



# VCOMM

## Guide to Interoperable Communications

### What is Interoperable Communications?

The Vermont Communication Board (VCOMM) is providing this guide to assist first responders in achieving simple, cost effective interoperability solutions to enhance multi-agency response. These short-term efforts are leading to longer term and much more comprehensive solutions to wireless interoperability for public safety agencies throughout Vermont and nationwide.

### What is VCOMM and what does it do?

VCOMM is comprised of representatives from a wide variety of first responder organizations. Fire, EMS, law enforcement and other sharing partners are represented. The VCOMM web page contains a list of these representatives. Current VCOMM objectives are:

Assess the State's overall interoperable communications capability, policies and needs.

Advise on strategies to create an interoperable, accessible radio system for fire, EMS and law enforcement first responders linking local, state and federal agencies in Vermont with each other and surrounding jurisdictions.

Provide guidance in meeting federal mandates for communications planning and FCC narrow-banding initiatives.

For more information about VCOMM, or to find VCOMM representatives, go to:

<http://www.dps.state.vt.us/vcomm>

### How can we have Interoperable Communications without spending a fortune? Radio Reprogramming!

The most common means of achieving interoperability is programming existing operational channels from neighboring agencies into your radio. This is the approach that has traditionally been used in Vermont with a degree of success. Each state, county and municipal agency can still agree to allow other area responders to use their radio system on designated interoperable channels when necessary. VCOMM can provide assistance in developing such agreements.

The simplest method is not always without problems. Programming adjacent agencies frequencies works well when agencies interact regularly; however, when an incident occurs with agencies that do not work together often, problems can arise. They include confusion over what frequency should be used, or agencies who do not share a common frequency in their radios with other agencies on scene. In reality, we do not need to fill large banks of channels with frequencies to achieve interoperable communications.

The method of achieving highly effective, simple and cost effective interoperable communications that VCOMM endorses is very similar to the system that we are all familiar with. Agencies should continue to use their currently licensed frequencies when responding to incidents without a response from neighboring “mutual aid” agencies. Agencies that work with each other **frequently** may still wish to program these frequencies as well.

The VCOMM Interoperable Communications Lifeline System, often referred to as V-Call/V-Tac and U-Call/U-Tac, will provide agencies responding to any planned or unplanned multi-agency response with an interoperable communications platform. By utilizing the VHF or UHF Calling Channel, and either the four VHF or three UHF tactical channels, the need for costly, multi-channel radios will be eliminated. Channel congestion will also be greatly reduced and in many cases eliminated altogether. The ability to communicate critical information during a dynamic event will be greatly enhanced, providing much safer conditions for all first responders.

The national calling and tactical channels will provide immediate interoperability with department’s in your discipline. Users will need to know where coverage currently exists to safely and efficiently use these channels. As the Lifeline System is built out, the goal is to establish greater interoperable communications with Massachusetts, New Hampshire, New York and the Province of Quebec with an eventual transition to a Nationwide Interoperable Communications Network.

**Ask yourself:** Which of the channels in my department’s radios have I actually used in the last 3, 6 or even 12 months? If you can’t remember the last time you used a channel give some serious thought to eliminating it and using the V-Call/V-Tac or U-Call/U-Tac channels when you work with that agency.

**OK, that seems to make sense.**

**How do we program our radios with these interoperability channels?**

VCOMM has contracted with several radio vendors currently providing service to Vermont’s first responder community. These vendors will reprogram your existing mobile and portable radios with the V-Call/V-Tac or U-Call/U-Tac frequencies at no cost to your agency. If a vendor tells you that your mobile and/or portable radios are not able to accommodate the national calling channels, you may apply for emergency funds through VCOMM. To apply for emergency funds, you must fill out three simple forms (cover sheet, budget detail worksheet and one page narrative) found on the VCOMM web site, [www.dps.state.vt.us/vcomm](http://www.dps.state.vt.us/vcomm), and submit them electronically to the VCOMM Chair, Paul Duquette, at [jduquett@dps.state.vt.us](mailto:jduquett@dps.state.vt.us). Your vendor will be able to assist you in providing the required information on non-compliant communications equipment.

**How can Chiefs and communications officers assist in the interoperability process?**

The first step in assuring seamless interoperability is PLANNING. Create a list of agencies that you need to work with and prioritize them. Make sure your plan includes the 5-VHF or 4-UHF nationwide channels that we will all have in our radios. Remember, if you rarely work with an agency it would be more practical to use an interoperability channel.

## Nationwide Narrowband Interoperable Communications Channels

### VHF

Label	Frequency	Tx CTCSS	Rx CTCSS	Description
VCALL	155.7525	156.7 hz (5A) (Required)	156.7 hz (5A) as follows:	National Calling
VTAC 1	151.1375		Portables must have "monitor" button or use carrier squelch on receive.	National Tactical
VTAC 2	154.4525		Mobile radios must not decode CTCSS when "off hook". Must have "monitor" button or use carrier squelch on receive.	National Tactical
VTAC 3	158.7375			National Tactical
VTAC 4	159.4725			National Tactical VT Fire R IT

### UHF

Label	Frequency	Tx CTCSS	Rx CTCSS	Description
UCALL	453.2125	156.7 hz (5A) (Required)	156.7 hz (5A) as follows:	National Calling
UTAC 1	453.4625		Portables must have "monitor" button or use carrier squelch on receive.	National Tactical
UTAC 2	453.7125		Mobile radios must not decode CTCSS when "off hook". Must have "monitor" button or use carrier squelch on receive.	National Tactical
UTAC 3	453.8625			National Tactical

### How do we use of interoperability channels?

**Calling channel:** The calling channel shall be used to contact other first responding agencies or one of the eleven Public Safety Answering Points (PSAPs) throughout the state. The calling channels may also be used for setting up tactical communications for specific incidents.

**Tactical channels:** By FCC rules, the tactical channels are to be used for coordination activity between different agencies in a mutual aid situation. Incidents requiring multi-agency participation will be coordinated over these channels by the Incident Commander, Unified Command or Communication Unit Leader (COML).

MOUs are currently being established with agencies providing air assets (DHART, Albany Life Flight) to use V-Tac 4 for Landing Zone operations. If the incident doesn't require the use of aircraft the channel may be used for operational or support functions.

**Dispatch Centers and Interoperability:** The ten PSAPs and State Police Headquarters will be capable of communications on V-CALL and U-CALL channels to provide a lifeline capability throughout the state.