

18 December 2015

Re: Middlefield Emergency Communication's Upgrade

The problem(s):

1. High powered mobile units cannot communicate between each other from different locations in town.
2. No or spotty communication with distant dispatchers from town low points with high power mobile units.
3. Paging receivers are inoperable in most of the town.
4. Handhelds cannot communicate with distant stations in the great majority of the town.

Desired:

1. Any radio can communicate with any other town radio from any location.
2. Any radio can communicate with any distant service via PL selection.
3. All traffic will be repeated

Solution and Partial Specification (Repeater):

1. Proposed is a VHF split site repeater located at town hall and possibly the fire station.
2. Testing has confirmed 100% coverage from town hall.
3. Emergency power by propane MG set at both locations.
4. They will be connected by xxx MHz voice and control link.
5. Utility poles or Rohn xx will be used as antenna supports.
6. Repeater antenna is top mounted +6dbi omni.
7. Dispatcher links are side mounted 4(?) el yagis. Shared antennas on receiver end.
8. Dispatcher links will be activated by PL.
9. Provisions for 10(?) external links to be provided at each site - R&T.

Solution and Specification (Handhelds):

1. Install in-vehicle repeaters in 2 fire & 1 police vehicle.
2. Model: Pyramid SVR 200 <http://www.pyramidcomm.com/svr-200/>

Potential Links:

1. Berkshire Fire
2. Berkshire Police
3. Hampshire Fire
4. Hampshire Police
5. Emergency Management
6. Emergency Medical Easthampton
7. Hinsdale Ambulance
8. Russell Ambulance
9. Expansion 1 (other towns?)
10. Expansion 2