

PUBLIC SAFETY  
ANSWERING  
POINT  
CONSOLIDATION  
PROJECT

2015

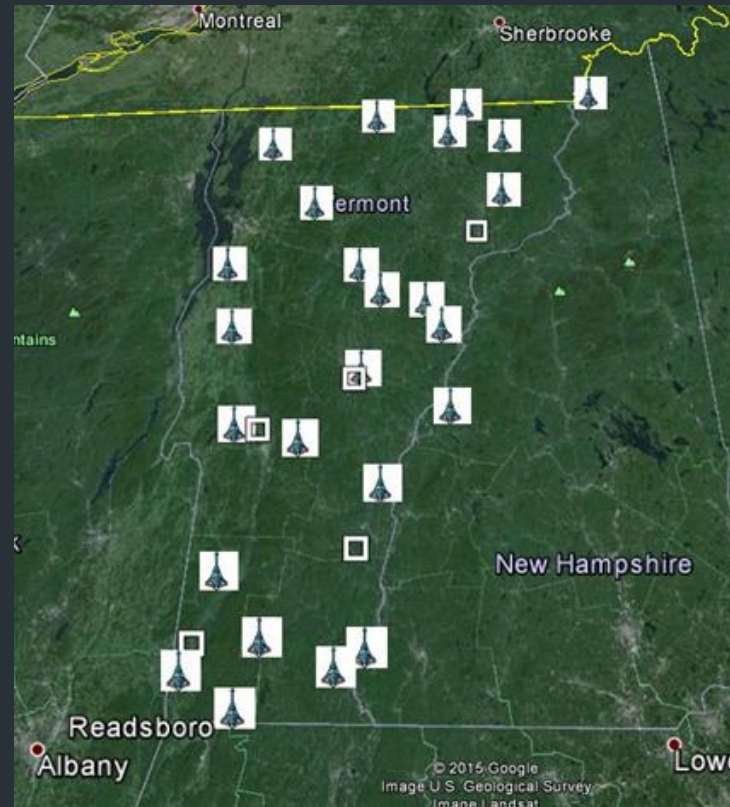
PUBLIC SAFETY  
ANSWERING POINT  
CONSOLIDATION PROJECT 2015



PREPARED BY:  
COMMISSIONER KEITH W. FLYNN  
VERMONT DEPARTMENT OF PUBLIC SAFETY

# Two-Way Radio System

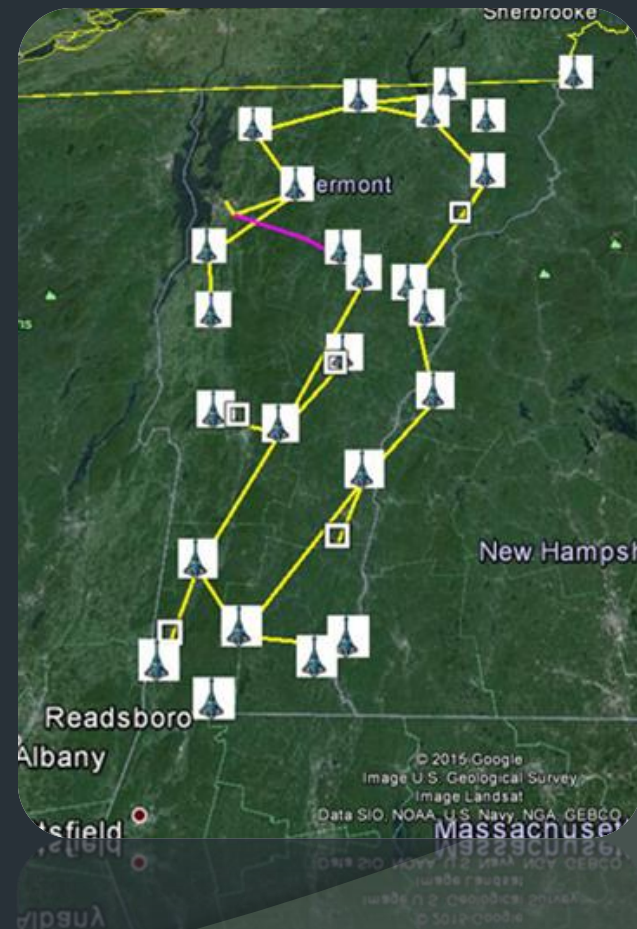
- The Vermont Department of Public Safety has developed several two-way radio systems within Vermont for wireless voice communications.
- Individual systems have been established for each of the 12 VSP offices
- All radio calls processed by these systems are answered by one of four State dispatch facilities.
- The radio sites are used by other **State Agencies and Departments** and numerous **municipal POLICE, FIRE and EMS organizations** throughout Vermont.



