



Law Enforcement Radio

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Meeting Overview



- Two-way voice communications system overview
- Subscribers
- Coverage
- Talk paths layout
- National Interoperability talk paths - 700 MHz and 800 MHz

Proposed Coverage



- For land mobile radio
 - » Desired design minimum – Portable held head-high in the street. Industry standard 90-95% coverage – 95% of the time
 - » Coverage area does not include some State Parks and West Point
 - » In State Parks coverage can be supported with communications van
 - » In-building coverage can be enhanced by the use of bi-directional amplifiers

Current Vision – Law Enforcement



- Operational
 - » All law enforcement on new system
 - Replace 800 MHz EDACS
 - Replaces OC 911
 - Replaces OC MRD
 - Provisions for encryption and special operations teams
 - » Portable in the street
 - » Controlled system access
 - » Local dispatch capability preserved
 - » Inter and intraoperability
 - » Comply with Federal and NYS guidelines – Nation Emergency Communications Plan, NY Statewide Interoperable Communications Plan, and HVICC

Current Vision – Law Enforcement



- Technical
 - » Encryption for selected user groups
 - » P-25 Trunked
 - » 700/800 MHz
 - » Simulcast/voting
 - » Redundant interconnects
 - » Hardened sites

Subscribers



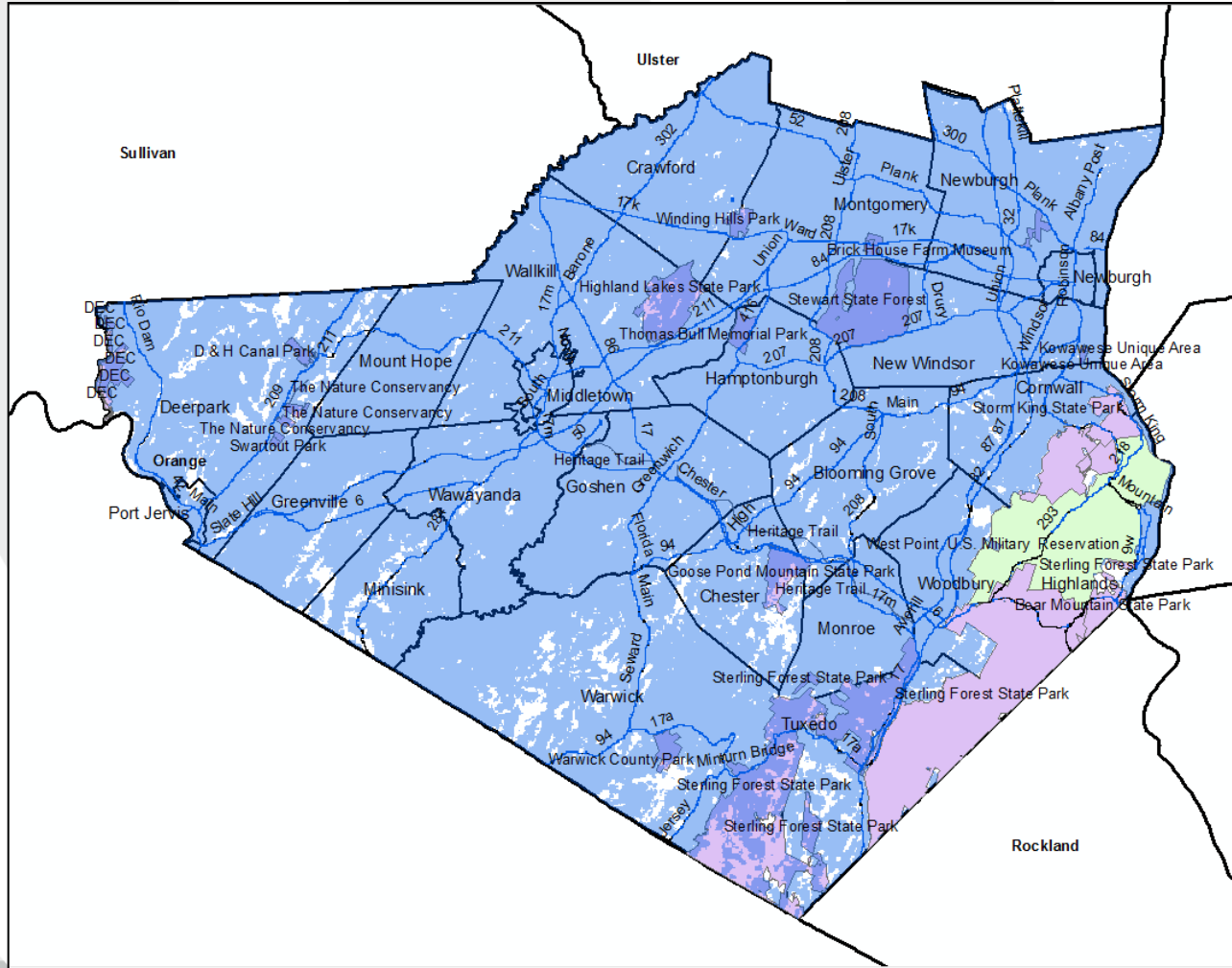
Service	Portable	Mobile	Control Stations
Fire	300	500	51
Law	738	543	32
EMS	1,180	622	NA
DPW	22	97	9
Motor Pool	NA	8	NA
Sub-Totals	2,240	1,770	92
Total Subscribers	4,102		

