



**NWS Wakefield SKYWARN
Amateur Radio Support Team
WX4AKQ Wakefield, VA**

2011 Net Control Operator Training Presentation

Estimated Run Time: 120 Minutes

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Maintained By: Steve Crow KG4PEQ



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Welcome

NWS Wakefield, VA
**SKYWARN Net Control Operator
Training Program**

2011 Edition

Training Overview

- Who We Are – Team Overview
- Training Prerequisites
- Activation Forecasting
- Calling a Net
- Report Quality
- Logging & Relaying Reports
- Working at Wakefield

Team Overview

**Team Overview:
Who We Are**

Team Overview

- 7-Person Leadership Team
- 58 Net Control Operators
- 3000+ Trained Spottes
- Serving 66 Counties & Cities
- 800 Reports since June 2008

Team Overview: Leadership

SKYWARN Program Manager

Bill Sammler

Warning Coordination Meteorologist (WCM)
NWS WFO Wakefield, VA

SKYWARN Focal Point

Mike Montefusco

Forecaster
NWS WFO Wakefield, VA

Team Overview: Leadership

Amateur Radio Coordinator

Steve Crow KG4PEQ

Area Managers

Carl Biggs N2CLB – Richmond/Southern VA

Jim Tuttle N5MDL – Williamsburg VA

Steve Molo KI4KWR – Southeast VA

Jim Bielski KJ4FIN – Elizabeth City NC

Team Overview: Support

- HF Net Manager
- VHF Subnet Managers
 - Area 3: Gloucester and Hampton
 - Area 4: Culpeper
 - Area 5: Virginia Beach and Smithfield
- Responders
- SKYWARN Tech Team
- SKYWARN VE Team

Team Overview: Infrastructure

- VHF and UHF Repeaters
- IRLP Reflector 9211
- Echolink Node 491248 / *WX4AKQ*
- HF Phone
- Winlink, Packet, APRS
- Internet Logging & Message Relay
- EMWIN Ingest System

Team Overview: Partnerships

- Richmond Amateur Telecomm. Society (RATS)
- Western Tidewater Radio Association
- Portsmouth ARES
- Lake Country Amateur Radio Service
- The Albemarle Amateur Radio Society
- Culpeper Amateur Radio Association
- Williamsburg Amateur Radio Club
- ARES/RACES of Virginia
- VDEM-ARCA (N4VEM)

Team Overview: NCO's

The most important role in our organization...

YOU – Net Control Operators!

Training Prerequisites

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Training Prerequisites: NCO's

- Technician Class License or higher
- Valid SKYWARN Spotter Certification
- **You do not need prior Net Control experience!**

Training Prerequisites: WX4AKQ

- General or higher license
- Valid SKYWARN Spotter Certification
- SKYWARN Net Control experience
- FEMA NIMS/ICS 100, 200, 700, 800

Activation Forecasting

Activation Forecasting

Forecasting Tools We Use

- SPC Convective Outlooks (SWO)
- SPC Mesoscale Discussions (MCD)
- HPC Quantitative Precipitation Forecasts (QPF)
- Hazardous Weather Outlook (HWO)
- Area Forecast Discussion (AFD)
- Tropical Weather Discussion (TWD)
- Discussions with NWS Employees
- Experience and Instinct

Forecasting Tools YOU Will Use

- Hazardous Weather Outlook – Spotter Information Statement
- SKYWARN Risk Assessment Bulletin – Discussion and Amateur Radio Action Message
- Communications from Area Manager
- Advanced users – SPC Day 1 Convective Outlooks, Day 2 Convectives, Models

Hazardous Weather Outlook

- Zonal product issued every 4-6 hours
- Provides plain-language recap of upcoming weather threats – short term, near term, and long term
- Includes Spotter Information Statement – valid only during the next 4-6 hours

Risk Assessments

- Issued on an as-needed basis
- May be valid for 2 hours or 7 days
- Internal product based on analysis of all available weather data
- Includes Spotter Information Statement and Amateur Radio Action Message
- Delivered automatically via e-mail and posted to Ops Portal