State Radio Sites

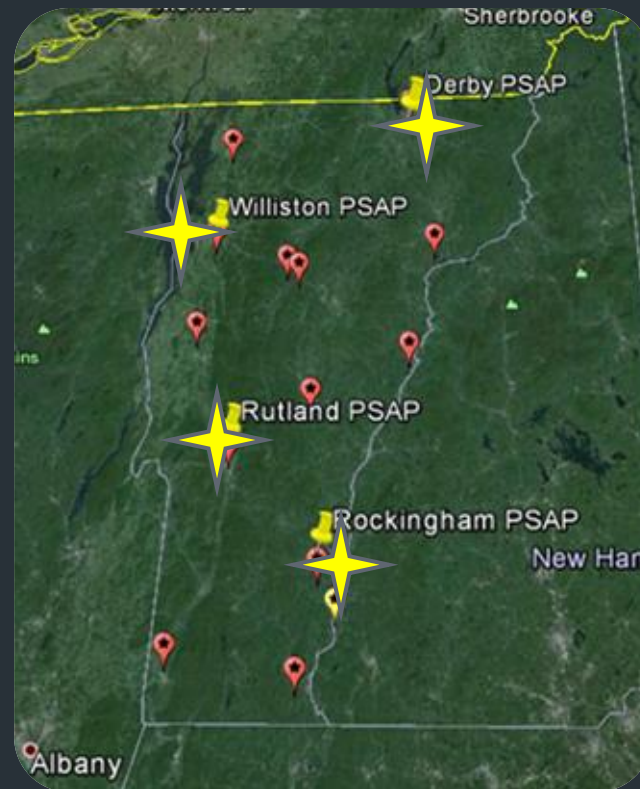
# Connectivity

- The radios sites and dispatch centers are inter-connected through digital microwave and fiber optic links.
- The yellow and pink lines in the image below show the connections to/from the radio sites and state dispatch facilities.



# PSAP Locations

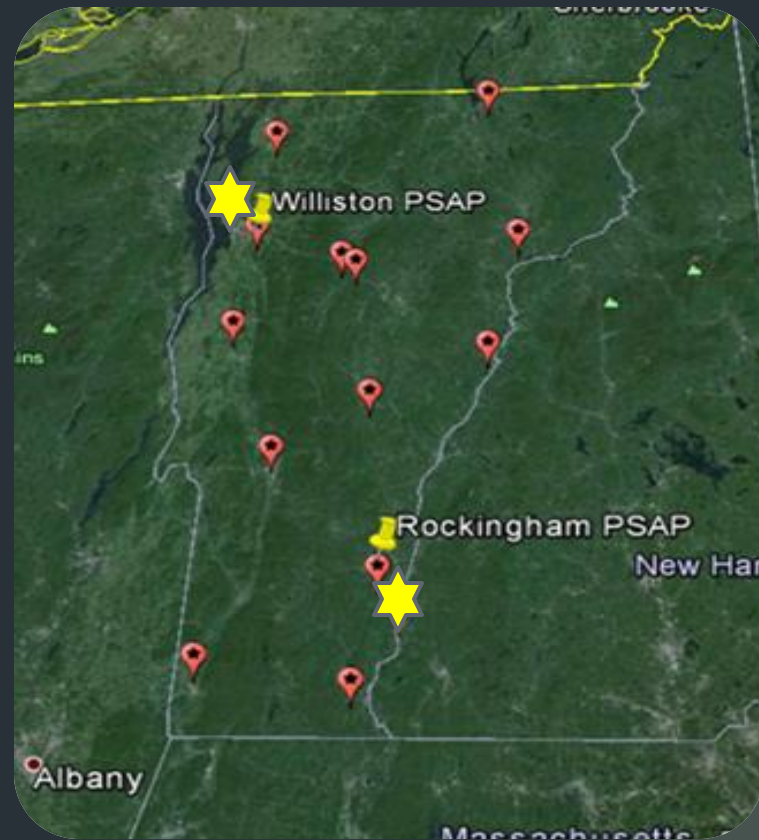
- **Currently** there are 4 State Police dispatch centers designated for State Police **dispatch operations**; Derby, Williston, Rutland and Rockingham
- These four centers also provide dispatching services to many **municipal Police, Fire and EMS** organizations as part of the dispatch program.
- State dispatchers use municipal radio systems to communicate with the municipal practitioners.
- The interface to these systems is through the state network and Harris radio consoles
- 911 calls received at the centers are typically **transferred** to a dispatch center (dispatcher) where the dispatcher notifies the first responder that they are needed.
- The dispatcher contacts the first responder typically through the two-way radio system.



