
mini-SET 10.1

Net Manager Guide

A guide to the upcoming mini-SET for Net Managers



Michigan Section

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Abstract

The Michigan Section plans to have a number of exercises each year. This guide is intended to provide planning guidance for Net Managers preparing for the first of those exercises in 2010.

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1. Overview

1.1. Introduction

Over the past several years, many people have asked for more exercises. This year the section hopes to have at least three, including the annual SET. The first of these is planned for April.

1.2. Driving Forces

The 2009 SET exposed several serious shortcomings in our level of readiness. The target of this exercise will be to help develop capabilities to fill those shortcomings.

- Lack of leadership within nets
- Lack of understanding of/interface to ARES
- Overall lack of planning

1.3. Targets for the exercise

To address these needs, we hope to accomplish one basic target; communications from and to the State Emergency Operations Center using formalized, predefined circuits.

Communications for the exercise will be accomplished using point-to-point phone circuits, both VHF and HF. CW and packet circuits will be available for those counties who wish to test direct communications to the SEOC, but the primary exercise objectives will be carried out over phone circuits.

1.4. Capabilities to be developed

Each net will need to develop some specific capabilities prior to the exercise:

- A plan for action in response to emergency or unusual needs among the various affiliated nets.
- An understanding by the Section National Traffic System leadership of the Amateur Radio Emergency Services and its possible needs in the event of an incident.
- A familiarity by NTS members of the individuals in leadership positions within ARES and their capabilities and assets.

2. Exercise Objectives

2.1. Introduction

The point of any exercise should be to accomplish something. This section outlines some of the key objectives for the current exercise.

2.2. Structured Communications

The October 2009 SET had intended to demonstrate a structured flow of messages between the counties and the State EOC, along existing chain of command lines. (If you will recall, an earlier exercise along an incident-specific structure elicited some significant complaints.)

The results were not encouraging. Only one of the section nets organized as expected, and few counties or Districts attempted to exploit the NTS structure. The exercise structure did leave the nets a lot of opportunity to apply their own creativity, but apparently the intent was insufficiently clear.

For this exercise, net schedules and message paths will be detailed ahead of time. Each section net has a schedule and specified liaisons. Each District has specified liaisons. There will still need to be some thought applied to the interface between the District and the appropriate VHF net, but both responsible parties are known well ahead of time.

2.3. Net Response Plan

Over recent years, it appears that nets have lost the ability or incentive to be able to mobilize in response to an incident. Nets are accustomed to meeting at a specific time and frequency and somehow are not prepared to change.

However, when an incident occurs, the National Traffic System is a vital part of the overall response. ARES units are structured to respond locally, and their communications capability is largely local. They require the services of NTS for longer haul communications, as well as to provide structure in the event of a heavy communications load.

This exercise will only take a small step in the direction of giving the nets the skills needed. There will be more interfaces with the ARES organization, and an opportunity will be given for close leadership cooperation between ARES and NTS.

2.4. ARES Familiarity

Most net managers have little opportunity in ordinary circumstances to interface with ARES organizations. However, familiarity with the individuals involved and their capabilities is vital if NTS is to offer needed services in the event of an incident. This exercise will give NTS leaders some exposure to ARES leaders. Especially in the case of the VHF nets, they will need to work closely to be successful.

This, of course, is not sufficient, but it is a start. Net managers should begin thinking about issues such as:

- What might my net be called on to do in the event of some kind of incident or emergency
- How will I notify my members in the event of an unexpected net activation
- If I need to activate at a different time of day, will I know how to respond to different band conditions
- Do I know which net members might be available if we have a net meeting at a time different than normal
- For VHF nets, do I have a plan to respond in the event my repeater is out of service

These are only a few of the questions net managers should begin thinking about. This exercise will not answer these questions, but we hope to begin providing the insight necessary for the nets to begin grappling with them.

3. ARES

3.1. Introduction

ARES is the "feet on the ground" side of ARPSC. NTS is the behind the scenes engine that moves messages. Because it is largely involved in local response, ARES is not often visible to NTS operators. However, in the Michigan Section we have approximately 2,000 ARES members. It is a large, highly structured organization which works closely with the Michigan State Police, local emergency management, and many other public service and public safety organizations.

3.2. ARES Structure

ARES is organized along the State Police Districts. There are 11 District Emergency Coordinators reporting to the Section Emergency Coordinator. These DECs represent the seven State Police Districts and the four National Weather Service offices in Michigan.

Each of Michigan's 83 counties has an Emergency Coordinator who reports to the respective District Emergency Coordinator. These ECs and DECs often have assistants with specific responsibilities. SKYWARN is often closely associated with ARES, and many Assistant Emergency Coordinators serve as their county's SKYWARN coordinator.

Each county has a local organization whose size and responsibilities vary widely depending on the size and needs of the county. In some rural counties the organization may consist of only two or three members, while a larger county may boast hundreds of members.

At each level, ARES officials are aligned with government officials, and often work closely with them. The SEC works closely with the State Police Logistics Section Chief, the DECs work with MSP's District Coordinators, and the county ECs align with their individual county Emergency Manager. Whenever possible, the appointments are made jointly between the Section Manager and the appropriate government official. DECs serving NWS offices are aligned with that office's Warning Coordination Meteorologist.

