Commonwealth of Kentucky Field Operations Guide (KY-FOG)

Version 1.0 June 2012

Letter of Introduction

The Commonwealth of Kentucky Field Operations Guide (KY-FOG) is a collection of technical reference material to aid Communications Unit personnel in establishing solutions to support communications during emergency incidents and planned events. The KY-FOG includes information from the Commonwealth of Kentucky Statewide Communications Interoperability Plan (SCIP) and other communication documents; formatted as a pocket-sized guide.

The KY-FOG contains local, territory, and national interoperability channels. These channels should be programmed into all public safety radios in the appropriate frequency band. If geographic restrictions on some channels preclude their use within the Commonwealth, they may offer an interoperability option when responding out of territory where the restrictions do not apply.

Please send updates, corrections, or comments about the KY-FOG or requests for additional copies to the Statewide Interoperability Coordinator.

Thank you,

Derek Nesselrode

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Record of Change

Change Number	Date	Pages Changed	Change Date	Change Made By

About this Guide

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The purpose of the Commonwealth of Kentucky Field Operations Guide (KY-FOG) is to be used to increase efficiency in establishing interoperable communications during incidents, create a consistent knowledge base of interoperable communications channels and networks, and provide a helpful tool for pre-planning and interoperable communications training and exercises.

Please send updates, corrections, or comments about the KY-FOG to the Statewide Interoperability Coordinator.

Table of Contents

1 Interoperable Communications Commonalities

1.1 Common Issues

1. Incident using radio channels in more than one band (VHF, UHF, and/or 700/800 MHz)
2. Incident using different radio bands via console or gateway patches
3. Unable to communicate critical information due to radio congestion
4. Unfamiliar with radio system(s) or assigned radio functionality
5. Instructions and assignments not clear
6. Have no or inadequate communication with your crew members or supervisor
7. Dispatch to dispatch channel patching
8. Inadequate number of tactical channels available or assigned
9. Multiple conversations on the same talk group or channel
10. Ensure that the radio system that you are using for interoperability completely supports the incident with good radio coverage
11. High level of background noise (i.e., wind, generators, power tools, fire pumps)
12. Emergency button activation – who is receiving the notification, who is authorized to clear
13. Multiple agencies performing radio programming at the incident
14. Organizations in the system do not use the same vocabulary

15. Mobile gateway devices being used in a strategic (wide-area) rather than tactical (local) environment
16. Multiple mobile gateways available at the incident
17. Responding agencies have not identified a single Communications Unit Leader for the incident
18. Working in the deep interior of a building, parking garage, or underground

1.2 Agency Responsibilities and Rights

Agencies will retain the following responsibilities and rights:

- Agencies are responsible for complying with MOUs and Agreements developed through the Commonwealth of Kentucky in coordination with their respective jurisdictions (MOUs are available at www.kwiec.ky.gov).
- Authorized representatives of agencies participating in this plan have the authority to request the use of equipment, including systems and mobile assets, in accordance with Standard Operating Procedures (SOPs).
- Where applicable, agencies will be responsible for consistently maintaining, testing, and exercising connectivity to interoperable communications.
- Incident Commanders retain the right to decide how to utilize interoperable communications.
- Agencies are responsible for programming all mutual aid and common channels in their radios.

1.3 Prioritization and Shared Use of Regional Interoperability Assets

The Incident Commander, or designee, in conjunction /cooperation with their counterparts in other involved agencies, will have the authority to request the use of interoperable assets. Once Incident Command has been established, Command Staff or the Communications Unit Leader (when designated) direct the further coordination and delegation of the interoperable communications assets assigned to the event or incident in question.

When the same resources are requested for two or more incidents, resource assignments should be based on the priority levels in accordance with the National Incident Management System (NIMS).

In the event of multiple simultaneous incidents within the same priority, the resources should be allocated according to NIMS.

In response to events or incidents which cross over jurisdictional boundaries, there potentially could be competing demands and priorities for interoperable communications assets.

Agencies should activate needed interoperable assets to respond effectively and to minimize any negative impact on surrounding agencies or jurisdictions. Specifically, interoperable communications should be established with the following techniques, listed in increasing order of complexity:

1. Utilize ***face-to-face*** communications wherever appropriate. For example, the co-location of all Command and General Staff at the Incident Command Post (ICP) provides the best direct communications and reduces the demand on interoperability resources

2. Employ **local communications assets** until such time as either those assets become taxed or inadequate based on the nature and/or scope of the incident
3. If response agencies are users of a shared system, utilize that **shared system** to establish interoperable communications
4. If response agencies operate on disparate systems, utilize **shared or mutual aid channels** to establish interoperable communications.
5. If response agencies do not share systems or channels, utilize a **gateway** solution to establish interoperable communications
6. Where interoperable communications cannot otherwise be established between response agencies, utilize **swap or cache radios** to establish operable communications for responders
7. If no other method of interoperability can be established, relay communications through **staff members**

When the same resources are requested for two or more incidents, resource assignments should be based on the priority levels listed below:

1. Disasters, large scale incidents, or extreme emergencies requiring mutual aid or interagency communications
2. Incidents where imminent danger exists to life or property
3. Incidents requiring the response of multiple agencies
4. Pre-planned events requiring mutual aid or interagency communications
5. Incidents involving a single agency where supplemental communications are needed for agency use
6. Drills, tests and exercises

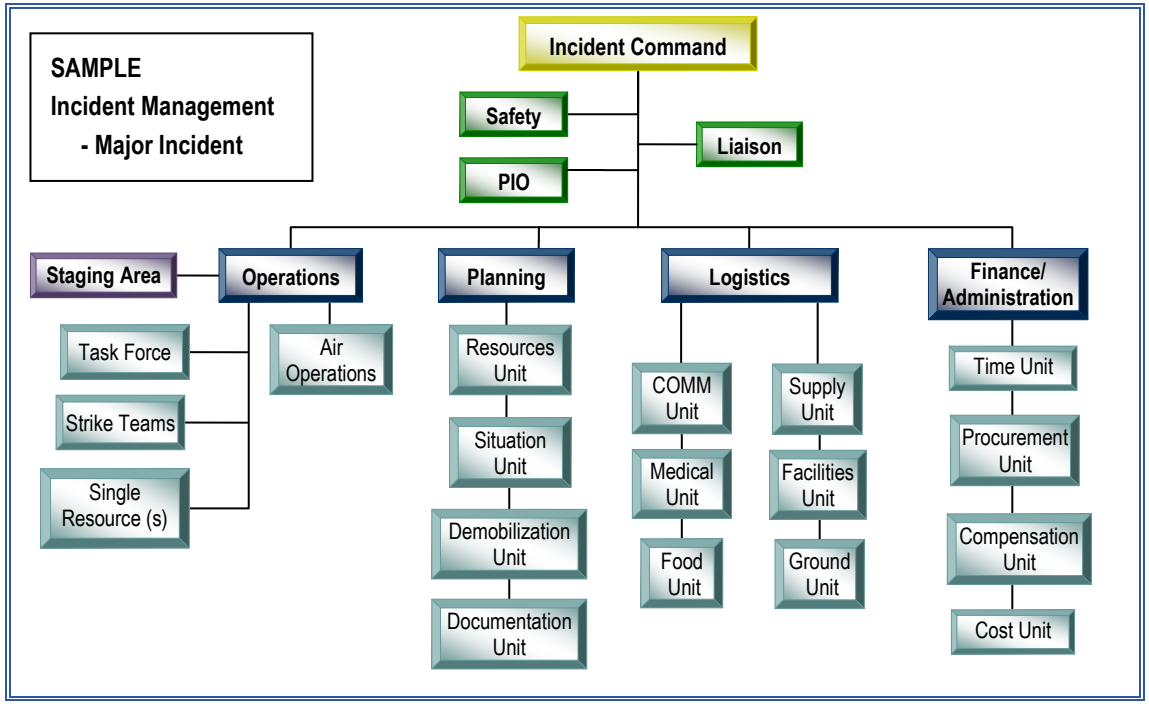
In the event of multiple simultaneous incidents within the same priority level, the Incident Commander or Unified Command (if formed) shall have allocation authority and shall allocate resources with the following priorities in mind:

1. Incidents with the greatest level of exigency (e.g., greater threat to life or property, more immediate need, etc.) have priority over less exigent incidents
2. Agencies with single/limited interoperable options have priority use of those options over agencies with multiple interoperable options

When at all possible, agencies already using an interoperable asset during an event should not be redirected to another resource.

1.4 Incident Command System (ICS)

ICS is a key feature of NIMS. It is a widely applicable management system designed to enable effective, efficient incident management by integrating a combination of facilities, equipment, personnel, procedures and communications operating with a common organizational structure. ICS is used to organize on-scene operations for a broad spectrum of incidents/events and guides the process for planning, building and adapting that structure. ICS is based on the command principles of unity of command, chain of command, span of control, delegation of authority and division of labor. The five major functional areas of ICS are command, operations, planning, logistics and finance/administration. The Incident Management – Major Incident flow can be found on the following page.


SAMPLE
Incident Management
- Major Incident
Incident Command
Safety
PIO
Liaison
Staging Area
Operations
Planning
Logistics
Finance/ Administration
Task Force
Strike Teams
Single Resource (s)
Air Operations
Resources Unit
Situation Unit
Demobilization Unit
Documentation Unit
COMM Unit
Medical Unit
Food Unit
Supply Unit
Facilities Unit
Ground Unit
Time Unit
Procurement Unit
Compensation Unit
Cost Unit

1.5 Position Descriptions

At an Incident/Event

The Communications Unit is in the Service Branch of the Logistics Section of the ICS. Listed below are the Communication Unit Organization position titles and responsibilities.

Communications Unit Leader (COML) –Manages the technical and operational aspects of the Communications Function during an incident or event. Develops National Incident Management System (NIMS)/Incident Command System (ICS) Form 205 Incident Radio Communications Plan and supervises the communication unit.

Incident Communications Technician (COMT) – Deploys advanced equipment and keeps it operational throughout the incident/event.

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.

Incident Communications Center Manager (INCM) – Supervises the operational aspects of the Incident Communications Center (ICC) (Mobile Unit and/or Fixed Facility). During an incident, the ICC is designed to absorb incident traffic in order to separate that traffic from the day-to-day activities of the dispatch center. The ICC is typically located at the Incident Command Post (ICP) in a fixed site, tent, trailer, mobile communications unit.

Radio Operator (RADO) - Staffs a radio at the ICC and is responsible for documenting incoming radio and telephone messages. Incident Dispatchers or Tactical Dispatchers are used as RADOs.

Dispatch Center or Emergency Operations Center (EOC)

Communications Coordinator (COMC) – The COML will work with the COMC to coordinate communications with other dispatch centers and the incident communication plan. Locally, the jurisdictional dispatch center supervisor or dispatcher will act as the Communications Coordinator. Coordinators may also be located at the county, region, state, and/or federal level.

1.6 ICS Personnel Common Responsibilities

The following is a checklist applicable to all ICS personnel.

a. Receive assignment from your agency, including:
    1. Job assignment, e.g., Strike Team designation, overhead position, etc.
    2. Resource order number and request number
    3. Reporting location
    4. Reporting time
    5. Travel instructions
    6. Any special communications instructions, e.g. travel channel
b. Upon arrival at the incident, check in at designated Check-in location. Check-in may be found at:
    1. Incident Command Post
    2. Base or Camps
    3. Staging Areas
    4. Helibases
    5. If you are instructed to report directly to a line assignment, check in with the Division/Group Supervisor
c. Receive briefing from immediate supervisor.
d. Acquire work materials.
e. Conduct all tasks in a manner that ensures safety and welfare of you and your co-workers.
f. Organize and brief subordinates.
g. Know the assigned channel(s) for your area of responsibility and ensure that communication equipment is working properly
h. Use clear text and ICS terminology (no codes) in all radio communications. All radio communications to the Incident Communications Center will be addressed: "(Incident Name) Communications", e.g., "Webb Communications".

1.7 Area Commander Position Checklist

The Area Commander is responsible for the overall direction of incident management teams assigned to the same incident or to incidents in close proximity. This responsibility includes ensuring that conflicts are resolved, compatible incident objectives are established and strategies are selected for the use of critical resources.

Area Command also has the responsibility to coordinate with local, state, federal, and volunteer organizations and agencies that are operating within the Area.

a. Obtain briefing from the agency executive(s) on agency expectations, concerns, and constraints
b. Obtain and carry out delegation of authority from the agency executive for overall management and direction of the incidents within the designated Area Command
c. If operating as a Unified Area Command, develop working agreement for how Area Commanders will function together
d. Delegate authority to Incident Commanders based on agency expectations, concerns, and constraints
e. Establish an Area Command schedule and timeline
f. Resolve conflicts between incident "realities" and agency executive "wants"
g. Establish appropriate location for the Area Command facilities
h. Determine and implement an appropriate Area Command organization
i. Determine need to Technical Specialists to support Area Command

j. Obtain incident briefing and Incident Action Plans from Incident Commanders
k. Assess incident situations prior to strategy meetings
l. Conduct a joint meeting with all Incident Commanders
m. Review objectives and strategies for each incident
n. Periodically review critical resource needs
o. Maintain a close coordination with the agency executive
p. Establish priorities for use of critical resources
q. Review procedures for interaction within the Area Command
r. Approve Incident Commanders' requests for and release of critical resources
s. Coordinate and approve demobilization plans
t. Maintain log of major actions/decisions

1.8 Incident Commander Position Checklist

The Incident Commander's responsibility is the overall management of the incident. On most incidents, a single Incident Commander carries out the command activity; however, Unified Command may be appropriated. The Incident Commander is selected by qualifications and experience.

