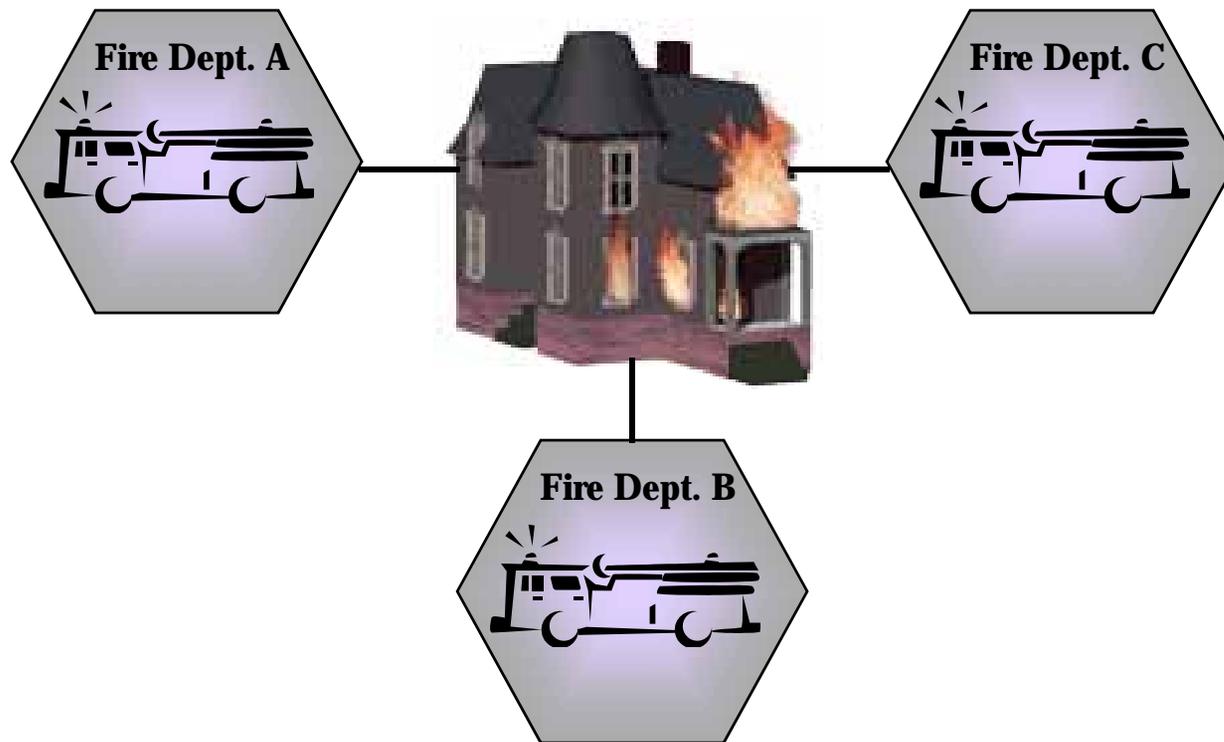


System Overview

U-Call & V-Call Communication Lifeline

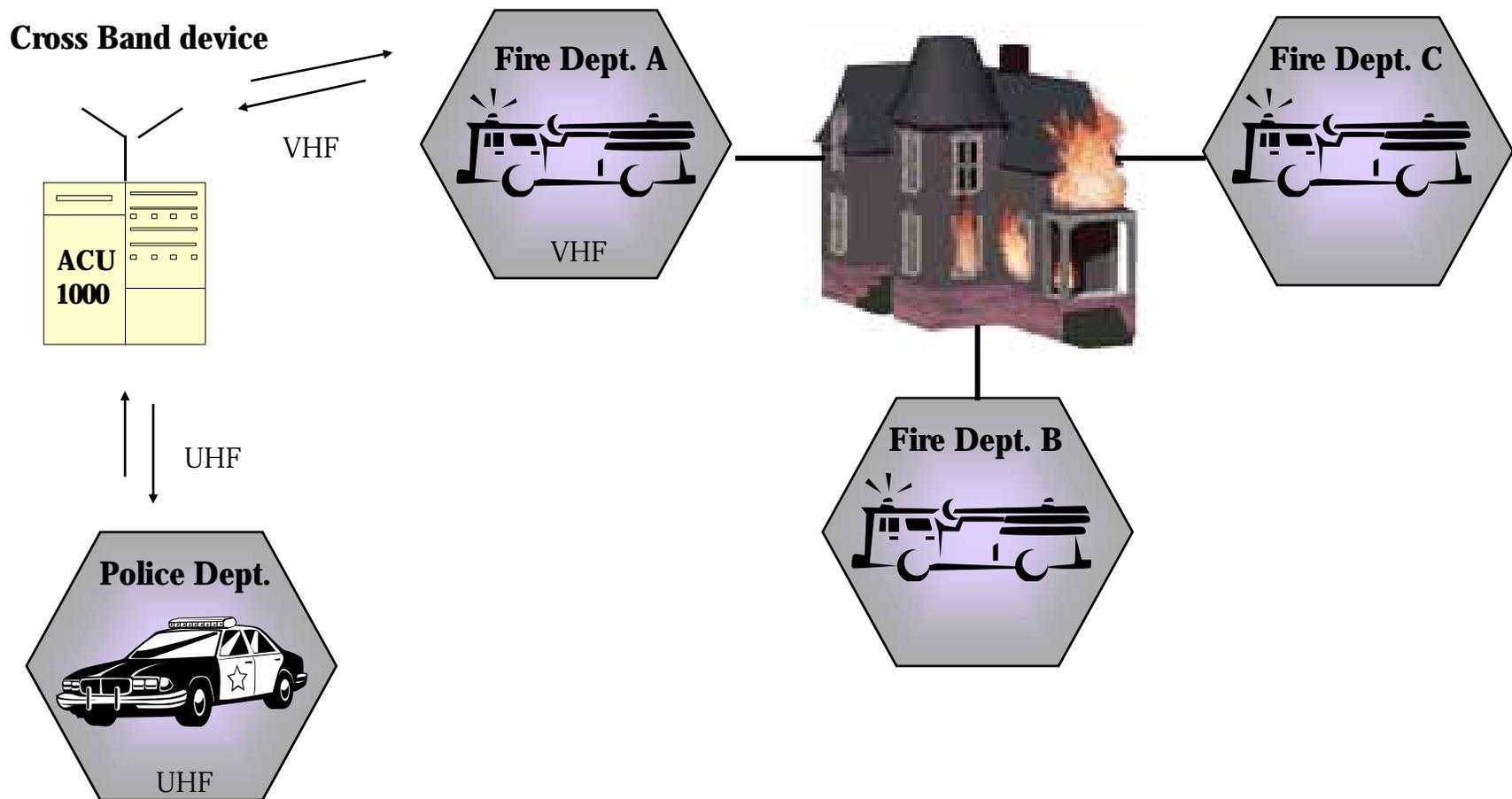
Note: U-Call and V-Call are national calling channels that Vermont is going to use as a lifeline system. This lifeline system will enable any first responder, from many areas within the state, the ability to call into a dispatch center using these channels. Many other states are also in the process of adding these national calling channels into their radios.

In mutual aid responses, fire departments from the surrounding towns support each other in the protection of lives and property. Radio communications for the coordination of firefighting activities occur on *one* of the responding department's radio channels or a fire ground/mutual aid channel.

