



# MPSCS Newsletter

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### Did you know?

There have been 7,000 Events since 9/11 using an MPSCS Event Talkgroup for Interoperable communications, such as the East coast blackout.

## The MPSCS has helped Michigan increase its interoperability since 9/11

As the tenth year anniversary of September 11th invokes remembrance and mourning throughout the nation, it also recounts the strides that those in public safety have taken to increase protection. At the World Trade Center, 121 New York City firefighters lost their lives in the north tower that day because they could not receive critical commands to evacuate. After 9/11, it became apparent that the need for public safety agencies to be able to communicate more effectively was more crucial than ever.

With the prevention of future tragedies and the safety of all its residents in mind, interoperable communications and homeland security measures were greatly improved in Michigan. The MPSCS took this responsibility seriously and expanded the ability for public safety personnel to communicate during an incident using the MPSCS system.

The MPSCS now provides interoperable communications to over 1300 public safety agencies all over the state of MI and integrates with other states that share our border, as well as Canada. Some agencies on the system include ambulance, 911 dispatch, fire rescue, police, and the Emergency Management Division.



A Michigan State Police officer at the State Capitol 9/11 Remembrance ceremony in 2011.



Some of the federal agencies on the MPSCS system include the FBI, US Border Patrol, U.S. Customs, DEA, US Forestry, & Homeland Security

To provide better service to these public safety sectors, the MPSCS has made a number of improvements to its system.

Since 9/11, the MPSCS has grown by:

- 48,583 subscriber radios
- 4,427 Talkgroups
- 31 patches
- 36 - 800 MHz channels
- 38 dispatch centers with 187 consoles
- 49 Simulcast towers
- 13 Multicast towers (stand-alone)
- 380 Mobile Data computers

In the last 10 years, the MPSCS has been prepared to put these advancements to use as several unplanned emergencies in Michigan required enhanced interoperable communications. On the day of 9/11, the MPSCS supported statewide coverage as the Michigan National Guard was deployed to surrounding airports.

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# Words From Our Director: Brad Stoddard

## Nationwide Public Safety Broadband

### Education Required

Over the past few years, I have followed and participated in many debates and discussions about Public Safety Broadband, while also tuned to the hearings and digesting the language for proposed and introduced bills. During this time, I have witnessed an engaging change not only within state government, but across the nation as the message and understanding expanded across multiple disciplines. I recall meetings where I shared the importance of the backing of the reallocation of the 700 MHz “D Block”, and was left with puzzled looks and statements that it just wasn’t a priority for IT.

It quickly was evident that those that don’t depend on public safety communications or “mission critical voice”, don’t correlate the parallels between what public safety has now, and what technology they will need in the future. Essentially, if they don’t know, then they won’t be supportive and are unwilling to be passionate for a strategic direction that is cast in front of them. How can you easily get non-technical and at times disbelieving people to understand what is actually being requested of them to support.

I’ve learned to make it simple and admit the truths and clarify the non-truths. Using analogies that anyone can relate to, like “roads and vehicles”, and the subsequent strategic

approach and vision that created the nationwide highway system. At that time in history, many elected officials and citizens believed a nationwide highway system was a bad idea, and dismissed it based on the amount of funding it would require.

Now the United States is faced with the next strategic nationwide highway system, not just from the perspective of broadband to all of America, but also a public safety dedicated broadband network. The analogy is much the same, to get from point A to point B quicker. Prior to nationwide highways, it was just slower, but you could still get there. For public safety broadband fulfilling the needs of mission critical data for emergency responders, the parallel is much the same with a nationwide public safety data network.

This generation’s nationwide highway system is different but equally strategic - a public safety data communications network capable of delivering cargo of a different sort and faster. Now is the time to act, and the nation should be making strategic decisions for the future. Allocating the appropriate spectrum now will provide for enhanced emergency responder support, while paving the way for new business ventures in areas of public safety technology.