The Incident Commander may have a Deputy, who may be from the same agency, or from an assisting agency. Deputies may also be used at section and branch levels of the ICS organization. Deputies must have the same qualifications as the person for whom they work for, as they must be ready to take over that position at any time.

a. Review Common Responsibilities (Section 1.6)
b. Assess the situation and/or obtain a briefing from the prior Incident Commander
c. Determine Incident objectives and strategy
d. Establish the immediate priorities
e. Establish an Incident Command Post
f. Consider the need for Unified Command
g. Establish an appropriate organization
h. Ensure planning meetings are scheduled as required
i. Approve and authorize the implementation of an Incident Action Plan
j. Ensure that adequate safety and personnel accountability measures are in place
k. Coordinate activity for all Command and General Staff
l. Coordinate with key people and officials
m. Approve requests for additional resources or for the release of resources

n. Keep agency administrator informed of incident status
o. Approve the use of trainees, volunteers, and auxiliary personnel
p. Authorize release of information to the news media
q. Ensure Incident Status Summary (ICS Form 209) is completed and forwarded to appropriate higher authority
r. Order the demobilization of the incident when appropriate
s. Maintain Unit/Activity Log (ICS Form 214)

1.9 Communications Unit Leader (COML) Position Checklist

1. Obtain briefing from the Logistics Section Chief or Service Branch Director
2. Organize and staff unit as appropriate
    a. Assign Communications Center Manager and Lead Incident Dispatcher
    b. Assign Message Center Manager and ensure adequate staff is assigned to answer phones and attend to fax machines
3. Assess communications systems/channels in use; advise on communications capabilities/limitations
4. Develop and implement effective communications procedures (flow) internal and external to the incident/Incident Command Post.
5. Assess Incident Command Post phone load and request additional lines as needed
6. Obtain copy of Communications Resource Availability Worksheet (ICS Form 217A) which provides RF information for the applicable area. If ICS Form 217A has not been completed or is unavailable, it should be prepared).
7. Prepare and Implement Incident Communications Plan (ICS Form 205):
    a. Obtain current organizational chart
    b. Determine most hazardous tactical activity; ensure adequate communications
    c. Make communications assignments to all other Operations elements, including volunteer, contract, or mutual aid
    d. Determine command communications needs

e. Establish and post any specific procedures for use of Incident Command Post communications equipment

8. Include cellular phones and pagers in Incident Communications Plan (ICS Form 205T) if appropriate:
   a. Determine specific organizational elements to be assigned to telephones
   b. Identify all facilities/locations with which communications must be established (shelters, press area, liaison area, agency facilities, other governmental entities' Emergency Operations Center [EOCs], etc.), and identify and document phone numbers
   c. Determine which phones and what numbers should be used by specific personnel and their purpose. Assign specific telephone numbers for incoming calls, and report these numbers to staff and off-site parties such as other local jurisdictions, state and federal agencies
   d. Do not publicize OUTGOING call lines
9. Activate, serve as contact point, and supervise the integration of volunteer radio organizations into the communications system
10. Ensure radio and telephone logs are available and being used
11. Determine need and research availability of additional nets and systems:
   a. Order through Supply Unit after approval by Section Chief or appropriate official
   b. Federal systems
   c. Additional radios and other communications devices, including repeaters, radio-telephone interconnects and satellite down-link capabilities may be available through KYEM, FEMA or the National Interagency Fire Center (NIFC)
12. Document malfunctioning communications equipment, facilitate repair

13. Establish and maintain communications equipment accountability system
14. As required, provide technical information regarding:
    a. Adequacy of communications system currently in use
    b. Geographic limitations of communications equipment
    c. Equipment capabilities
    d. Amount and types of equipment available
    e. Anticipated problems in the use of communications equipment
15. Estimate Unit needs for expected operations
16. As required, request relief personnel
17. Provide briefing to relief personnel on current activities and unusual situations
18. Document all activity on Unit/Activity Log (ICS Form 214)

1.10 Requests for Communications Assets

Asset requests can be made to the State EOC and/or the Kentucky State Police.

1. An agency needing support of a communications asset will contact their local dispatch center.
2. The local dispatch center will contact the State EOC (EOC) and make the request. The EOC will open a mission and start official documentation of the incident
3. The EOC will contact the closest and most appropriate Commonwealth or local asset that can support the request, determine the availability and estimated time of deployment. This will normally be routed through the local EMA
4. The EOC will then report the response information back to the requesting dispatch center
5. The EOC will verify that the responding asset, the requesting jurisdiction dispatch center, and the on-scene commander all have a common mutual aid channel

6. The responding asset will coordinate with Incident Command for staging of the asset or to determine a reporting location
7. The responding communications asset will establish communications with the EOC once on scene (applies to State deployed assets)
8. The IC will designate a Communications Unit Leader (COML) who will prepare an Incident Radio Communications Plan (ICS Form 205). The ICS 205 will be provided to the Communications asset. The Communications Plan will also include phone numbers for incident personnel and other significant locations
9. If necessary, the IC will designate law enforcement personnel to provide security at the site of the Communications asset
10. The communications asset will rapidly prepare to activate interoperable communications necessary to support on-scene incident personnel
11. The communications asset will have a cache of UHF/VHF/800 portable radios to issue to incident personnel if necessary
12. The communications asset should be prepared to remain on scene staffed by trained communications personnel until released by the Incident Commander or designee

1.11 Communications Assets and Resources

The Communication Assets Survey and Mapping (CASM) tool provides the ability for representatives of public safety agencies within an urban area or State to collect, store, and visualize data about agencies, communication assets, and how agencies use those assets.

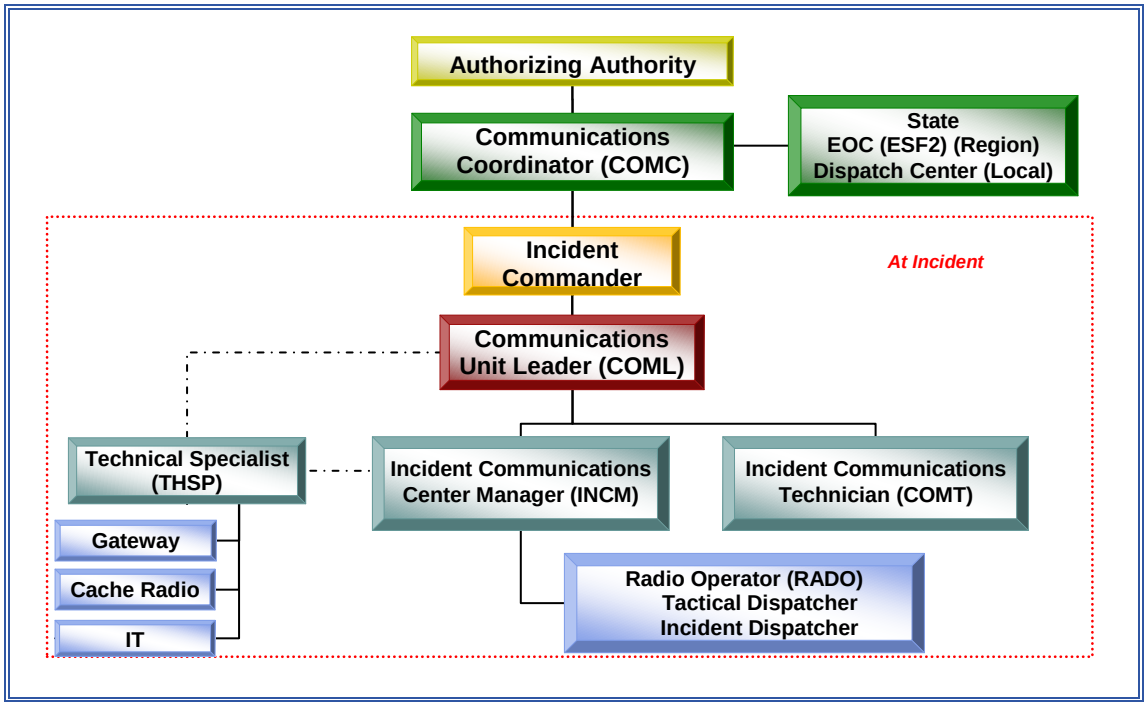
The CASM tool is composed of two components: the Communication Assets Survey (CAS) and the Communication Assets Mapping (CAM) tool. CAS provides a means to enter, edit, and delete information about agencies, communication assets (such as radio systems, dispatch centers, mutual aid channels/systems, gateways and radio caches), and agency usage of those assets. CAM provides a means to display this information in a map-based interface and provides analysis tools for displaying agency-to-agency interoperability, including interoperability gaps, in various ways.

Authorization to access data for a particular urban area or State is controlled by the State/Region/Urban Area Administrative Manager (AM); each user must have a user name and password in order to login.

The CASM AM POC information for the Commonwealth of Kentucky is listed in the following table.

Table 1. CASM Administrative Manager

Name	Phone	Email
Misty Moore	502-782-2066	misty.moore@ky.gov


Authorizing Authority
Communications Coordinator (COMC)
State EOC (ESF2) (Region) Dispatch Center (Local)
Incident Commander
At Incident
Communications Unit Leader (COML)
Technical Specialist (THSP)
Incident Communications Center Manager (INCM)
Incident Communications Technician (COMT)
Gateway
Cache Radio
IT
Radio Operator (RADO)
Tactical Dispatcher
Incident Dispatcher

2 Mutual Aid Interoperability System Description

2.1 VHF

The VHF (VMA, VCALL10 & VTAC11-14) Interoperability Frequencies are simplex direct only. These channels can be used to assign tactical on scene talk groups during an emergency or used to contact your nearest Kentucky State Police (KSP) dispatch center. The equipment located at the tower sites are multi-channel control stations that operate on one channel at a time. The Dispatch centers monitor the VMA frequency and have the ability to change the channels at the tower site to any of the VHF frequencies. The VHF repeater pairs listed in the operation guide are for tactical use only and should never be used without coordination with KSP technical staff to prevent channel interference.

2.2 UHF

The UHF (UMA, UCALL40 & UTAC41-43) Interoperability Frequencies are repeater based channels. These channels can be used in repeater mode for wide area coverage or in simplex direct mode to assign tactical on scene talk groups during an emergency and used to contact your nearest Kentucky State Police (KSP) dispatch center. It is recommended to program both the repeater frequencies and direct talk around frequencies into your radios. The equipment located at the tower sites consist of individual repeaters for each channel that will support multiple repeated talk groups simultaneously. The Dispatch centers monitor the UMA frequency.

2.3 800 MHz

The 800 MHz (8CALL90 & 8TAC91-94) Interoperability Frequencies are repeater based channels. These channels can be used in repeater mode for wide area coverage or in simplex direct mode to assign tactical on scene talk groups during an emergency and used to contact your nearest Kentucky State Police (KSP) dispatch center. It is recommended to program both the repeater frequencies and direct talk around frequencies into your radios. The equipment located at the tower sites are multi-channel repeater stations that operate on one channel at a time. The Dispatch centers monitor the 8CALL frequency and have the ability to change the channels at the tower site to any of the 800 MHz frequencies.

2.4 General Information

The Mutual Aid Interoperability System was constructed by the Kentucky State Police to provide shared interoperability channels to first responders to utilize during emergencies or disasters that usually overwhelm day to day radio systems. All FCC licenses for the system are held by KSP making it necessary for each agency to sign a Memorandum of Understanding (MOU) to use these frequencies.

The MOU can be obtained at www.kwiec.ky.gov .

The system provides a link to KSP dispatch as well as offers tactical talk groups in VHF, UHF and 800Mhz frequency bands. The bands can be used independently or patched by KSP dispatch in some instances. The end user should never patch these frequencies themselves without consulting KSP technical staff, as interference and a system lock up could occur.

2.5 Understanding Potential System Issues

2.5.1 Coverage:

This system was designed based on the output power of the tower site control stations and repeaters with "talk back" input power from high power mobile radios in the field. Simplex direct and repeater channels alike have limited range based upon the power output of your radio and relative distance between users and tower location.

2.5.2 System Outages:

While the Mutual Aid Network is robust and redundant, it is still susceptible to the extreme weather and disasters many of you are accustomed to responding to. Report any network outages to KSP immediately. It is highly recommended that both direct simplex and repeater frequencies are programmed in your radios. The simplex direct frequencies require no infrastructure and the ability to use these frequencies on scene as tactical talk groups is extremely important.

