of Quality of Service, Priority, and Preemption (QPP) or "First Priority" Through the Uplift Request Tool. First Net Extended Primary users (e.g., public works, utilities, debris removal, etc.) can be temporarily elevated in situations when supporting first responders is critical, granting them the same levels of QPP experienced by Primary users. Uplift requests can be created and launched immediately, or they can be scheduled up to one year in advance for a planned event.

App. J-3(a-5) FIRSTNET ASSIST APP

FirstNet Assist is a free mobile app for Apple iOS or Android that is used to access or interact with different elements of FirstNet Central. The FirstNet Assist app is accessed using the same login as FirstNet Central. Users can check the app to see if there are any Uplift Incidents tied to the incident or event they are responding to, and request to have their device uplifted, if desired. Information on the app can be found at: www.firstnet.com/apps/featured-apps/firstnet-assist.html.

The FirstNet mission is to deploy, operate, maintain, and improve the only high-speed, nationwide wireless broadband network dedicated to public safety. FirstNet is a constantly expanding and evolving network with investments focused on meeting current and future mission-critical requirements of public safety.

The First Responder Network Authority has entered a 25-year public-private partnership with AT&T. AT&T brings a proven record of accomplishment and strong commitment to public safety, as well as the commercial expertise and nationwide resources to deploy, maintain, and operate the network.

App. J-3(b) T-Mobile

Table 76: T-Mobile Contact Information

WIRELESS SERVICE PROVIDER	24/7 PHONE	EMAIL
T-Mobile Emergency Response Team	Support Line: 888-639-0020 GETS Users: 254-295-2220	ERTRequests@T-Mobile.com

App. J-3(b-1) SERVICES OFFERED

T-Mobile is prepared and ready to provide data, voice, and cellular solutions to organizations within incident impacted areas and groups responding to the areas devasted by an incident. T-Mobile stands ready to assist during response and recovery efforts.

- Mobile infrastructure for cellular service – Cells on Wheels (COWS), Cells on Light Trucks (COLTs), Satellite-connected Cells on Light Trucks (SatCOLTs), and Small Cell solutions
- Satellite-connected deployables – VSAT (Satellite Antenna), Satellite IP Trailers
- Mobile Command Trailers
- Satellite performance up to 45 Mbps downlink x 10 Mbps Wireline Connection
- Commercial Wi-Fi
- Basic Phones, Smartphones, and Hotspots
- CradlePoint Routers
- Mutualink Interoperability solution

App. J-3(c) Verizon

Table 77: Verizon Contact Information

WIRELESS SERVICE PROVIDER	24/7 PHONE	LINK
Verizon Response Team	Support Line 800-981-9885	www.Verizon.com/business/solutions/public-sector/public-safety/programs/Verizon-response-team/

App. J-3(c-1) SERVICES OFFERED

The Verizon Response Team is a national, rapid-deploy, professionally trained team that solves routine and complex communications challenges in all environments.

- Mobile communications equipment – Cells on Wheels (COWs), Cells on Light Trucks (COLTs), and Satellite Picocell on trailers
- Satellite-connected deployables – VSAT (Satellite Antenna), Satellite IP Trailers
- Rugged deployables – Purpose-built, weatherproof, military grade with a built in 4G LTE solution that combines high-power charging mAh battery
- Drones – UAS 107 Licensed Drone Program across the U.S. that provides situational awareness during an event
- Loaner phones and data devices
- Enterprise-grade 4G LTE routers with directional antenna solutions
- Emergency communication and charging centers
- Pre-event planning and site assessments
- Verizon Security Assistance Team support – missing persons/search and rescue

App. J-3(d) US Cellular (USCC)

Table 78: US Cellular Contact Information

Wireless Service Provider	24/7 Phone	Email
USCC Response Team	877-785-5819	

App. J-3(d-1) Services Offered

- On request

APPENDIX K COMMUNICATIONS RESOURCES BEST PRACTICES AND GENERAL PROCEDURES

App. K-1 General Procedures

App. K-1(a) Usage

For all incidents, the following guidelines should be observed:

- **National Incident Management System** – Use an Incident Command System (ICS) compliant with the National Incident Management System (NIMS) when using any regional interoperability resource.
- **Plain Language** – All interoperable communications during multi-agency, multi-discipline incidents will be in plain language/text. Avoid using radio codes, acronyms, and abbreviations, as they may cause confusion between agencies. Ensure that all verbal requests for assistance or backup specify the reason for the request.
- **Unit Identification** – Announce your home agency prior to announcing your unit identifier during interoperable communications situations.
- **After Action Plan/Hotwash** - Agencies should complete an After-Action Report/Improvement Plan after any incident and/or exercise.

App. K-1(b) Communications Resource Request Procedure

The agency requesting the use of a fixed or mobile gateway device for incident/event communications support should document and provide the following information to the owning gateway agency POC, on request:

- Requesting agency
- Equipment required
- Location required/access information
- Expected duration of event
- Incident/event type (e.g., flooding, etc.)
- On-scene agencies requiring interoperability
- Incident POC
- User/requestor and/or servicing dispatch contact phone number
- Additional support services requested (e.g., gateway THSP, generator, etc.)
- Known hazard information

App. K-1(c) Problem Identification and Resolution

App. K-1(c-1) During an Incident

Report shared system problems to the incident dispatch supervisor/COML or their designee assigned to the incident/event who will follow established agency procedures to resolve the problem.

