
ARPSC

Michigan 2011 Summary

An overview of the 2011 program year



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Abstract

Working with state and local governments, as well as a wide variety of non-governmental agencies, Michigan amateurs participate in a wide range of public service and emergency preparedness activities. This report outlines the efforts of the 2011 calendar year.

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1. Overview

The Michigan Amateur Radio Public Service Corps (ARPSC) is an organization of over 2,000 amateur radio operators who participate in public service and emergency response activities. These include such things as providing communications for various walks and runs, as well as reporting storm damage, participating in search and rescue efforts, and providing backup communications for public safety officers.

There are two primary programs, the Amateur Radio Emergency Services (ARES) and the National Traffic System (NTS). ARES provides "feet on the ground" for various events and incidents, while NTS provides a communications infrastructure that moves formal messages across the state and across the nation.

There are two other programs, associated with ARES, which do not report independently. These are RACES and SKYWARN. RACES consists of those ARES members who have been approved by their local government to operate in critical areas such as incident scenes or Emergency Operations Centers. This approval generally requires a degree of training and a background check. The Michigan Section and the Michigan State Police have published suggested RACES qualifications, but the responsibility for vetting RACES members rests with the local Emergency Management Coordinator. Most counties follow the guidelines closely.

SKYWARN members provide ground weather observations to their local jurisdictions and to the National Weather Service. SKYWARN members do not have to be ARES members, but almost always are, and most counties run SKYWARN programs as part of their ARES programs. SKYWARN observers are trained by the National Weather Service.

Together, Michigan amateurs reported over 138,000 volunteer hours during 2011 representing a contribution of almost \$3 million¹. This is up substantially over 2010 (88,368 hours).

¹\$2.95 million based on the Independent Sector value of \$21.36 per volunteer hour for 2010. 2011 value was not yet available at the time of this writing.

2. Amateur Radio Emergency Service

ARES represents the largest program. ARES has a program in each Michigan county, managed by an Emergency Coordinator who works closely with the Emergency Management Director of the county to provide backup communications to the local jurisdiction.

Because Michigan counties are so varied, the ARES organizations within those counties are quite varied. Although their primary customer is typically the county Emergency Management organization, they may also work with the local Red Cross, Salvation Army, and other NGOs. In some counties, the liaison with the fire departments or Sheriff's office is especially close. Each county has different needs, and the ARES organization attempts to meet those needs.

In Michigan, and especially southern Michigan, severe weather is common, and in many cases, the greatest effort is expended with weather related activities. Amateurs spot bad weather and report to their National Weather Service office when bad weather is approaching, and following severe weather, are often involved in recovery operations.

Late spring and early summer tend to be the time when damaging weather is encountered, and this is also the time that many organizations hold runs, walks and other events for which amateurs frequently provide communications. Hence, the peak in the middle of the year in the graph below:

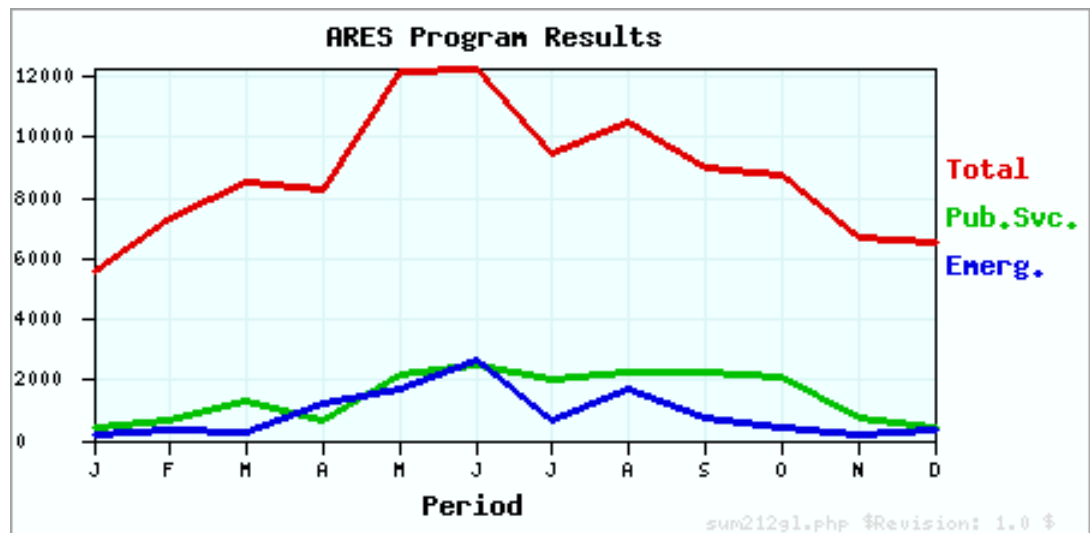


Figure 1. Michigan ARES Hours

Michigan ARES programs reported 105,106 hours in 2011, over 24,000 of them occurring in May and June.