Example:

VTAC11- Law Enforcement

VTAC12- Fire

VTAC13- EMS

VTAC14- Command and Control

Patching:

Patching and gateway technology is one of the many tools in our attempt to bridge the gap of disparate radio system. While this is a great tool, there are many factors that will determine the success of a patch. These factors range from location of users in relation to transmitter towers, audio quality from the users and

technical problems causing audio delays or a system to lock up. The reliability of patching audio at a system level is less than ideal and plans should be made to overcome this issue if patching is not a viable option. Radio cache's or swaps may be necessary.

3 Interoperability Assets

Refer to regional Standard Operating Procedures (SOPs) for policies and procedures on asset usage.

3.1 General Rules of Use

- **National Incident Management System** – Implement an Incident Command System (ICS) compliant with the National Incident Management System (NIMS) when using any regional interoperability resource.
- **National Response Framework** – Use the appropriate ICS forms needed to document a given incident, in accordance with the National Response Framework (NRF).
- **Plain Language** – 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 communication situations. (i.e., "Command, this is Franklin County Ambulance 26")

Applies to 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**.
- **Patching** – Gateway devices should not patch Federal Communication Commission (FCC) frequencies to Military frequencies
- **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 communications technicians (COMTs) must be available for on-scene support during the deployment of mobile gateways.

Applies to Radio Caches

- **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 must 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/MCUs/equipment in the condition that they were issued/received. Responsibilities for lost or damaged equipment lie with the appropriate agency as dictated by existing Memoranda of Agreement (MOAs).

Applies to Mobile Command Units (MCUs)

- **Equipment Return** – The requesting agency is responsible for the return of any MCU in the condition that it was received and/or as dictated by existing Memoranda of Agreement (MOAs).
- **Resource Modifications** – The requesting agency is not allowed to change anything in the MCU without written permission of the owning agency. Should a modification need to be made, (i.e., changing an electric end) the

requesting agency will incur costs of any modification/restoration.

- **Operational Expenses** – Responsibility for operational expenses should be decided upon ahead of time or within an MOU.

3.2 Non-Federal National Interoperability Channels

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g., Project 25) or "M" indicating mixed mode. All channels are shown as if programmed in a control station, mobile, or portable radio. Repeater and base stations must be programmed with the RX and TX reversed. Unless stated otherwise, all frequencies are MHz except CTCSS tones, which are in Hz.

3.2.1 VHF Low Band Mutual Aid & Common Channels

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **VHF Low Band**	Description **Discipline Specific Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Duplex	LLAW1	LE	39.4600	W	156.7	45.8600	W	156.7	A	
Simplex	LLAW1D	LE	39.4600	W	156.7	39.4600	W	156.7	A	
Duplex	LFIRE2	Fire	39.4800	W	156.7	45.8800	W	156.7	A	
Simplex	LFIRE2D	Fire	39.4800	W	156.7	39.4800	W	156.7	A	
Duplex	LLAW3	LE	45.8600	W	156.7	39.4600	W	156.7	A	
Simplex	LLAW3D	LE	45.8600	W	156.7	45.8600	W	156.7	A	
Duplex	LFIRE4	Fire	45.8800	W	156.7	39.4800	W	156.7	A	
Simplex	LFIRE4D	Fire	45.8800	W	156.7	45.8800	W	156.7	A	

3.2.2 VHF High Band Mutual Aid & Common Channels

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **VHF HIGH BAND**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Simplex	VMA	Any Public Safety	155.4750	N	156.7	155.4750	N	156.7	A	Calling/Tactical
Simplex	VCALL10	Any Public Safety	155.7525	N	156.7	155.7525	N	156.7	A	Calling/Hailing
Simplex	VTAC11	Any Public Safety	151.1375	N	156.7	151.1375	N	156.7	A	Tactical Simplex
Simplex	VTAC12	Any Public Safety	154.4525	N	156.7	154.4525	N	156.7	A	Tactical Simplex
Simplex	VTAC13	Any Public Safety	158.7375	N	156.7	158.7375	N	156.7	A	Tactical Simplex
Simplex	VTAC14	Any Public Safety	159.4725	N	156.7	159.4725	N	156.7	A	Tactical Simplex
Duplex	VTAC33	Any Public Safety	159.4725	N	136.5	151.1375	N	136.5	A	Tactical Repeater
Duplex	VTAC34	Any Public Safety	158.7375	N	136.5	154.4525	N	136.5	A	Tactical Repeater
Duplex	VTAC35	Any Public Safety	159.4725	N	136.5	158.7375	N	136.5	A	Tactical Repeater
Duplex	VTAC36	Any Public Safety	151.1375	N	136.5	159.4725	N	136.5	A	Tactical Repeater
Duplex	VTAC37	Any Public Safety	154.4525	N	136.5	158.7375	N	136.5	A	Tactical Repeater
Duplex	VTAC38	Any Public Safety	158.7375	N	136.5	159.4725	N	136.5	A	Tactical Repeater

VTAC33-38 Recommended for deployable tactical repeater user only (FCC Station Class FB2T).
VTAC36-38 are preferred: VTAC33-35 should be used only when necessary due to interference.

3.2.3 VHF Mutual Aid & Common Channels

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **VHF High Band**	Description **Discipline Specific Channels**

Discipline specific channels: VFIRE, VMED, VLAW - Rules for use of the channels are contained in 47 CFR 90.20. Link: http://edocket.access.gpo.gov/cfr_2010/octqtr/pdf/47cfr90.20.pdf

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Simplex	VFIRE21	Fire Mutual Aid	154.2800	N	156.7	154.2800	N	156.7	A	Tactical
Simplex	VFIRE22	Fire Mutual Aid	154.2650	N	156.7	154.2650	N	156.7	A	Tactical
Simplex	VFIRE23	Fire Mutual Aid	154.2950	N	156.7	154.2950	N	156.7	A	Tactical
Simplex	VFIRE24	Fire Mutual Aid	154.2725	N	156.7	154.2725	N	156.7	A	Tactical
Simplex	VFIRE25	Fire Mutual Aid	154.2875	N	156.7	154.2875	N	156.7	A	Tactical
Simplex	VFIRE26	Fire Mutual Aid	154.3025	N	156.7	154.3025	N	156.7	A	Tactical
Simplex	VLAW31	LE Mutual Aid	155.4750	N	156.7	155.4750	N	156.7	A	Tactical
Simplex	VLAW32	LE Mutual Aid	155.4825	N	156.7	155.4825	N	156.7	A	Tactical
Simplex	VMED28	EMS Mutual Aid	155.3400	N	156.7	155.3400	N	156.7	A	Tactical
Simplex	VMED29	EMS Mutual Aid	155.3475	N	156.7	155.3475	N	156.7	A	Tactical
Simplex	SAR	SAR Common	155.1600	N	156.7	155.1600	N	156.7	A	Tactical

3.2.4 UHF Band Mutual Aid & Common Channels

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **UHF**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Duplex	UMA	Any Public Safety	453.3000	W	162.2	458.3000	W	162.2	A	W until 2013
Duplex	UCALL40	Any Public Safety	453.2125	N	156.7	458.2125	N	156.7	A	
Simplex	UCALL40D	Any Public Safety	453.2125	N	156.7	453.2125	N	156.7	A	
Duplex	UTAC41	Any Public Safety	453.4625	N	156.7	458.4625	N	156.7	A	
Simplex	UTAC41D	Any Public Safety	453.4625	N	156.7	453.4625	N	156.7	A	
Duplex	UTAC42	Any Public Safety	453.7125	N	156.7	458.7125	N	156.7	A	
Simplex	UTAC42D	Any Public Safety	453.7125	N	156.7	453.7125	N	156.7	A	
Duplex	UTAC43	Any Public Safety	453.8625	N	156.7	458.8625	N	156.7	A	
Simplex	UTAC43D	Any Public Safety	453.8625	N	156.7	453.8625	N	156.7	A	

3.2.5 700 MHz Band Mutual Aid & Common Channels

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **700 MHZ**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Duplex	7CALL50	Calling Channel	769.24375	N	F7E	799.24375	N	293	D	
Simplex	7CALL50D	Calling Channel	769.24375	N	F7E	769.24375	N	293	D	
Duplex	7TAC51	General Public Safety	769.14375	N	F7E	799.14375	N	293	D	
Simplex	7TAC51D	General Public Safety	769.14375	N	F7E	769.14375	N	293	D	
Duplex	7TAC52	General Public Safety	769.64375	N	F7E	799.64375	N	293	D	
Simplex	7TAC52D	General Public Safety	769.64375	N	F7E	769.64375	N	293	D	
Duplex	7TAC53	General Public Safety	770.14375	N	F7E	800.14375	N	293	D	
Simplex	7TAC53D	General Public Safety	770.14375	N	F7E	770.14375	N	293	D	
Duplex	7TAC54	General Public Safety	770.64375	N	F7E	800.64375	N	293	D	
Simplex	7TAC54D	General Public Safety	770.64375	N	F7E	770.64375	N	293	D	
Duplex	7TAC55	General Public Safety	769.74375	N	F7E	799.74375	N	293	D	

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **700 MHZ**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Simplex	7TAC55D	General Public Safety	769.74375	N	F7E	769.74375	N	293	D	
Duplex	7TAC56	General Public Safety	770.24375	N	F7E	800.24375	N	293	D	
Simplex	7TAC56D	General Public Safety	770.24375	N	F7E	770.24375	N	293	D	
Duplex	7GTAC57	Other Public Service	770.99375	N	F7E	800.99375	N	293	D	
Simplex	7GTAC57D	Other Public Service	770.99375	N	F7E	770.99375	N	293	D	
Duplex	7MOB59	Mobile Repeater	770.89375	N	F7E	800.89375	N	293	D	
Simplex	7MOB59D	Mobile Repeater	770.89375	N	F7E	770.89375	N	293	D	
Duplex	7LAW61	LE	770.39375	N	F7E	800.39375	N	293	D	
Simplex	7LAW61D	LE	770.39375	N	F7E	770.39375	N	293	D	
Duplex	7LAW62	LE	770.49375	N	F7E	800.49375	N	293	D	
Simplex	7LAW62D	LE	770.49375	N	F7E	770.49375	N	293	D	
Duplex	7FIRE63	Fire	769.89375	N	F7E	799.89375	N	293	D	
Simplex	7FIRE63D	Fire	769.89375	N	F7E	769.89375	N	293	D	

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **700 MHZ**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Duplex	7FIRE64	Fire	769.99375	N	F7E	799.99375	N	293	D	
Simplex	7FIRE64D	Fire	769.99375	N	F7E	769.99375	N	293	D	
Duplex	7MED65	EMS	769.39375	N	F7E	799.39375	N	293	D	
Simplex	7MED65D	EMS	769.39375	N	F7E	769.39375	N	293	D	
Duplex	7MED66	EMS	769.49375	N	F7E	799.49375	N	293	D	
Simplex	7MED66D	EMS	769.49375	N	F7E	769.49375	N	293	D	
Duplex	7DATA69	Mobile Data	770.74375	N	F7E	800.74375	N	293	D	
Simplex	7DATA69D	Mobile Data	770.74375	N	F7E	770.74375	N	293	D	
Duplex	7CALL70	Calling Channel	773.25625	N	F7E	803.25625	N	293	D	
Simplex	7CALL70D	Calling Channel	773.25625	N	F7E	773.25625	N	293	D	
Duplex	7TAC71	General Public Safety	773.10625	N	F7E	803.10625	N	293	D	
Simplex	7TAC71D	General Public Safety	773.10625	N	F7E	773.10625	N	293	D	
Duplex	7TAC72	General Public Safety	773.60625	N	F7E	803.60625	N	293	D	

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **700 MHZ**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Simplex	7TAC72D	General Public Safety	773.60625	N	F7E	773.60625	N	293	D	
Duplex	7TAC73	General Public Safety	774.10625	N	F7E	804.10625	N	293	D	
Simplex	7TAC73D	General Public Safety	774.10625	N	F7E	774.10625	N	293	D	
Duplex	7TAC74	General Public Safety	774.60625	N	F7E	804.60625	N	293	D	
Simplex	7TAC74D	General Public Safety	774.60625	N	F7E	774.60625	N	293	D	
Duplex	7TAC75	General Public Safety	773.75625	N	F7E	803.75625	N	293	D	
Simplex	7TAC75D	General Public Safety	773.75625	N	F7E	773.75625	N	293	D	
Duplex	7TAC76	General Public Safety	774.25625	N	F7E	804.25625	N	293	D	
Simplex	7TAC76D	General Public Safety	774.25625	N	F7E	774.25625	N	293	D	
Duplex	7GTAC77	Other Public Service	774.85625	N	F7E	804.85625	N	293	D	
Simplex	7GTAC77D	Other Public Service	774.85625	N	F7E	774.85625	N	293	D	
Duplex	7MOB79	Mobile Repeater	774.50625	N	F7E	804.50625	N	293	D	
Simplex	7MOB79D	Mobile Repeater	774.50625	N	F7E	774.50625	N	293	D	