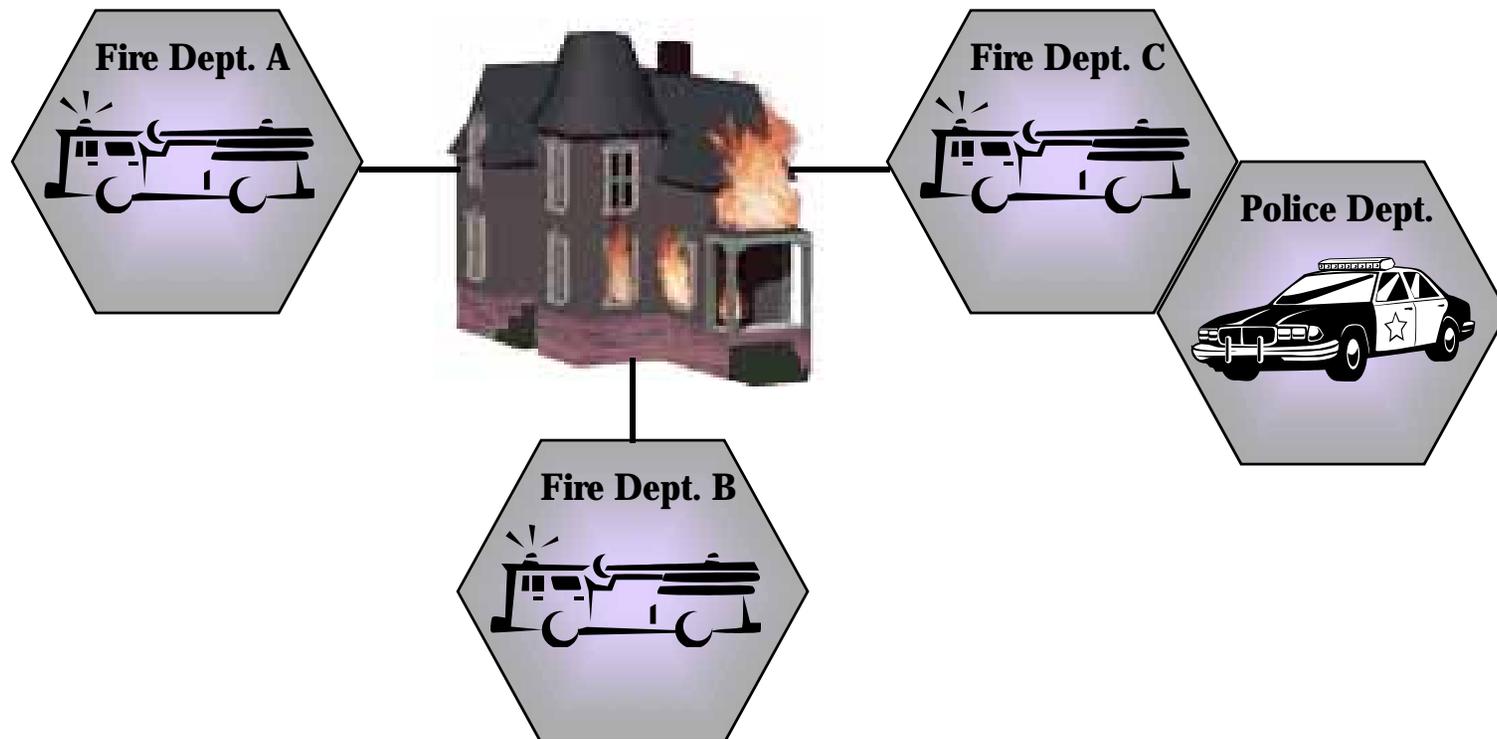


All units use Department C's radio channel unless Department B's works better.

In mutual aid responses where law enforcement and rescue or fire is involved, voice communications are relayed through cross band repeaters, gateway products or in many cases multi-band radios.



The multi-band radios provide an efficient means for inter-disciplinary communications to take place. This solution allows law enforcement agencies to operate on their UHF band radios for routine communications with other law enforcement organizations and on their VHF radios to communicate with fire and EMS organizations when the need arises. Many of these additional interoperable radios for law enforcement, fire and EMS organizations have been provided through Homeland Security grants.

