



# MPSCS NEWSLETTER

## Inside this issue:

|                            |   |
|----------------------------|---|
| MPSCS Sustainability       | 2 |
| Narrowbanding Mandate      | 2 |
| Genesee County's Subsystem | 3 |
| Dispatch Coordinator       | 3 |
| Advisory Board Information | 3 |
| Rebanding Update           | 4 |
| Usage Statistics           | 4 |
| MPSCS Contacts             | 4 |

## UPCOMING EVENTS

Training  
 Contact: Gloria Cline  
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- March 16-19 (Lawrence)
- April 20-23 (Lansing)
- May 18-21 (Livonia)

## QUICK STATS

- TOTAL RADIOS: **48,130**
- AMOUNT ADDED IN PAST TWO MONTHS: **700**

## FUN FACT

- MPSCS was the first P25-compliant public safety communications system in the nation

## Firefighters and Digital Communication Systems

### Why many have doubts about making the switch

Each first-responder considers the public safety communication system an important tool in saving lives. Although, each official works under different circumstances, and therefore needs various functions and features from the system. Some fire departments are reluctant to switch from an analog communications platform to a digital one for several reasons.

Sources say that noisy environments damper the digital vocoder's ability to distinguish human voice from ambient noise. While in a burning building, surrounded by chainsaws, hose sprays, and fans, agencies may think the MPSCS' digital 800 MHz system will not meet their operational standards.

Last October, a test was run in Saginaw county to extinguish that myth once and for all. Before joining the MPSCS, the county compared their current analog system to the 800 MHz digital trunked system. The International Association of Fire Chiefs created a list of real-life conditions producing extreme ambient noise. The officials in Saginaw County decided on this method as a means for conducting their own.

Meanwhile, all participants in the test were in full gear which included facemasks and

respirators. The location of the test, on highway M-46, also provided for plenty of possible audio obstruction. Against each sound variable, such as a large smoke-ventilation fan and a roof-cutting chainsaw, four trials were made, testing a male voice on both analog and digital, and a female voice on both analog and digital.



*MPSCS has proven its ability to perform as good or better than most analog VHF systems.*

Through each trial, the MPSCS never failed. At times, the digital system surpassed the analog in terms of voice clarity, and sometimes the case was vice versa, but there was never a point where the digital system was inaudible. Other tests like this have been carried out around the state and have shown similar results.

The noise problem isn't the only reason some firefighters wince at the

thought of moving to a digital system. A feature commonly used by many firefighters is VHF paging that the MPSCS does not have.

City of Marysville Fire Chief, Tom Konik, said, "We wish there was a solution to the paging inconvenience, but we're looking at ways to compensate. Currently, we use the 800 system for radio communications and the VHF system for paging,"

MPSCS radios do have the ability to page, although there are many differences between the two concepts. The MPSCS' radios are larger and therefore less convenient compared to a belt-clip pager, and the MPSCS radios cost more. But, with that cost comes substantially increased capabilities.

With the larger, multiple-purpose radios on the MPSCS, some users may be uncomfortable operating the devices right away, which can lead to unanticipated system results.

Rich Martin, an MSP MPSCS Training Sergeant, said "a lot of the digital's issues are in the lack of effective training, not in the system."

Nothing is perfect, but the MPSCS is striving to surpass all of its subscribers' needs. The MPSCS continues to provide consistent, reliable, interoperable communications for a wide variety of users, thus insuring it's position as a leading example of a modern public safety communications system.

## The MPSCS' Goals for Long-Term System Sustainability

In tough economic times, Americans look to their legislators, hoping to catch a glimpse of what the future holds. Today, multi-billion dollar corporations are turning to Congress to provide them with billions in bailout money. Many others are laying off people by the hundreds and thousands, or simply closing their doors. The MPSCS is by no means in as dire a state as some, but as public safety is a necessary component to America, so too are financial resources to public safety.

At a recent Senate Subcommittee Hearing on the MPSCS' long term sustainability, Director Brad Stoddard identified

several misconceptions made with regards to the system's longevity and expansion prospects, along with a strategic approach to maintain the MPSCS and reach its full growth potential.



*The MPSCS has a strategic approach for achieving long-term sustainability of the system for state-owned infrastructure and subscriber equipment.*

When the State issued \$225 million in bonds to create the MPSCS, ongoing funding and support was not identified. The unanticipated growth of the system has caused both the infrastructure and staff to grow thin of its resources. Now, more than ever, the MPSCS needs funding for the system's sustainability.

No funds are available to replace the aging infrastructure, much of which is now unsupported by the manufacturer. While currently functioning to the MPSCS' standards, if issues arise, the MPSCS may not have the capabilities to correct the problems in a timely, efficient manner.

