

Interoperability Coordination Workshop



Synopsis



INTEROPERABILITY COORDINATION WORKSHOP SYNOPSIS

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Interoperability Capability Status Forum

Washington County, Maryland

Speaker: Kevin Lewis

- Consolidated emergency communications center.
- New communications system recently installed.
- Ten Tower Systems. Five of which have *TAC stack built in.
- 95 % compliant off portable communications device and UHF spectrum.
- Mobile communications trailer.
- Hagerstown Police have mobile communications bus.

* Note: TAC-Stack is a concept and methodology to provide basic radio interoperability to all first responders that may normally operate in the 800 MHz, UHF, VHF or other designated frequencies assigned for public safety activities. The use of nationally dedicated interoperability channels in each of the primary frequency bands provides additional radio channel capacity during mutual aid operations. Utilizing these Nationwide Interoperability Channels, the original repeater stack concept has evolved into a device referred to as the "TAC-Stack" or "Band Bridge." This device would be capable of linking together multiple frequency bands independent of the subscriber equipment manufacturer's protocol. As 700 MHz systems and hardware begin deployment, the 7TAC interoperability channels could also be incorporated into any TAC-Stacks already in service.

Allegany County, Maryland

Speaker: Dick DeVore

- In 2006, E-911 consolidated with Sherriff's Dept. and City of Cumberland
- New E-911 Center at Dorn Ave in Cumberland.
- E-911 back-up facility and EOC located on PPG Road.
- Three additional tower sites being installed; all three with Tac-Stack.
- Mobile command post can dispatch and patch to other systems.
- Fire/State Poice – VHF low band system.
- County Wide Police Force/EMS – UHF
- Health Dept./BOE – VHF
- Heading toward UHF trunk system in future. This will be a temporary band-aid until the County can afford the 700 megahertz system.
- Maintain local band post with patch capability.
- Several ACU devices, two are mobile.
- In the process of bringing UHF components up.

Garrett County, Maryland

Speaker: Brad Frantz

- Primarily VHF high band system that generally works well with the mountainous terrain.
- The 2012 narrow banding requirement is a problem for Garrett County.
- Fire/EMS – primarily VHF. One company in County (Grantsville) with low band system. Center has to maintain separate system because of this. Although, bordering Somerset County, Pennsylvania also uses low band.
- Sherriff/Health Dept./Public Roads & Utilities/BOE – VHF
- The County is currently trying to bridge the gaps in communication coverage areas with Grant money.

Frederick County, Maryland

Speaker: Chip Jewell

- 800 megahertz analog system. Everyone except for Frederick City Police use this system.
- Consolidated PSAP.
- Maryland State Police and their main communication center are in the same building which provides a major benefit to both parties.
- Surrounding jurisdictions can communicate with the County on their 800 megahertz system except for Loudoun County, they utilize a dispatch channel.
- Capability of communicating with other counties through CR system and DEMSTEL Line.
- Cross program surrounding jurisdictions channels.

Preston County, West Virginia

Speaker: Duane Hamilton

- 100% narrow band compliant and P25 compliant.
- Capable of going digital if needed.
- Fire/EMS/Law Enforcement – Low band VHF analog
- Three towers. Northern, Central, and Southern Regions.
- Three repeaters.
- When a local unit responds in the County, they are automatically transferred to the region frequency.
- Six TAC Units.
- Fire Department and EMS operate by the Northern, Central, and Southern Regions in the County. This system works well to take the load off the 911 call centers.
- 85% portable coverage in the County.
- Assistance to Firefighters Grant utilized to obtain funding for narrow band system, which is working very well.

Tucker County, West Virginia

Speaker: Darla Stemple

- EMS Service has three stations with one tower on VHF narrow band.
- Four Fire Departments in County. Three are on low band and one is low band VHF with repeater.
- Sherriff's Department – low band VHF with dual band radios in cars.
- Canaan Valley has their own tower with repeater. There is one other tower for the rest of the County.
- Recipient of Assistance to Firefighters Grant. With this grant the County plans to do an overhaul on its communications systems. They are exploring options to find out what is best for them and their surrounding counties.
- Ability to do high band at EMS, but it is not yet equipped in mobiles.
- Plan to have State system in the future.