## Tower Site Construction and Project Updates

### Under Construction

Chippewa Co. - Sugar Island - 1 Site

Lapeer Co. - 6 Site Simulcast

### Almost Completed

City of Livonia - 1 Site

Wayne Co. - 2 Site Simulcast

Bay Co. - 1 Site



### Adding Additional Channels For Capacity

Genesee Co. Tuscola Co.

City of Ionia Gratiot Co.

### Michigan State Police Mobile Office Project -

Phase I on schedule for completion on October 1

# New Employees

## Randy Williams

Randy Williams has been part of the technology field, working for the State of Michigan for over 14 years now, including a short time with the MPSCS in 2001, before the Department of Information Technology (now DTMB) was formed. In July of this year, he re-joined our team at the MPSCS as an Information Technology Manager 14, over the Public Safety Enterprise Services Unit.

Prior to coming back to work at the MPSCS, Randy worked for the State Police as an IT Technician and later as an IT Programmer Analyst. He worked in the same capacity for DTMB where he worked on the consolidated GroupWise messaging system. Then in 2009, he took a position as an Information Technology Specialist, working on IT

infrastructure projects for the Michigan State Police, Military and Veterans Affairs, MPSCS and the Department of Corrections.

After High School, Randy worked in the Television field as a Broadcast Engineer, until he became interested in Information Technology. Over the last 14 years, Randy has gone through much training including Microsoft, Novell, Dell, Compaq and IT Project Management. In his current position at the MPSCS, Randy manages a team which includes members; Darren Whitman, David DeMello, Mike McCarty, Mike Waltz, and Jerry Nummer. Together they lead the effort to implement and service Mobile Data Units, CAD, ARL, ATMS and EAM or MPSCS users.

Randy also continues to stay active in his community and in the field of technology

outside of work. In 1998, Randy helped start the Colonial Village Neighborhood Association in south Lansing and served as its president for 3 years and as a board member. Then in 2003, he was appointed and later elected to serve as a Council Member for City of Lansing's Third Ward. He served the citizens of Lansing as a Council Member for 4 years. He is also an active member of the Holt High School Tech Society, a member of the Central Michigan Amateur Radio Club, and a member of the Lansing Area/Ingham County Amateur Radio Public Service Corps.

Randy has been married to his wife Suzanne for 20 years and has three children, Amanda (20), Rebecca (18), and RJ (12). The MPSCS welcomes Randy and is proud to have him as an experienced part of our staff.



*MPSCS staff members, Mike McCarty, Bob Olson, and Tommy Thompson were COMT (Incident Command System Communications Technician) trained in August 2011*

## COMT Training

**This curriculum trains emergency responders on practices and procedures common to radio communication technicians during all-hazards emergency operations and will help communications technicians to work within the Incident Command System (ICS) organizational structure with standardized operational and technical procedures.**



## Rebanding Update - Phase I underway

The first phase of Rebanding is now underway. The installation of the Back-2-Back Mutual Aid (MA) system began in early July. Drive Tests will be conducted to measure the coverage and signal strength of the site modifications. These frequency measurements establish the base line against which the installation of the new frequencies and repeater system will be measured. If the existing system provides "X" level of coverage at various distances/points around the antenna tower, then the Rebanded antennas must provide the same level of coverage at the same distances/points of measurement.

The initial Drive Tests measured the present coverage of transmitters in the western UP (beginning in the Keweenaw and moving East), moved into the northern Lower Peninsula in early September and will continue to establish the base line for many of the 176 tower antennas that are part of the MA state wide system. This first half of the effort is expected to be completed by the end of October.

Following on the heels of the Drive Tests, installers began the first week in September to install additional MA systems (again beginning in the Keweenaw and moving east) to enable the towers to transmit and receive on both the existing and new MA frequencies. In some cases additional antennas are being added, others are being re-tuned to

receive both sets of frequencies. As soon as the B2B repeater system is installed, the Drive Test team will re-drive the same route they used to obtain the original measurements and apply the same tests to the new B2B transmission equipment. If they are not at least equal, corrections will be made to bring it up to the benchmark before the site is designated as ready for use.

