Commonwealth of Massachusetts
Executive Office of Public Safety and Security

Statewide Interoperability Coordinator Office
Guidance Bulletin #22-1
Massachusetts Interoperable Emergency Communications Best Practices

   This document is intended to provide minimum standard "quick reference guidelines" for public safety communications best practices in Massachusetts, for public safety communications users and officials, system owners / managers, radio technicians, vendors, and subscriber programmers. This guideline is intended to assist with development of agency policy and procedures with regard to their communications and interoperable resource utilization and planning.

Best Practice #1 – All Radios Programmed in Accordance with Massachusetts Tactical Channel Plan (MTCP) and Device Management

A Common set of National, State and Regional Radio Interoperability Channels with standard designated names, frequencies, and technical information is published in the Massachusetts Tactical Channel Plan (MTCP) by frequency band. These interoperability templates shall be programmed as published without modification in all emergency communications assets and subscriber units capable of such programming. All common user equipment should be programmed with the same incident communication channels, including identical use of channel name, zone, and channel location within the zone, and other technical parameters. Management of interoperability resources and radio devices should include a formal plan that ensures accurate radio programming and confirms the readiness of the equipment. This includes mobile and portable devices, as well as cache radio resources.

Best Practice #2 – Radios and Systems are P25 Digital Compliant

Any state or federal funding that requires P25 technology compliance as a purchasing provision shall comply with all P25 standards and grant requirements. All applicable P25 features must be enabled upon receipt. As a matter of conserving precious RF spectrum, system owners shall consider moving toward a P25 digital platform. Furthermore, no municipal or state entity shall purchase a radio system upgrade using state or federal funds without first submitting an Interoperable Communications Investment Proposal (ICIP) to the SWIC and / or SIEC for guidance. Regardless of the funding source, it is a best practice that all equipment procured / obtained by public safety agencies have the same P25 capability and programming compliance agency wide. To do otherwise creates an unnecessary barrier to interoperability.

Best Practice #3 – Radio Encryption

The use of voice encryption on designated interoperability and mutual aid channels can create obstacles to interoperability and is highly discouraged. In the event encryption is deemed necessary due to unique operational needs, it must follow existing FCC regulations, and comply with the Massachusetts Public Safety Encryption Guidance Bulletin, as amended. Use of encryption on the National Interop channels is prohibited by FCC regulation.

Best Practice #4 - Interoperability Systems Change Management Practices

Change Management Polices, and compliance with unified agreements on
Change management practices should always be used to ensure that any changes to operational policies, system modifications, additions, or deletions of interoperability system infrastructure are communicated to all affected agencies and the SWIC. This Best Practice is arguably the most complicated, because it requires committed participation from multiple consortiums in Massachusetts but is a critical mainstay in assuring that interoperable radio systems function as expected.

Best Practice #5 – Training/Proficiency in the Access and Usage of Interoperability Systems and Resources

Radio Interoperability equipment and systems should be used and managed only by personnel who have been properly trained, and who have demonstrated proficiency with the appropriate technical, operational, and procedural aspects. This Best Practice applies to technicians, responders, telecommunicators, managers, and private radio shops under contract to local or state government agencies and includes both operational and interoperability issues.

Best Practice #6 - Infrastructure Management and Relationships

The management of interoperability infrastructure should ensure its readiness, reliability, and resiliency, and the provision of failure notification and availability status of frequencies and sites. Active monitoring of radio systems functionality including established troubleshooting reports, current contacts, and procedures for alerting technical and maintenance personnel and valid maintenance contracts. Formal relationships must be created to govern and manage interoperability resources. Usage documents must be established, and memorandums of understanding developed, by working cohesively with all invested parties.

Best Practice #7 - Channel Assignment Based on Infrastructure Coverage

Interoperability channels should be assigned based on the documented and known infrastructure coverage between the radio networks and the radio communication devices that are being utilized. The MIFOG and MTCP plan, used in conjunction with the guidance and direction from the Massachusetts SWIC and the MA-COMU members, will serve as the guiding tool for channel assignments. Use of managed systems will be assigned by system managers in conjunction with this coordination and guidance.

Best Practice #8 - After Action Reviews

After Action Review (AAR) should be held following a significant emergency incident or preplanned event that involved interoperability resources, and should include both operational and technical components, including those which focus on communications infrastructure. Including MA-COMU personnel in this is vital to the process, as they can bring technical feedback to the discussions.

Best Practice #9 - Deployment of Interoperability Resources

In any incident or event there must be an early awareness of the need for augmented communications support, at the scene and in the communications center, to include both interoperability resources, and supplemental technical and support staff. Notification of such needs should be made to the SWIC, or State EOC ESF-2 personnel, or MA-COMU member as soon as practical for both planned and unplanned / emergent events.

Best Practice #10 – Interoperability Resource Information – Storage and Access

Information on available interoperability resources and communications plans in any given area should be documented and maintained in a central location for immediate access by first responders and PSAP personnel. The MIFOG, MTCP, SCIP, CASM, and other regional databases are primary resources.
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Contact the Statewide Interoperability Coordinator at MA.SWIC@Mass.gov regarding this bulletin or for further guidance.