The system employs less people now than it did 10 years ago, when it serviced almost 40,000 less radios! The MPSCS' engineering staff, responsible for completing all engineering analyses required before the MPSCS can bring a new agency onto the system, is quite limited. That process will only grow slower until increased funds become available, and that vital portion of the

MPSCS can expand.

Agencies contact the MPSCS daily wanting to join the statewide system. Without a swift and efficient integration, the MPSCS may miss the opportunity to help and support an agency that needs dependent communication infrastructure.

The MPSCS' subscribers are starting to expect more features from the system, as well. Just as wireless internet and data-sending capabilities are becoming increasingly popular, the need for similar technology is rising within public safety. The MPSCS has the potential to be the data communications solution for public safety and government, but needs the resources to make it happen.

The strategic approach developed by executives from the MPSCS calls for not only increased support for the state-owned infrastructure and equipment, but also for the local subscriber base. The system also needs to increase its staff to meet the growing demand.

User fees do not fund any of the above-mentioned items, and therefore outside funding sources need to be allocated and approved. Meetings and discussions on this topic have been held, and will continue to be held, until a sustainable solution is identified.

## VHF/UHF NARROWBANDING MANDATE: The Deadline is Less than Four Years Away

The Federal Communications Commission is making the radio spectrum more efficient by "splitting" the UHF and VHF radio bands. Being prompted by increased voice and data capabilities, the current users are moving onto smaller sections of bandwidth.

A simple way to understand narrowbanding is to realize that five frequencies are going to exist, where currently there are three. All VHF channels will be spaced 7.5 KHz apart, and UHF will be spaced 12.5 KHz apart. Today, they are spaced at 15 KHz and 25 KHz, respectively.

The final deadline for all public safety radio systems to be narrowband compliant is January 1, 2013. That may be almost four years away, but if your agency has not started evaluating its radios and equipment, you're already running behind.

*For those of you solely utilizing the MPSCS' 800 MHz digital trunked system, you DO NOT need to alter your equipment. However, all agencies that utilize some VHF/UHF equipment for their communication needs will need to take action to ensure the agency stays on-line after the switch. Officials at the MPSCS are available to help answer any questions your agency may have.*

### DATES TO REMEMBER:

#### • **December 31, 2010:**

The last day to manufacture or import non-narrowband compliant equipment.

The last day the FCC will accept applications to extend current uses of, or begin using, wideband frequencies.

#### • **January 1, 2013.**

The narrowband migration deadline.

### RECOMMENDED STEPS:

- Make sure your agency has a valid FCC Part 90 radio license.
- Complete a full inventory of all radios in your agency and their capabilities.
- Identify which radios will need to be reprogrammed or replaced.
- Possibly use this time to upgrade your system to a digital VHF or 800 MHz system.
- BUDGET! Chances are, much of your equipment will need changing, and there are only so many opportunities to secure funding and obtain the necessary items before the deadline. Also, grant funding is not available for this mandate.
- Plan how you will change your infrastructure to accommodate the replacements.
- Modify the license if need be.

## Genesee County's 8-site Simulcast System

Covering an area of over 600 square miles, and protecting more than 300,000 citizens, Genesee County trusts the MPSCS to provide reliable, interoperable communications for its first-responders.

Genesee County signed a 10.1 million dollar contract with Motorola to integrate the first simulcast subsystem into the MPSCS, thus leading the way for other such subsystems. When going on-line in June of 2006, there were 1,300 radios operating on 7 towers. Now, less than three years later, the County has over 1,700 radios and an additional site, incorporating 71 agencies and 183 proprietary talkgroups solely for use by agencies within the county.

Genesee County firefighters were the driving force for the change-over to the MPSCS. Their 30-year old legacy VHF-system was not meeting the firefighters' wishes, who demanded 95% portable coverage and little, if any, loss inside of buildings. Also, after 9/11, the county assessed their communications system and recognized a need for in-

creased interoperability.

Dave Ackley, Deputy Director of the Genesee County 911, stated, "The MPSCS offered us everything we wanted, [such as] a digital trunked system, greater options for expansion, and more talk-groups... plus, it was already in place. But, the main reason for the switch," he said, "was interoperability." Since joining the MPSCS, there have been "no complaints, only rave reviews."

Flint is Genesee County's only city not on the MPSCS; it maintains its communications through the legacy VHF-system. Both Genesee County and the City of Flint's 911 Centers have created dual patches to supply adequate interoperability.

Genesee took precautionary disaster measures by adding the Bishop Airport, Mott Community College, Baker College, and the University of Michigan's Flint campus to the system.

Always trying to prevent the worst from happening, Genesee County continues to be at the ready, with the MPSCS' support when needed.