Coverage

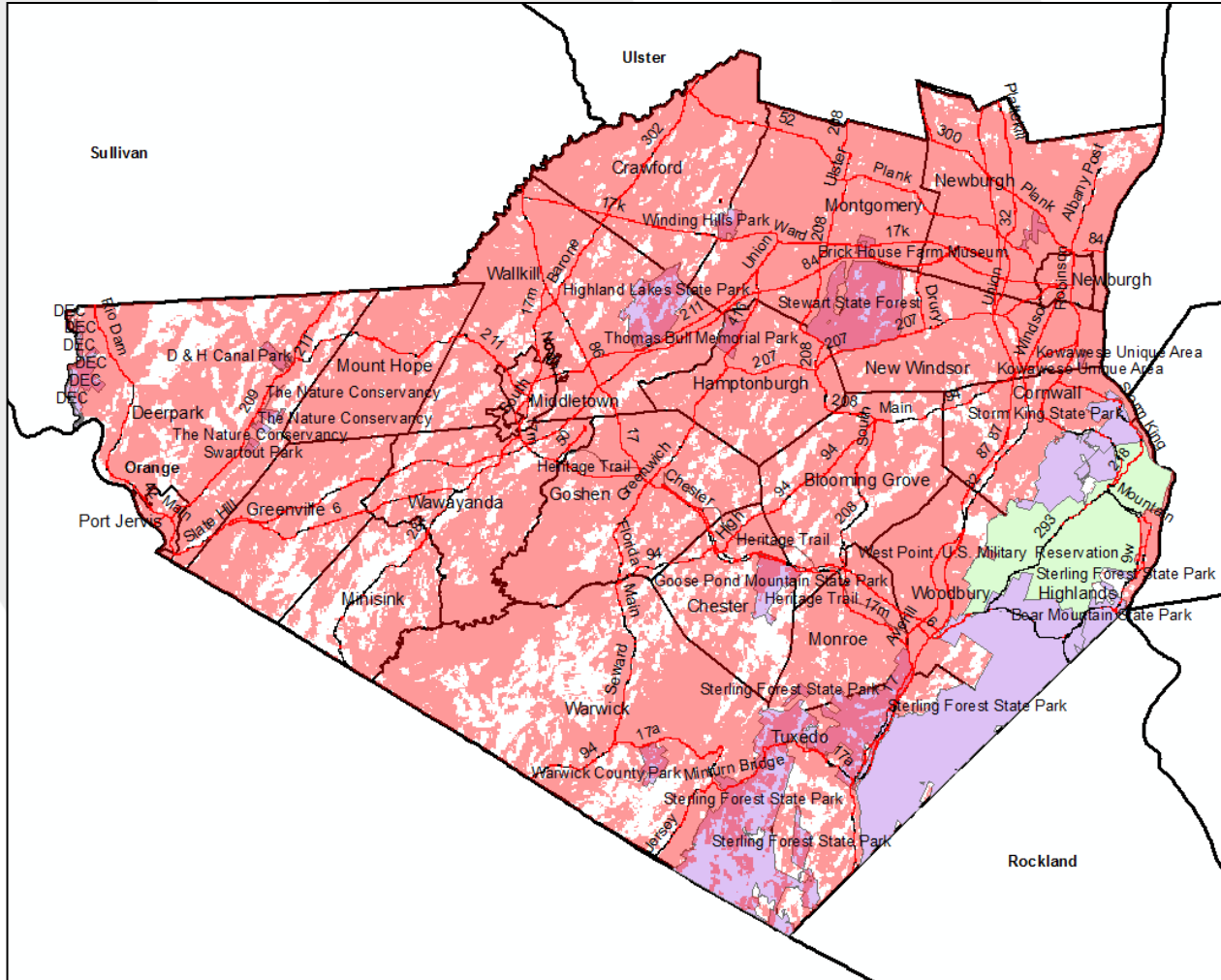


- Developing a preliminary constellation of 14 tower sites:
 - » Arden
 - » Beacon
 - » Graham
 - » Schunnemunk
 - » Goshen
 - » Mt. Peter
 - » Putnam
 - » Wurtsboro
 - » Cronomer Hill
 - » Heater Hill
 - » Sloatsburg
 - » Southfield
 - » Sparrow Bush Estates
 - » Walden Fire Department
- Communications Trailer for on-site support in State Parks and West Point
- Interconnected with microwave

Coverage – Mobile Talk Out



Coverage – Portable Talk In



Conceptual Law Enforcement Talk Path Plan



- COM-LAW 1 – Similar to existing OC 911
- COM-LAW 2 – Similar to existing OC MRD
- COM-LAW 3 – Available for special ops, details, overflow
- COM-LAWX-X – Agency specific that do their own dispatching (4 talk paths)
- TAC10-11 – Dedicated countywide law enforcement tactical talk groups. Could be used for interoperability, special details, and multi agency coordination

Conceptual Law Enforcement Talk Path Plan



- TAC20-21 – Countywide - Shared tactical with fire, EMS and EMA. Used for interoperability, multi-service wide area incidents
- GRD50-51 – Law Enforcement only. On-scene simplex direct
- GRD70-71 – On-scene simplex direct. Shared with fire, EMS and EMA
- Encrypted and special teams talk paths would be identified and installed as required

Conceptual Law Enforcement Talk Path Plan



Radio Pos.	Function	Name	Groups	Frequency (Transmit)	Frequency (Receive)	Type	Area of Operation	Notes
