WEST CENTRAL FLORIDA

SKYWARN GROUP

OPERATING PROTOCOL

Revised June, 2000

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INTRODUCTION

This document has been prepared by the National Weather Service – Ruskin, Florida and the West Central Florida SKYWARN Group to provide a basis of operation and a uniform operating protocol for County and Regional SKYWARN operations.

The SKYWARN program operates to provide the National Weather Service with accurate and timely information on severe weather activity. The West Central Florida SKYWARN Group and the Amateur Radio community in the Ruskin Central Warning Area support the SKYWARN program with spotter reports and communications to facilitate the delivery of this information.

The National Weather Service will call on the West Central Florida SKYWARN Group and the hundreds of trained Amateur Radio spotters in the region when severe weather threatens. This may include systems that have the potential to generate severe thunderstorms, tornadoes and flooding. Special consideration will be made for Tropical Weather events, including Tropical Storms and Hurricanes.

During Tropical Weather events, the WX4TBW Amateur Radio Station at the NWSFO-Ruskin will serve these purposes:

- Provide emergency input from the field regarding scope and depth of hurricane related damage, loss of vital resources and infrastructure. This backup communication would allow decision makers located outside the affected area to adequately assess the severity of the situation and expeditiously send assistance into the area as quickly as possible without delay or question.

- Provide backup communications to the National Hurricane Center and the outside world via Amateur Radio to relay critical information on storm damage and the need for assistance.

- Supplement wind/rainfall/surge reports to the current automated reporting network to more accurately gage the intensity of the storm and better forecast its downstream motion and strength.

- Provide follow-up damage reports to help expedite support to those areas in the greatest need and assess storm related wind phenomena.

It is understood by the National Weather Service and the Amateur Radio operators who support the SKYWARN program that participation undertaken within the following guidelines:

- Safety, security and survivability of oneself, family and home comes first.
- Each operator's obligation to their job responsibility comes first.
- All reports are voluntary.
- Many reports of wind/rain, particularly during Tropical Events, will come from automated stations such as those on APRS network.

SEVERE WEATHER & SKYWARN NET TRIGGER

The National Weather Service defines Severe Weather by the following criteria:

- Winds in excess of 58 MPH
- Hail that is dime size or larger
- Flooding
- Rainfall of two inches or more in a one hour period
- Funnel clouds and/or tornadoes

These events and/or the threat of these events can trigger the activation of a County SKYWARN Net and the activation of the WEST CENTRAL FLORIDA REGIONAL SKYWARN NET. In addition, a SKYWARN Net and the West Central Florida Regional SKYWARN Net can be activated on the request of the Warning Coordination Meteorologist or his/her designee at the National Weather Service in Ruskin, FL.

NET ACTIVATION

All West Central Florida County Coordinators are urged to use the following procedures to conduct a SKYWARN Net:

A Net will be called by the County SKYWARN Coordinator or designated Net Control Station. A Net Control Station should be a fixed base station capable of:

- Transmitting a full quieting signal into the Local SKYWARN repeater
- Operating on two meter and 70 cm frequencies
- Capable of running on Emergency Power should the storm or other event cause the loss of commercial power
- Have immediate access to a wired or wireless telephone

All SKYWARN Nets should operate with an Alternate Net Control Station capable of running the Net in the event the Primary Net Control Station must abandon operations or rendered disfunctional. Alternate Net Control Stations should meet all the criteria listed above.

It is highly desirable for each county to have operational one or more APRS digital stations capable of operating on 144.390 MHz and/or the Internet. The APRS station can be operated by the Primary or Alternate Net Control Station or a designated APRS liaison station.

Upon activation of a County SKYWARN Net, the Net Control Station should:

- Identify his/her station as the Primary Net Control Station
- Ask for a volunteer to serve as Alternate Net Control Station
- State the reason for the SKYWARN Net. This may include transmission of pertinent Watch/Warning information received from the National Weather Service in Ruskin, FL.
- Declare the NET STATUS as follows:

- **CONDITION YELLOW**
  - The NCS is taking check-ins which should include the following information:
    - Station Callsign
    - SKYWARN Identification Number
    - Current Location
    - Any pertinent Weather Information
  - The Primary Net Control Station may choose to operate the Net in either a DIRECTED or INFORMAL manner.
  - The Primary Net Control Station or designated Liaison Station should check-in with the National Weather Service in Ruskin via WX4TBW on the regional 70 cm SKYWARN Voice Net (if it has been activated) or via the SKYWARN HOTLINE (1-800-282-1228). An APRS message should also be sent to WX4TBW advising of Net Activation and status.