Individual county reports are available at http://ares-mi.org/arpsec_recept.php. Links on the page allow viewing of individual county detail as well as previous reporting periods.

2.1. Organization

The Michigan State Police divides the state into 7 Districts, and appoints a District Coordinator for each. ARES has a District Emergency Coordinator for each of those districts, who works with the District coordinator. In addition, the Section appoints a District Emergency Coordinator for each of the National Weather Service offices in the state. This NWS DEC works with the office's Warning Coordination Meteorologist to provide training to SKYWARN members and implement circuits that permit field observations to be transmitted to the NWS office effectively.

These DECs are as follows:

| District | DEC Call | DEC Name |
|----------|----------|-----------------|
| 1 | K8YZA | Joe Pullen |
| 2 | WF5X | Randy Love |
| 3 | N8OSL | Joe Tuscher |
| 5 | KB8FQJ | Carl Flickinger |
| 6 | KB8VEE | Tom van der Mel |
| 7 | WA8RLI | Red Duggan |
| 8 | KG8NK | Lou Gembolis |
| APX | WD8DX | Jeff Morey |
| DTX | N8ZSA | Ted Davis |
| GRR | N8VLN | Michael Gage |
| MQT | KI8AF | Greg Hanson |

Table 1. District Emergency Coordinators

Each DEC coordinates a staff of Emergency Coordinators, one per county, who work with local emergency management to provide needed capabilities to the county.

In addition, the Section Emergency Coordinator maintains a small staff to help organize the section. These assistant SECs are:

| Role | ASEC Call | ASEC Name |
|------------------------|-----------|-----------------------|
| SEOC Alternate | N8ERF | Dr. Dennis Klipa |
| SEOC Station Manager | K8RDN | Robert Berger |
| Training and Exercises | NX8A | John (Jack) Hutcheson |

Table 2. Assistant Section Emergency Coordinators

3. National Traffic System

Michigan's National Traffic System consists of amateurs who send messages (called "traffic") around the Section and around the nation. These amateurs are organized into a group of on the air nets that meet frequently with the intent of passing messages. These are the "unsung heroes" of ARPSC; many practice their skills every day, but they operate behind the scenes, out of the eye of the served agencies and the public.

The individual nets report monthly. Michigan nets send approximately 1000 messages a month. In 2011, they reported 17,053 messages passed. Not all traffic is reported, although the large number of non-reporting nets probably pass a small fraction of the messages. The chart below shows the performance across the year:

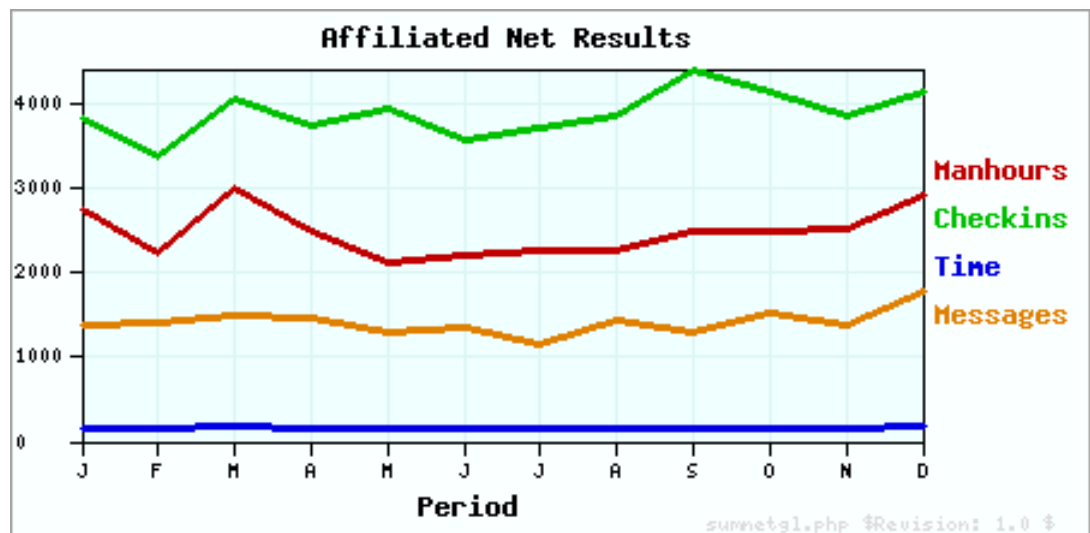


Figure 2. Affiliated Net Reporting

Detailed reports for the most recent month are available at <http://nts-mi.org/netreport.php>. Links on the page allow for viewing of previous reports or individual net history.