Activation Triggers

- Daytime Criteria – 6 AM to 10 PM
- Nighttime Criteria – 10 PM to 6 AM
- WX4AKQ has its own activation criteria and quiet hours (11 PM – 5 AM)

Daytime Activation Triggers

- Certain Severe Thunderstorm & Tornado Watches – Mandatory if PDS Tornado Watch
- Any Tornado Warning
- Winter weather event capable of icing or otherwise causing hazardous travel conditions
- Tropical weather events
- Upon request from NWS
- At local discretion

Nighttime Activation Triggers

- More restrictive Watch criteria – PDS Tornado Watch still a mandatory activation
- Tropical events with significant overnight impact
- Upon request from NWS
- At local discretion

The Activation

- Amateur Radio Coordinator, Area Manager, or NWS hits the big red button
- Activation notification sent via e-mail & EMWIN
- Respond to Area Manager ASAP if available
- Area Manager makes phone calls to staff nets
- Neighboring Area Managers fill in the gaps
- Our activation criteria & status is not reflected in the Hazardous Weather Outlook.

Calling a Net

Calling a Net

Pre-Net Procedures

- Radio check
- Repeater check
- Computer check
- Supply check
- Check-in with Area Manager
- Check on backup NCO
- Secure the frequency

Pre-Net Problems

- Conflict with another net/agency
- Repeater issues
- Internet connectivity issues
- What else could go wrong?

Net Scripts

- Convective Informal Nets
- Convective Directed Nets
- Winter Informal Nets
- Using your own scripts

Managing Check-Ins

- Taking Check-Ins
- Check-Outs and Roll Calls
- Alerting individual stations to threats
- Welfare checks

Report Quality

Identifying Good & Bad Reports

Improving Report Quality

Report Quality

- Some reports are perfect on the first try.
- Most require some additional probing to develop into a full report.
- Net Controllers are responsible for asking questions to get a full understanding of what's being reported and develop a complete report.

Good or Bad Report?

"I'm on I-64 in Richmond and I think there's a tornado off to my right. Really dark clouds over there and lots of wind!"

Elements of a Good Report

- Description of the event, including quantitative measurements or estimates
- Location – as exact as possible, coordinates if available (decimal format)
- Time – as precise as possible, estimates OK for past events
- Identification – Who filed the report? Call sign, Spotter ID, or contact phone number, etc.

Good or Bad Report?

"The road's blocked right where Luck's Farm used to be."

Good or Bad Report?

"We've got marble-size hail here. I'm about two miles from the old fire tower."

Good or Bad Report?

"We have about two inches of snow here."

Good or Bad Report?

"It's raining awful hard here."

Good or Bad Report?

"I'm at the intersection of Route 360 and Route 30 in King William County. I see a large rotating wall cloud approaching from the west. The tree line is pretty high, so I can't tell if it's on the ground, but there are leaves falling from the sky. My Spotter ID is VHVR024."

Good Report

- Description: Large rotating wall cloud, debris falling from sky.
- Location: Rt 360 & Rt 30 in King William Co.
- Time: Right now.
- Identification: Spotter VHVR024.

Good Reports...

- Contain all four elements – description, location, time, and identification.
- Avoid speculation and are free of exaggeration.
- Will make sense to an NWS employee unfamiliar with the area.
- Fit the scenario.

Dealing with Bad Reports

- Asking probing questions
- Flagging reports
- Repeat offenders

Logging and Relaying Reports

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- Paper Log Sheets
- Accessing Ops Portal & RMS
- Direct Entry into SKYWARN RMS
- Manual Relay
- Automatic Relay
- Follow-Up Reports

Working at Wakefield

Working at Wakefield

Working at Wakefield

- Guest Operators & Special Events
- Facility Tours
- Responder Training

Any Questions?

SKYWARN Training Portal

<http://training.wx4akq.org>

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