- **CONDITION RED**
  - The Primary Net Control Station will UPGRADE the status of the Net to this level when Severe Weather is imminent or has been spotting in the area. The Net will become a fully DIRECTED NET at this time. **The issuance of any SEVERE WEATHER WARNING will automatically trigger a CONDITION RED**!
  - The Net Control Station will direct ALL STATIONS to limit their traffic on the frequency to SEVERE WEATHER REPORTS and DAMAGE only!
  - Reports to the Net Control Station should utilize this format:
    - SKYWARN Identification Number
    - Upon acknowledgement from the Net Control Station, the reporting station should transmit the nature of the SEVERE WEATHER CONDITION being reported and any pertinent detail information to the Net Control Station.
    - The Reporting station should wait for acknowledgement of the report by the Net Control Station. All other stations should STANDBY.
    - Upon acknowledgement of the report, both the Reporting Station and the Net Control Station should end the transmission with their respective callsigns.
    - The Net Control Station, upon receipt of the Severe Weather Report may do one or more of the following:
      - Pass the report to WX4TBW via the 70 cm Voice Net
      - Contact the National Weather Service in Ruskin via the SKYWARN HOTLINE
      - Send a Severe Weather message via APRS to WX4TBW.
      - Post the appropriate Severe Weather Object via APRS at the location of the Severe Weather Report.
      - All Severe Weather Reports should contain the following information:
        - Your Callsign
        - Your County
        - Location of the Severe Weather being reported
        - Nature of Severe Weather being reported
        - Any other pertinent details including direction of travel
        - Spotter ID of the station reporting the Severe Weather
        - Time the report was first filed with the Net Control Station

    - **DAMAGE REPORTS**
      - Damage reports should contain the following information.

- SPOTTER ID
- LOCATION OF DAMAGE
- DESCRIPTION OF DAMAGE
- ANY INJURIES OR DEATHS
- THE TIME THE DAMAGE OCCURRED

- Damage Reports should be filed as soon after the damage occurs by the Net Control Station or designated alternative(s) with the NWS. Damage Reports can be filed using any and all available means. Filing Damage Reports via APRS to WX4TBW provides the NWS with a Hard Copy of the information.

  Damage reports should be filed when the damage has been observed first hand by a trained spotter. Reports from news organizations, public service agencies via scanner or other non-confirmed reports should not be relayed to the NWS from the SKYWARN Network.

TROPICAL EVENTS

- The West Central Florida SKYWARN Group and affected County SKYWARN organizations will closely monitor ALL TROPICAL EVENTS that could impact the region. All County SKYWARN organizations are urged to prepare for ACTIVATION if the projected 72 hour storm track is expected to impact the region.
- The West Central Florida SKYWARN Group and designated County SKYWARN organizations will activate upon a request to do so by the warning Coordination Meteorologist at the NWS – Ruskin or his/her designee. All County SKYWARN Net Control Stations will be requested to activate a STAND-BY NET in **CONDITION BLUE.** The County SKYWARN Net Control operators will monitor the West Central Florida Regional SKYWARN Net and notify WX4TBW of their status. Should Net Control responsibilities in any county be passed to another station, the new Net Control operator will advise WX4TBW of the status change.
- WX4TBW will be activated upon the activation of a CONDITION BLUE Net and will monitor storm activity from the National Weather Service office in Ruskin. A minimum of two (2) operators will man WX4TBW for the duration of the Tropical Event.
  - WX4TBW operators will relay all pertinent Bulletins and Advisories to the County SKYWARN Net Control Stations via the WCFSKYWARN 70 cm Net.
  - WX4TBW operators will log of all incoming transmissions, including checkins, severe weather reports, injury and death reports and storm related damage reports.
  - The WX4TBW operators will be responsible for Station Identification every 10 minutes per the rules of Part 97. In addition, a short Tropical Event message will be transmitted every fifteen mintues to advise all stations on the frequencies the Net has been established and will continue operations until further notice.
- WX4TBW will upgrade the status of the Net to Condition YELLOW and/or Condition RED per the guidelines already published.

In the event of a Tropical Storm, Hurricane or other disaster requiring the activation of ARES/ACS/RACES, alternate radio frequencies and resources may be designated by the ARRL Section Manager or the Section Emergency

Coordinator in the affected area or the local ARRL County Emergency Coordinator or the County Emergency Radio Officer to provide government and relief agencies necessary support communications.

THE WCF SKYWARN 70cm REGIONAL NET

The West Central Florida SKYWARN Regional 70 cm Net can be activated by any County SKYWARN Net Control Station as well as the WX4TBW operator. The Regional Net is designed to support County to County Net connectivity and provide a direct link to the WX4TBW Voice Station at the NWSFO-Ruskin. All Net Control Stations activating the WCF Regional Net should observe the Net Protocol previously outlined in this document.

