

# Franklin County Emergency Communications CoMIRS Transition Plan

## November 2020

### **Introduction**

The Commonwealth of Massachusetts Interoperable Radio System (CoMIRS) is a statewide 700/800 MHz trunked radio system that serves as the statewide emergency services communications backbone. CoMIRS is used by municipal, regional and state public safety entities, providing operable and interoperable communications for over 250 public safety and transportation agencies throughout the state. The system supports interoperability channels for use by eligible users.

### **Background**

Franklin County Emergency Communications System already has an architecture in place for governance and oversight so that will not be part of this document. WMLEC 1 (police) and 2 (fire and EMS) have been identified as the mutual aid channels for Western Massachusetts. Many Berkshire and Hampshire county agencies have been provided with UHF radios from Western Massachusetts Radio Interoperable Communications Committee. All Berkshire County Fire Chiefs have been provided with one portable UHF radio and all PSAPS a Mobile radio. Many agencies that regularly mutual aid into Franklin County have purchased UHF radios for interagency communications.

### **Analog versus Digital Communications**

Some areas of Franklin County are better served by the digital side of CoMIRS, and others are better served by the analog side. Initially the agencies that are in C- Troop (the eastern part of Franklin County) will be operating on analog (Erving, New Salem, Orange, Warwick, Wendell, Shutesbury). Greenfield will also be operating on the analog system. All other agencies in Franklin County will be operating on the digital system.

The analog and digital sides of CoMIRS will be patched together. While most communications between sides of the system are seamless, occasionally communications can be lost. To reduce the chance of missed communications it is preferable to communicate directly on the system intended (analog or digital).

### **Fire/EMS Mutual Aid Partners-South West NH Fire Mutual Aid- Berkshire County, Hampshire County- Worcester County**

SWNHFMA, Berkshire and Hampshire Counties agencies operate on VHF frequencies. Many of these border agencies have invested in UHF technology to communicate directly with Franklin County. Worcester County Fire and EMS agencies are largely UHF based (Athol, Gardner, Petersham, Phillipston, Royalston, Templeton, Winchendon). There is some concern among our mutual aid partners that they will lose the ability to communicate using the UHF subscriber units they have acquired.

Below are recommendations for the transitional phases to ensure that continued communications are uninterrupted. Associated operational updates should maintain communications with mutual aid responders as Franklin County migrates to CoMIRS system. Mutual Aid agencies wishing to invest in 800MHz trunked radios will be granted appropriate access to the CoMIRS system for use when providing mutual aid. MOAs and radio identifiers will be required.

- **Initial Transition Phase:** FCECS UHF simulcast system continues running as it does today for an unknown period after the initial switch over to CoMIRS. Equivalent talk groups are established in CoMIRS and patched to the UHF system. Simulcast 1 and 2 patches will be in place at all times. These channels will be patched to the CoMIRS analog and digital channels. Regional channels will be assigned at the time of dispatch and patched to CoMIRS operations channels. Mutual aid responders will continue to use their UHF equipment as they do today.

Example: For a fire in Northfield, Shelburne Control tones on Simulcast and the regional tower as is done now. Responders could be on either UHF FCECS Simulcast or CoMIRS Simulcast talk group and the signals would be patched together for seamless communications whether the user is on UHF or 800MHz to communicate with the dispatch center. The dispatcher would then assign a CoMIRS 800 MHz Operational talk group and patch that 800 operational talk group to a regional UHF channel. For this example, the dispatcher could assign CoMIRS OPS 3 and patch that with Shelburne UHF 1. Again, communications would be seamless and the NH agencies would simply turn to Shelburne 1 on their UHF radio as they do now.

- **Secondary Transition Phase:** At some point it is expected that the FRCOG will discontinue the use Simulcast channels (these channels are the most difficult to maintain, parts hard to acquire, timing difficult to maintain). The dispatch center will transition to toning on two or more regional towers. The CoMIRS operational channel will be assigned at dispatch and patched with a FCECS Regional UHF tower.
- **Tertiary Transition Phase:** In the eventuality that the FCECS radio system is completely abandoned. The UHF WMLEC regional towers could be used in conjunction with the 800MHz channels. This is a longer-range plan that will include the continued maintenance of WMLEC in Franklin County, funded through agency membership in the system. Currently the Regional towers at Shelburne Mountain, Borden Mountain and Mt. Grace are all WMLEC infrastructure.
- **Quaternary Transition Phase:** In the eventuality that WMLEC abandons support of the Regional towers at Shelburne Mountain, Borden Mountain and Mt. Grace. The next option would be to use WMLEC 1 and 2 infrastructure. This is a much longer-range plan that will include the continued maintenance of WMLEC in Franklin County, funded through agency membership in the system.

### Other Options

**Console solutions:** The Berkshire County fire and EMS frequencies are in the states CORE system and can be placed on the consoles in Shelburne. Berkshire County PSAP is also planning to place WMLEC 1 and 2 into their consoles. Additionally other console profiles can be brought up such as New Braintree or Northampton within minutes to ensure communications.

**Using Tac Stacs:** Current county locations Borden Mt, Berkshire East Charlemont, Country Hill Montague. These sites have the ability to initiate a UHF, VHF, 800 MHz patch. These patches need to be coordinated through either MEMA or GHQ Communications. This commits national mutual aid tactical channels and should not be considered for daily operations.

**Large scale and extended duration events:** There are multiple communications assets always available and rarely utilized. FC 40, FC 50, ISU2, ISU1, ISU3, MEMA trailer, MSP COWS, MSP Comm. Units, WMLEC Trailer, WMLEC POD.

**Fire and EMS Channel Banks:**

It is up to the Fire Chiefs to contact their representatives Chief Cuneo and Tibbetts and make the requests. Then FCECS would have to make the formal request of the agency for permission to use the frequencies. For example, I believe that the EPO's, and Sheriff's have 800 MHz radios, I believe that Chief Paciorek has already secured permission for Franklin County law enforcement to use these frequencies. The CoMIRS migration team is working on the channel bank line-ups.

One possibility would be to add the New Braintree channels. East County agencies would be able to communicate with New Braintree mutual aid units and dispatch. Permission would have to be obtained. Radios will have the ability to have user defined dynamic banks or zones, that can be created at the radio without the need for software. The plan is to put every frequency that is required in the radios (that agencies have permission to use). Once the frequencies are in the radio, the user can define what channels they want in their 16-channel zone.

**Encryption:** - Encryption is ultimately up to each agency to decide. It may make sense for law enforcement to use this for an occasional drug or warrant sweep. There are no plans for encryption for use on a daily basis. Similarly, if there was a county task force of fire investigators they may want encryption for the infrequent but secure communications they want to have. For the average fire department to invest in encryption would be an inefficient investment of funds. There are a plethora of channels to communicate within the county and with state and federal partners. The present model is 25 zones of 16 channels.

**Staffing:** We have requested additional staff of three dispatchers to help facilitate communications. This will be essential to have communications be seamless for the end user. It is impractical to expect dispatchers that are staffing at a minimum level of two to be able to maintain seamless communications with the increase in frequencies, talk groups, and complexity. The dispatch center would expect to transition to minimum staffing level of 3 on the day and eve shift.

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