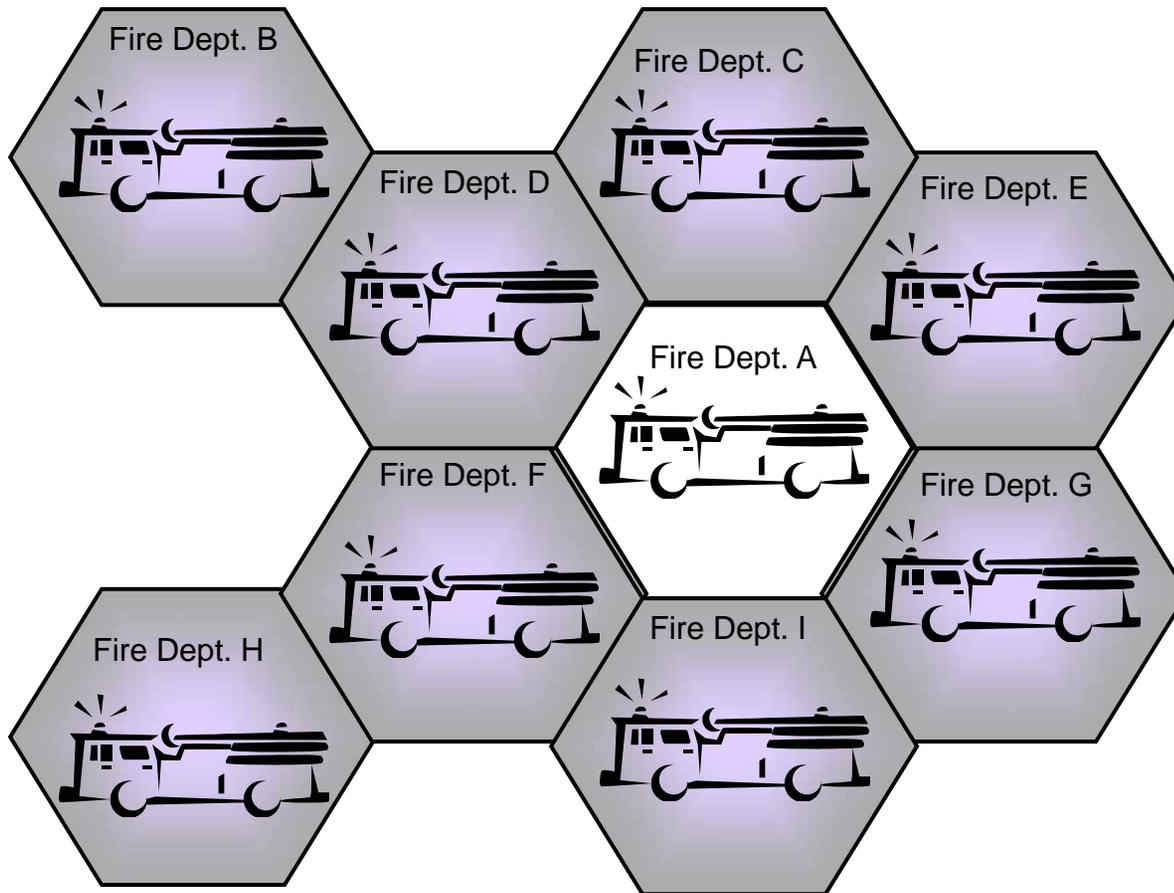


Radio Dilemma

- When a fire department attempts to program surrounding communities fire channels into their radios, they typically do not have adequate channel capacity available. Chiefs are faced with making a decision as to what the “most” important channels to have are.
- In non-alpha display radios, trying to remember what department is on what channel can be confusing.
- Operation on other departments channels outside of the FCC area of operation is illegal and could potentially interfere with other critical communication systems.
- Multiple physical radios operating on different bands are needed to accommodate efficient communications between fire, police and rescue organizations.

Current Mutual Aid Scenario

(All fire departments share neighboring communities channels to assist each other)



NORTHERN VERMONT

Fire Department A

*Channel 1 – Dispatch

*Channel 2 – Fire Ground/
Mutual Aid

Channel 3 – Department B

Channel 4 – Department C

Channel 5 – Department D

Channel 6 – Department E

Channel 7 – Department F

Channel 8 – Department G

Channel 9 – Department H

Channel 10 – Department I

Total **10** channels **or**
more typically*
installed in Fire
Department A's radio

* Some departments use more than two primary channels.

