



National Weather Service Detroit - Pontiac

# MICON-DTX Procedure Manual

*Revised October 2018*



# Table of Contents

<b>Forward</b>	<b>3</b>
<b>About DTX</b>	<b>4</b>
<b>DTX County Warning Area</b>	<b>4-5</b>
<b>DTX District Emergency Coordinator</b>	<b>5</b>
<b>DTX DEC Responsibilities</b>	<b>5</b>
<b>Communications Plan</b>	<b>6</b>
<b>Activation of MICON-DTX Net</b>	<b>7</b>
<b>Responsibility of MICON-DTX/K8DTX</b>	<b>7</b>
<b>Responsibility of local SKYWARN/ARES Program</b>	<b>7</b>
<b>General Operation Guidelines</b>	<b>8-9</b>
<b>NWS Chat</b>	<b>9</b>
<b>Semi-annual MICON-DTX Meeting</b>	<b>9</b>
<b>Frequently Asked Questions</b>	<b>10</b>

## Common Acronyms / Terms

ADEC	Assistant District Emergency Coordinator
ARES	Amateur Radio Emergency Service
ARPSC	Amateur Radio Public Service Corp.
ARRL	American Radio Relay League
CMEN	Central Michigan Emergency Network, Inc. / w8cmn.net
CWA	county warning area
DEC	District Emergency Coordinator
DMR	Digital Mobile Radio
DTX	National Weather Service, Detroit - Pontiac Weather Forecast Office
EMC	Emergency Management Coordinator
K8DTX	Registered call sign for amateur radio station at NWS Detroit - Pontiac
MICON	Michigan Inter-County Operational Network
MSP	Michigan State Police
NET	Organized network of radio operators on a common frequency
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
pass traffic	the term used for passing critical information over radio frequencies
RF	Radio frequency
WCM	Warning Coordination Meteorologist
WFO	Weather Forecast Office

# Forward

The following document outlines the procedures and details the operations of the inter-county communications network known as MICON-DTX. It is a living document and is subject to revision as it and all of us are certain to be affected by changes in the future. MICON-DTX supports the important service of gathering vital severe weather spotter reports from all 17 counties of the current County Warning Area ( CWA ) for the Detroit/White Lake ( DTX ) National Weather Service (NWS) Weather Forecast Office ( WFO ). Although the network itself is Amateur Radio based, the information relayed from the CWA counties may originate from any valid SKYWARN spotting resource in the counties covered.

This service of the 17 counties started almost 40 years ago when there were two separate NWS-WFO offices for the southeastern quadrant of Michigan. That service to the Detroit Metro Airport WFO and Flint WFO was provided by two different organizations and merged into one organization, MICON-DTX, when the two WFO's were consolidated and moved to the current White Lake location. Primary network infrastructure is currently provided by Central Michigan Emergency Network (w8cmn.net). There are some counties that have links into the CMEN network for access to the DTX-WFO, but the backbone infrastructure is CMEN – a system that is entirely owned, funded and maintained privately by Amateur Radio Operators across Michigan and whose primary purpose is providing emergency communications in general, not just for MICON-DTX and SKYWARN. We at MICON-DTX are appreciative of this infrastructure and the Amateur Radio tradition of service we all provide to our communities.

Through extensive experience, training, and tradition of service, we continue to provide the all-important ground truths that the warning forecasters at DTX-WFO need to give timely warning to the public, saving countless lives and innumerable property during severe weather events. By your interest in and reading of this manual, you show your commitment to continue this valuable service. Hopefully, you will be proud to serve our communities and promote the value of the Amateur Radio service by maintaining and adding to the MICON-DTX tradition for many years to come.

73,

Randy Love, WF5X

District Emergency Coordinator (DEC) for MICON-DTX

Michigan Section, ARRL

# About National Weather Service, Detroit - Pontiac



The National Weather Service Detroit – Pontiac is located at 9200 White Lake Rd, White Lake, MI 48386 in White Lake Twp. This location was built in 1992 to consolidate locations in Ann Arbor, Detroit and Flint. This Weather Forecast Office (WFO) employs over 20 meteorologists, support staff and interns. For more information or to learn more of the rich history on weather prediction in the Detroit area, visit [weather.gov/detroit](http://weather.gov/detroit)

## DTX County Warning Area

The DTX 17 County Weather Area (CWA) falls into 3 of the 8 Michigan State Police Districts (see map below).