4. Traffic Flow

4.1. Introduction

In order to engage all the affiliated nets, and to also encourage the DEC's to develop relationships with their local VHF net, traffic will be routed through all the nets.

At the beginning of the exercise, the SEOC will transmit queries to each District through HF nets. These messages will flow through NTS to each District. The nature of the query will require that the District query each of its counties. The result will then be pushed back through NTS ultimately arriving at the SEOC via an HF net.

4.2. Traffic Flow

Four HF nets will meet in sequence receiving traffic from the SEOC. Each of these nets will include representatives from a VHF net. These reps will then take the traffic to the VHF net for delivery to the District. After composing a response, the District will deliver its answer to that same VHF net, who in turn will send a representative to one of two HF nets meeting with the SEOC later in the morning.

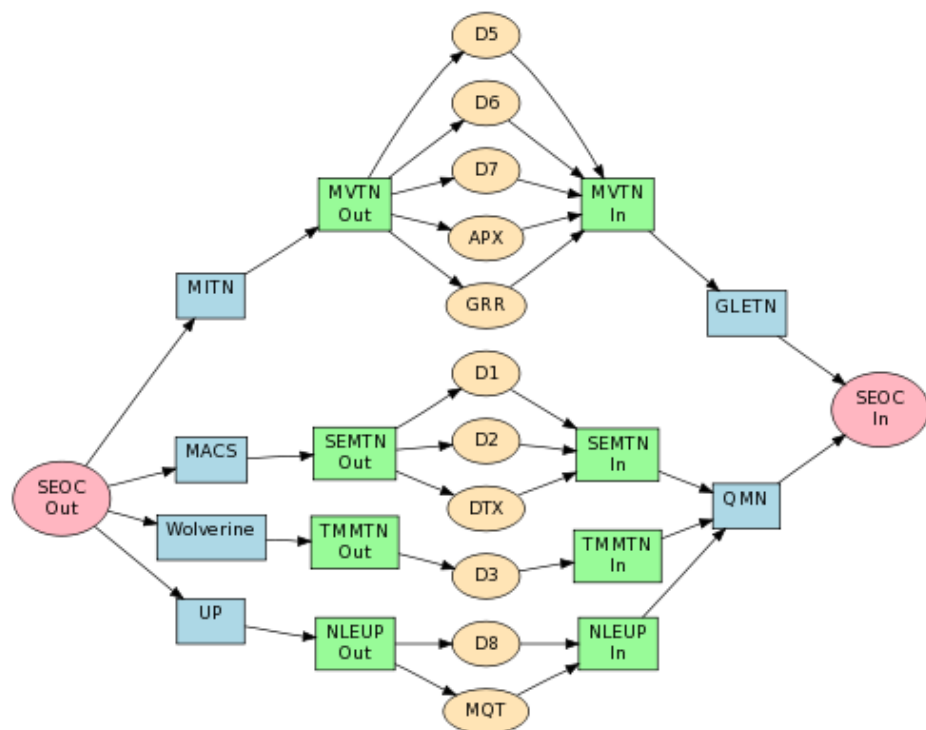


Figure 1. Traffic Flow Diagram

4.3. Net Schedule

Each HF net has a specific time slot with the SEOC. It is presumed that the VHF net will meet following the HF meeting at the beginning of the exercise, and before the HF net at the end of the exercise.

	MITN	MACS	Wolverine	UP	GLETN	QMN	MVTN	SEMTN	TMMTN	NLEUP
08:00	SEOC									
08:30		SEOC					D5, D6, D7			
09:00			SEOC					D1, D2		
09:30				SEOC					D3	
10:00										D8
10:30										
11:00							D5, D6, D7			
11:30					SEOC			D1, D2	D3	D8
12:00						SEOC				

Figure 2. Net Schedule

5. NTS Net Interfaces

5.1. Introduction

At each level, representatives will need to interface with other nets or Districts. Interfaces between HF and VHF nets are common, and in many cases, well established. However, DEC's will need to identify the appropriate nets and make plans to receive traffic from the net and return a response later.



Planning is required - VHF Net managers should arrange well in advance for interfaces with the appropriate DEC.

5.2. District Interfaces

Each District will interface with one VHF net. There will be an inbound and an outbound "session". However, this will not be a traditional net session. Since this is a simplex exercise, and the VHF nets typically meet on a repeater or linked system, the Net Manager and DEC will need to establish a simplex path or relay from the net to the District.

District	Contact Net	Inbound Time	Outbound Time
1	SEMTN	0900	1130
2	SEMTN	0900	1130
3	TMMTN	0930	1130
5	MVTN	0830	1100
6	MVTN	0830	1100
7	MVTN	0830	1100
8	NLEUP	1000	1130
APX	MVTN	0830	1100
DTX	SEMTN	0900	1130
GRR	MVTN	0830	1100
MQT	NLEUP	1000	1130

Table 1. District Interfaces



VHF Net Managers Note: Since we will not be using repeaters, you will need to establish a relay between your net and the appropriate District(s).