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **700 MHZ**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Duplex	7LAW81	LE	774.00625	N	F7E	804.00625	N	293	D	
Simplex	7LAW81D	LE	774.00625	N	F7E	774.00625	N	293	D	
Duplex	7LAW82	LE	774.35625	N	F7E	804.35625	N	293	D	
Simplex	7LAW82D	LE	774.35625	N	F7E	774.35625	N	293	D	
Duplex	7FIRE83	Fire	773.50625	N	F7E	803.50625	N	293	D	
Simplex	7FIRE83D	Fire	773.50625	N	F7E	773.50625	N	293	D	
Duplex	7FIRE84	Fire	773.85625	N	F7E	803.85625	N	293	D	
Simplex	7FIRE84D	Fire	773.85625	N	F7E	773.85625	N	293	D	
Duplex	7MED86	EMS	773.00625	N	F7E	803.00625	N	293	D	
Simplex	7MED86D	EMS	773.00625	N	F7E	773.00625	N	293	D	
Duplex	7MED87	EMS	773.35625	N	F7E	803.35625	N	293	D	
Simplex	7MED87D	EMS	773.35625	N	F7E	773.35625	N	293	D	
Duplex	7DATA89	Mobile Data	774.75265	N	F7E	804.75625	N	293	D	
Simplex	7DATA89D	Mobile Data	774.75265	N	F7E	774.75265	N	293	D	

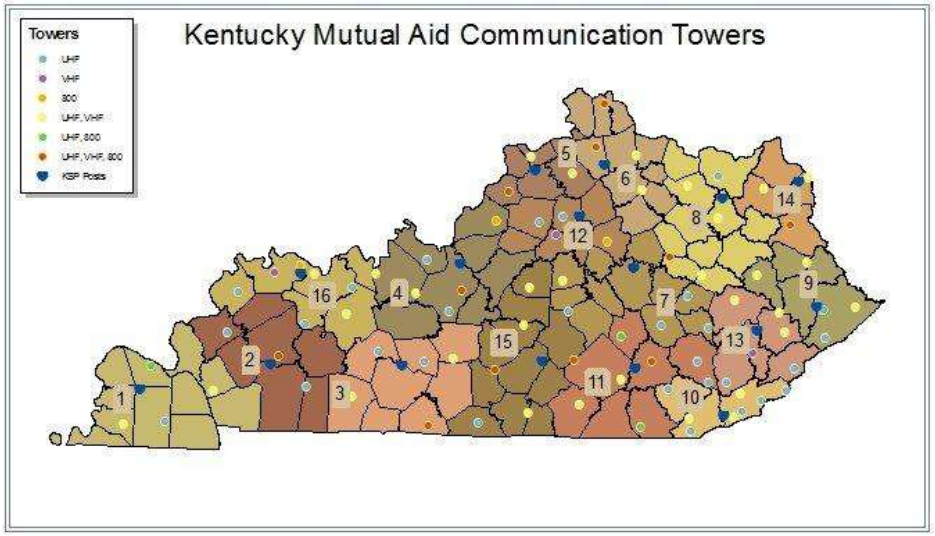
3.2.6 800 MHz Band Mutual Aid & Common Channels

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band **800 MHZ**	Description **Interoperable Tactical Channels**

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes
Duplex	8CALL90	Any Public Safety	851.0125	W	156.7	806.0125	W	156.7	A	
Simplex	8CALL90D	Any Public Safety	851.0125	W	156.7	851.0125	W	156.7	A	
Duplex	8TAC91	Any Public Safety	851.5125	W	156.7	806.5125	W	156.7	A	
Simplex	8TAC91D	Any Public Safety	851.5125	W	156.7	851.5125	W	156.7	A	
Duplex	8TAC92	Any Public Safety	852.0125	W	156.7	807.0125	W	156.7	A	
Simplex	8TAC92D	Any Public Safety	852.0125	W	156.7	852.0125	W	156.7	A	
Duplex	8TAC93	Any Public Safety	852.5125	W	156.7	807.5125	W	156.7	A	
Simplex	8TAC93D	Any Public Safety	852.5125	W	156.7	852.5125	W	156.7	A	
Duplex	8TAC94	Any Public Safety	853.0125	W	156.7	808.0125	W	156.7	A	
Simplex	8TAC94D	Any Public Safety	853.0125	W	156.7	853.0125	W	156.7	A	

Appendix A Regional Interoperability Information

Figure A-1 Regions of the Commonwealth of Kentucky



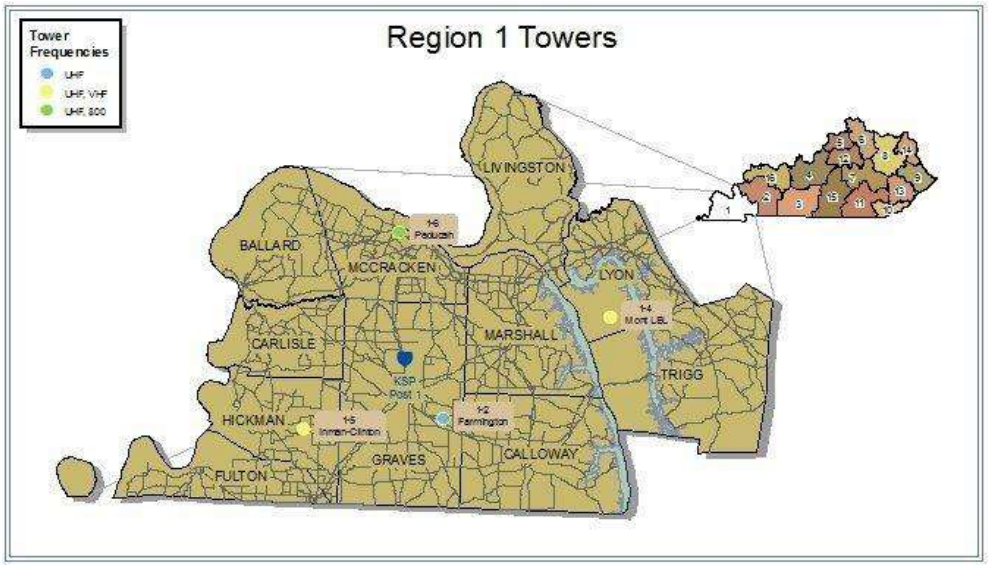
A.1 Regional Information

This FOG is intended to apply to the Commonwealth of Kentucky as shown above. Specifically, this is a field operations guide intended to be used by public safety personnel during day-to-day and emergency response situations. Public safety personnel are located in jurisdictions geographically identified in the map above. More detailed information on each region is listed in the following sections.

Emergency Contact Phone Numbers

EOC	800-255-2587
KSP Post 1 - Mayfield	(270) 856-3721
KSP Post 2 - Madisonville	(270) 676-3313
KSP Post 3 - Bowling Green	(270) 782-2010
KSP Post 4 - Elizabethtown	(270) 766-5078
KSP Post 5 - Campbellsburg	(502) 532-6363
KSP Post 6 - Dry Ridge	(859) 428-1212
KSP Post 7 - Richmond	(859) 623-2404
KSP Post 8 - Morehead	(606) 784-4127
KSP Post 9 - Pikeville	(606) 433-7711
KSP Post 10 - Harlan	(606) 573-3131
KSP Post 11 - London	(606) 878-6622
KSP Post 12 - Frankfort	(502) 227-2221
KSP Post 13 - Hazard	(606) 435-6069
KSP Post 14 - Ashland	(606) 928-6421
KSP Post 15 - Columbia	(270) 384-4796
KSP Post 16 - Henderson	(270) 826-3312

A.1.1 Region 1



Region 1 Towers
Tower Frequencies
UHF
UHF, VHF
UHF, 800
LIVINGSTON
BALLARD
MCCRACKEN
1-6
Paducah
LYON
1-4
Mont LBL
CARLISLE
MARSHALL
KSP
Post 1
TRIGG
1-2
Farmington
HICKMAN
1-5
Inman-Clinton
GRAVES
CALLOWAY
FULTON

A.1.2 Region 1 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
1-2 Farmington	UHF
1-4 Mont LBL	UHF,VHF
1-5 Inman-Clinton	UHF,VHF
1-6 Paducah	UHF,VHF,800

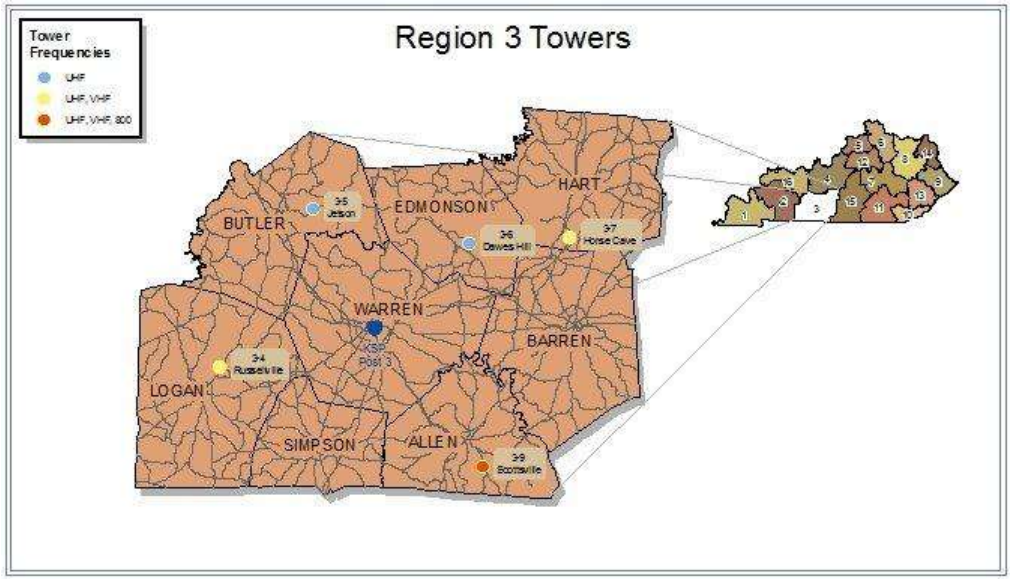
A.1.3 Region 2


Region 2 Towers
Tower Frequencies
UHF
UHF, VHF, 800
WEBSTER
CRITTENDEN
24 Pickens Hill
HOPKINS
22 St. Charles KIET
KSP Post 2
MUHLENBERG
CALDWELL
26 Tucker Ridge
CHRISTIAN
TODD

A.1.4 Region 2 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
2-2 St. Charles KET	UHF, VHF,800
2-4 Pickens Hill	UHF
2-5 Sacramento	UHF
2-6 Tucker Ridge	UHF

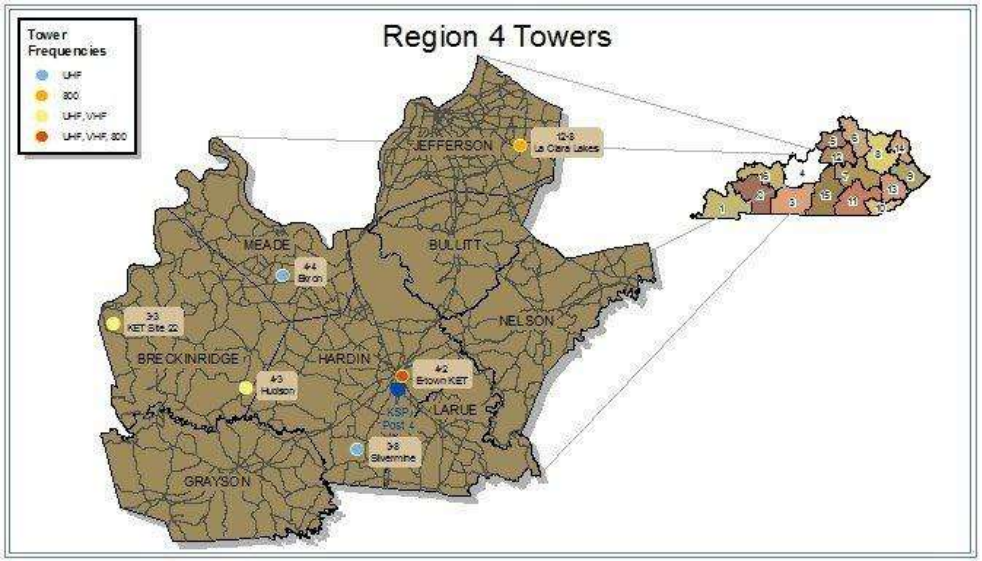
A.1.5 Region 3


Region 3 Towers
Tower Frequencies
UHF
UHF, VHF
UHF, VHF, 800
BUTLER
EDMONSON
HART
WARREN
BARREN
LOGAN
SIMPSON
ALLEN
35 Jetson
36 Dawes Hill
37 Horse Cave
34 Russellville
39 Scottsville
KSP Post 3