App. K-1(c-2) Following an Incident

Report any problems with a shared system to the appropriate POC for the owning agency. The POC will be responsible for ensuring effective resolution to problems that exist with the shared system.

Inform the [Agency/Committee] about shared system problems and their identified solutions or outstanding issues. The [Agency/Committee] supports effective resolution to any remaining problems.

App. K-2 Suggested Resource-Specific Procedures

App. K-2(a) Shared Channels/Interoperability Repeater Requests

Use the following procedures when requesting, using, or discontinuing the use of shared communications systems:

- **Step 1** – Once it is identified that interoperability is needed, the incident commander or designee will contact the dispatch center to request channel/talkgroup assignment(s).
- **Step 2** – The caller will follow the procedure below:
  - Identify the caller's title, name, agency, and callback number.
  - Describe the communication needs (e.g., "We need a command-and-control channel;" "We need a 700 MHz agency interconnected to a VHF agency.").
- **Step 3** – The dispatch center will verify the needs and assign/activate the appropriate channels for the incident.
- **Step 4** – If any additional communications resources are needed, repeat Steps 1 through 3 as necessary.
- **Step 5** – Once the incident is completed, contact dispatch center and request the termination of the incident interoperability resources.

App. K-2(a-1) For Extended Incidents

- The lead agency dispatcher notifies the COML or their designee that interoperability channels are in use. The COML or their designee incorporates any interoperable communications assignments into the Incident Radio Communications Plan (ICS Form 205).
- Each agency's dispatcher relays interoperable channel assignments to additional responding personnel/resources.
- Incident or Unified Command determines when the interoperability channels are no longer required and notifies the COML or their designee.

App. K-2(b) Interoperability Base Station/Repeaters

App. K-2(b-1) Interoperability Repeater Best Practices

Proper operation of repeater stations is necessary for the efficient use of the interoperability channels, and especially to minimize potential interference.

- Only the minimum number of calling channel repeaters should be active in the region.
- Interoperability repeaters MUST be in "Repeater Off" or "Standby" mode unless they are in use.
- If possible, configure tactical repeaters to default to "Repeater Off" or "Standby" in the event of a power cycle or other disruption.
- Agencies should periodically check their repeaters to make sure they are in "Repeater Off" mode to prevent interference to other agencies.
- Having multiple repeaters active on the same frequency in the same area causes the mobile and portable radio users to hear interference from multiple repeaters.
- Dispatch centers using direct repeater control normally cannot hear other active repeaters on their consoles unless they also have a monitor radio on that channel. They will hear the input channel from any mobile, portable, or control stations from any agency within range of their repeaters.

App. K-2(b-2) Calling Channels

Agencies controlling interoperability repeaters should monitor the Calling Channels for requests for repeater activation or other assistance.

App. K-2(b-3) Tactical Channels

Tactical Channels are used for incident communications. In general, the tactical channel repeater that is closest to the incident and provides the minimum effective coverage area for the incident should be used. This allows greater reuse of frequencies for multiple incidents across the region.

App. K-2(c) Gateways

App. K-2(c-1) Gateway Limitations

Interoperability provided through a gateway can connect participating agency responders, but has the following limitations:

- The COML and/or Incident Commander or their designee must be aware that activating multiple gateways to support an incident could result in mutual interference. Interference issues are best resolved by the technical support team assigned to the gateways.
- The number of simultaneous patches that can be supported by the gateway will be limited by switch capacity and the number of lines connecting control centers and consoles. As a result, a limited number of patches involving resources at different control points can be supported simultaneously. Likewise, a limited number of patches involving resources that are accessed through a communications center console may be supported simultaneously.
- Home system coverage may limit communications for repeated channels or talkgroups. Users patched through a gateway must be within the coverage footprint of their home system.
- Agencies and/or channels not permanently configured on a given gateway will require additional planning to establish interoperable communications through that gateway.
- All system functionalities may not be supported in a gateway environment (e.g., emergency button, user ID displays, etc.).

App. K-2(c-2) Gateway-Specific Policies and Procedures

The following additional policies and procedures shall govern interoperable communications between agencies via gateways:

- **Encryption** – All encrypted radio users must operate in a "clear" mode when a gateway is used, unless otherwise arranged in advance. **Never assume encryption carries across the gateway**.
- **Monitoring** – The Incident Commander, or their designee, will ensure that each activated patch is monitored consistently while in use.

- **Technical Support** – Qualified gateway technical specialists (THSPs) or COMTs must be available for on-scene support during the deployment of mobile gateways.

App. K-2(c-3) Gateway Activation Procedures

Procedures for establishing communications connectivity are:

- Select a channel or talkgroup on the home system for use in the gateway patch.
- Verify the system-wide availability of required resources (coordinate among control point dispatchers).
- Test functionality of patch.
- Provide radio call sign/designator information to connected agencies as needed.
- Assign the requested unit/agency to that channel or talkgroup.
- Connect the agency to the appropriate talkgroup.
- Announce to users that interoperability is activated.
- Identify users on the interoperability channel using their agency name and unit identifier through a roll call.
- Monitor the interoperability channel to address requests.