1	Communications	COM-LAW1	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to OC911
2	Communications	COM-LAW2	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to OCMRD
3	Communications	COM-LAW3	LAW	TBD	TBD	Simulcast	Countywide	
4	Communications	COM-LAWX-X	LOCAL DISPATCH	TBD	TBD	Simulcast	Countywide	Local agency use
5	Communications	COM-LAWX-X	LOCAL DISPATCH	TBD	TBD	Simulcast	Countywide	Local agency use
6	Communications	COM-LAWX-X	LOCAL DISPATCH	TBD	TBD	Simulcast	Countywide	Local agency use
7	Communications	COM-LAWX-X	LOCAL DISPATCH	TBD	TBD	Simulcast	Countywide	Local agency use
8	Tactical	TAC10	LE	TBD	TBD	Simulcast	Countywide	Dispatch assigned
9	Tactical	TAC11	LE	TBD	TBD	Simulcast	Countywide	Dispatch assigned
10	Tactical	TAC20	LE/FIRE/EMS/EMA	TBD	TBD	Simulcast	Countywide	Dispatch assigned
11	Tactical	TAC21	LE/FIRE/EMS/EMA	TBD	TBD	Simulcast	Countywide	Dispatch assigned
12	Ground	GRD50	LE	TBD	TBD	Simplex	On-scene	
13	Ground	GRD51	LE	TBD	TBD	Simplex	On-scene	
14	Ground	GRD70	LE/FIRE/EMS/EMA	TBD	TBD	Simplex	On-scene	
15	Ground	GRD71	LE/FIRE/EMS/EMA	TBD	TBD	Simplex	On-scene	
16	Communications	COM-LAW1	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to OC911

Conceptual Law Enforcement 800 MHz InterOp Talk Path Plan



- COM LAW1-3 – Repeat of main page
- Radio Positions 4-13 – 800 MHz National Interoperability channels
- Radio positions 14-16 – Repeat of COM LAW1-3
- Need to coordinate with State and Consortium