The 70 cm WCF SKYWARN Net will utilize the facilities listed below. Counties in the Ruskin Central Warning Area should check in on the repeater as it is assigned:

- **444.425 PL 103.5**
  Levy Co.
  Citrus Co.
  Sumter Co.
  Hernando Co.
  Pasco Co.
  Pinellas Co.
  Hillsborough Co.

- **444.775 PL 127.3**
  Highlands Co.
  Hardee Co.
  Polk Co.
  Hillsborough Co. (secondary)

- **443.225 PL 100.0**
  Manatee Co.
  Sarasota Co.
  Pinellas Co.
- **147.255 (Proposed)**
  Charlotte Co.
  DeSoto Co.
  Lee Co.

The regional SKYWARN Net will be utilized for County-to-County and County-to-NWS Ruskin traffic only. WX4TBW will monitor the Regional Net whenever it is activated! All spotter reports should be made to the LOCAL SKYWARN Net in each county UNLESS it has not been activated or has been disabled by severe weather.

WX4TBW Activation

The WX4TBW Voice Station at the NWSFO-Ruskin will be activated by one of the following events:

- **Tornado/Severe Thunrderstorm Watch** is in effect for one or more counties within the NWS-Ruskin County Warning Area (CWA).
- **Hurricane/Tropical Storm Warning** is in effect for one or more counties within the NWS-Ruskin CWA.
- At the request of the Warning Coordination Meteorologist or his/her designee at the NWS in Ruskin.

Upon activation of WX4TBW at the National Weather Service Forecast Office in Ruskin, the station operator will activate the 70 cm Regional Linked Network. All county SKYWARN Net Control Stations will check-in and monitor the 70 cm Net.

APRS OPERATIONS

It is recommended each County SKYWARN organization operate a comprehensive APRS station during all SKYWARN Net operations. This station should be used to:

- Convey Severe Weather Reports to WX4TBW at the NWSFO-Ruskin
- Posts plots of Severe Storm and Damage Activity
- Originate/Relay Severe Weather Watch/Warning Information to other Amateur Radio operators. This includes the manual posting of Watch and Warning bulletins as received from the National Weather Service-Ruskin via EMWIN, NOAA Weather Radio and the NOAA Interactive Weather Information Network on the Internet.

It will be the responsibility of the WX4TBW operator(s) (when the station is manned) to post all Watch and Warning Bulletins issued by the NWS-Ruskin staff in a timely manner. This will be done using the NWS Warning Facilities provided within the WinAPRS software used to operate the WX4TBW station.

In order to maintain a high standard of accuracy, Watch and Warning information, and weather-event icons will be transmitted over the APRS Net by the following operators, in order of precedence:

1. WX4TBW (when manned)
2. Automated EMWIN transmission station(s)
3. County SKYWARN Coordinator
4. Specifically designated APRS operators

Watch/Warning/Advisory information will be obtained from official NWS sources including EMWIN, IWIN and NOAA Weather Radio.

IWIN Source pages include:

http://iwin.nws.noaa.gov/iwin/fl/allwarnings.html

http://iwin.nws.noaa.gov/iwin/fl/special.html

The WX4TBW APRS Station will maintain connectivity via 144.390 MHz on 2 meters and via a TCP/IP connection on the Internet. During Tropical Events, the WX4TBW APRS station will also IGATE all data received via the 2 meters to the Internet.

CONTINGENCY PLAN

In the event the WCF SKYWARN 70 cm linked Repeater System fails, WX4TBW will institute a FALLBACK COMMUNICATIONS PLAN. The WX4TBW operator will contact as many County SKYWARN Net Control Stations as possible by voice on their designated Local SKYWARN frequency. WX4TBW will also attempt to contact each county via APRS to advise of the Net Status Change.

In the event of a catastrophic failure of all voice repeater communications, WX4TBW will monitor 147.500 MHz and 446.600 MHz simplex for voice reports. WX4TBW will continue to monitor 144.390 MHz and the Internet for APRS traffic.

As additional facilities become available at NWSFO-Ruskin, additional bands and frequencies will be added to this plan and all SKYWARN Coordinators will be advised of any change.