App. K-2(c-4) Gateway Deactivation Procedures

When the gateway connections are no longer required, agencies should follow these deactivation procedures:

- Confirm that there are no users still requiring use of the gateway prior to deactivation.
- Contact the monitoring dispatcher (for fixed gateways) or the gateway THSP/COMT (for mobile gateways) to request patch/gateway deactivation.
- Announce over all patched channels/talkgroups that connections will be deactivated prior to the connection being disabled.
- Return all personnel to their appropriate home system channel assignments.
- When applicable, have dispatchers or their designee conduct a roll call to ensure the patched channels/talkgroups are clear.

App. K-2(c-5) Gateway Test Procedures

To ensure that equipment components of the gateway operate properly, each agency will participate in the following testing procedure:

- Representatives from multiple agencies should meet on a regular basis to test each gateway.
- Testing should include deployment (mobile only), setup, operation, and deactivation of each gateway.

App. K-2(d) Mobile Repeaters

App. K-2(d-1) Mobile Repeater Limitations

The COML and/or Incident Commander must be aware that activating multiple repeaters on the same frequencies/channels to support an incident can result in mutual interference. Interference issues are best resolved by the technical support team assigned to the repeaters.

App. K-2(d-2) Mobile Repeater Deployment Procedures

Upon receiving a request for the deployment of a repeater, the owning agency dispatcher should follow these deployment procedures:

- Contact the on-call repeater THSP/COMT responsible for repeater deployment.
- Dispatch the THSP/COMT to the incident scene.
- Inform the requesting agency that the repeater is enroute and provide an Estimated Time of Arrival (ETA), if available.

The repeater THSP/COMT should follow these deployment procedures:

- Provide dispatch with an ETA at the incident and method of communications while enroute (e.g., designated radio channel, cell number).
- Retrieve the repeater from its storage location and deliver it to the incident scene.
- Report to the COML or their designee or to check-in on arrival.

- Once on-scene, install and activate the repeater in accordance with the Mobile Repeater Activation Procedures listed below.

App. K-2(d-3) Mobile Repeater Activation Procedures

The COML or their designee will:

- Select a channel or channel pair for use in the repeater.
- Verify the system-wide availability of required resources (coordinate among control point dispatchers).
- Coordinate with the repeater technician on the installation location for the repeater.
- Announce to the requesting agency when the repeater is operational.

The repeater THSP/COMT will:

- Install the repeater in accordance with standard safety protocols.
- Notify the COML or their designee when the repeater is operational.
- Prior to moving units to the newly activated repeater channel, perform on-site coverage tests to confirm that the repeater is providing adequate coverage for the incident.
- Continually monitor the repeater to ensure continued operation without degradation.

App. K-2(d-4) Mobile Repeater Deactivation Procedures

When the repeater(s) is (are) no longer required, agencies should follow these deactivation procedures:

- Contact the repeater THSP/COMT to request repeater deactivation.
- Announce over the repeater that it will be deactivated prior to disabling it.
- Direct all personnel to their appropriate home system channel assignments.
- When applicable, have dispatchers or their designee conduct a roll call to ensure the channel/talkgroup is clear.

App. K-2(d-5) Mobile Repeater Test Procedures

To ensure that equipment components of the mobile repeater operate properly, each agency should participate in the following testing procedure:

- Representatives from the owning agencies should test each repeater on a regular basis.
- Testing should include deployment, setup, operation, and deactivation of each repeater.
- If an issue or problem is identified during the testing procedure, determine the appropriate corrective action. If the issue or problem cannot be resolved, contact the appropriate technical personnel to address the issue or problem.

App. K-2(e) Radio Caches

App. K-2(e-1) Radio Cache Policies and Procedures

The following additional policies and procedures apply to establishing interoperable communications between agencies via radio caches:

- **Programming** – All cache radios in the region must be programmed in accordance with regional programming guidance appropriate to their make, model, type, and frequency band.
- **Charging** – Cache radios must be fully charged and ready for immediate deployment when requested. Deployed equipment includes extra batteries and/or battery chargers to support extended deployments.
- **Radio Identification** – Each radio in a radio cache will have a unique identification number (e.g., serial number, etc.) for inventory tracking.
- **Technical Support** – Qualified radio cache THSPs or COMTs may be available for on-scene support during the deployment if the requesting agency cannot act in this capacity.
- **Equipment Return** – The requesting agency is responsible for the return of any cache radios/equipment in the condition that they were received.

App. K-2(e-2) Radio Cache Programming Requirements

Radio programming before an incident is a critical component to interoperability. Requirements for programming of cache radios are defined in App. I-3(c-1). Regularly deployed radios in the field should also be programmed with these talkgroups and frequencies according to their capabilities.

App. K-2(e-3) Radio Cache Deployment Procedures

Upon receiving a request for the deployment of a radio cache, the owning agency dispatcher should follow these deployment procedures:

- Contact the on-call THSP/COMT responsible for radio cache deployment.
- Dispatch the radio cache THSP to the incident scene.
- Inform the requesting agency that the radio cache is enroute and provide an ETA, if available.

The radio cache THSP/COMT should follow these deployment procedures:

- Provide dispatch with an ETA at the incident and method of communications while enroute (e.g., designated radio channel, cell number).
- Retrieve the radio cache from its storage location and deliver it to the incident scene.
- Report to the COML or their designee or to check-in on arrival.
- Sign the cache over to the requesting agency for incident use or, if assigned to remain on scene, coordinate radio cache deployment procedures with the Communications Unit.