Grant County, West Virginia

Speaker: Peggy Ault

- Old system was a centralized communications built in 1984 (VHF, low band with 2 tower sites). This system was falling apart and did not cover the entire County.
- The County has recently built more towers in the Northern and Southern portions. It is still need of a few more tower sites.
- The County's new system has an installed digital VHF narrow band with nine tactical channels. They have one paging channel that is wide band and exempt from the rule. This new system has lost a solid route to communicate to "everybody".
- Equipment can be programmed to digital or analog.
- Can program neighboring counties analog channels into system.
- New communications system has four dispatch positions.
- No communication with main dispatch site and Garrett County. Only cell phones.
- The new system has created better operability within the County and has lost some interoperability with neighboring counties.
- The County utilized 911 subscriber fees to build system.

Mineral County, West Virginia

Speaker: Marc Bashoor

- County is entirely VHF high band system. Except for BOE which is on a 400 trunk system and State Police/SHA on a low band system.
- The County has the ability to patch to any of these systems.
- System was built utilizing 911 subscriber fees.
- Purchased subscriber units for all law enforcement and EMS to be on system.
- Not yet programmed in TAC channels.
- 9-1-1 direct phone transfer to Allegany County and Garrett County. Plans in the future to patch with Allegany County.

Hampshire County, West Virginia

Speaker: Mike Crouse

- Digital system.
- The County has done its narrow band licensing work.
- Went high band/narrow band at two sites for Sheriff's Department.
- Utilized State microwave for legacy equipment in the Northern part of the County.
- Six low power analog UHF frequencies (same as Morgan County). Encouraging other counties to do the same as they build-out.
- On screen analog off system channels provide extra connectivity.
- Working on teaching everyone how to learn and use the new system.
- Approximately 95% mobile coverage in County.
- ACU 1000. This is a switch that can interconnect dis-similar radio systems.
- Newly obtained portable tower, which is available for other counties in the event of them losing a tower.

Morgan County, West Virginia

Speaker: Dave Michael

- Fire/EMS/Police – VHF high band/analog.
- Four transmitter sites with repeaters.
- Motor Preparedness System for Fire/EMS/Police channel. This system contains up to twelve remote receive sites which is then fed back to a central site and can be transmitted out on all four transmitter sites. This system is more user friendly.
- Homeland Security Grant was utilized to purchase mobile radios for all Fire/EMS/Law Enforcement in the County for the State digital system which is UHF. Each Fire Department received four portables.
- In the process of building a new tower site at Berkeley Springs. This tower will be able to connect all remote sites back to the 911 center and boast coverage in the County.

Berkeley County, West Virginia

Speaker: Chris Fincham

- Fourth County to go mission critical.
- IRP system (in favor of).
- Utilized Firefighter Grant with a statement about IRP in it to obtain funding for system.
- 100% on State System.
- There is a repeater tower site on the only mountain that runs through the County which obtains very good coverage.

Jefferson County, West Virginia

Speaker: Barb Miller

- West Virginia IRP system.
- Mission critical.
- Use Blue Ridge and North Mountain tower sites.
- PSAP 2008 – switched over to new system.
- Mobile command center owned by the Sheriff.
- Working on a E-911 CAD system.
- Cache of fifty extra radios which helped in the February 2010 snow storm with the National Guard and SHA.
- Homeland Security Grant, Assistance to Firefighters Grant, and Charles Town Races and Slots taxes were used to pay for the new PSAP.

Loudoun County, Virginia

Speaker: Matt Partlow

- Urban Area Security Initiative (UASI) funding to put amplifiers in tunnels.
- Part of NOVA jurisdiction which includes Fairfax, Arlington, and Alexandria.
- In 1995 received first 800 megahertz system (three dot one system) which was ten years old when purchased.
- PSAP 2008 – switched over to new system.
- December 2009 the County received \$32 million dollars to upgrade the 800 megahertz system.
- Nine jurisdictions linked to system.
- Six direct communications on 800 megahertz system.
- Clark, Jefferson, and Washington Counties have no direct contact with County but can be patched