Initial Goals of VCOMM are to create an environment where:

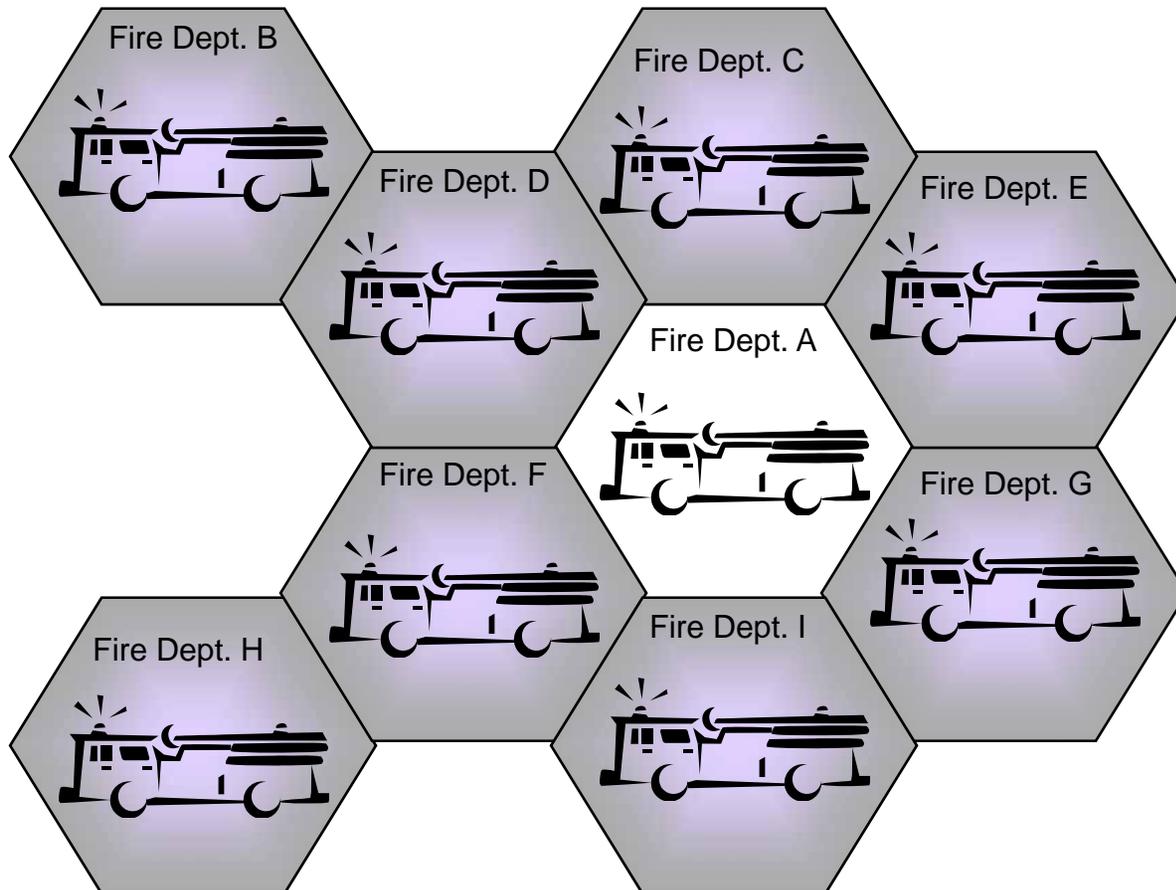
- first responders maintain their own primary dispatch and legacy radio channels licensed to their departments.
- first responders operate on a common set of channels (like shared fire ground/mutual aid channels) provided by VCOMM.
- first responders would use these new channels during mutual aid responses and to coordinate multi-disciplinary activities.

This is what the U-Call/V-Call (U-Tac/V-Tac) channels will allow first responders to do.

Funding for the these new radio channels will be provided through VCOMM.