App. K-2(e-4) Radio Cache Distribution Procedures

The requesting COML or their designee will:

- Support radio deployments on-scene.
- Before deploying/issuing cache radios, have COMT/THSP confirm they are correctly programmed with the applicable channels/talkgroups.
- Maintain a record of each user and agency to which a radio and associated accessories have been distributed.
- Document the identification number of each radio deployed.
- Document the channels in use.
- Provide a brief overview/introduction of the radio and the relevant portions of the communications plan (e.g., brief list of channel assignments, “cheat sheets,” etc.) to those receiving a cache radio.
- Each user and/or agency that receives a radio from the radio cache will be responsible for returning that radio and all associated accessories to the cache at the end of the incident.

App. K-2(e-5) Radio Cache Demobilization Procedures

When the radio cache is no longer required, agencies should follow these demobilization procedures:

- Return all cache radios and associated accessories to the Communications Unit, when established, or to the COML or their designee.

The COML or their designee will:

- Inventory all radios and accessories returned to the cache.
- Determine if any radios or associated accessories have not been returned. Note the user and agency to which the missing radio/accessories were distributed. Provide this information to the Incident Commander or their designee.
- If the missing radios cannot be recovered at the incident scene, provide this information to the radio cache POC for resolution.
- Return all equipment is similar condition as deployed (e.g., remove any incident programming).

App. K-2(f) MCUs

App. K-2(f-1) MCU Policies and Procedures

The following additional policies and procedures apply to establishing interoperable communications between agencies via MCUs:

- **Equipment Return** – The requesting agency is responsible for the return of any MCUs in the condition that they were received and/or as dictated by existing MOAs.
- **Resource Modifications** – The requesting agency is not allowed to change anything in the MCU without written permission of the owning agency.
- **Technical Support** – Qualified MCU THSPs or COMTs must be available for on-scene support during the deployment of MCUs.

App. K-2(f-2) MCU Deployment Procedures

Upon receiving a request for the deployment of an MCU, the owning agency dispatcher should follow these deployment procedures:

- Contact the on-call MCU THSP/COMT responsible for MCU deployment.
- Determine the availability of the resource to fulfill the request.
- Dispatch the MCU THSP/COMT to the incident scene, if available.
- Inform the requesting agency that the MCU is enroute and provide an ETA,

The MCU THSP/COMT should follow these deployment procedures:

- Provide dispatch with an ETA at the incident and method of communications while enroute (e.g., designated radio channel, cell number).
- Retrieve the MCU from its storage location and deliver it to the incident scene.
- Report to the COML/or their designee or to check-in on arrival.
- Prepare the MCU for operations and, if assigned to remain on scene, supervise its use.

App. K-2(f-3) MCU General Activation Procedures

When the MCU arrives on the scene, the MCU THSP/COMT will coordinate the placement of the MCU with the IC or their designee. The MCU THSP/COMT and IC will cooperatively determine the best placement of the MCU to support the incident.

The MCU THSP/COMT will activate systems needed and brief all personnel using the MCU on the operation and safety procedures. Each agency is encouraged to develop an Operations Manual to cover the startup, use, and shut down of the MCU and each system included.

App. K-2(f-4) General MCU General Deactivation Procedures

When the MCU is no longer required, agencies should follow these deactivation procedures prior to demobilizing the MCU:

- Inventory all MCU equipment before leaving the incident scene to determine if equipment is accounted for. Provide this information to the Incident Commander/designee.
- Properly configure the MCU for mobilization, ensuring that all equipment is stowed and secured.

App. K-3 Best Practices Self-Assessment Checklist

The Best Practices Checklist can be used by agencies to self-assess their interoperable communications capabilities and preparedness. The checklist is divided into major topic sections.

App. K-3(a) Administrative

☐ Agency maintains a communications plan and/or participates in a region-based communications plan for interoperability and cross-jurisdictional response.

☐ The agency has designated and documented the following:

- ☐ One or more Communications Unit staff (e.g., COMT, COML, etc.) to provide communications support as needed during an incident or event, or in support of a cross-jurisdictional response.
- ☐ Point of Contact for interoperable communications.
- ☐ Individual(s) or roles with the authority to request or release communications resources.
- ☐ Critical incident notification procedures.
- ☐ Process for the distribution and availability of interoperable communications plans.
- ☐ Maintains a procedure to provide version control of the plan document.
- ☐ Review period for communications plans.
- ☐ Continuity of Operations Plan (COOP) for loss of dispatch facility or communications infrastructure.
- ☐ Cross-jurisdictional response plans include:
  - ☐ Coordination with designated state and/or regional interoperable communications staff for resource requests, deployments, and deconfliction of resource and channel utilization.
  - ☐ Applicable Memoranda of Agreement(s)/Understanding(s), if any.
  - ☐ Authorization and conditions for automatic response.
  - ☐ Indemnification against liability.
  - ☐ Management of equipment damage or loss, or injury of agency personnel.
  - ☐ Cost recapture for equipment or personnel costs, if any.