### ***District 1***

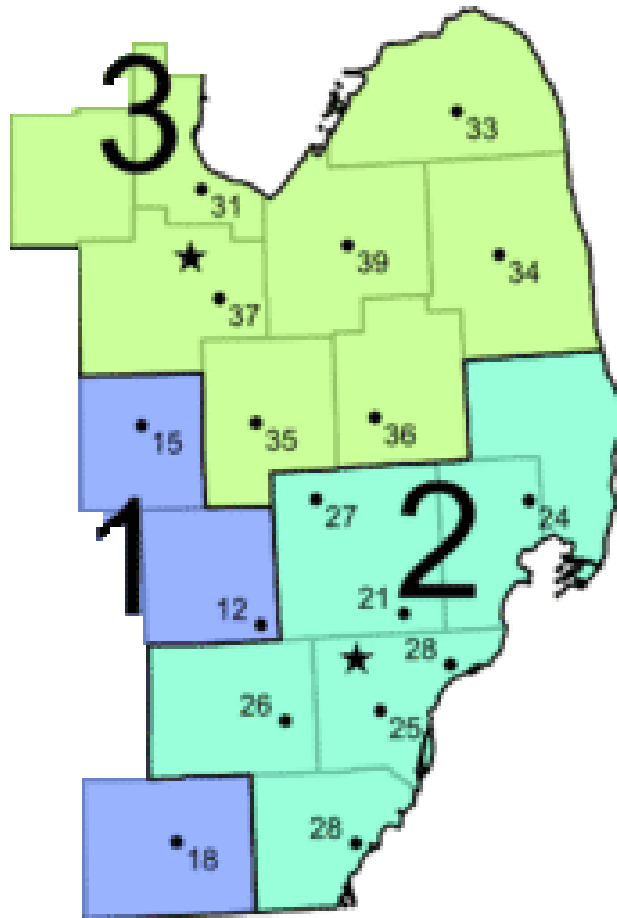
Livingston  
Lenawee  
Shiawassee

### ***District 2***

Macomb  
Monroe  
Oakland  
St. Clair  
Washtenaw  
Wayne

### ***District 3***

Bay  
Genesee  
Huron  
Lapeer  
Midland  
Saginaw  
Sanilac  
Tuscola



# DTX County Warning Area (Continued)

These Districts are assigned an ARES District Emergency Coordinator (DEC) by the ARRL Section Emergency Coordinator (SEC) in accordance with the Michigan ARPSC guidelines. The DEC from each of the 3 MSP Districts which fall into the DTX CWA shall work directly with the DTX DEC to ensure each of their respective county's within their assigned districts are participating and adhering to the guidelines set forth in this manual. The DEC's from each District within the CWA shall attend the semi-annual MICON-DTX Meeting and continually work with each county to ensure their SKYWARN/ARES program is active and thriving.

As of this revision the DEC's within the CWA;

**District 1**      **Tim Crane, WM8A**  
**District 2**      **Shanon Herron, KA8SPW**  
**District 3**      **open**



## DTX District Emergency Coordinator

In accordance with Michigan ARPSC Guidelines, the Michigan Section Emergency Coordinator and DTX Warning Coordination Meteorologist appoint a DTX District Emergency Coordinator. This DEC will act as station manager for the K8DTX amateur radio station. The DTX DEC has the authority to appoint Assistant District Emergency Coordinators (ADEC) in accordance with ARRL guidelines.

As of this revision the DTX DEC and assistants;

**DEC**      **Randy Love, WF5X**  
**ADEC**      **Fred Moses, W8FSM**                      **ADEC**      **Ted Davis, N8ZSA**

## Responsibilities of DTX DEC

- Act as station manager for K8DTX amateur radio station and respective equipment.
- Coordinate and host special events at the DTX Office such as Field Day and SKYWARN Recognition Day
- Work with DEC's, SKYWARN/ARES EC's in the CWA to ensure each county SKYWARN program is aware and adhering to MICON-DTX procedures
- Ensure the MICON-DTX net is staffed and active per activation guidelines set forth in this manual and or advisement from WCM
- Works directly with DTX WCM to ensure MICON-DTX Staffing adhere to DTX Office protocol and internal MICON-DTX Guidelines (dress, appearance, conduct).
- Appoints assistants to delegate as necessary

# Communications Plan

## Central Michigan Emergency Network

Central Michigan Emergency Network, INC (CMEN) is a non-profit group of independent repeater owners that have pooled their knowledge and personal resources for the betterment of amateur radio and emergency communications in Michigan. MICON-DTX uses this network of repeaters to ensure connectivity throughout the CWA. CMEN offers both 70cm band voice and DMR voice. The linked repeaters used by MICON-DTX key stations:



<b>Bancroft</b>	<b>N8IES</b>	<b>442.625</b>
<b>Chelsea</b>	<b>KD8IEL</b>	<b>443.575</b>
<b>Detroit</b>	<b>KC8LTS</b>	<b>442.175</b>
<b>Frankenmuth</b>	<b>KB8SWR</b>	<b>444.025</b>
<b>Holly</b>	<b>W8FSM</b>	<b>442.350</b>
<b>Mayville</b>	<b>KB8ZUZ</b>	<b>443.775</b>
<b>Mt. Clemens</b>	<b>KC8UMP</b>	<b>443.625</b>



Central Michigan Emergency Network has created an extensive digital network known as MI5. This network has over 20 towers throughout the CWA. The talk group used for a MICON-DTX activation is **EVENT1**. CMEN is always looking for opportunities to expand the network. While it is the sole responsibility of the SKYWARN/ARES EC to ensure RF connectivity from their respective county to MICON-DTX — contact Fred Moses, W8FSM to see how CMEN could assist your county. Visit [w8cmn.net](http://w8cmn.net) for more information.



MICON-DTX can also be contacted via the 800mhz Michigan Public Safety Communications System (MPSCS). This could be extremely useful for Emergency Management Officials and Incident Commanders during a catastrophic emergency response. Registered users of the system should contact CMEN [directors@w8cmn.net](mailto:directors@w8cmn.net) to be added to the MPSCS talk groups used at MICON-DTX.

# Activation of MICON-DTX Net

The MICON-DTX Net will activate when a Severe Weather Watch has been issued by the Storm Prediction Center (SPC) or special circumstance in the DTX CWA advised or approved by the WCM. An electronic alert will be sent by the WCM to key stations, however it is the responsibility of the local SKYWARN/ARES EC to stay abreast of severe weather developments in their respective county and when to activate. **MICON-DTX does not activate local SKYWARN programs.** To be added to this alert list contact the DTX WCM.

## ***Responsibility of MICON-DTX***

- Ensure MICON-DTX net is staffed and activated per guidelines or guidance from DTX WCM
- Pass severe weather warning products issued within DTX CWA
- Receive severe reports from CWA counties to enhance warning products, prediction science and reduce damage to property, injury or loss of life

## ***Responsibility of local county SKYWARN/ARES program***

- Keep abreast of severe weather developments in respective county and activate amateur operators when appropriate per county guidelines.
- Have key station to check into MICON-DTX net as soon as reasonably possible and update MICON-DTX net on county net status (Standby/Green, Yellow, Red)
- Assign and train key stations approved to pass traffic between local net and MICON-DTX net. These key stations should be well versed on DTX reporting guidelines and basic SKYWARN amateur radio protocol.
- Ensure RF connectivity between local key station and MICON-DTX
- Ensure of traffic passed to DTX when MICON-DTX net is not activated thru SKYWARN Hotline or NWS Chat

MICON-DTX is a closed net. Only one key station from each county will be allowed to check in at a time. MICON-DTX reserves the right to ban operators uncooperative or unwilling to adhere to guidelines in this manual. The DTX DEC may contact the DEC of the respective county to work directly to with local county SKYWARN/ARES EC to address issues. In extreme cases the WCM may contact the county Emergency Management Coordinator (EMC) to resolve issues in a respective county.

# General Operation Guidelines

Each County maintains its own SKYWARN operations using any methods or frequencies they so choose. Condition codes are often used as an automatic response to a County alert. The alert criteria may differ for each county. However, ALL counties should use the same system for reporting to the MICON-DTX Net as NWS Personnel are very keyed into these county conditions codes. Counties should not be in a Yellow or Red condition just because of a watch or warning type but rather these condition codes should reflect the actual severity of the weather conditions **currently within the county**.

## Type of Alert County

## Condition Code

Severe Thunderstorm or Tornado Watch

**Green or Standby**

Net is activated

Check-ins accepted

General weather reports

Severe Thunderstorm Watch or Warning

**Yellow**

Net is active

Types of reports to be accepted

a) Tornadoes (on the ground where, movement, direction, speed, and damage visible)

b) Funnel clouds (direction, rotation, speed, location)

c) Wall clouds (direction, rotation, speed, location)

d) Hail (give diameter)

e) Flooding (water over the curbs)

f) Heavy or torrential rains (near zero visibility)

g) Damaging winds (speed, direction, damage)

h) Intense, frequent lighting

Tornado Warning

**Red**

a) Tornadoes (on the ground where, movement, direction, speed, and damage visible)

b) Funnel clouds (direction, rotation, speed, location)

c) Wall clouds (direction, rotation, speed, location)

The Condition Code system was developed to help resolve the problem of what to report. These three colors determine what the net should be doing and what type of information it should be reporting.