V-Call/V-Tac Radio Programming Approach

(All fire departments have the national calling and tactical channels to be used in assisting each other)



NORTHERN VERMONT

All Fire Departments*

Channel 1 – your own Dispatch channel

Channel 2 – your own Fire Ground or other channel

Channel 3 – VCALL

Channel 4 – VTAC 1

Channel 5 – VTAC 2

Channel 6 – VTAC 3

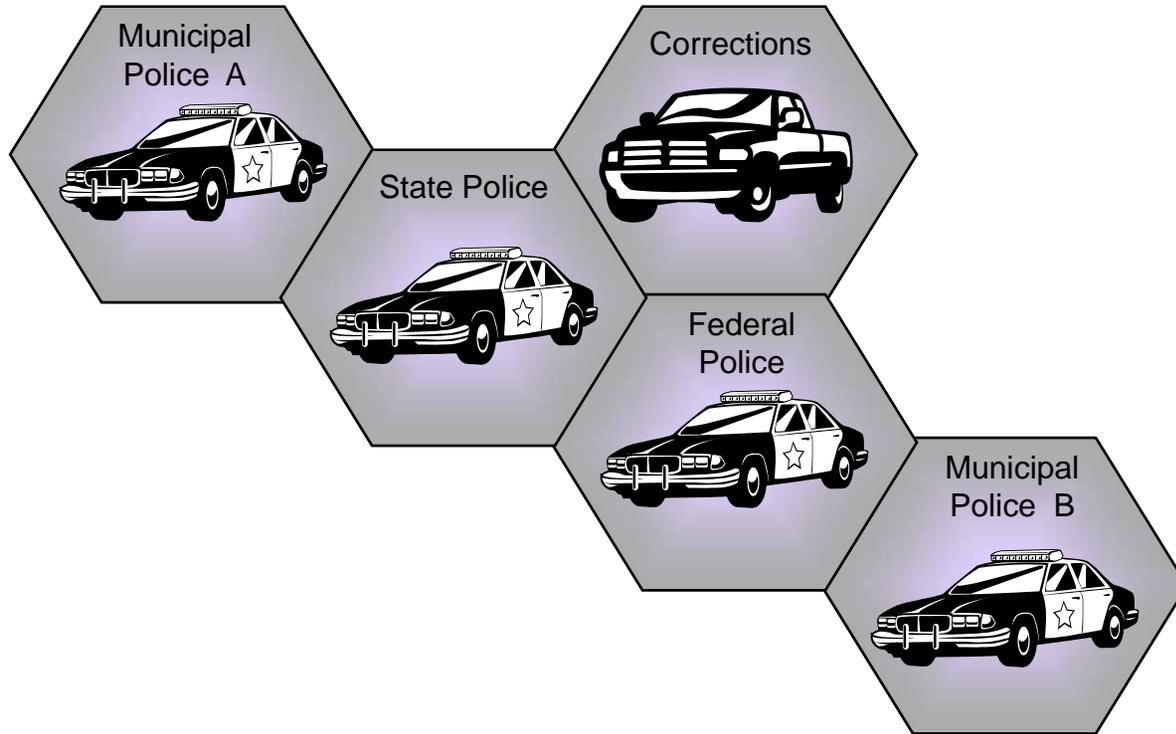
Channel 7 – VTAC 4

* This is a suggested channel format. Each department has the discretion to arrange the channels as best fits their particular operation.

Total **seven** channels for all departments statewide

U-Call/U-Tac Radio Programming Approach

(All law enforcement have the national calling and tactical channels to be used in assisting each other)



All Law Enforcement*

Channel 1 – your own Dispatch channel

Channel 2 – your own channel

Channel 3 – UCALL

Channel 4 – UTAC 1

Channel 5 – UTAC 2

Channel 6 – UTAC 3

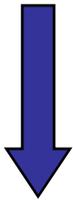
* This is a suggested channel format. Each department has the discretion to arrange the channels as best fits their particular operation.