App. K-3(b) Technical/Equipment

- **Radio Programming**
  - ☐ Channels and talkgroups have consistent names and are programmed in all appropriate communications equipment (sub-level interop/shared channels to use accepted naming standards).
  - ☐ Agency radios are programmed alike where appropriate (radio programming inconsistencies are identified).
  - ☐ Radio programming includes applicable interop channels and talkgroups, as identified in the NIFOG and local interop plan.
- **Trunked Radio Systems**
  - ☐ Recommended minimum and desired hardware and feature requirements are defined, documented, and available to appropriate agencies.
  - ☐ The trunked system fleetmap is maintained as the primary source for talkgroup configuration, programming, and provisioning.

App. K-3(c) Operational

- **Agency**
  - ☐ The agency has adopted NIMS Incident Command System (ICS) as the organizational framework for both local and cross-jurisdictional incident response and deployment.
  - ☐ Available communications resources are identified and documented.
  - ☐ There is a prescribed process for requesting resources.
  - ☐ One or more individuals or staff roles with the authority to request communications resources are identified.
  - ☐ There is a procedure identified for responding to an incident upon request.
  - ☐ There is a procedure identified for the coordination of resources with other agencies during multi-jurisdictional events.
  - ☐ After-action reviews are conducted and documented following any significant deployment of interoperability resources.
- **Dispatch**
  - ☐ Interoperability calling channels are continuously monitored in dispatch.
  - ☐ Interoperability channels are tested on a regular basis to ensure operability and maintain user awareness of proper operation.
  - ☐ Telecommunicator training and staffing are established to ensure that interoperable communications resources can be deployed and/or activated at any time.
  - ☐ Dispatch has a formal notification procedure for incident response and/or resource activation requests.

App. K-3(d) Staff/Personnel

- **Knowledge, Skills, and Abilities**
  - ☐ Field personnel can demonstrate proficiency in operating issued radio equipment, including identification and selection of interoperability channels and/or talkgroups.
  - ☐ A member of the PSAP staff can demonstrate proficiency in operation of facility resources and equipment, including:
    - ☐ Location and purpose of communications plan.
    - ☐ Identification and selection of interoperability channels and/or talkgroups.
    - ☐ Activation and deactivation of console patches and interoperability repeaters, where applicable.
- **Training and Exercise**
  - ☐ Interoperability training is conducted on a regional basis to ensure consistency.
  - ☐ Interoperability approach should be reviewed on a recurring basis.
  - ☐ The agency incorporates NIMS-ICS and Interoperable Communications into the agency training program.
  - ☐ Communications and communications proficiency training are incorporated in the agency training program.
    - ☐ Preliminary recruit and field training.
    - ☐ Dispatcher and Communications Supervisor training.
    - ☐ Reentry training.
    - ☐ Continuing training programs.
  - ☐ Regularly scheduled roll call checks are conducted on interoperable channels and talkgroups.
  - ☐ All drills, exercises, and incident planning include a communications component.
  - ☐ Interoperable communications tabletop and/or functional exercises are conducted on a regular basis.
    - ☐ Exercises to include administrative, field, supervisory and dispatch personnel.

☐ Exercise evaluations and after-action reports are developed after each exercise.

☐ Improvement plans are developed and implemented as needed.

App. K-4 Best Practices, Considerations, and Factors

- Does your agency have a process for the transfer of knowledge when staff changes?
- How are other agencies incorporated into your agency's interoperability plan?
- Consider implementations based on open standards and not proprietary systems.
- Are amateur radio resources underutilized in your agency's area?
- Utilize the strength of personal and professional relationships to promote inter-agency cooperation and planning efforts.
- How can your agency resolve the disconnect between operational knowledge and technical expertise?
- Does your agency cultivate operational people who want to understand communications?
- Does your agency maintain a complete list of your agency's communications capabilities, including radio programming and channel information?
    - Can your communications vendor provide you with this information?
- Does your agency routinely include communications in event planning, training, and exercise programs?

APPENDIX L DEVELOPMENT AND USE OF THE PACE PLAN

PACE is an acronym for Primary, Alternate, Contingency, and Emergency. It is a communications planning tool intended to enable redundancy in communications, ensuring that there is always more than one way to communicate with the people you need to.

The PACE plan should be developed by Plans and Operations, not the Communications Unit. The COMU's job is to support the PACE plan, not dictate it; however, the COML needs to be involved in the planning process in order to verify the feasibility of the PACE Plan.

Below is an example of a PACE plan for communications:

Table 79: Sample PACE Plan for Communications

	Voice Radio	Voice Telephone	Data Exchange	Facility Power
PRIMARY	P-25 Radio	Landline PBX	MS Teams	Grid Power
ALTERNATE	Cell Phone PTT	Cell Phone Voice	SharePoint	UPS Battery
CONTINGENCY	Conventional Radio	Satellite Phone	Email	Building Generator
EMERGENCY	HF Radio or AUXCOMM	Cell site on Light Truck (CoLT) or STR Equivalent	Text messaging	STR Generator Cache

- Diversify your networks as much as possible. The “voice” PACE above is a good example. Cell towers, radio towers, a satellite constellation, and the ionosphere would all have to be down to lose voice communications. “Data” is a less diverse example. Taking out the cell towers and the cable/fiber internet would defeat all four forms of communication unless SATCOM serves are being used. Use what is available. Redundancy isn’t cheap.
- While building radio redundancy, utilize as much of the radio spectrum as is practical, including, HF, VHF, UHF, 700, and 800 MHz frequency bands. Refer to the NIFOG interoperability channels and ensure they are programmed within radios.
- With SATCOM redundancy, if feasible, utilize multiple satellite resources such as Starlink, Iridium, and Ligado. These are three different constellations utilizing Low Earth Orbit (LEO) and Geostationary Earth Orbit (GEO) patterns and use Ku, Ka, and L band transmission systems. The likelihood of a space weather event taking out three different constellations at two different orbits is less likely.
- Consider commercial circuit redundance. Establish redundant voice/data circuits through different providers but identify any points where those separate circuits might cross paths.