A.1.6 Region 3 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
3-3 KET Site 22	UHF,VHF
3-4 Russellville	UHF,VHF
3-5 Jetson	UHF
3-6 Dawes Hill	UHF
3-7 Horse Cave	UHF,VHF
3-8 Silvermine	UHF
3-9 Scottsville	UHF,VHF,800

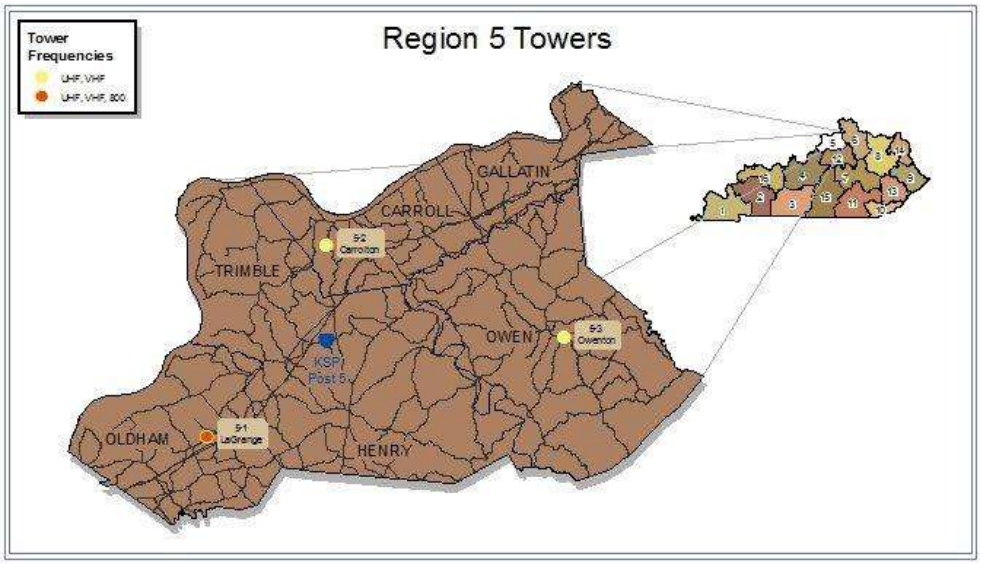
A.1.7 Region 4


Region 4 Towers
Tower Frequencies
UHF
800
UHF, VHF
UHF, VHF, 800
JEFFERSON
12-8
La Cibra Lakes
MEADE
4-4
Biron
BULLITT
3-3
KET Site 22
NELSON
BRECKINRIDGE
HARDIN
4-3
Hudson
4-2
Brown KET
KSP
Post 4
LARUE
3-8
Silvermine
GRAYSON

A.1.8 Region 4 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
E-town KET	UHF,VHF,800
4-3 Hudson	UHF,VHF
4-4 Ekron	UHF
4-5 New Bernhiem	UHF,VHF

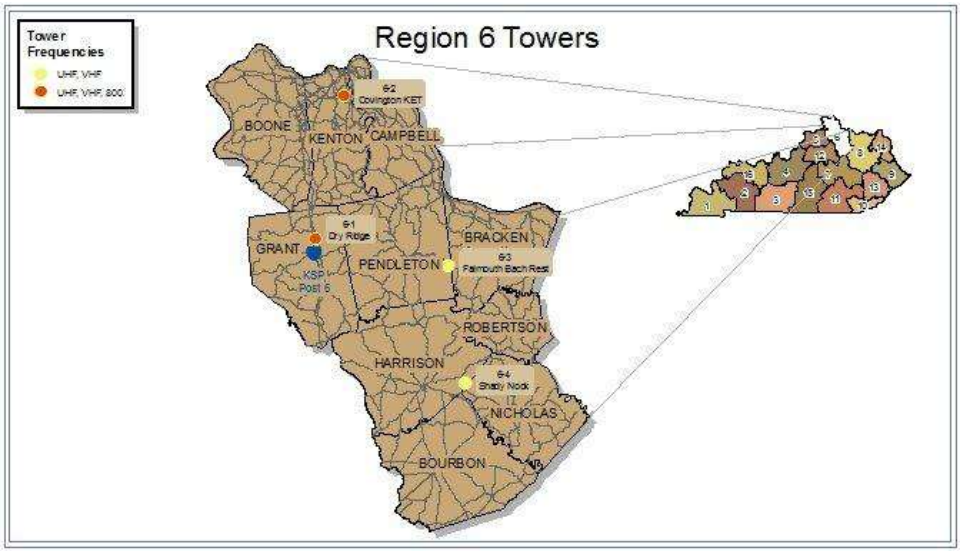
A.1.9 Region 5


Region 5 Towers
Tower Frequencies
UHF, VHF
UHF, VHF, 800
GALLATIN
CARROLL
TRIMBLE
OWEN
OLDHAM
HENRY
52 Carrollton
53 Owenton
51 LaGrange
KSP Post 5

A.1.10 Region 5 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
5-1 LaGrange	UHF,VHF,800
5-2 Carrolton	UHF,VHF
5-3 Owenton	UHF,VHF

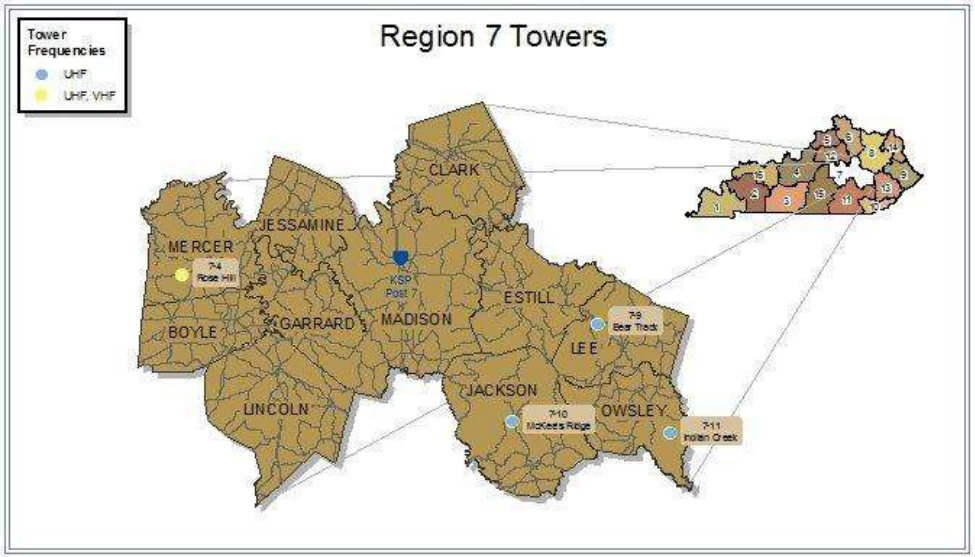
A.1.11 Region 6



A.1.12 Region 6 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
6-1 Dry Ridge	UHF,VHF,800
6-2 Covington KET	UHF,VHF,800
6-3 Falmouth Bach Rest	UHF,VHF
6-4 Shady Nook	UHF,VHF

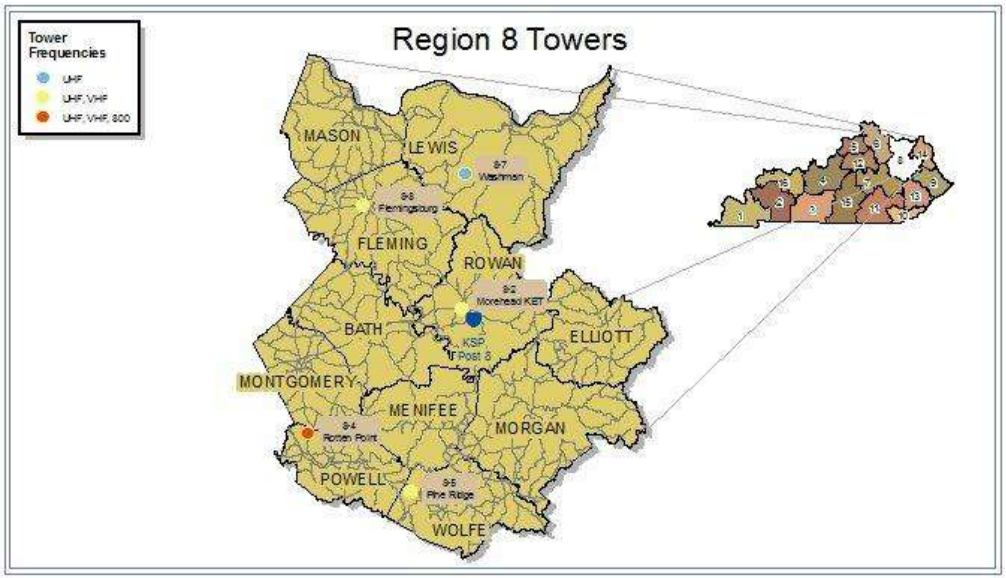
A.1.13 Region 7



A.1.14 Region 7 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
7-3 Clays Ferry KET	VHF,800
7-4 Rose Hill	UHF,VHF
7-5 Sand Knob	UHF
7-9 Bear Track	UHF
7-10 McKee's Ridge	UHF
7-11 Indian Creek	UHF

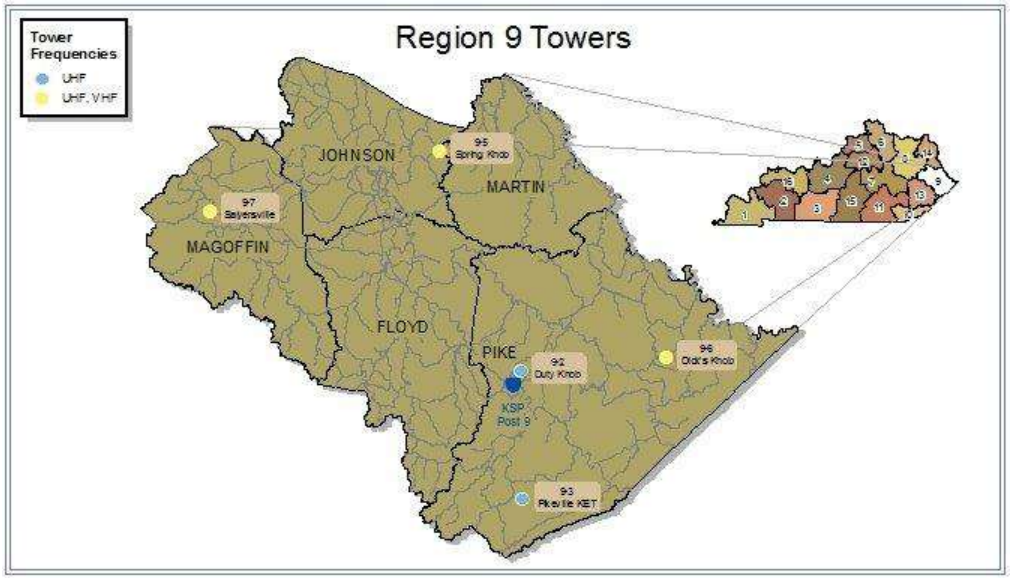
A.1.15 Region 8



A.1.16 Region 8 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
8-2 Morehead KET	UHF,VHF
8-4 Rotten Point	UHF,VHF,800
8-5 Pine Ridge	UHF,VHF
8-7 Washman	UHF
8-8 Flemingsburg	UHF,VHF

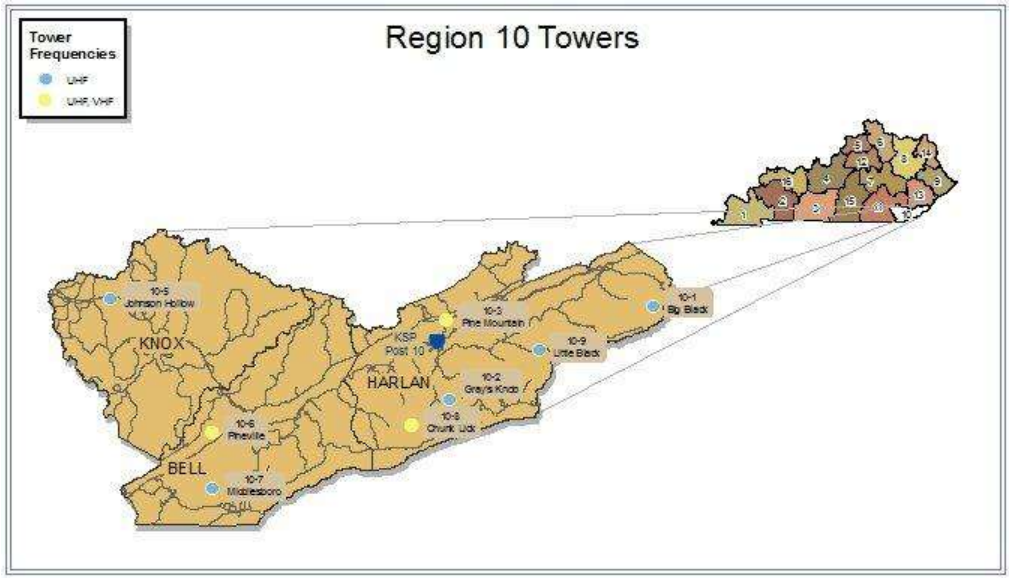
A.1.17 Region 9



A.1.18 Region 9 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
9-2 Duty Knob	UHF
9-3 Pikeville KET	UHF
9-4 Signal Knob	UHF,VHF
9-5 Spring Knob	UHF,VHF
9-6 Dick's Knob	UHF,VHF
9-7 Salyersville	UHF,VHF