## Advisory Board Information

The MPSCS' Advisory Board was created to advise the Governor and the Department of Information Technology (MDIT) on the following, as stated in the Board's bylaws:

- Best practices for implementing interoperability of wireless public safety communications, including data, in Michigan on a local, regional, and statewide basis.
- Future trends in public and private sectors relating to public safety wireless communication, interoperability standards, and technology in support of providing public safety wireless services in the most effective and efficient manner.
- Opportunities for effectively utilizing the MPSCS as part of local, regional, and statewide mutual aid agreements, 9-1-1 dispatch operations, and incident command systems.
- Best practices for using interoperability training on a local, regional and statewide basis.
- Development and implementation of Michigan's interoperable communications plan.

The Board consists of nineteen members from various sectors, such as the Department of Homeland Security, Michigan State Police, local dispatch centers, police departments, fire departments, and tribal law enforcement. It is chaired by the Director of the Michigan State Police, and vice-chaired by the Michigan State Police's General of Homeland Security.

Holding quarterly meetings in Lansing, the Advisory Board addresses critical issues as designated by the MPSCS' Director, Brad Stoddard.

On March 3, the Advisory Board, in conjunction with the Michigan State Police Homeland Security Division and the Emergency Management Homeland Security Division, will align with the Federal Department of Homeland Security on the creation of a Strategic Interoperable Governance Board (SIGB). The board will be in charge of providing high-level advice and recommendations on the future of interoperable public safety communications.

Updates will appear in upcoming issues.

## The MPSCS' Emergency Dispatch Coordinator:

### Mike McCarty

The central communication hub for Public Safety is the Emergency Dispatching Center. Without the proper configuration of communication equipment, that vital portion of public safety could not support the heavy burden often placed upon it.

The MPSCS has someone who specializes in ensuring smooth operations for these centers. Mike McCarty, Emergency Dispatch Coordinator, has been an asset to the system for twelve years.

Beginning his tenure with the State of Michigan, McCarty worked as a radio technician for the Michigan Department of Transportation (MDOT) for seven years. He showed off his technical skills by helping to design MDOT's inventory database using D-Base.

His experience with radios led him to a tech job for the MPSCS within the Michigan State Police (MSP). Shortly after the system's migration to the Department of Information Technology (MDIT), McCarty gained the responsibility of project lead for dispatch integrations.

Utilizing his positive-attitude, people skills, and his technical knowledge of the system, McCarty has found his own niche within the MPSCS.



*MPSCS' Emergency Dispatch Coordinator, Mike McCarty*

Pam Matelski, Communications Section Manager of the Michigan State Police, said, "Mike's knowledge of the MPSCS and MSP's operational needs are an invaluable resource. If there is any way possible to turn an unrealistic request into a reality, I know I can count on Mike to find a way to do it."

Although admitting there are many challenges he's had to overcome within the position, he said, "There is no typical day here... each day has its own excitements. I like it."

McCarty feels proud to be part of the MPSCS. With the additions of agencies to the system, interoperability will continue to grow. McCarty looks toward the future saying, "Ideally, I would love to see everyone [public safety agencies] on the same communications platform."

Until then, Mike McCarty will continue to keep those communication centers communicating.



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Comments or suggestions are appreciated!

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### Usage Statistics

| 2009 | Total Calls | PTTs      | PTT Change From 2008 |
|------|-------------|-----------|----------------------|
| JAN  | 4,154,505   | 7,578,354 | +163,635             |
| FEB  | 3,806,501   | 6,931,035 | -255,469             |

### Want additional information?

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### REBANDING UPDATE:

#### Michigan has received its Frequencies

As mentioned in the last issue of the *MPSCS Newsletter*, the 800 MHz rebanding project was nearing completion of the third step out of seven.

The Transition Administration has issued Michigan its new frequencies. Before being utilized, RCC Consulting and Motorola must review the frequencies to ensure they will work as planned within the MPSCS. All frequencies have to provide each MPSCS user with the same or better coverage, and the frequencies cannot interfere with adjacent operations.

The two other portions of the third step, the Rebanding Plan and Budget, are making headway, but are not yet completed.

Updates will appear in each future issue of this *Newsletter*. However, detailed project information, upcoming events, and up-to-date progress reports can be found at the Rebanding Project's website: <http://www.rccpm.com/MI800MHz/default.aspx>.

### Keep Your Eyes Open for UPCOMING ISSUES of the MPSCS Newsletter:

- High-Speed Data
- Homeland Security Initiatives
- MPSCS Tower Use Policies
- Point-To-Point Technology
- MPSCS Engineering Overview
- Improving Coverage with IGNS
- Project 25 Details
- Rebanding Updates
- MPSCS Staff Bio
- ...and more!