APPENDIX M PHONETIC ALPHABET AND SIGN LANGUAGE

Letter	Phonetic	Sign	Letter	Phonetic	Sign
A	Alpha		N	November	
B	Bravo		O	Oscar	
C	Charlie		P	Papa	
D	Delta		Q	Quebec	
E	Echo		R	Romeo	
F	Foxtrot		S	Sierra	
G	Golf		T	Tango	
H	Hotel		U	Uniform	
I	India		V	Victor	
J	Juliet		W	Whiskey	
K	Kilo		X	X-ray	
L	Lima		Y	Yankee	
M	Mike		Z	Zulu	

APPENDIX N REFERENCE MATERIALS

- **Communications Assets Survey & Mapping (CASM) Tool** – CASM Tool | CISA
  - CASM is offered by the Cybersecurity and Infrastructure Security Agency (CISA), and is the primary resource nationwide for the emergency communications community to inventory and share agency, asset, and COMU information for the purpose of planning public safety communications operability and interoperability.
- **Cybersecurity and Infrastructure Security Agency (CISA)** – Homepage | CISA
- **Federal Emergency Management Agency (FEMA)** – FEMA.gov https://www.fema.gov/
- **Incident Command System (ICS) Forms** – Emergency Management Institute | ICS Fillable Forms (fema.gov)
  - Downloadable, fillable ICS forms: https://training.fema.gov/icsresource/icsforms.aspx
- **National Emergency Communications Plan (NECP)** – National Emergency Communications Plan | CISA
  - A strategic plan that sets goals and identifies key national priorities to enhance governance, planning, technology, training and exercises, and disaster communications capabilities. The NECP provides recommendations, including milestones, to help emergency response providers and relevant government officials make measurable improvements in emergency communications over the next three years.
- **National Interoperability Field Operations Guide (NIFOG)** – NIFOG: National Interoperability Field Operations Guide (Version 2.01) (cisa.gov)
  - The National Interoperability Field Operations Guide (NIFOG) is a collection of technical reference material for radio technicians responsible for radios that will be used in disaster response applications. The NIFOG includes information from the National Interoperability Frequency Guide (NIFG), the instructions for use of the NIFG, and other reference material formatted as a pocket-sized guide for radio technicians to carry with them.
- **National Public Safety Telecommunications Council (NPSTC)** – NPSTC Home
- **Illinois Statewide Communication Interoperability Plan (SCIP)** – SCIP Plan PDF
  - The Illinois Statewide Communication Interoperability Plan (SCIP) is a strategic plan designed to provide a framework for the state to identify strategic initiatives intended to enhance emergency communications interoperability throughout the State. Illinois has an approved SCIP that addresses designated critical elements for statewide interoperability and a process to frequently update the SCIP as progress is made and new initiatives emerge.
- **Statewide Interoperability Template Programming Guides by Discipline and Type** – Guides

APPENDIX O GLOSSARY

TERM/ACRONYM	DEFINITION
ACU-1000	Audio bridge used in fixed and mobile configurations. Requires radio from each connected communications system. Gateway device used to link disparate radio systems.
ADP	Advanced Digital Privacy, a non-standard, proprietary encryption standard patented by Motorola. ADP encryption is not compliant with the P-25 standard.
AES 128	Advanced Encryption Standard, a specification for the encryption and decryption of electronic data using a 128-bit key length.
AES 256	Advanced Encryption Standard, a specification for the encryption and decryption of electronic data using a 256-bit key length. The P-25 standard identifies AES 256 as the preferred standard.
ALGID	Algorithm ID, an indicator in hexadecimal format that identifies the type of encryption used. For P-25 systems, the values are: Unencrypted ($80), DES ($81), AES 128 ($82) and AES 256 ($83). For the purposes of this document, any other type of encryption will have a null value.
AM	Administrative Manager
APCO	Association of Public-Safety Communications Officials
ARES	Amateur Radio Emergency Services
AUDIO BRIDGE	Connects four-wire audio from disparate radio systems to provide interoperability.
AUXCOMM	Auxiliary Communications personnel, consisting of knowledgeable individuals who support backup communications during emergency operations or planned events.
CASM	Communication Assets Survey and Mapping
CERT	Community Emergency Response Team
CISA	Cybersecurity and Infrastructure Security Agency
CKR	Common Key Reference, also known as the Storage Location Number (SLN) refers to the encryption key slot in the subscriber radio where the encryption key is stored. Each CKR contains the Traffic Encryption Key (TEK), Key ID (KID) and Algorithm ID (ALGID), which are the necessary components for the successful encryption and decryption of information. Common Key Reference Numbers are in decimal format between 0 and 4095.
CLEAR	The channel/talkgroup has no encryption. CLEAR is the default status for all channels/talkgroups.
COMC	Communications Coordinator
COML	Communications Unit Leader
COMT	Communications Technician
CONSOLE PATCHING	Ability to connect channels via dispatch consoles
CONVENTIONAL RADIO	Radios that operate on fixed radio channels. In the case of multiple channel radios, they only operate on one channel at a time.