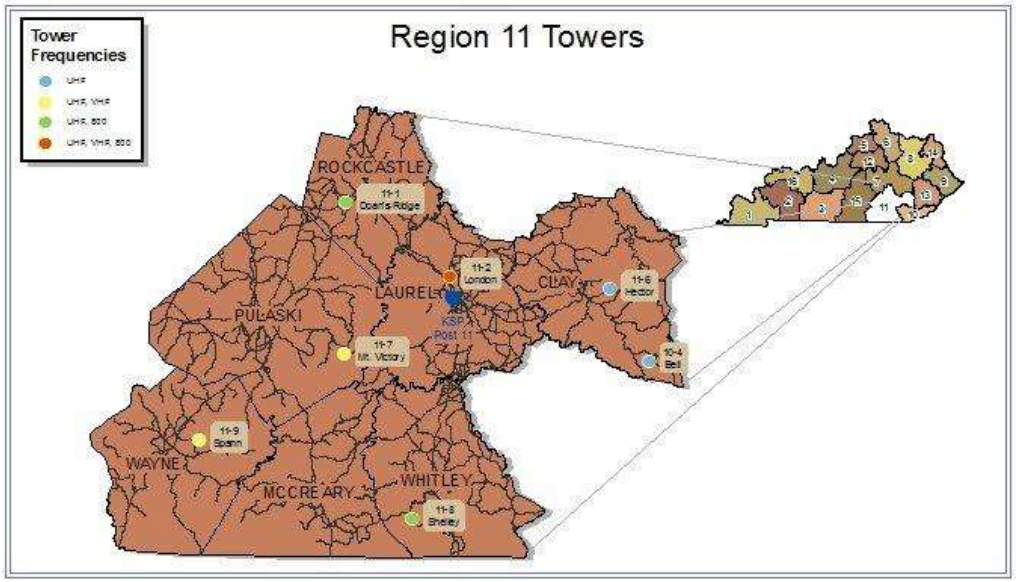
A.1.19 Region 10



A.1.20 Region 10 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
10-2 Gray's Knob	UHF
10-3 Pine Mountain	UHF,VHF
10-4 Bell	UHF
10-5 Johnson Hollow	UHF
10-6 Pineville	UHF,VHF
10-7 Middlesboro	UHF
10-8 Chunk Lick	UHF,VHF
10-9 Little Black	UHF
10-10 Big Black	UHF

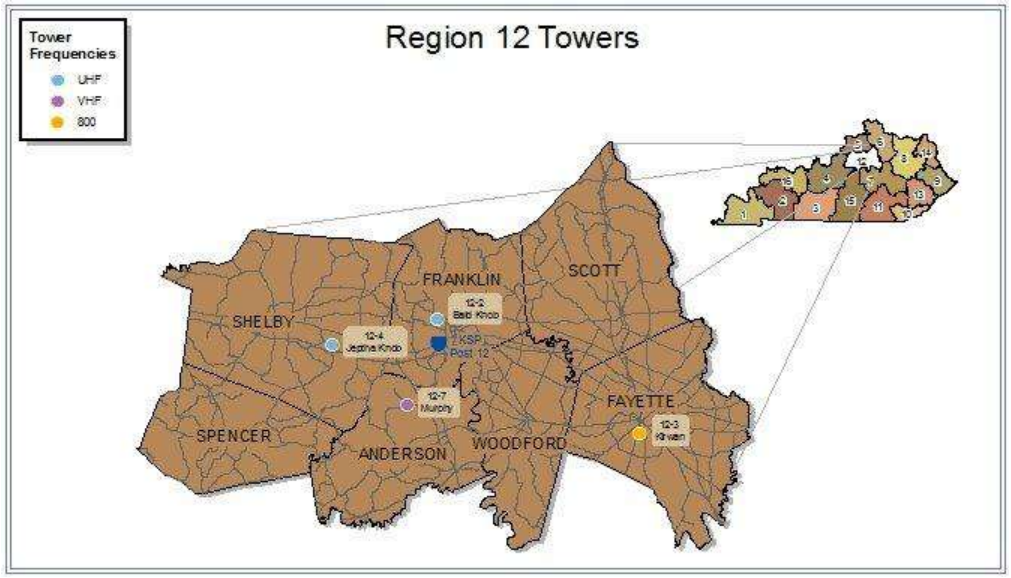
A.1.21 Region 11



A.1.22 Region 11 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
11-2 London	UHF,VHF,800
11-4 Somerset KET	UHF,VHF,800
11-6 Hector	UHF
11-7 Mt. Victory	UHF,VHF
11-8 Shelley	UHF,800
11-9 Spann	UHF,VHF
11-10 Doan's Ridge	UHF,800

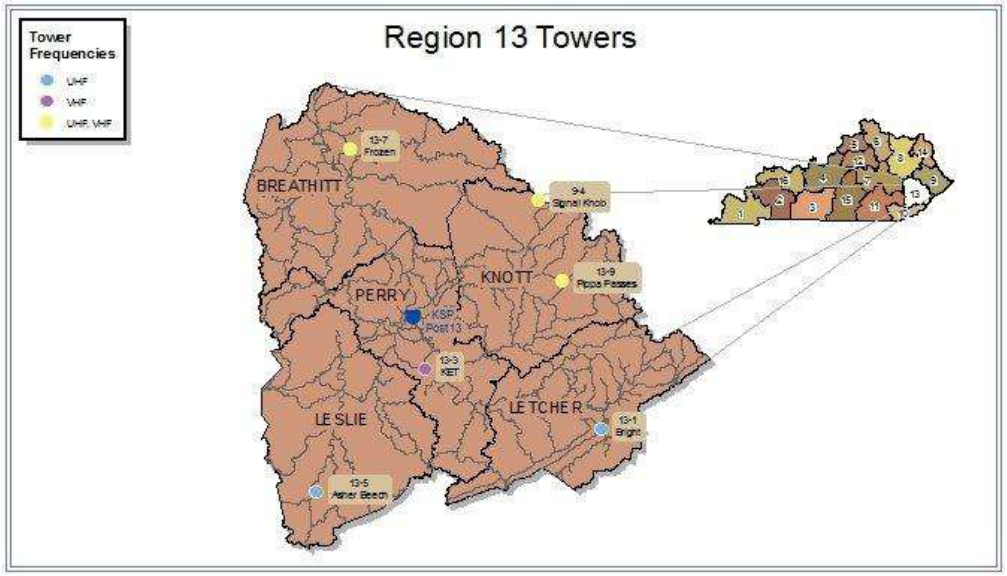
A.1.23 Region 12



A.1.24 Region 12 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
12-2 Bald Knob	UHF
12-3 Kirwan	800
12-4 Jeptha Knob	UHF
12-7 Murphy	VHF
12-8 La Clara Lakes	800

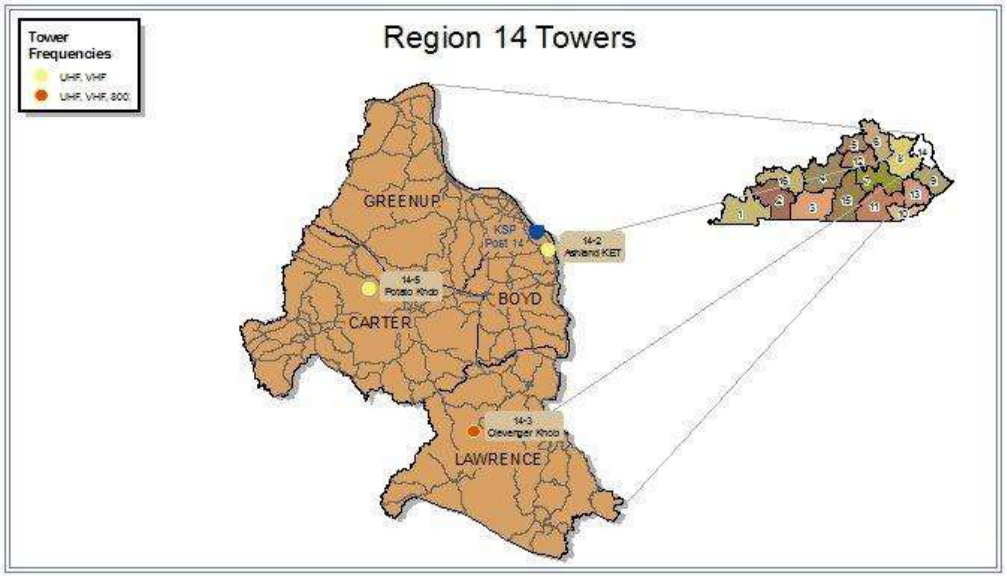
A.1.25 Region 13



A.1.26 Region 13 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
13-3 KET	VHF
13-5 Asher Beech	UHF
13-7 Frozen	UHF,VHF
13-9 Pippa Passes	UHF,VHF
13-10 Bright	UHF

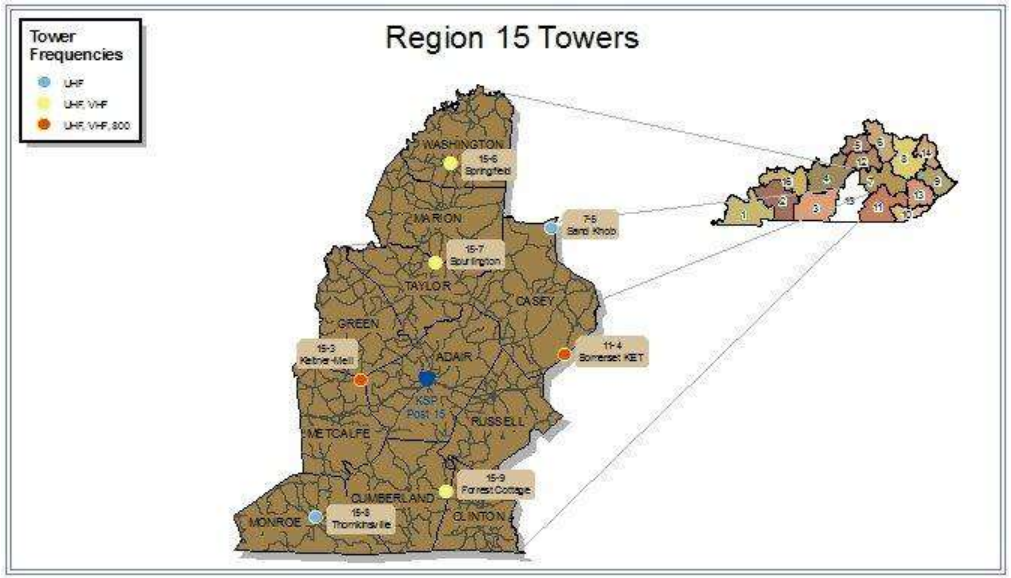
A.1.27 Region 14



A.1.28 Region 14 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
14-2 Ashland KET	UHF,VHF
14-3 Clevenger Knob	UHF,VHF,800
14-5 Potato Knob	UHF,VHF

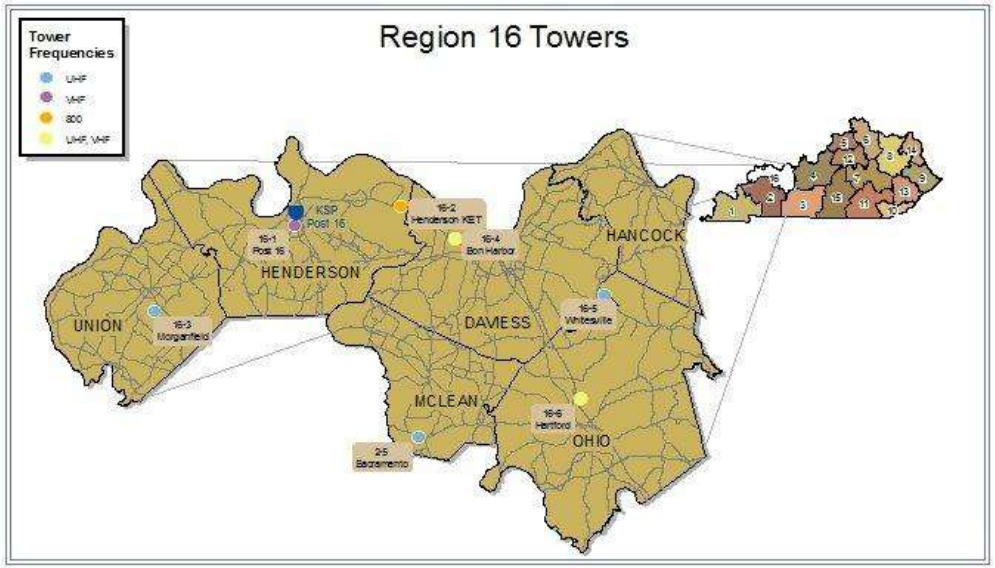
A.1.29 Region 15



A.1.30 Region 15 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
15-3 Keltner-Mell	UHF,VHF,800
15-6 Springfield	UHF,VHF
15-7 Spurlington	UHF,VHF
15-8 Thomkinsville	UHF
15-9 Forrest Cottage	UHF,VHF