Conceptual Law Enforcement 800 MHz Interop Talk Path Plan



Radio Position	Function	Name	Groups	Frequency (Transmit)	Frequency (Receive)	Type	Area of Operation	Notes
1	Communications	COM-LAW1	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to 911
2	Communications	COM-LAW2	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to MRD
3	Communications	COM-LAW3	LAW	TBD	TBD	Simulcast	Countywide	
4	8CALL90	8CALL90	LE/FIRE/EMS/DPW/EMA	851.0125	806.0125	Repeater	Single Site	
5	8CALL90D	8CALL90D	LE/FIRE/EMS/DPW/EMA	851.0125	851.0125	Simplex	Single Site	
6	8TAC91	8TAC91	LE/FIRE/EMS/DPW/EMA	851.5125	806.0125	Repeater	Single Site	Dispatch assigned
7	8TAC91D	8TAC91D	LE/FIRE/EMS/DPW/EMA	851.5125	851.5125	Simplex	On-scene	Dispatch assigned
8	8TAC92	8TAC92	LE/FIRE/EMS/DPW/EMA	852.0125	807.0125	Repeater	Single Site	Dispatch assigned
9	8TAC92D	8TAC92D	LE/FIRE/EMS/DPW/EMA	852.0125	852.0125	Simplex	On-scene	Dispatch assigned
10	8TAC93	8TAC93	LE/FIRE/EMS/DPW/EMA	852.5125	807.0125	Repeater	Single Site	Dispatch assigned
11	8TAC93D	8TAC93D	LE/FIRE/EMS/DPW/EMA	852.5125	852.5125	Simplex	On-scene	Dispatch assigned
12	8TAC94	8TAC94	LE/FIRE/EMS/DPW/EMA	853.0125	808.0125	Repeater	Single Site	Dispatch assigned
13	8TAC94D	8TAC94D	LE/FIRE/EMS/DPW/EMA	853.0125	853.0125	Simplex	On-scene	Dispatch assigned
14	Communications	COM-LAW3	LAW	TBD	TBD	Simulcast	Countywide	
15	Communications	COM-LAW2	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to MRD
16	Communications	COM-LAW1	LAW	TBD	TBD	Simulcast	Countywide	Equivalent to 911

Conceptual Interop – 700 MHz Talk Path Plan



- There are 2 calling and 30 other talk paths designated for: general, EMS, fire, law, mobile data, mobile repeater, and other public service
- Need to coordinate with State and Consortium
- COM LAW1-3 – Repeat of main page
- Radio Positions 4 thru 13 – 700 MHz National Interoperability channels
- Radio Positions 14 and 15 – Spare

Conceptual Interop – 700 MHz Talk Path Plan



Radio Position	Function	Name	Groups	Frequency (Transmit)	Frequency (Receive)	Type	Area of Operation	Notes	Questions/Comments
1	Communications	COM-LAW1	LAW	TBD	TBD	Simulcast	Countywide	Dispatch to field	
2	Communications	COM-LAW2	LAW	TBD	TBD	Simulcast	Countywide	Dispatch to field	
3	Communications	COM-LAW3	LAW	TBD	TBD	Simulcast	Countywide	Lcl dispatch to field	
4	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Repeater	Single Site		Digital
5	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Simplex	On-scene		Digital
6	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Repeater	Single Site	Dispatcher assigned	Digital
7	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Simplex	On-scene	Dispatcher assigned	Digital
8	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Repeater	Single Site	Dispatcher assigned	Digital
9	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Simplex	On-scene	Dispatcher assigned	Digital
10	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Repeater	Single Site	Dispatcher assigned	Digital
11	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Simplex	On-scene	Dispatcher assigned	Digital
12	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Repeater	Single Site	Dispatcher assigned	Digital
13	7TBD	TBD	LE/FIRE/EMS/DPW/EMA	TBD	TBD	Simplex	On-scene	Dispatcher assigned	Digital
14	Spare								
15	Spare								
16	Communications	COM-LAW1	LAW	TBD	TBD	Simulcast	Countywide	Dispatch to field	

Mobile Data



- Contract with preferred computer aided dispatch (CAD) vendor being negotiated
- New CAD system is will host mobile data
- Features could include:
 - » Dispatch of priority (voice also) and non-priority calls for service
 - » Provide situational awareness of adjacent department activities
 - » Supports Automatic Vehicle Location (AVL)
 - » Provides access to records

Follow Up



- Questions
 - » Coverage
 - » Use of local systems
 - » Talk path plans
 - » Interoperability
- Comments