TERM/ACRONYM	DEFINITION
DES	Stands for Data Encryption Standard, a specification for the encryption and decryption of electronic data using a key length of 56 bits. Superseded by AES 256 encryption.
DHS	Department of Homeland Security
EM	Emergency Management
EMS	Emergency Medical Services
ENCRYPTION	The process of encoding a message using an algorithm using an encryption key. Encrypted message traffic can only be decrypted by a recipient with the proper key and decryption equipment.
ENCRYPTION ENABLED STATUS	Encryption enabled status for the radio channel provides information on the conditions where a channel would be encrypted. **CLEAR**-The channel/talkgroup has no encryption. CLEAR is the default status for all channels/talkgroups. **OPERATOR SELECT SECURE**-The channel/talkgroup may be encrypted or unencrypted, depending on the subscriber unit operators' selection. **STRAPPED SECURE**-The channel/talkgroup is always encrypted and the subscriber unit operator has no control over the use of encryption on that talkgroup.
ENCRYPTION STANDARD	The specific algorithm and process used to encrypt and decrypt information. For the purposes of this TICP, Encryption Standards will include ADP, AES, and DES.
EOC	Emergency Operations Center
ESF	Emergency Support Function
ETA	Estimated Time of Arrival
FCC	Federal Communications Commission
FD	Fire Department
FDMA (PHASE I TRUNKING)	Phase I Trunking uses a separate channel for each voice conversation used in a radio system. In a five-channel trunked system, if 3 unique voice conversations are taking place simultaneously, they would take up 3 separate channels.
FEMA	Federal Emergency Management Agency
FIXED	Term referring to a communications asset that is permanently housed in each location (i.e., is not mobile).
GMRS	General Mobile Radio Service
HSAC	Homeland Security Advisory Council, formerly Illinois Terrorism Tak Force or ITTF)
IAG	Illinois Attorney General
IAP	Incident Action Plan
IC	Incident Command
ICC	Incident Communications Center
ICCP	Illinois Commerce Commission Police
ICP	Incident Command Post
ICS	Incident Command System
ID	Identification

TERM/ACRONYM	DEFINITION
IDHS	Illinois Department of Human Services
IDNR	Illinois Department of Natural Resources
IDOC	Illinois Department of Corrections
IDOR	Illinois Department of Revenue
IDOT	Illinois Department of Transportation
IDPH	Illinois Department of Public Health
IEMA -OHS	Illinois Emergency Management Agency and Office of Homeland Security
IEMMAS	Illinois Emergency Management Mutual Aid System
IEPA	Illinois Environmental Protection Agency
IFERN	Interagency Fire Emergency Radio Network
IGB	Illinois Gaming Board
ILEAS	Illinois Law Enforcement Alarm System
IMERT	Illinois Medical Emergency Response Team
IMT	Illinois Incident Management Team
INCM	Incident Communications Center Manager
ING	Illinois National Guard
INTER-AGENCY	Located or occurring between two or more agencies
INTEROP	See Interoperable
INTEROPERABLE	Ability of a system to use the parts or equipment of another system
IOEIG	Illinois Office of the Executive Inspector General
IPWMAN	Illinois Public Works Mutual Aid Network
IREACH	Illinois Radio Emergency Assistance Channel
ISP	Illinois State Police
ISPERN	Illinois State Police Emergency Radio Network
ISSP	Illinois Secretary of State Police
ISTHA	Illinois State Toll Highway Authority
IT	Information Technology
ITECS	Illinois Transportable Emergency Communications System
ITSL	Information Technology Unit Leader
ITTF	Illinois Terrorism Task Force (Now known as the Homeland Security Advisory Council (HSAC)
IWIN	Illinois Wireless Information Network
JFO	Joint Field Office
KEY ID	The Key ID (KID) is a 16-bit identifier used to identify a Traffic Encryption Key. P-25 standards reserve the value of $0000 for unencrypted radio traffic.
KEY NAME	Key Name is an alphanumeric name identifying the encryption keyset located in the specified SLN/CKR.
LAN	Local Area Network provided data connectivity through a common communications link or process.
LE	Law Enforcement
LEADS	Law Enforcement Agencies Data System