A.1.31 Region 16



A.1.32 Region 16 Tower Sites, Repeaters, Base Stations

Tower Site Name & Identification #	Repeaters / Base Stations on site
16-1 Post 16	VHF
16-2 Henderson KET	800
16-3 Morganfield	UHF
16-4 Bon Harbor	UHF,VHF
16-5 Whitesville	UHF
16-6 Hartford	UHF,VHF
16-7 Persimmon	UHF,VHF

Appendix B Department of Public Health Talk Groups

TAG	LABEL	DESCRIPTION
0		This TG is used for one-to-one private conversations with other MSV satellite radios using the four-digit device numbers.
1	KY-1	A statewide TG for any unit.
2	KY-2	A statewide TG for any unit.
3	KY-3	A **high-priority** statewide TG for any unit. High-priority causes devices to "scan" to this channel when a user begins transmitting as long as the device is not actively engaged in a conversation on another TG or the phone service.
4	W-KY	A regional TG for units in the Western KY area.
5	I-65	A regional TG for units located in the vicinity of the I-65 corridor.
6	S-KY	A regional TG for units in the South Central KY area.
7	I-75	A regional TG for units in the vicinity of the I-75 corridor.
8	E-KY	A regional TG for units in the Eastern KY area.
9	KYEM	A statewide TG for any Emergency Management agency.

TAG	LABEL	DESCRIPTION
10	MWSMART	A national TG for cross-border public safety communication between any of the following states: Indiana, Illinois, Iowa, Kansas, **Kentucky**, Michigan, Minnesota, Missouri, Ohio, Nebraska, North Dakota, South Dakota, West Virginia, and Wisconsin.
11	SESMART	A national TG for cross-border public safety communication between any of the following states: Alabama, Arkansas, Florida, Georgia, **Kentucky**, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and the District of Columbia.
12	CUSEC	A national TG for cross-border public safety communication as it relates to earthquake preparedness and response in the following states: Alabama, Arkansas, Illinois, Indiana, **Kentucky**, Mississippi, Missouri, and Tennessee.
13	NPHST-2	A national TG for public health in all 50 states plus the District of Columbia. This TG is monitored 24/7 by the CDC.

Appendix C Using GETS and WPS in an Emergency

The Government Emergency Telecommunications Service (GETS) and the Wireless Priority Service (WPS) are companion priority services that allows authorized personnel to communicate during emergencies. GETS users will receive a GETS calling card to access the service. This card provides access phone numbers, Personal Identification number (PIN), and simple dialing instructions. Access to these services can be requested through a secure on-line system once a Point of Contact has been established for your agency.

C.1 Landline phone

1. To use GETS:
   - Dial 1-710-NCS-GETS (627-4387)
   - After the tone prompt, enter your PIN (GETS card number)
   - After the voice prompt, enter ten-digit destination number[1]
2. If GETS call fails, use alternate access numbers on back of GETS card:
   - AT&T: 1-888-288-4387
   - Verizon: 1-800-900-4387
   - Sprint: 1-800-257-8373

C.2 Cellular phone

1. To use WPS:
   - Dial *272 + ten-digit destination number
2. If WPS call fails, dial WPS + GETS
   - Dial *272 then 710-NCS-GETS

3. If WPS + GETS call fails, use alternate access numbers on back of GETS card. Dial *272 then:

   - AT&T: 888-288-4387
   - Verizon: 800-900-4387
   - Sprint: 800-257-8373

Appendix D Plain Language Words and Phrases

Plain Language	Meaning or Usage
Affirmative	Yes.
At scene	Used when a unit arrives at the scene of an incident.
Available	Used when a unit is ready for a new assignment or can return to quarters.
Available at residence	Used by administrative or staff personnel to indicate they are available and on-call at their residence.
Available at scene	Used when a unit is still committed to an incident, but could be dispatched to a new emergency if needed.
Burning operation	Used to indicate that a fire is started intentionally, usually by the fire department, to eliminate burnable fuels in order to prevent the spread of wildfires.
Can handle	Used when the amount of equipment needed to handle the incident is on scene. Ex: "San Luis, Battalion 3412 can handle with units at scene".
Call _____ by phone	Self explanatory
Copy, copies	Used to acknowledge message received. Unit radio ID must also be used. Ex: "Engine 2563 copies".

Plain Language	Meaning or Usage
Disregard last message	Self explanatory.
Emergency traffic	Term used to gain control of a radio frequency to report an emergency. All other radio users will refrain from using that frequency until cleared for use by a dispatcher or incident commander.
Emergency traffic only	Used by radio users to confine all radio traffic to an emergency in progress or a new incident.
En route	Normally used by administrative or staff personnel to designate destination. En route is not a substitute for responding.
Fire under control	Used by the fire department to indicate that a fire is no longer increasing in size or complexity and no additional resources are required to extinguish it.
In quarters, with station name or number	Used to indicate that a unit is in a station. Ex: “Oroville, Engine 2176 in quarters, Jarbo Gap Station”.
In service	Indicates the unit is operating, but not in response to a dispatch. Ex: “San Andreas, Engine 4460, in service, fire prevention inspections”.

Plain Language	Meaning or Usage
Is _____ available for a phone call?	Self explanatory.
Loud and clear	A signal report describing signal strength and readability
Negative	No.
Out of service	Indicates unit is out of service. When the unit is back in service a phrase like the following example should be used: Ex: "Redding, Engine 2460, out of service, [give reason] [provide duration]."
Repeat	Used to ask for a transmission to be spoken again.
Report on conditions	Used by the fire department for a unit (usually the first arriving) to describe the incident in a concise manner, allowing other responders and dispatch to comprehend the incident.
Respond, Responding	Used during dispatch to direct units to proceed to an incident or to refer to units proceeding to an incident. Ex: "Engine 3365, respond…: or "St. Helena, Engine 1475 responding."
Resume normal [radio] traffic	Self explanatory.
Return to _____	Normally used to direct units that are available to a station or other location.
Stand by	Self explanatory.
Stop transmitting	Self explanatory.

Plain Language	Meaning or Usage
Uncovered	Indicates a unit is not in service, because there are no personnel to operate it.
Unreadable	Used when signal received is not clear. Try to add the specific trouble. Ex: "Unreadable, background noise."
Vehicle registration check	Self explanatory.
Weather	Self explanatory.
What is your location?	Self explanatory.

Appendix E Standard Phonetic Alphabet

Character	International Phonetic	Law Enforcement Phonetic	Morse Code	Nautical	Sign
A	Alpha	Adam	•—		
B	Bravo	Boy	—•••		
C	Charlie	Charles	—•—•		
D	Delta	David	—••		
E	Echo	Edward	•		
F	Foxtrot	Frank	••—•		
G	Golf	George	——•		
H	Hotel	Henry	••••		
I	India	Ida	••		
J	Juliet	John	•———		
K	Kilo	King	—•—		
L	Lima	Lincoln	•—••		
M	Mike	Mary	——		
N	November	Nora	—•		
O	Oscar	Ocean	———		

Character	International Phonetic	Law Enforcement Phonetic	Morse Code	Nautical	Sign
P	Papa	Paul	•——•		
Q	Quebec	Queen	——•—		
R	Romeo	Robert	•—•		
S	Sierra	Sam	•••		
T	Tango	Tom	—		
U	Uniform	Union	••—		
V	Victor	Victor	•••—		
W	Whiskey	William	•——		
X	X-ray	X-ray	—••—		
Y	Yankee	Young	—•——		
Z	Zulu	Zebra	——••		

Appendix F Reference Materials

Reference Sources

- SAFECOM. http://www.safecomprogram.gov

  The *National Emergency Communications Plan* (NECP) is 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.

- Public Safety Technical Assistance Tools. http://www.publicsafetytools.info/start_index.php

  In addition to on-site TA support, OEC makes available online tools and products that focus on technical assistance. These complement many of the 2012 TA Catalog offerings. The Public Safety Tools site is a dynamic, interactive site which is regularly updated

- Federal Emergency Management Agency (FEMA). http://www.fema.gov

  The Department of Homeland Security *Target Capability List* (TCL describes the capabilities related to the four homeland security mission areas: Prevent, Protect, Respond, and Recover. It defines and provides the basis for assessing preparedness. It also establishes national guidance for preparing the Nation for major all-hazards events, such as those defined by the National Planning Scenarios.

- NIMS Integration Center.

  http://www.fema.gov/emergency/nims/

  The *National Incident Management System* (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

- Commonwealth of Kentucky.

  http://www.kwiec.ky.gov

  Kentucky Wireless Interoperability Executive Committee's website hosted by the Commonwealth Office of Technology.

  The Commonwealth of Kentucky recognizes the importance of voice and data communications interoperability for public safety agencies at all levels of government. Several events in recent history require us to work cooperatively to improve public safety communications. First-responders need to be able to communicate with each other so that "no life is lost because public safety personnel cannot communicate with one another."

  This website is an important step in the Commonwealth's journey to raise awareness of public safety and government officials about wireless interoperability issues. In this endeavor, it is imperative for the Commonwealth to develop a shared vision of a seamless, coordinated and integrated public safety communications network. Your willingness,

participation, and commitment to work across organizations and to discuss interoperability challenges among local, state, and federal public safety organizations is critical to the Commonwealth's success.

Appendix G Incident Command System (ICS) Communication Forms

This appendix contains forms for incident command system (ICS) planning. Due to the size of this document, these forms are not functional as is. If you don't have these forms available for your use, they can be found at the following website: http://training.fema.gov/EMIWeb/IS/ICSResource/ICSResCntr_Forms.htm

G.1 ICS 201 (TICP)

INCIDENT BRIEFING	1. INCIDENT NAME	2. DATE	3. TIME PREPARED

4. MAP SKETCH (NTS)

Function	Frequency or Talk Group Name	Assignment	Function	Frequency or Talk Group Name	Assignment
Command			Tactical		
			Tactical		
Tactical			Tactical		
Tactical					
Tactical			Staging		

Staging Area Name

Hazard (Identify type, e.g. power lines)

Number (H-1, etc.) and Name

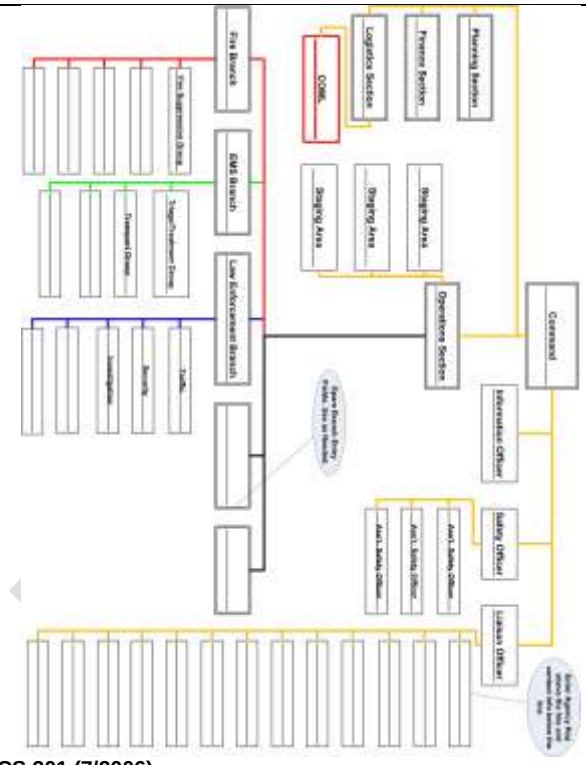
Camp Name

5. PREPARED BY (NAME AND POSITION)

ICS 201 (7/2006)

6. SUMMARY OF CURRENT ACTIONS	
Time	**Summary of Action**
	Continue on NIMS/ICS Form 214 Unit Log
ICS 201 (7/2006)	

6. **CURRENT ORGANIZATION –** Place name and contact information (talk group/channel name, numbers, etc.) below the dividing line.



ICS 201 (7/2006)

This form is not intended to be used in this context. The appropriate ICS 201 form size is 8 ½ x 11.