Opportunities and Challenges Round Table

Washington County & MD/WV/VA Regional Partners (Frederick, Loudoun, Jefferson, Berkley, Hardy, & Morgan Counties)

Opportunities

- Mobile Radios
- Sharing system fees
- Control stations are on some of the systems
- FIPS, TAC, and TAC stack are in some of the systems
- Putting system keys in and sharing keys with fire/EMS companies to run back and forth
- Having dispatch channels available
- 700 megahertz system
 - thirty operational channels & two call channels create a broader range
- WAGIN program is up and running
 - Identified a way to communicate with the three jurisdictions, as well as all others in Maryland
- WV is looking at solution by microwave that can come into Maryland's network
- The possibility of bringing together a network to truly provide interoperability between the three states
- The improvements in technology
- Sharing "footprints"
- National channels for TAC Stack are available
- Secure operability on internet in West Virginia

Challenges

- There is no one solution to fix the multiple communication problems to create interoperability
- If developed.....Do we develop for:
 - daily response?
 - major incident?
- Do we have the capability to handle daily response and/or major incidents with current communications system and training
- Want to have the same operability everyday as an ambulance that comes back and forth from Maryland and West Virginia versus a major incident that happens in Hagerstown that could pull apparatus from Morgantown and Baltimore
- Limited channels available (four interoperability channels)
- Getting a network outside of MD, WV, and VA (nationally)
- People with higher government status need to say "yes" or "buy in" pertaining to regional interoperability
- What other interoperability exists in other jurisdictions?
- Multiple bands and frequencies for each county means it is hard to create interoperability
- Must have nation TAC channels in order to use them (if not already)

Allegany County & WV Regional Partners (Hampshire & Mineral Counties)

Opportunities

- Tying into future towers that will be located in Allegany County
- Tying both WV and MD systems together (opportunity not totally there, but close)
- If Garrett uses IRP site at Keyser's Ridge tower along I-68, it could tie in IPICS with surrounding WV counties
- Making different connections work between neighboring towers
- Sharing resources is extremely important

Challenges

- The "river cities" such as Piedmont, Westernport, Keyser, Ridgely, and Cumberland are down in the valleys and have less signal than mountain cities.
- PSAP connectivity
- MD is on 7.5 trunking and WV is on 7.2 trunking Motorola
- What rules apply to which states (MD, WV, and VA, etc.)

Garrett County & Neighboring Partners (Preston, Grant, & Tucker Counties)

Opportunities

- Garrett County and WV have towers 300 feet apart. A simple fiber optic link cable ran between the two towers will allow connectivity between WV and MIEMSS microwave
- Obtaining a regional grant (SHSGP Assistance to Firefighters) such as one for Mineral, Allegany, and Garrett Counties
- Integration of MD WebEOC and WV E-TEAM
- Trying to integrate wherever possible
- VOIP Phone (video conferencing, Next Generation 911, D.O.T., Weather Feeds, etc.)
- IPICS already exists in WV

Challenges

- Political issues and boundaries between cross-level, cross-border, local, state, and federal
- Mutual aid agreements, S.O.P.s, Governance
- Issues with built-out from the beltway
- Meetings such as WAGIN need to occur more frequently to create interoperability
- Writing travel time and expenses into grants for the purpose of meeting with neighboring counties without the added expense to county operating budgets.

Maryland & West Virginia

Opportunities

- ✦ MD has digital microwave throughout the State
- ✦ I-68 has fiber optic
- ✦ WV has digital microwave
- ✦ High degree of sharing towers and shelter space between MD and WV
- ✦ WV jurisdiction has a way to develop Statewide UHF system
- ✦ WV has IPICS platform with the goal of 55 gateways throughout the State
- ✦ WAGIN also has IPICS platform
- ✦ NCRI net has fiber optic project that can tie Frederick County to Leesburg
- ✦ WV has UHF Key 25
 - Implement three donor radios in each MD county and have that into IPICS to utilize group talks in it
- ✦ Consol to consol connections
- ✦ ACU assets
- ✦ CASM mapping in MD
- ✦ Hagerstown, Cumberland, and I-68 have fiber optic to tie to WV for teleconferencing
- ✦ State of MD just awarded \$115 M for fiber optic grant to expand throughout the State within the next three years
- ✦ MD/WV sharing tower/shelter space where possible
- ✦ Governance model: WV and WAGIN