Current State PSAP locations indicated by yellow pins

# PSAP Consolidation - Locations

- The Department of Public Safety is currently working on a proposal to eliminate dispatching services from the Derby and Rutland PSAPs and consolidate these services into the Williston and Rockingham PSAP locations.



Consolidation points – yellow pins

# Enabling Technology

- **Historically**, consolidation of the dispatch operations would have been problematic due to limitations in our technology.
- Over the past several years the department has been refreshing their legacy technology and systems. The technological advances made in their **radio console technology and microwave networks** collectively allow our engineers to reconfigure our dispatch operations to meet the business needs of the department.
- Through the use of our technology, first responders--state or municipal--operating in the field will see no difference in their two-way radio coverage. Radio channels in use today at any of the four DPS dispatch centers can be merged into two centers at any node within our network.
- All of our dispatch centers are dependent on commercial telephone service providers such as FairPoint and VTel. Redirecting “business” calls can be complex and care must be taken in these areas to ensure call management is accurate.

# PSAP Organization

- The Vermont State Police currently operate 4 Public Safety Answering Points (PSAPs) located in Derby, Williston, Rutland and Rockingham.
- The PSAPs are staffed with 105 employees, 72 of them are full time employees (33 temporary). The full time positions are distributed with 14 in Derby, 16 in Rutland, 14 in Rockingham and 24 in Williston.
  - These positions include dispatchers, working shift supervisors and 4 administrators. The PSAP Administrator reports directly to the area Troop Commander (Captain). Staffing levels vary between PSAPs and between shifts at each PSAP based on total call volume.

# E-911 Call Taking

- The current 911 system in Vermont relies on call taking services to be provided by 8 PSAPs located around the State. In addition to the 4 State PSAPs there are 4 PSAPs operated by local police departments and a sheriff's department. They are located in Lamoille, St. Albans, Hartford and Shelburne. Each PSAP is compensated \$45,000 annually for a specified number of call takers. The 4 local PSAPs receive funding for 8 call takers (2 each). The 4 State PSAPs receive funding for 18 call takers, 4 each at Rockingham, Rutland and Derby and 6 at Williston.
- The State PSAPs currently answer approximately 75% of the total 911 calls received annually with the local PSAPs answering the remaining 25%.



# E-911 Call Taking Function

- The call taking function involves taking the initial 911 call, obtaining the needed information to transfer the call to the appropriate dispatching center and providing the necessary medical and safety information needed while waiting for the responding emergency services to arrive. All 8 PSAPs work together to ensure all 911 calls are answered in a timely manner. If a call cannot be answered by a call taker in the primary area of the call origination it is automatically routed to one of the other call takers in the State. The 911 system provides address information with map location and a listing of the appropriate law, fire and EMS for the call location.