WEST CENTRAL FLORIDA SKYWARN GROUP
COUNTY NETS

COUNTY	PRI NET	SEC NET	COUNTY COORDINATOR
CHARLOTTE	147.255 NO PL		Jack Kein – KE4IM Ke2je@sunline.net
CITRUS	146.955 / NO PL		Bob Robinson – KF4BXH coco22@xtalwind.net
DESOTO	147.075 / NO PL		Doug Christ - KN4YT kn4yt@cyberstreet.com
HARDEE			
HERNANDO	146.715 / NO PL	146.625 / NO PL	Jerry Green - KC4GGU kc4ggu@innet.com
HIGHLANDS	147.270 /NO PL	147.045 / NO PL	Phyllis Dibble - KD4CGQ dibble@strato.net
HILLSBOROUGH	147.105 / NO PL		Steve Wallace-KE4SQR ke4sqr@fl.freei.net
LEE			
LEVY			
MANATEE	147.045 / NO PL	147.045 Simplex	Helen Stroup-KE4LWN ke4lwn@arrl.net
PASCO	146.640 / NO PL		Ron Wright - N9EE n9ee@akos.net
PINELLAS	145.170 / PL 156.7 442.800 / PL 156.7	146.970 / PL 103.5	Jack Belich - WB4PBF jbelich@sptimes.com
POLK	146.655 / PL 127.3		Charles Shipman - N4OBT chasroy@gte.net
SARASOTA	146.73 / No PL		Glenn Alford - KL7HX galvord@flnet.com
SUMTER			

NET OPEN

This is ***(NCS CALLSIGN)***…NET CONTROL STATION ACTIVATING THE WEST CENTRAL FLORIDA SKYWARN NET *(OR COUNTY SKYWARN NET)*.

THIS NET HAS BEEN ACTIVATED AT THE REQUEST OF THE NATIONAL WEATHER SERVICE IN RUSKIN, FLORIDA TO PROVIDE SEVERE WEATHER REPORTS AND OTHER INFORMATION FROM THE WEST CENTRAL FLORIDA REGION.

(*ENTER NWS WATCH/WARNING INFORMATION HERE*)

THIS NET REQUIRES AN ALTERNATE NET CONTROL STATION IN THE EVENT THIS STATION CANNOT CONTINUE AS PRIMARY NET CONTROL. MAY I HAVE A VOLUNTEER PLEASE.

***(AltNCS CALLSIGN)*** WILL SERVE AS ALTERNATE NET CONTROL STATION.

THIS NET IS NOW IN CONDITION _____. ALL SKYWARN STATIONS, PLEASE CHECKIN WITH ***__(NET CONTROL STATION)***_ AT THIS TIME.

NET INTERMEDIATE STATEMENT

THIS IS ***CALLSIGN*** . . .FOR THE WEST CENTRAL FLORIDA SKYWARN NET (*OR COUNTY SKYWARN NET*).

THE NATIONAL WEATHER SERVICES CONTINUES THE

(SPECIFY WATCH OR WARNING INFORMATION)

UNTIL ____ (AM/PM).

TNIS NET IS CURRENTLY IN CONDITION_____. WE ASK THAT ALL STATIONS ON THIS FREQUENCY DIRECT THEIR TRAFFIC THROUGH NET CONTROL UNTIL FURTHER NOTICE.

(*CALLSIGN*) . . WEST CENTRAL FLORIDA SKYWARN NET STANDING BY AT (*CURRENT TIME*)

NET CLOSE

THIS IS (CALLSIGN) . . .NET CONTROL STATION FOR THE WEST CENTRAL FLORIDA SKYWARN NET (OR COUNTY SKYWARN NET).

THE THREAT OF SEVERE WEATHER HAS NOW PASSED. WE ARE NOW SECURING THIS NET AT THIS TIME.

WE WOULD LIKE TO THANK ALL AMATEUR RADIO OPERATORS FOR THEIR PARTICIPATION IN THIS SKYWARN NET. WE WOULD ALSO LIKE TO THANK FOR OWNERS AND OPERATORS OF THIS REPEATER FOR THE USE OF THIS FACILITY. AND WE WOULD LIKE TO THANK ALL OTHER AMATEUR RADIO OPERATORS FOR THEIR COOPERATION PROVIDING THIS NET WITH A CLEAR FREQUENCY TO CONDUCT THESE SKYWARN NET OPERATIONS.

THIS IS (***CALLSIGN***) NOW SECURING THIS SKYWARN NET AT (*CURRENT TIME*) AND RETURNING THIS FREQUENCY TO NORMAL AMATEUR USE. (***CALLSIGN***) CLEAR.

APRS PROTOCOLS

REPORTING FORMAT

All APRS operators should use the Reporting Format already active within *WinAPRS* and *MacAPRS*. This format is as follows:

- Address all messages to WX4TBW
- Messages will begin with the ST-COUNTY-CITY of the report. This will be followed by the Severe Weather Event being reported, any pertinent detail and the SKYWARN Spotter ID of the party reporting the Severe Weather Condition. This may be the APRS operator is this is where the report originates.

A sample SEVERE WEATHER MESSAGE might look like this example:

FL-PIN-SEMINOLE WIND Gust clocked at 65 MPH at 120 St & 92 Ave PIN147

FL-PIN-SEMINOLE DAMAGE Building destroyed No injuries 9231 120 St. PIN147

FL-SAR=SARASOTA FLD Sea Wall Breached on Gulf Blvd. Water 1 ft deep. SAR065A