Michigan amateurs also participate in other nets. The Eighth Region net takes messages destined for out of state addresses, and collects traffic bound for Michigan to pass to Michigan representatives who will then carry those messages to the Michigan nets. The Eastern Area Net interfaces with the Region nets to move traffic among the Regions in the Eastern Area. The Transcontinental Corps arranges to move traffic between the Areas. Michigan amateurs participate in all of these, however that effort is not reflected in Michigan reporting.

3.1. Organization

The bulk of the traffic is passed through nine affiliated nets. Each net has an appointed net manager, responsible for arranging net controls and liaisons to other nets, and for reporting monthly to the Section Traffic Manager.

The affiliated nets and their net managers are:

| Net | Call | Net Manager |
|--|--------|------------------|
| Great Lakes Emergency and Traffic Net | K8VFZ | Grant Watson |
| Michigan Amateur Communications System | WB9JSR | John Wehmer |
| Michigan ARPSC Net | WB8RCR | John McDonough |
| Michigan Digital Traffic Net | N8FVM | Ed Bassett |
| Michigan Traffic Net | WB8WKQ | Jeff Miller |
| Michigan VHF Traffic Net | AC8AR | Flora Jean Young |
| QMN, The Michigan Net | K8AE | Anne Travis |
| Southeast Michigan Traffic Net | WB8WKQ | Jeff Miller |
| Thumb and Mid-Michigan Traffic Net | K8VFZ | Grant Watson |
| Upper Peninsula Net | WA8DHB | Aileen Gagnon |

Table 3. Net Managers

To be eligible for affiliation, a net must report regularly and maintain liaison with other National Traffic System nets.

In addition, there are perhaps 40 other nets operating within the state, approximately ten of which report regularly.

The STM has a small number of assistants who engage in projects such as liaison with other entities, training, and administrative duties:

| Call | ASTM |
|--------|---------------|
| KB8RCR | Ryan Lughermo |
| WD8USA | Joe Bell |

Table 4. Assistant Section Traffic Managers

4. Individual Amateur Reporting

In addition to reporting by Emergency Coordinators and Net Managers, individual amateurs are also encouraged to make reports. There are three reports from individuals; Public Service Honor Roll, Station Activity Report, and Brass Pounder's League.

4.1. Public Service Honor Roll

The Public Service Honor Roll reporting combines activity in a number of categories. Stations get "points" for net checkins, traffic, Section level appointments, public service oriented web or other digital systems, and hours spent in public or emergency service.

If a station reports 70 points within a month, that station is listed in QST, the amateur radio journal. If a station is listed for 12 consecutive months, or for 18 months out of 24, the League will issue a certificate.

PSHR reporting for 2011 has been relatively flat across the year. The summer months tend to be higher due to bad weather and various public service events.