# Dispatching Function

- The dispatching function is much more complex. The dispatchers collect the necessary information to activate the appropriate response agencies. The responders are from many disciplines to include law enforcement agencies, fire departments, rescue squads, highway departments, power companies, wrecker services and emergency management organizations just to name a few. The communications take place in a variety of methods including by telephone, two way radio, email and instant messaging. Calls for service are received from 911 call takers, direct telephone calls to the PSAP and from first responders requesting information and services.

# State PSAPs

- ◎ The State PSAPs are staffed 24/7, 365 days a year providing emergency and nonemergency support to Vermont's citizens, visitors and first responders. They provide dispatching services for a number of State Agencies and in excess of 100 local law enforcement, fire departments and rescue services. As currently organized, all the employees are trained as both dispatchers and 911 call takers. Some work performing only one of the two tasks (dual phase) and others are combined (single phase). This means that some simply take the 911 call and transfer it to a dispatcher and others take the 911 call and also perform dispatch duties.

# Dispatch Computer System

- ◎ The State PSAPs use a computer aided dispatch system (CAD) that is part of a Records Management System (RMS) to record and manage information and data. Dispatchers actively input and retrieve information from these systems. Advancements in technology allow Troopers to perform many of the same actions using a mobile data computer (MDC). This allows some of the duties to be removed from the PSAP and be performed by the Trooper. The Troopers use of the MDC to perform these duties only occurs when safe to do so.

# Vermont Department of Public Safety PSAP Consolidation Savings Calculation

## Savings Projection

### Salaries & Wages

|  | SFY 2016     |
|--|--------------|
| 14 Position Reduction (Salaries & Benefits only) | 1,048,986.29 |
| 14 Position Overtime Savings                     | 114,701.05   |
| Savings Due to increased Scheduling efficiency   | 256,394.23   |
| Other Operating                                  | 281,748.43   |
| Total Estimate                                   | 1,701,830.00 |

### Technology Costs

|   | SFY 2015  | SFY 2016  |
|---|-----------|-----------|
| Fairpoint line change (T1 ability in Williston) - annual increase   | 7,378.08  | 7,378.08  |
| Carousel Contract (February 1, 2015 - January 31, 2016) - Williston | 73,821.33 |           |
| CDW-G phone order 1/27/15   | 1,177.56  |           |
| other tech supplies (estimate)                                      | 5,000.00  | 5,000.00  |
|   | 87,376.97 | 12,378.08 |

## Vermont Department of Public Safety PSAP Consolidation Savings Calculation

| <u>Current Schedule Deficiency</u> | <u>Period</u> | <u>Hours</u> |   |               |
|------------------------------------|---------------|--------------|---|---------------|
| Williston                          | week          | 64           |   | 3,328         |
| Rockingham                         | Month         | 232          | ▲ | 2,784         |
| Derby                              | week          | 56           |   | 2,912         |
| Rutland                            | week          | 52           |   | 2,704         |
|                                    |               |              |   | <u>11,728</u> |

| <u>New Schedule Deficiency</u> |      |    |   |              |
|--------------------------------|------|----|---|--------------|
| Williston                      | week | 16 | ▼ | 832          |
| Rockingham                     | week | 16 |   | 832          |
|                                |      |    |   | <u>1,664</u> |

### Hours Saved with New Schedule

|                    |  |  |              |
|--------------------|--|--|--------------|
| Current Deficiency |  |  | 11,728       |
| New Deficiency     |  |  | <u>1,664</u> |
| Total Hours Saved  |  |  | 10,064       |

|  | <u>Hours</u> | <u>Rate</u> | <u>Cost</u>       |
|--|--------------|-------------|-------------------|
| Cost savings if overtime hours are reduced | 3,421.76     | 41.24       | 141,130.24        |
| Cost savings if Temp hours are reduced     | 6,642.24     | 17.35       | <u>115,263.99</u> |
|  |              |             | 256,394.23        |