Total **six** channels for all departments statewide

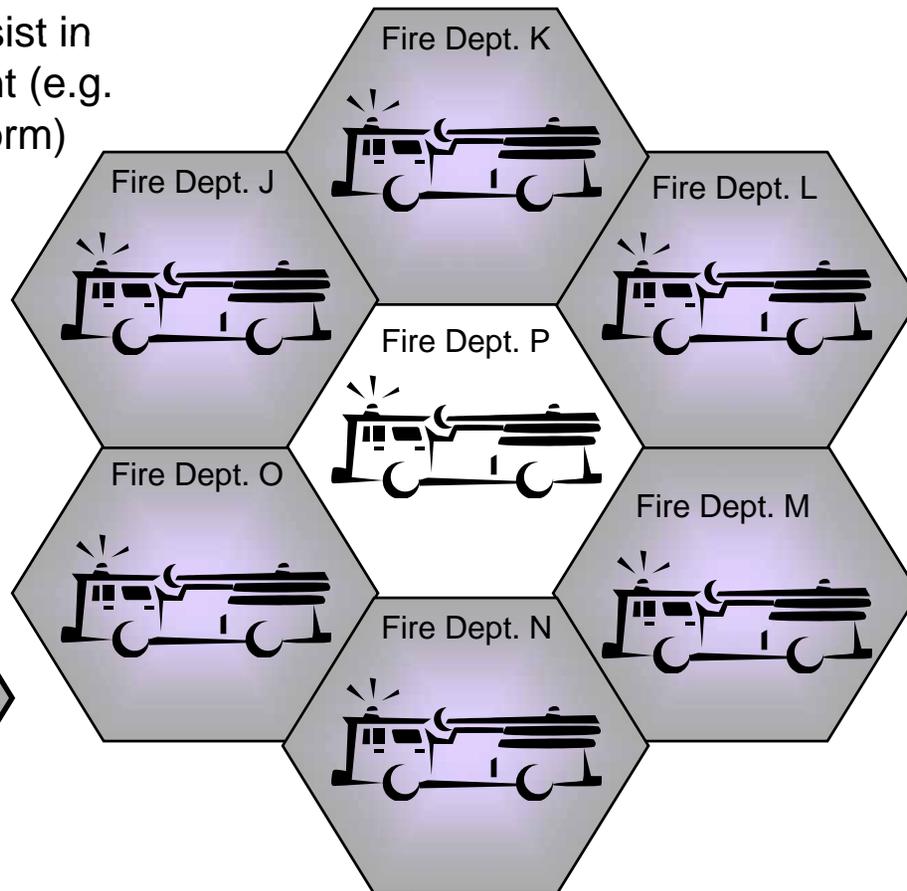
V-Call/V-Tac (U-Call/U-Tac) Mutual Aid Scenario Extended Service Area

(National calling and tactical channels are used during interagency communications)

Northern VT unit sent to southern VT to assist in emergency incident (e.g. HAZMAT or ice storm) operates on VTAC channels.



SOUTHERN VERMONT



Fire Department P*

Channel 1 – your own Dispatch channel

Channel 2 – your own Fire Ground/Mutual Aid or other channel

Channel 3 – VCALL

Channel 4 – VTAC 1

Channel 5 – VTAC 2

Channel 6 – VTAC 3

Channel 7 – VTAC 4

Fire Department A*

Channel 1 – your own Dispatch channel

Channel 2 – your own Fire Ground/Mutual Aid or other channel

Channel 3 – VCALL

Channel 4 – VTAC 1

Channel 5 – VTAC 2

Channel 6 – VTAC 3

Channel 7 – VTAC 4

* This is a suggested channel format. Each department has the discretion to arrange the channels as best fits their particular operation.

Lifeline Channels

- When a first responder's primary radio communication fails, or they are not operating within their home area, the U-Call/V-Call channels provide an alternative method to communicate with a Public Safety Answering Point. These safety net, or lifeline, radio channels are an added assurance that the first responder community will not be isolated from critical resources. As with any radio network, the lifeline system will have some radio coverage "dead" spots. The first responder community should become familiar with the capabilities and limitations of the system.

In addition to the lifeline concept, the network also serves as the core interoperable radio network for Vermont. In the scenario depicted below, the first responder would contact Incident Command on a calling channel (U-Call/V-Call). Under the ICS model, Incident Command would assign the first responder one of the tactical channels (U-Tac/V-Tac) so they could communicate with others first responders on the scene.