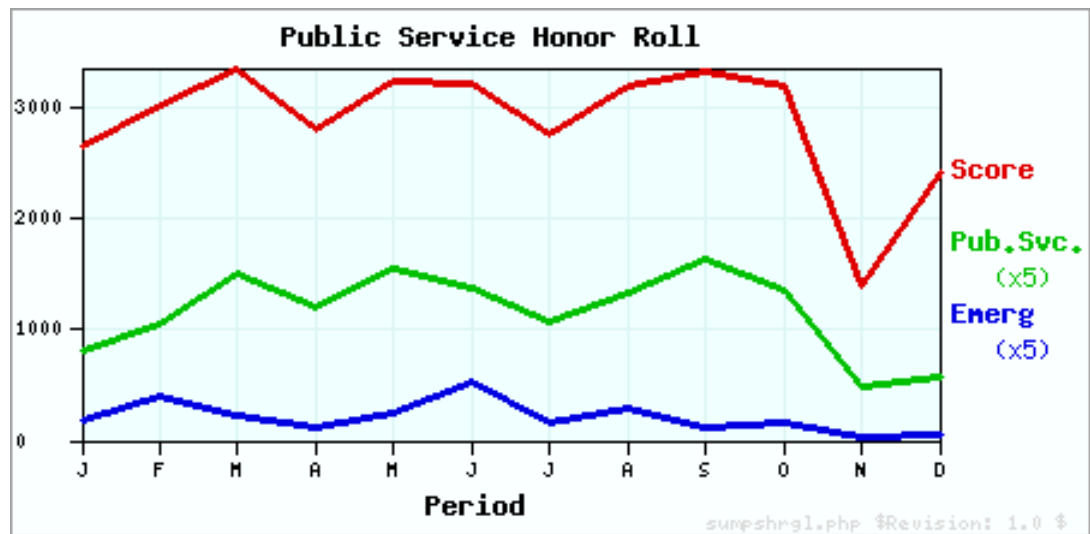


Figure 3. Public Service Honor Roll Reporting

4.2. Station Activity Reports

Stations handling traffic are encouraged to submit Station Activity Reports (SAR) indicating the amount of traffic handled. 42 stations reported during 2011, up from 31 in 2010.

Since most of the traffic is handled by relatively few stations, and those stations tend to be the stations that report, the traffic totals reported are quite high. Stations handling a lot of traffic tend to be those stations that act as liaisons to Region or Area nets, so even though the number of stations reporting is quite small, the amount of traffic reported is considerably larger than the totals from net reports, which include only messages passed on Michigan nets. For 2011, Michigan stations individually reported 42,157 messages.

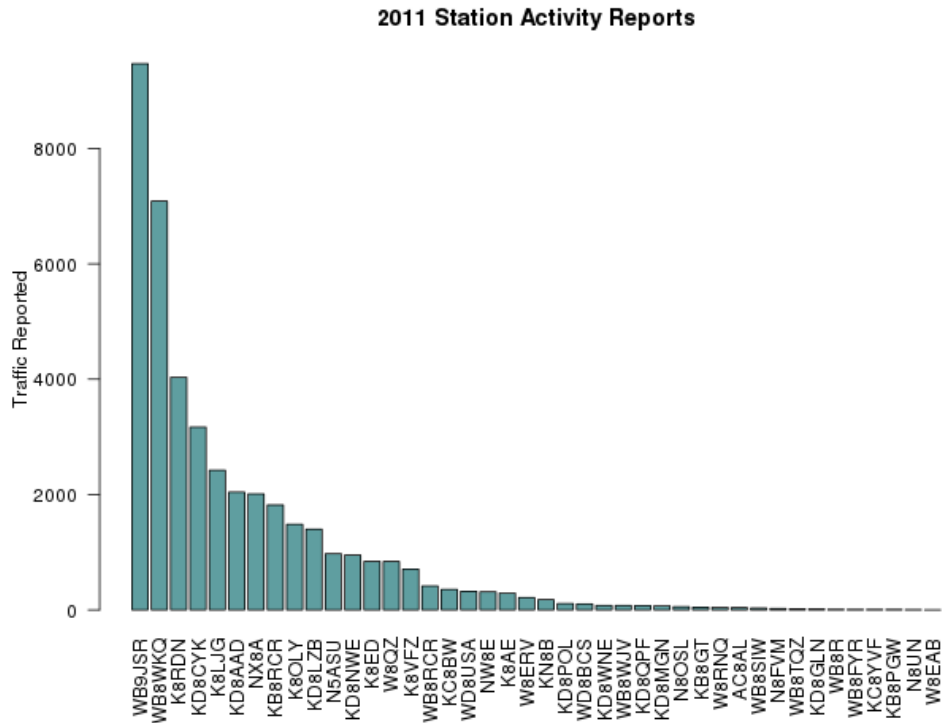


Figure 4. Station Activity Reports

4.3. Brass Pounder's League

Stations reporting 500 messages passed in a single month, or a total of 100 originations plus deliveries are eligible for Brass Pounder's league. This requires substantial dedication, and only a few stations achieve this award.

The stations qualifying in 2011 were:

| Call | Name | Total |
|--------|-------------|-------|
| WB9JSR | John Wehmer | 9473 |
| WB8WKQ | Jeff Miller | 6665 |
| K8LJG | John Kroll | 1666 |
| K8RDN | Bob Berger | 583 |

Table 5. Brass Pounder's League

5. Exercises

Local programs participate in numerous local and District-wide exercises on a regular basis. There are also a number of statewide exercises in which the Section participates.