Each DEC will need to work with the appropriate net manager well ahead of time to determine stations and schedules that will allow the traffic picked up by the net to be delivered to the District, and allow responses from the District to be routed back through the net.

This is especially challenging for the VHF nets. Each VHF net will need to arrange contacts with multiple DEC's. In addition to messages to each of the seven MSP Districts, there will also be traffic for the various NWS offices. While each DEC only has one net to be concerned with, the VHF nets have between one and seven DEC's to interface with.

Since some of the VHF nets cover a substantial area, and this is to be a simplex exercise, it may take a large number of relays to deliver the traffic. The DEC's have at their disposal a large number of operators who may be able to assist, but by and large these operators have no traffic experience. Each of the net managers will need to provide substantial guidance and mentoring to these inexperienced operators.

5.3. Scheduled Nets

Since the SEOC must meet with seven HF nets over the course of the morning, the HF nets require a prearranged schedule. VHF net meetings may vary, but they will need to be close to the times below, given their interfaces with the HF nets.

Time	Net
0800	MITN picks up traffic from SEOC sends reps to MVTN
0830	MACS picks up traffic from SEOC sends reps to SEMTN
0830	MVTN delivers traffic to D5, 6, 7
0900	Wolverine picks up traffic from SEOC sends reps to TMMTN
0900	SEMTN delivers traffic to D1, 2
0930	UP Net picks up traffic from SEOC sends reps to NLEUP
0930	TMMTN delivers traffic to D3
1000	NLEUP delivers traffic to D8

Time	Net
1100	MVTN picks up traffic from D5, 6, 7, sends reps to GLETN
1130	GLETN meets delivers traffic to SEOC
1130	SEMTN picks up traffic from D1, 2 sends reps to QMN
1130	TMMTN picks up traffic from D3 sends reps to QMN
1130	NLEUP picks up traffic from D8 sends reps to QMN
1200	QMN meets delivers traffic to SEOC

Table 2. District Interfaces

5.4. VHF Net Interfaces

VHF Net Managers will need to arrange liaisons with two HF nets, one for traffic flowing into the net and one for traffic leaving the net.

VHF Net	Inbound Net	Outbound Net
MVTN	MITN	GLETN
NLEUP	UP	QMN
SEMTN	MACS	QMN
TMMTN	Wolverine	QMN

Table 3. VHF Net Interfaces

5.5. Contact List

The following contacts must be made during March to arrange liaisons, VHF relays, etc:

Davis, Ted N8ZSA	• WB8WKQ
Duggan, Red WA8RLI	• AC8AR
Fleming, John K8UP	• WB8WKQ
Flickinger, Carl KB8FQJ	• AC8AR
Gage, Michael N8VLN	• AC8AR
Gagnon, Aileen WA8DHB	• KG8NK
Gebolis, Lou KG8NK	• WA8DHB • K8AE • KI8AF
Hanson, Greg KI8AF	• KG8NK
Miller, Jeff WB8WKQ	• AC8AR • WB9JSR

	<ul style="list-style-type: none"> • K8AE • N8ZSA • K8YZA • K8UP
Pullen, Joseph K8YZA	• WB8WKQ
Stinson, Chris KC8YTK	• AC8AR
Travis, Anne K8AE	<ul style="list-style-type: none"> • KG8NK • K8MFK • WB8WKQ
Tuscher, Joe N8OSL	• K8MFK
van der Mel, Tom KB8VEE	• AC8AR
Warczynski, Ron K9RON	• K8MFK
Warsalla, Frank K8MFK	<ul style="list-style-type: none"> • K9RON • N8OSL • K8AE
Wehmer, John WB9JSR	• WB8WKQ
Wiswasser, Jack WA8IAL	• AC8AR
Young, Jean AC8AR	<ul style="list-style-type: none"> • WB8WKQ • KB8FQJ • KB8VEE • WA8RLI • N8VLN • KC8YTK • WA8IAL

Table 4. Contact Pairs

6. Other SEOC Communications

6.1. Introduction

During any statewide exercise, each program often wants to test circuits from their local EOC to the State EOC. Limited opportunities will be available during this exercise.

6.2. HF Phone

Because we wish to engage all the HF nets, the HF phone capability of the SEOC will be exhausted during this exercise. Direct contact over HF phone from the individual counties is unwelcome for this exercise.

6.3. HF CW

To accomodate direct communications with individual counties, the SEOC will monitor 3.563 MHz CW from 9:00 AM to 11:00 AM during the exercise.

6.4. HF Digital

The SEOC will not be using HF digital modes during the exercise.

6.5. VHF/UHF Phone

This is a simplex exercise. As such, VHF phone connections will not be appropriate from most programs. To accomodate nearby programs or VHF/UHF relays, the SEOC will monitor 147.54 MHz and 446.00 MHz from 10:00 AM to 11:00 AM.

6.6. VHF Packet

The SEOC will be available to receive formal traffic on seoc@seoc.ampr.org. Replies may or may not be timely. The station will also monitor CONV channel 911.

A. Revision History

Revision 1 Fri Mar 05 2010

John McDonough wb8rcr@arrl.net

Initial revision

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