Challenges

- ✦ Training and awareness at the user level
- ✦ Communicating and having good outreach programs
- ✦ State level needs to improve outreach so it will trickle down to the local level
- ✦ Ensuring that first responders know how to utilize system is a never ending process
- ✦ Start implementing the national channels
 - Getting them into subscribers

Overall Comments:

- We need PSAP to PSAP communications from Washington County west for requesting resources separate from Metro System. Mutual aid system for Western Region including both Maryland and West Virginia.
- To date a majority of counties in attendance at ICW had not programmed National Tactical Channels

Next Steps:

- Pursue additional grant opportunities such as regional grants
- Set-up a technical group meeting to discuss identified opportunities consisting of representatives from Maryland and West Virginia
- Continue Regional Interoperability meetings
- Interconnections of IPICS West Virginia and Maryland
- ARINC (WAGIN) working with West Virginia interoperability staff to interconnect system through IPICS
- Potential opportunity exists to link WV 7.2 trunking Motorola and MD 7.5 trunking Motorola
- Three donor radios from WV to each of the WAGIN counties
- Have template and interoperability capability
- Mutual aid agreements to share frequencies and towers

Interoperability Coordination Workshop

Attendees

Listing	Invitee
Loudoun County, Virginia	Kevin Johnson
	Matthew Partlow
Preston County, West Virginia	Duane Hamilton
	Melissa Hardy
Morgan County, West Virginia	David Michael
	Greg Gano
Tucker County, West Virginia	Darla Stemple
	Patrick Gray
Hampshire County, West Virginia	Michael Crouse
	Jerry Loudin
Grant County, West Virginia	Peggy Alt
	Vanessa Strawderman
Jefferson County, West Virginia	Barbara J. Miller
Mineral County, West Virginia	Marc Bashoor
	Roger Reall
Berkeley County, West Virginia	Chris Fincham
Allegheny County, Maryland	Jeremy Jack
	Tim Dayton
	Susan Lee
	James Pyles
Washington County, Maryland	Bardona Woods
	Robert Leatherman
	Bradley Stotemyer
	Erika Jeter
	Charlie Summers
	Ernest Truax
	Mark Holtzman
Lt. David W. Kloos	
Garrett County, Maryland	Steve Smith
	Rob Corley
	Nathaniel Watkins
Frederick County, Maryland	Chip Jewell
	Jack Markey
State Highway Administration	Craig Fetzer
	Philip Lazarus
	Terry Cain
	Anthony Crawford
	Russell Yurek
	John T. Davis

Listing	Invitee
Washington, Allegany, Garrett Interoperability Network Workgroup (WAGIN) Members	Brad Frantz, Garrett County
	Dave Chapman, ARINC
	Dick Devore, Allegany County
	Erica Mowbray, MEMA
	George Small, SHA-District 6
	Kevin Lewis, Washington County
	Marvin Ingram, ARINC
	Pete Loewenheim, Washington County
	Ray Lehr, State of Maryland-Interoperability Director
	Richard Berg, MIEMSS
	Robert Anderson, ARINC
	Robert Bowman, CISCO
	Roger Bennett, Allegany County
	Virginia Smith, Garrett County
Michele King, S&S Planning and Design	
Maryland Emergency Management Agency	Gary Zamerski
Maryland National Guard	Richard Muth
West Virginia State Police	Lt. Col. Greg Tine
U.S. Department of Homeland Security Office of Emergency Communications	Major Richard Ort
West Virginia Division of Homeland Security & Emergency Management	G. E. McCabe
West Virginia DHHR State Trauma & EMS	Robert Pedersen
	Jimmy Gianato
	Bill Wood
	Dr. Lee B. Smith
ICW Facilitator	Joe Gonzalez
ARINC	David N. Eubank
RCC Consultants	Brian Myers
Maryland Statewide Interoperability Program Management Office	Clay Stamp
	Amanda Aronson
	Charles Bryson
	Jillian Williams