



Mercer County ARES/RACES

by John Pugh, WJ3P

Mercer County Emergency Coordinator



ARRL *The national association for
AMATEUR RADIO*

Why are we here?

The main reason why the FCC lets hams play with over \$10 billion worth of radio spectrum instead of selling it off to commercial interests is because we are prepared to supply Emergency Communications when needed.

*Explain how the ARRL organizes local ham radio operators to **provide emergency communications services** in our area, in cooperation with the Mercer County Office of Emergency Management, the American Red Cross, and the National Weather Service.*

How can you be prepared and get involved with such efforts.



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ARES/RACES

- Amateur Radio Emergency Service (ARES).
 - Organization that supports other agencies.
 - Local and regional in scope, affiliated with the ARRL
- Radio Amateur Civil Emergency Service (RACES)
 - FCC Radio Service that might replace regular Amateur Radio Service in a National Emergency
 - Requires pre-registration with government Emergency agency

Mercer County ARES/RACES.

- One combined organization.
- Supports Mercer County OEM, NWS Skywarn, American Red Cross.
- Headed by ARRL County Emergency Coordinator (EC), who is also designated the County RACES Officer by Mercer County OEM.
- Assistant EC's for EOC, Red Cross & Skywarn
- County EC reports to ARRL Section EC → to the Section Manager → to ARRL HQ.
- Data is gathered to support our operations to the FCC



Mercer County ARES/RACES.

- We operate two fixed stations:
 - W2MER at Dempster Fire Academy
 - N2ARC at American Red Cross, Princeton
- ARES members must become familiar with the operation of each station!
- Station equipment testing and member training takes place monthly
 - on the last Monday night of each month (except May and December)



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Nets

- Primary means of operation for emergency communications
- Social Nets – Pepper Net, club nets
- Traffic Nets – Pass Radiogram messages, a key skill for emergency operators
- Training Nets - Periodic testing of equipment, pass news and other information

Mercer ARES net Thursday before the last Monday of the month, W2MER 147.105/R



Nets

- Emergency and Public Service Nets – The real thing!
 - Support Operations to help people
 - Activation when called upon by our served agencies
 - Frequently we activate Skywarn Nets on the N2RE 146.460/R (David Sarnoff Radio Club)
 - Support events as Walk-a-thon, parades, triathlon, etc. (usually club functions)

Net Structure

- Net Control Station (NCS).
 - Traffic cop that controls the flow of information.
- Directed Nets
 - Check-in and check-out procedures.
- Communications discipline is vital.
 - Learn and follow procedures.
 - Speak only when directed, and only to whom directed.
 - Follow through with your commitments.



Emergency Communications

- Our purpose is to pass messages and information
- “Traffic” refers to messages that are relayed via ham radio.
- National Traffic System (NTS) uses a formal structure to ensure accuracy –
 - Procedures
 - Accountability





The American Radio Relay League
RADIOGRAM
 Via Amateur Radio

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
207	P	E	W1FN	10	LEBANON NH	1200 EST	JAN 4

To:

MARK DOE
 RED CROSS DISASTER OFFICE
 123 MAIN ST
 RUTLAND VT 05701

Telephone Number: 802-555-1212

This Radio Message was received at:

Amateur Station _____ Date _____
 Name _____
 Street Address _____
 City, State, Zip _____

NEED MORE COTS AND SANITATION
KITS AT ALL FIVE SHELTERS

JOAN SMITH SHELTER MANAGER

RBC'D	From	Date	Time	SENT	To	Date	Time
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A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a 'Ham' Operator can accept no compensation. A return message may be filed with the 'Ham' delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of QST Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.



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Tactical Communications

- Less formal than radiogram or ICS messages, sometimes called an open net
- Tactical Call Signs are used
 - Facilitate communications.
 - Location or function specific: “EOC” “Shelter” “Main St. Command”
 - Transcend operator changes.
- FCC ID rules still apply.



Tactical Communications

- Initiate the conversation with tactical call; end the conversation with FCC callsign
- Role play: EOC is W2MER and ARES member WJ3P is at Shelter 1
 - “EOC, this is Shelter 1, Over”
 - “Shelter 1, this is EOC, Over”
 - “EOC, Shelter 1 needs 50 more cots, Over”
 - “Shelter 1, expect 50 cots in 30 minutes, Over”
 - “EOC, thanks! Shelter 1, WJ3P, Out”
 - “W2MER, Out”



Emergency Equipment

- Most activations require you to be deployed to an EOC, shelter, or other location where comms are needed.
 - Skywarn is an exception, you can stay at home!
- If you are not assigned to a fixed station, you might be using your own equipment.

Emergency Equipment

- Develop a personal “Go-kit”
 - Ham radio equipment, typically two meters.
 - HT, mobile, or portable
 - Emergency power sources, extra batteries
 - Personal survival supplies and equipment.
- ARRL Go-Kit Checklist
- Mercer ARES Reference Card



EMCOMM Tips

- Don't become part of the problem!
 - Know your abilities and limitations-keep yourself safe.
- You are a communicator, not a decision or policy maker!
 - Don't give out unauthorized information or opinions
- Follow radio discipline and net procedures – avoid idle chatter
- Protect personal information; ham radio communications is a “party line”, anyone can be listening.



EMCOMM Training

- If you are going to participate in ARES/RACES, get training.
- Info at ARRL web site (<http://www.arrl.org/ares>)
 - ARRL Field Service Manual
 - ARES Manual
- Take EMMCOMM courses.
 - FEMA Training courses at **training.fema.gov/EMIweb/IS/**
 - ICS-100 “Intro to Incident Command System”
 - IS-700 “National Incident Management System (NIMS), An Introduction”
 - ARRL EMMCOMM Courses 1, 2, and 3.



EMCOMM Training

- Actively participate in activities.
 - Register with your ARRL County Emergency Coordinator.
 - Participate in Public Service activities.
 - Attend community meetings and get involved in your community.



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Mercer County ARES/RACES

- *Questions and Answers*
- ***YOUR NEXT STEPS:***
 - Complete ARES Registration Form
 - Pick up handouts:
 - Reference Card
 - Go-kit Checklist
 - ***Join us monthly on our Thursday net and at our Monday station tests.***





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