5.1. State-sponsored exercises

The State of Michigan performs a number of drills and exercises each year, most commonly concerned with nuclear power plants. During these drills and exercises, the State EOC station is activated, the SEC or his delegate participates in the EOC, and programs in the affected counties are activated.

| Date | Exercise | Counties |
|-------------|--------------------------------|----------|
| January 21 | D. C. Cook Drill #1 | Berrien |
| February 15 | D. C. Cook Drill #2 | Berrien |
| March 1 | D. C. Cook Full-scale Exercise | Berrien |
| May 17 | New Madrid Aftermath TTX/FE | All |

Table 6. Michigan State Drills and Exercises

5.2. Section Exercises

The Section also organizes statewide exercises each year. Section exercises, unlike State-sponsored exercises, tend to be functional, exercising primarily communications skills, and are developed to attempt to engage all the counties within the state.

The Section has continued to work on the ARES/NTS interface and held two drills in 2011 to develop that skill. A Section-wide exercise was held in conjunction with the State's New Madrid Aftermath exercise, and the annual SET was also used to develop that skill.

In addition, also in conjunction with NMA, A drill was held with the State of Indiana to exercise sending a specific form between state EOCs. Only a relatively few stations participated in that drill, which also involved Michigan Army MARS and Indiana Navy MARS.

One objective for 2011 was to make better use of FEMA's HSEEP for exercises. The Indiana drill moved us quite far in that direction, and the October SET followed the FEMA procedures quite closely.

5.3. 2012 Exercise Plans

Emergency Coordinators have consistently asked for more statewide drills, with the most common request being for four per year. However, the FEMA HSEEP process

proved to be quite burdensome, but also valuable. It seems unrealistic to expect the staff to prepare more than two exercises per year.

For the 2012 cycle, our goals are as follows:

| | |
|-----------------------|---|
| Timeframe | <ul style="list-style-type: none"> • 2012 |
| Present Problems | <ul style="list-style-type: none"> • Interface with State Agencies is weak or nonexistent • Little knowledge of contacting other state EOCs • Documentation of plans and procedures is badly lacking |
| Long Range Goal | <ul style="list-style-type: none"> • Serve effectively as a partner to State Agencies as well as local agencies. |
| Functional Objectives | <ul style="list-style-type: none"> • Develop relationships with some State Agencies • Develop multiple circuits to nearby state EOCs • Continue to develop HSEEP skills |

Table 7. 2011 Objectives

The plan for 2012 is as follows:

| | |
|----------------------|--|
| Ex12-1 2Q2012 | <ul style="list-style-type: none"> • Exercise: Functional Drill • For: Section • Purpose: Develop digital skills • Rationale: It has been some time since we exercised HF Digital |
| Ex12-2 4Q2012 | <ul style="list-style-type: none"> • Exercise: Functional Drill • For: Section • Purpose: Exercise IP from 2011 SET • Rationale: The 2011 SET led to a well considered improvement plan. A year later it would be good to get a checkpoint on progress on that improvement plan. |

Table 8. Planned 2011 Exercises

6. Internet-based Media

The section utilizes a number of electronic media to communicate with members and potential members.

6.1. Electronic Mail

The Section Emergency Coordinator maintains an email list of all Emergency Coordinators and District Emergency coordinators and uses this as a primary means of direct communications with the ECs. The Section Traffic Manager maintains a similar list of Net Managers.

6.2. Web

ARPSC maintains two web sites, one for ARES and one for NTS. There is also a Section web site for more general information, and a web site maintained by the Digital Radio Group.

| Site | URL | Content |
|----------------------------------|---|--|
| Michigan Section | http://arrl-mi.org | Section news of general interest to amateurs in the Michigan Section |
| Amateur Radio Emergency Services | http://ares-mi.org | Reference information of interest to ARES members, as well as performance data |
| National Traffic System | http://www.nts-mi.org | Reference information of interest to NTS members, as well as performance data |
| Digital Radio Group | http://www.mi-drg.org | Reference information concerning various digital modes, especially packet. |

Table 9. Web Sites

The screenshot below shows an example page from the **ares-mi.org** site.