The County NCS responses are keyed by changes in alert status or by reported condition. NOTE: The NCS may put his/her net into an appropriate status based on non-amateur field reports such as fire and other public service spotters.



# General Operation Guidelines (Continued)

There is a need to set some priorities for the kinds of reports that SKYWARN spotters make as a storm passes through the area. The types of information needed decreases as the storm increases in intensity and reaches maximum size. You don't want a report of "light rain" when a tornado is active in the county. These "Blue Sky" reports are generally reported by the newer, inexperienced amateurs who are eager to participate and should never be relayed by the key station to the MICON Net NCS. County Net Control Operators are very firm in discouraging these types of reports.

## NWS Chat

NWS Chat is reserved only for media, Emergency Management Officials and SKYWARN/ARES EC's. This is not intended for mass SKYWARN/ARES operator access. NWS Chat can be extremely useful for receiving issued warning products within the CWA, however it is not designed or staffed to replace amateur radio during an active MICON-DTX net. When a MICON-DTX Net hasn't been activated, NWS Chat may be used to pass non-critical reports during a severe weather event, but you are encouraged to call the SKYWARN Hotline 800-808-0006 with critical reports .

## Semi-annual MICON-DTX ARES EC Meeting

In the spring and fall, DTX will host a semi-annual MICON-DTX Meeting. This will include all MICON-DTX staff, DEC's from the CWA, and a representative from each county SKYWARN/ARES program. Due to limited seating in the conference room, only one representative from each of the 17 county CWA can attend. Conference call access is provided for those unable to attend in-person. The WCM will review the year's severe weather events and some predictions for the upcoming season. An invite from the WCM is sent out several weeks prior and a reminder the week of the meeting to each county EMC and SKYWARN/ARES EC.

Each county is expected to give an update on their respective SKYWARN/ARES program.

# Frequently Asked Questions

- **I never received an alert a MICON-DTX net was activated**

*As with any technology - failure is a possibility. Each county SKYWARN/ARES EC is expected to stay up to date on all weather events/developments in their respected county. MICON-DTX does not activate local SKYWARN /ARES Programs. See county responsibilities*

- **A tornado touched down in my county, but a MICON-DTX Net was never activated**

*Circumstances may arise where no Severe Weather Watch was issued but localized systems may develop within the DTX CWA. Small-scale localized severe weather events may not warrant MICON-DTX Activation. See Activation Guidelines*

- **A MICON-DTX net was activated, but no watch was issued**

*If widespread, unorganized severe weather is expected within the CWA, the WCM may activate MICON-DTX. See Activation Guidelines*

- **I cannot get into MICON-DTX**

*Each county is expected to ensure RF connectivity into the MICON-DTX net, however Central Michigan Emergency Network is always looking for opportunities to grow and advance the network of repeaters. If you have an available site or grant opportunity - contact Fred Moses, W8FSM to see how CMEN could help*

- **I am a newly appointed ARES EC, how do I get additional training for me and my group**

*MICON does not provide additional training or general SKYWARN/ARES training, however District 1 DEC Tim Crane, WM8A is a MICON-DTX Operator and willing to travel within the DTX CWA to do this type of training. Contact WM8A for more information at timwm8a@gmail.com*

## Additional Information

- \* ares-mi.org
- \* w8cmn.net
- \* Skywarn.org
- \* Arrl.org

### Documentation

Michigan ARPSC Guidelines	<a href="http://ares-mi.org/downloads/ARPSC_Mich_Guidelines.pdf">http://ares-mi.org/downloads/ARPSC_Mich_Guidelines.pdf</a>
Emergency Coordinator Manual	<a href="http://www.arrl.org/emergency-coordinator">http://www.arrl.org/emergency-coordinator</a>
MICON-DTX Manual (where this document lives)	<a href="http://ares-mi.org/downloads/MICON-DTX_Manual">http://ares-mi.org/downloads/MICON-DTX_Manual</a>

### Acknowledgments

SKYWARN<sup>®</sup> is a registered trademark of the National Oceanic and Atmospheric Administration

ARES<sup>®</sup> is a registered trademark of the American Radio Relay League