Once the benchmark is achieved, each tower is cleared for service. The installation of the additional equipment at the remaining towers will be completed in mid-November. The follow-up Drive Tests will be completed in December, before the Holidays.

Once the B2B system installation is completed, mobilization for Rebanding the 55,000+ subscriber radios will begin. Subject to final approval by Sprint of the MPSCS plan (expected by the end of the year also), the radio Rebanding effort is planned to be in the field no later than mid-2012.

It is expected that it will take about a year to complete that phase. We have actually begun to do the work, after several years of planning. We look forward to working closely with the MPSCS subscribers as we implement this project.

*For more info contact Dick Baker: [baker4@michigan.gov](mailto:baker4@michigan.gov)*

## Audio Interrupt Tones

By Dave Hayhurst

The MPSCS receives questions from members wanting to know why they are hearing so many busy tones. In reality, most don't know, remember or recognize the many status tones produced by the radio and assume it always indicates a site busy condition

The intelligence programmed into the subscriber radios provide the user with an audible indication of the ability to transmit.

As an example, here are common informational tones used in Motorola radios:

- The quick beeps of the "Go -Ahead" tones are easily recognized due to the repetitiveness of hearing the tone.
- The site "Busy" tone is 4 rapid low pitch beeps.
- The talk "Prohibit" tone is a continuous medium high pitch tone lasting about ½ second.

Understanding the difference in the tones

makes the MPSCS user better prepared to use the radio for their communications requirements.

When a "Busy" tone is heard, this means one of the sites with radios affiliated to it does not have an available channel. Keeping the PTT button pressed on your radio will keep your request to transmit in the system queue. When a channel becomes available, the system will signal the radio and you will hear the "Go-Ahead" tone allowing you to speak.

If a subscriber call is already in progress on the **talkgroup** and you try to talk over the other user, you will hear the talk "Prohibit" tone. You must wait until they are done talking before you can transmit.

A sampling of system statistics for the week of June 1, 2011 through June 7, 2011 (7 days):

- 1,328,691 Press-To-Talks (PTT)
- 48,184 Talk Prohibits (someone trying to key up on top of another user)
- 59 Emergency Calls
- 796 Site Busies



MICHIGAN'S PUBLIC SAFETY COMMUNICATIONS SYSTEM

Want additional MPSCS information?

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The MPSCS and Interoperability since 9/11 - (cont'd.)

Since then, MPSCS 800 MHz radios and services have been used during the East Coast Blackout in 2003, the Riots of Benton Harbor, the I-96 pileup in 2005, the Thousand Acre Fire in Grayling in 2008, record flooding during 2009, and also cleanups after the Enbridge Oil spill last year.

Ongoing support by the MPSCS include:

- *NOAA weather support with EMD for tornados, flooding and natural disasters,*
- *DEA, FBI, & CBP surveillance, arrests, border protection lock downs, sweeps and security,*
- *Pandemic medical supplies delivery,*
- *Multijurisdictional transport of prisoners,*
- *Lost persons search and rescue,*
- *Critical Infrastructure such as nuclear plants, and power grids in emergency situations.*

The MPSCS also has many co-located fire and police stations operating on a local communities VHF or UHF frequencies, and the Coast Guard is installing a major network on our towers by the lakes to provide search & rescue for ships on coastal waters

The Michigan State Police recognized the MPSCS on their website for contributing to Michigan's Homeland Security advancements. It was stated that, "Since 9/11, Michigan has greatly expanded the ability for public safety personnel to communicate during an incident," due to the MPSCS strengthening its interoperable communications. Check out the www.michigan.gov/msp website for a complete listing of homeland security enhancements since 9/11.

Since 2001, the MPSCS has grown from 1.9 million Push to Talks per month to 8,508,127 for the month of April in 2011. This increase in activity is a testament to the work the MPSCS has done in the past ten years to increase usability and reliability in all planned and unplanned events.

Check out our new website and let us know what you would like to see on there!  
[www.michigan.gov/mpscs](http://www.michigan.gov/mpscs)

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