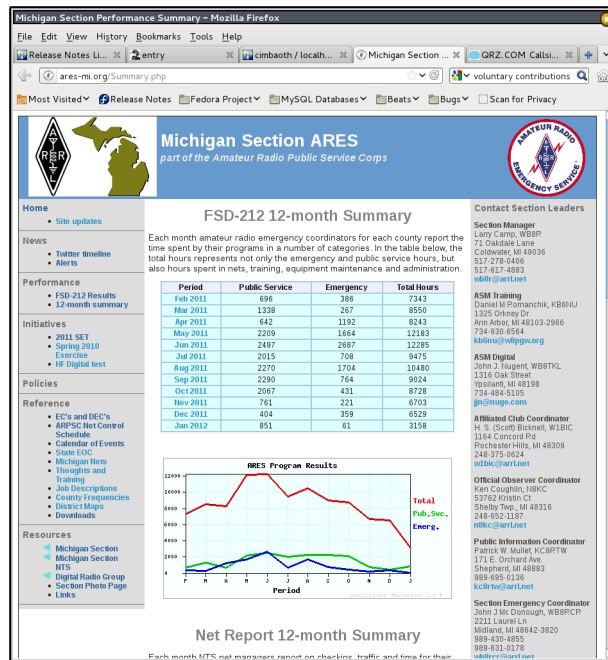


Figure 5. mi-arpesc Website

In addition to the Section sites, many Districts and Nets also maintain web sites.

In early 2011, the web provider lost the **mi-nts.org** domain name which had been registered through the provider. **mi-arpesc.org** was a subdomain of **mi-nts.org**. The result was that both websites were down for some time. The SEC purchased the **ares-mi.org** and **nts-mi.org** domain names and moved these to a new server. **mi-arpesc.org** was redirected to **ares-mi.org**.

The new web provider offers some features lacking in the earlier site, however, it is lacking a feature which had been used to provide RSS feeds for the web sites. The RSS feed has not yet been restored.

6.3. Online Social Groups

The Section also maintains two Yahoo groups, the **MIARPSC** group is available to all Michigan amateurs, and is often useful for a number of discussions. The **MIARPSC-DEC** group is private to DECs and ADECs, and is used for discussions within a smaller group.

As with websites, many Districts and nets have found it helpful to maintain their own groups, most of these also on Yahoo.

6.4. Microblogging

The section maintains two microblogging accounts; **miarpsc** on **identi.ca** and **mi_arpsc** on **twitter.com**. "Tweets" or "dents" are sent to these sites periodically to remind followers of various upcoming events. Both sites get exactly the same feed. There is also a page on the mi-arpsc web site, http://www.ares-mi.org/arpsc_tweets.php where those who do not follow either microblogging site may view the feed.



Figure 6. ARPSC Twitter Feed

The section tries to keep the volume to a few tweets a week to prevent followers from feeling that the feed is too burdensome. Many of the tweets use the **#hamr** hash tag, causing those that follow amateur radio tweets to also see the messages.

6.5. Online Meetings

Meetings within smaller groups are often held remotely. Simple phone conferences are frequently used. In addition, **Vyew** allows documents to be shared online during these phone conferences.

An example of an online meeting in Vview is shown below:

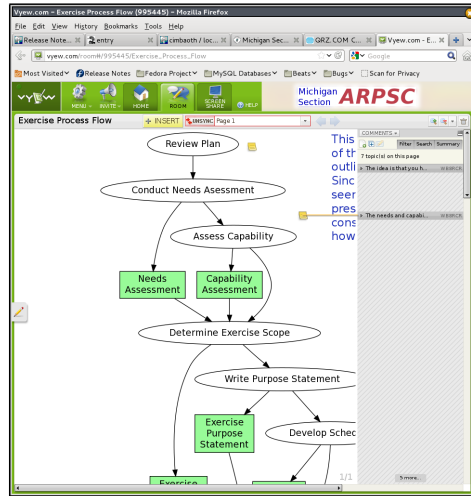


Figure 7. Example Online Meeting

6.6. Wiki

The section also maintains a wiki which is used by the ARPSC leadership to develop certain plans and strategies. A wiki allows all participants to contribute asynchronously to a "document", which in many cases can be helpful.

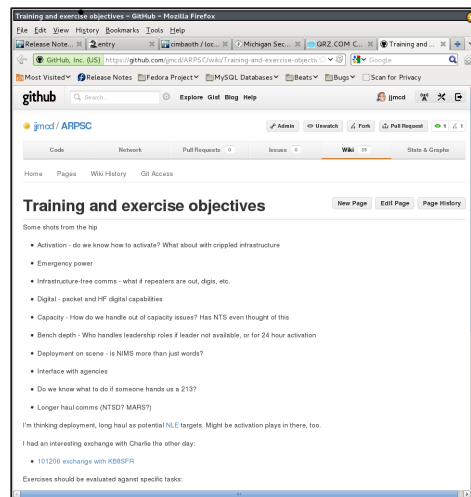


Figure 8. Example Wiki Page

The wiki is maintained on **github** which keeps a historical record and allows easy rollback of changes if necessary.