8. RESOURCES SUMMARY				
RESOURCES ORDERED	RESOURCES IDENTIFICATION	ETA	ON SCENE ✓	LOCATION / ASSIGNMENT
ICS 201 (7/2006)				

G.2 ICS 201 (FEMA)

INCIDENT BRIEFING	1. Incident Name	2. Date Prepared	3. Time Prepared
4. Map Sketch			
ICS 201 Page 1 of 4	**5. Prepared by (Name and Position)**		

6. Summary of Current Actions	
ICS 201	Page 2 of 4

7. CURRENT ORGANIZATION – Place name and contact information (talk group/channel name, numbers, etc.) below the dividing line.

201 ICS

8. Resources Summary				
Resources Ordered	Resource Identification	ETA	On Scene	Location/Assignment

ICS 201	Page 4

Instructions for Completing the Incident Briefing (ICS 201 Form)

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date Prepared	Enter date prepared (month, day, year).
3.	Time Prepared	Enter time prepared (24-hour clock).
4.	Map Sketch	Show perimeter and control lines, resources assignments, incident facilities, and other special; information on a sketch map or attached to the topographic or orthophoto map.
5.	Resources Summary	Enter the following information about the resources allocated to the incident. Enter the number and type of resource ordered.
	Resources Ordered	Enter the number and type of resource ordered.
	Resource Identification	Enter the agency three letter designator, S/T, Kind/Type and resource designator.
	ETA/On Scene	Enter the estimated arrival time and place the arrival time or a checkmark in the “on scene” column upon arrival.
	Location/Assignment	Enter the assigned location of the resource and/or the actual assignment.

6.	Current Organization	Enter on the organization chart the names of the individuals assigned to each position. Modify the chart as necessary.
7.	Summary of Current Actions	Enter the name and position of the person completing the form.
8.	Prepared By	Enter name and position of the person completing the form.
*Note		Additional pages may be added to ICS Form 201 if needed.

Purpose: The Incident Briefing Form provides the Incident Commander (and the Command and General Staffs assuming command of the incident) with basic information regarding the incident situation and the resources allocated to the incident. It also serves as a permanent record of the initial response to the incident.

Preparation: The Incident Briefing Form is prepared by the Incident Commander for presentation to the incoming Incident Commander along with a more detailed oral briefing. Proper symbology should be used when preparing a map of the incident.

Distribution: After the initial briefing of the Incident Commander and General Staff members, the Incident Briefing Form is duplicated and distributed to the Command Staff, Section Chiefs, Branch Directors, Division/Group Supervisors, and appropriate Planning and Logistic Section Unit Leaders. The sketch map and summary of current action Resources Summary portion are given to the Resources Unit.

G.3 ICS 205

INCIDENT RADIO COMMUNICATIONS PLAN	1. Incident Name	2. Date / Time Prepared	3. Date / Time Prepared

4. Basic Radio Channel Utilization

Ch #	Function	Channel Name / Trunked Radio System Talk Group	Assignment	Rx Freq N or W	Rx Tone / NAC	Tx Freq N or W	Tx Tone / NAC	Mode	Remarks
1									
2									
3									
4									
5									
6									

5. Prepared by (Communications Unit)	Incident Location County/Commonwealth Lat/Long

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (Project 25)

Instructions for Completing the Incident Radio Communications Plan (ICS 205 Form)

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date/Time Prepared	Enter date (month, day, year) and time prepared (24-hour clock).
3.	Operational Period Date/Time	Enter the date and time. Interval for which the Radio Communications Plan applies. Record the start time and end time and include date(s).
4.	Basic Radio Channel Utilization System/Cache	Enter the radio cache system(s) assigned and used on the incident (e.g., Boise Cache, FIREARMS, Region 5 Emergency Cache, etc).
	Channel Number	Enter the radio channel numbers assigned.
	Function	Enter the function each channel number is assigned (i.e., command, support, division tactical, and ground-to-air).
	Frequency	Enter the radio frequency tone number assigned to each specified function (e.g., 153.4000).
	Assignment	Enter the ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations
5.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.

Purpose: The Incident Radio Communications Plan provides in one location information on all radio frequencies assignments for each operational period. The plan is a summary of information obtained from the Radio Requirement Worksheet (ICS Form 216) and the Radio Frequency Assignment Worksheet (ICS Form 217). Information from the Radio Communications Plan on frequency assignment is normally placed on the appropriate Assignment List (ICS Form 204).

Preparation: The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief.

Distribution: The Incident Radio Communications Plan is duplicated and given to all recipients of the Incident Objectives form including the Incident Communications Center. Information from the plan is placed on Assignment List.

G.4 ICS 205A

Communications List (ICS 205A)

1. INCIDENT Name:	**2. Operational Period:** Date From: Time From:	Date To: Time To:

3. Basic Local Communications Information

Incident Assigned Position	Name (Alphabetized)	Method(s) of Contact (phone, pager, cell, etc)

4. Prepared by: Name:_____ Position/Title:_____ Signature_____

ICS 205A	IA Page____	Date/Time:

Instructions for Completing the Communications List

(ICS 205A Form)

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3.	Basic Local Communications Information	Enter the communications methods assigned and used for personnel by their assigned ICS position.
	• Incident Assigned Position	Enter the ICS organizational assignment
	• Name	Enter the name of the assigned person
	• Method(s) of Contact (phone, pager, cell, etc)	For each assignment, enter the radio frequency and contact number(s) to include the area code, etc. If applicable, include the vehicle license or ID number assigned to the vehicle for the incident (e.g., HAZMAT1, etc).
4.	Prepared by • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).
	Assignment	Enter the ICS organization assigned to

		each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations
5.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.

Purpose: The Communications List (ICS 205A) records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, the ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Preparation: The ICS 205A can be filled out during check-in and is maintained and distributed by Communications Unit personnel. This form should be updated each operational period.

Distribution: The ICS 205A is distributed within the ICS organization by the Communications Unit, and posted as necessary. All completed original forms must be given to the Documentation Unit. If this form contains sensitive information such as cell phone numbers, it should be clearly marked in the header that it contains sensitive information and is not for public release.

Notes:

- The ICS 205A is an optional part of the Incident Action Plan (IAP)
- This optional form is used in conjunction with the ICS 205.
- If additional pages are needed, use a blank ICS 205A and repaginate as needed.

ICS Form 217A

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET ICS 217A	Frequency Band	Description

Channel Configuration	Channel Name / Trunked Radio System Talk Group	Eligible Users	Mobile RX Freq	N / W	RX Tone / NAC	Mobile TX Freq	N / W	TX Tone / NAC	Mode A, D, or M	Notes

A=Analog, D=Digital, M=Mixed Mode; N=Narrowband, W=Wideband

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25). All channels are shown as if programmed in a portable or mobile radio. Repeater and base stations must be programmed with the RX and TX reversed.

Instructions for Completing the Radio Frequency Assignment Worksheet (ICS 217 Form)

ITEM #	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date	Enter date (month, day, year) prepared.
3.	Operational Period	Enter the time interval for which the assignment applies. Record the start date/time and end date/time (e.g., 9/17/96-0600 to 9/18/96-0600).
4.	Incident Organization	List frequencies allocated for each channel for each organizational element activated, record the number of radios required to perform the designated function on the specified frequency.
5.	Radio Data	For each radio cache and frequency assigned, record the associated function. Functional assignment for: Command Support Division tactical Ground-to-air
6.	Agency	List the frequencies for each major agency assigned to the incident. Also list the function and channel number assigned.
7.	Total Radios Required	Total each column. This provides the number of radios required by each organizational unit. Also total each row which provides the number of radios using each available frequency.
8.	Prepared By	Enter the name and position of the person completing the worksheet.

Purpose: The Radio Frequency Assignment Worksheet is used by the Communications Unit Leader to assist in determining frequency allocation.

Preparation: Cache radio frequencies available to the incident are listed on the form. Major agency frequencies assigned to the incident should be added to the bottom of the worksheet.

Distribution: The worksheet, prepared by the Communications Unit, is for internal use.

Appendix H Glossary and Terms

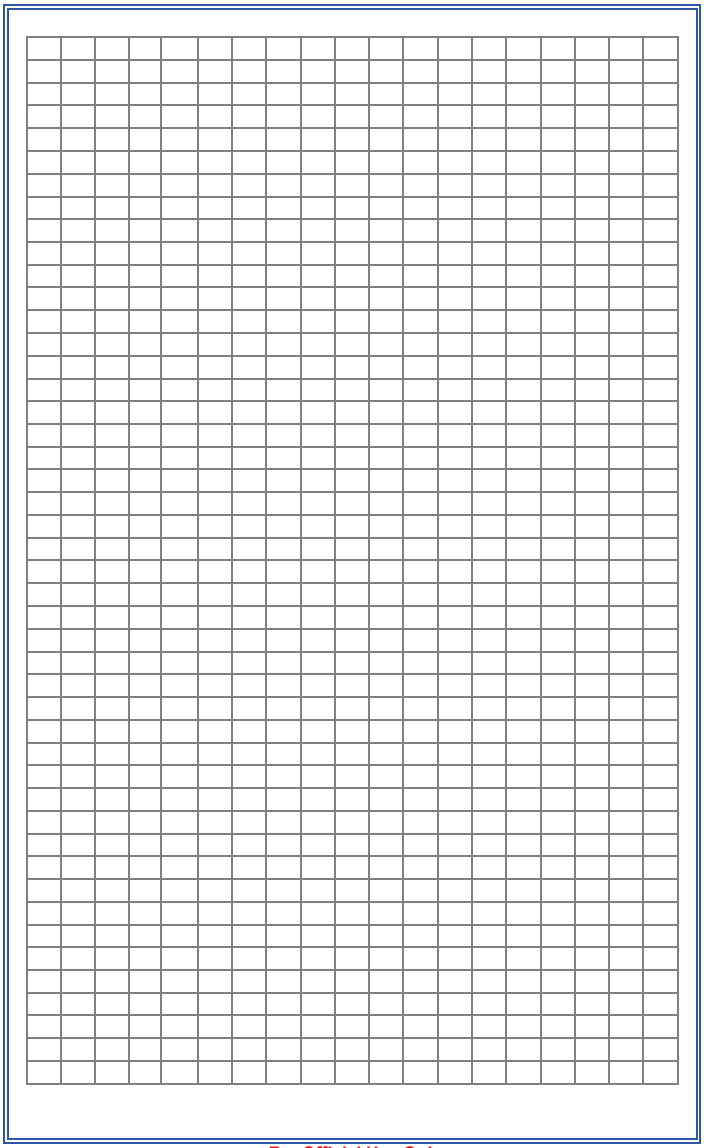
CAM	Communication Assets Mapping
CAS	Communication Assets Survey
CASM	Communication Assets Survey and Mapping
COMC	Communications Coordinator
COML	Communications Unit Leader
COMT	Incident Communications Technician
CTCSS	Continuous Tone-Coded Squelch System
DHS	Department of Homeland Security
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
FOG	Field Operations Guide
IC	Incident Commander
ICC	Incident Communications Center
ICP	Incident Command Post
ICS	Incident Command System
INCM	Incident Communications Center Manager
KYEM	Kentucky Emergency Management
MACS	Multiagency Coordination System
MOUs	Memoranda of Understanding
NAC	Network Access Code
NECP	National Emergency Communications Plan
NIFC	National Interagency Fire Center
NIMS	National Incident Management System
NRF	National Response Framework
RADO	Radio Operator
SOP	Standard Operating Procedure
THSP	Technical Specialist
TICP	Tactical Interoperable Communications Plan

Appendix I Web Site Links

American Radio Relay League (ARRL): www.arrl.org
APCO International: www.apcointl.org
CASM: https://franz.spawar.navy.mil
DHS OEC: www.dhs.gov/xabout/structure/gc_1189774174005.shtm
EMAC: www.emacweb.org
FCC Enforcement Bureau: www.fcc.gov/eb
FCC Public Safety & Homeland Security Bureau: www.fcc.gov/pshs
FCC Special Temporary Authority (STA): www.fcc.gov/pshs/services/sta.html
FCC ULS: wireless.fcc.gov/uls
FEMA: www.fema.gov
Government Emergency Telecommunications Service (GETS): gets.ncs.gov
Homeland Security Information Network: www.hsin.gov
Lessons Learned Information Sharing: www.llis.gov
National Emergency Communications Plan: http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf
National Interagency Fire Center (NIFC): www.nifc.gov
National Interagency Incident Communications: www.fs.fed.us/fire/niicd
National Interoperability Information Exchange (NIIX): www.niix.org
National Regional Planning Council (NRPC) www.nrpc.us
National Response Framework Resource Center http://www.fema.gov/emergency/nrf/
National Telecommunications & Information Admin (NTIA): http://www.ntia.doc.gov
National Wildfire Coordinating Group (NWCG): www.nwcg.gov
NIFOG: www.safecomprogram.gov/SAFECOM/nifog
NIMS Information: www.fema.gov/emergency/nims
NPSTC: www.npstc.org
Radio Reference: www.radioreference.com
SAFECOM: www.safecomprogram.gov
Wildland Fire Communications: www.fireradios.net
Wireless Priority Service (WPS): wps.ncs.gov

NOTES

NOTES




State
Tactical
Interoperable
Communications
Field
Operations
Guide
KY-FOG