TERM/ACRONYM	DEFINITION
LMR	Land Mobile Radio
MABAS	Mutual Aid Box Alarm System
MCC	Mobile Communications Center
MCU	Mobile Communications Unit
MEOC	Mobile Emergency Operations Center
MERCI	Medical Emergency Response Communications of Illinois
MHZ	Abbreviation for megahertz. 5 MHz = 5,000,000 Hz or 5,000 kHz.
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRP	Mission Ready Packages include either an ITECS trailer or a UCP and include additional deployable resources such as gateways, radio caches, and interoperability repeaters.
MULTI-KEY	Multi-key describes the ability of the device to store and utilize more than one key. This is an important feature as many systems use multiple encryption keys for various channels and talkgroups, depending on their usage.
MURS	Multi-use Radio Service
MUTUAL AID	Personnel, equipment, or services provided to another jurisdiction
NENA	National Emergency Number Association
NGO	Non-Governmental Organizations
NIFOG	National Interoperability Field Operations Guide
NIMS	National Incident Management System
NIP	National Interoperable Pool
NPSPAC	National Public Safety Planning Advisory Committee
NPSTC	National Public Safety Telecommunications Council
NRF	National Response Framework
NSSE	National Special Security Event
NTIA	National Telecommunications and Information Administration
NWS	National Weather Service
OEM	Office of Emergency Management
OPERATOR SELECT SECURE	Encryption may be turned on or off by the operator as determined by operational requirements. Encryption of information on a talkgroup with Operator Select Encryption requires encryption to be turned on in all radios.
OSFM	Illinois Office of the State Fire Marshal
OTAR	Over-the-air-Rekeying (OTAR) describes the ability to transmit or update encryption keys (rekeying) using encrypted communications channels.
PACE	Planning tool for providing redundancy in system operations. Acronym stands for Primary, Alternate, Contingency, and Emergency.
PD	Police Department

TERM/ACRONYM	DEFINITION
PHASE I TRUNKING (FDMA)	Phase I Trunking uses a separate channel for each voice conversation used in a radio system. In a five-channel trunked system, if 3 unique voice conversations are taking place simultaneously, they would take up 3 separate channels.
PHASE II TRUNKING (TDMA)	Phase II Trunking breaks up voice signals into digital form and supports two simultaneous voice conversations on each channel.
POC	Point of Contact
PORTABLE	Term referring to a mobile communications asset that can be carried by a person and is self-contained.
PSAP	Public Safety Answering Point
RADO	Radio Operator
RAN	Radio Access Network provides the radio base station infrastructure for connectivity between the network and wireless data devices.
RAPIDCOM	
RF	Radio Frequency
SAA	State Administrative Agency
SAR	Search and Rescue
SATCOM	Satellite Communications
SCIP	Statewide Communications Interoperability Plan
SEOC	State Emergency Operation Center
SHARES	Shared Resources High Frequency Radio Program
SIEC	Statewide Interoperability Executive Committee
SLN	Storage Location Number (SLN) often referred to as the Common Key Reference (CKR) number, refers to the encryption key slot in the subscriber radio where the encryption key is stored. Each SLN contains the Traffic Encryption Key (TEK), Key ID (KID) and Algorithm ID (ALGID), which are the necessary components for the successful encryption and decryption of information. Storage Location Numbers are in decimal format between 0 and 4095.
SO	Sheriff's Office
SOP	Standard Operating Procedure
SOS	Illinois Secretary of State
SOW	Site On Wheels (STARCOM21)
STARCOM21	The STARCOM21 P25 network is a Motorola owned, operated, and maintained 700/800 MHz trunked voice radio platform consisting of over 200 linked sites and provides radio communications, services, and interoperability to federal, state, county, and local public safety entities participating on the system. STARCOM21 provides mobile radio coverage in more than 95 percent of the geographic area of Illinois with a grade-of-service level of five percent or greater
STR	Strategic Technology Reserve
STRAPPED SECURE	The channel/talkgroup is programmed to always be encrypted and the subscriber unit operator has no control over the use of encryption on that talkgroup.

TERM/ACRONYM	DEFINITION
SUBSCRIBER UNIT	A mobile, portable or control station radio that is affiliated to a trunked radio system.
SWIC	Statewide Interoperability Coordinator
TALKGROUP	Term usually used with trunked radio systems. A talkgroup is a virtual channel created within a trunked radio system which allows groups of users to communicate with each other.
TDMA (PHASE II TRUNKING)	Phase II Trunking breaks up voice signals into digital form and supports two simultaneous voice conversations on each channel.
TEK	The Traffic Encryption Key (TEK) is the actual key variable used to encrypt and decrypt information. It is stored as a hexadecimal value (ex: $2AC4).
THSP	Technical Specialist
TICP	Tactical Interoperable Communications Plan
TRANSPORTABLE	Term referring to a mobile communications asset that requires a vehicle to transport it and can be set up to operate external to the transport vehicle.
TRUNKED RADIO	In a trunked radio system, the system controller picks one channel out of a pool of channels for a radio to operate on when the Push-to-Talk button is pressed. This provides for more efficient use of a limited number of available channels.
UAC	Unified Area Command vehicle (semi-tractor and trailer)
UASI	Urban Area Security Initiative
UCP	Unified Command Post (vehicle)
UHF	Ultra-High Frequency – Range of 300 to 3,000 MHz for public safety LMR, usually refers to two bands. 380 to 470 MHz (low) and 470 to 512 MHz (high).
USCG	United States Coast Guard
VEHICLE-MOUNTED	Term referring to a mobile communications asset that is mounted/fixed in the transport vehicle and operates from within.
VHF	Very High Frequency – For public safety LMR, usually refers to VHF High Band with a range of 136 to 164 MHz VHF Low Band has a frequency range below 100 MHz
WACN ID/SYS ID	The Wide Area Communications Network ID (WACN) and System ID Number (SYS ID) provide a unique identifier for a trunked radio system. Multiple systems may belong to a single, connected network and the WACM ID/SYS ID provides a method to differentiate between these systems. The format of the WACN ID/SYS ID consists of the hexadecimal values for both WACN and System, separated by a hyphen (ex: BEE00-140).

APPENDIX P NOTES