7. Year over year comparisons

It can be interesting to compare the current year to previous years, both to spot longer term trends as well as pick up causes of variations which may be used for improvements and remediation.

7.1. ARES

ARES hours across the emergency and public service categories are relatively flat. As might be expected, emergency hours tend to be higher in bad weather years. It is interesting that public service hours tend to track emergency hours; perhaps indicating that active years also lead to more reporting.

Active years also tend to show an increase in drills. Not only do active years encourage interest, but bad weather damages amateur radio infrastructure as well, and programs tend to hold drills to test newly repaired or installed equipment.

The spike in Drills for 2011 should not be a surprise. Both the New Madrid Aftermath exercise and the SET involved more effort and more amateurs than most previous drills.

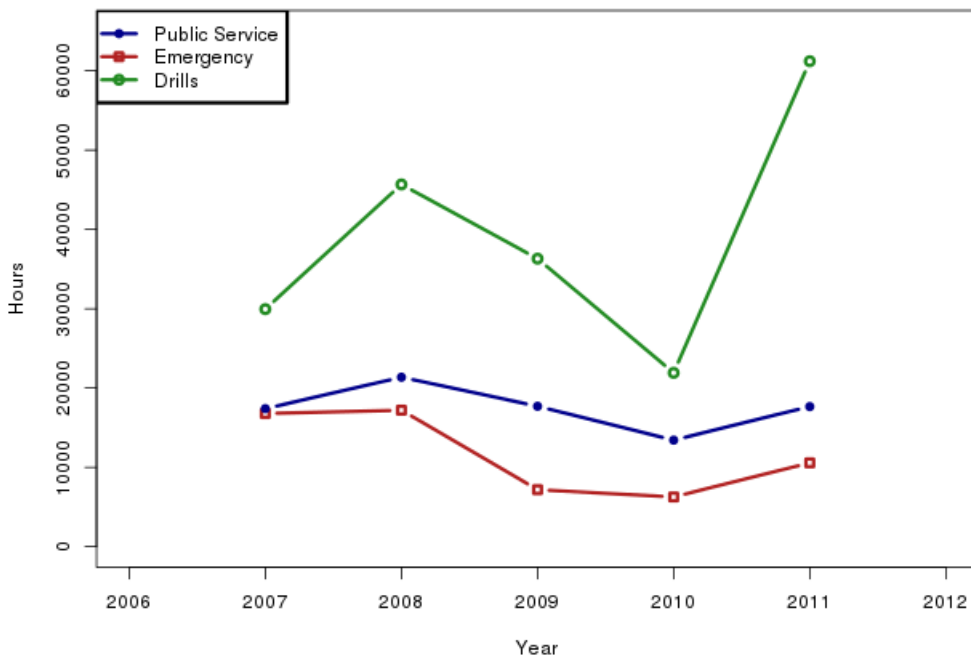


Figure 9. ARES hours by category

7.2. NTS

The number of checkins experienced by the nets in the section has remained relatively flat (notice that the entire Y axis only covers a range of about 25%). It is not clear what caused the depression of 2007-2008.

The drop for 2011 is probably somewhat permanent. The Wolverine Net had been an NTS affiliated traffic net. Over the years the traffic has dwindled, and last year that net asked to drop its affiliation with NTS, and along with it, their reporting. In addition, the Northern Lower Eastern Upper Peninsula net has been without leadership, and hence, without reporting.

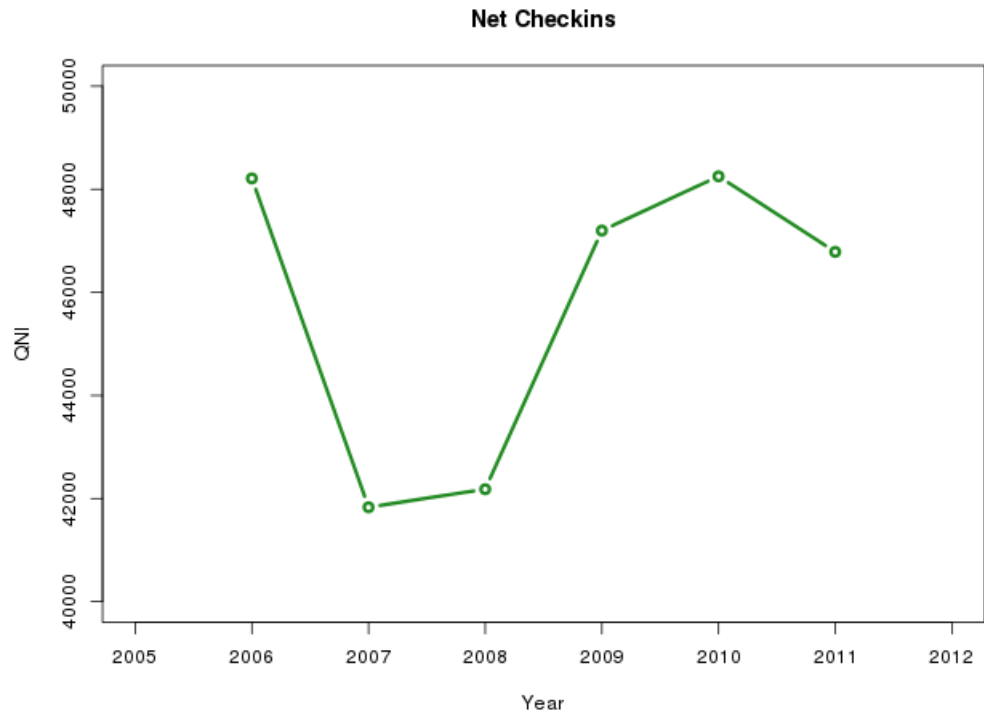


Figure 10. Net Checkins

Traffic, however, has trended relentlessly upward. The steeper slope of traffic reported by individuals, as compared to that reported by nets, is probably due to two causes:

1. KB8RCR has been actively encouraging reporting, especially individual reporting. The number of amateurs reporting their station activity has increased significantly over the past few years.
2. More and more Michigan amateurs are becoming involved in Region and Area nets, and even in the Transcontinental Corps. These tend to be very high traffic stations, and much of their traffic does not appear on Michigan nets.

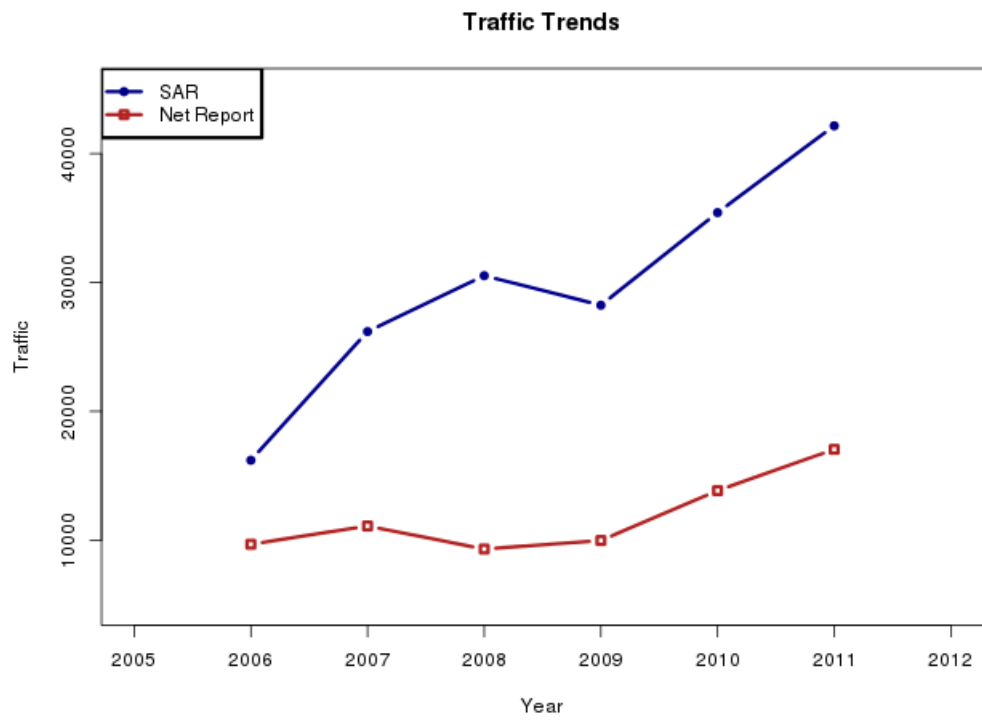


Figure 11. Traffic

A. Revision History

| | | |
|-----------------|--------------------------------------|---|
| Revision 1.0 | Wed Feb 29 2012 | John McDonough wb8rcr@arr1.net |
| | Remove draft tag | |
| Revision 0.2 | Tue Feb 28 2012 | John McDonough wb8rcr@arr1.net |
| | Initial draft completed | |
| Revision 0.1 | Mon Feb 27 2012 | John McDonough wb8rcr@arr1.net |
| | Initial creation of book by publican | |

