



SKYWARN
Spotter Reference Guide
Hood County SKYWARN

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1. INTRODUCTION

1.1 SKYWARN

SKYWARN is the National Weather Service (NWS) national program of trained volunteer severe weather spotters. SKYWARN volunteers support their local community and government by providing the NWS with timely and accurate severe weather and flood reports. These reports, when integrated with modern NWS technology, are used to inform communities of the proper actions to take as severe weather threatens. SKYWARN, formed in the early 1970's, has historically provided critical severe weather information to the NWS in time to get the appropriate warnings issued. Thus, the key focus of the SKYWARN program is to save lives and property through the use of the observations and reports of trained volunteers.

SKYWARN is NOT a membership organization. It is a true volunteer public service whose participation is open to all who wish to participate. All reports of severe weather through the SKYWARN system are appreciated.

As stated above, SKYWARN is open to all. However, in the context of our group, we are all Amateur Radio Operators.

1.2 Hood County SKYWARN

The National Weather Service leaves the leadership of the individual SKYWARN groups to the local emergency management. In Hood County, the sheriff is the leadership of the SKYWARN team.

2. PURPOSE

2.1 The purpose of this plan is to provide a written guide containing the minimum information that would be needed in a SKYWARN activation. Every activation is different, flexibility to provide an adequate response to each is a necessity.

2.2 The primary responsibility of the Hood County SKYWARN is to furnish storm spotting support during instances of severe weather or whenever spotters are required to monitor local weather conditions.

2.3 All drills, training and instruction shall be performed in order to ensure the ability to respond quickly and to provide effective spotting information whenever an occasion may arise.

2.4 The following agencies may be served during a spotter activation: National Weather Service, Hood County Sheriff's Office, Hood County Emergency Management and any other agencies requesting assistance from Hood County SKYWARN.

3. PARTICIPATION REQUIREMENTS

3.1 A radio operator shall have a current amateur radio license issued by the Federal Communications Commission. (FCC)

3.2 A storm spotter is asked to take the SKYWARN Basic spotter training class sponsored by



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NWS in the last 24 months.

3.3 Participation in at least 3 training nets each calendar year.

3.4 The Sheriff, Emergency Manager, or SKYWARN Coordinator may add additional participation requirements as deemed necessary or in conjunction with the primary served agency.

4. TRAINING

4.1 Continuing training nets will be conducted on the KE5WEA repeater (frequencies found in section 5.1). For January through November, these training nets occur the third Wednesday of each month. The net begins at 7:30 pm. For December, the nets will be only as needed.

5. ACTIVATING THE PLAN

5.1 Any volunteer of Hood County SKYWARN who for any reason suspects a weather event is about to occur should monitor local repeaters for activity. Local repeaters that should be monitored include:

- *Primary repeater* – KE5WEA: 147.240, PL tone (Tone Squelch) 162.2 and a positive offset
- *Secondary repeater* – W5DNT: 147.020, PL tone 162.2 and a positive offset
- *Tertiary repeater* – KE5WEA: 146.740 PL tone 162.2 and a negative offset
- *Fourth repeater* – K5AAB: 145.470 PL tone 110.9 and a negative offset
- In case of complete repeater outage - Simplex – 147.240 OR 147.020

5.2 If radios are down and local telephone service is available, the Sheriff's office should be notified by telephone at 817-579-3316.

6. SKYWARN ACTIVATION PROCEDURE

6.1 The Sheriff or his representative will send out via phone through the CodeRed system or VHF announcements, alerting SKYWARN volunteers.

6.2 If telephone service is available, the CodeRed pageout system will be activated.

6.3 Upon the awareness or notification that a SKYWARN activation is required, volunteers of the Hood County SKYWARN will check into the Hood County SKYWARN net on the KE5WEA repeater. If the repeater is not functioning, refer to Section 5.1 above for alternate frequencies or as specified during pageout.

6.4 The Coordinator will assume net control or delegate another station as net control station (NCS). Control will be from the location as designated by the Coordinator. This station is designated as an "NCS" and will be extensively utilized during the activation. The NCS stations shall have full emergency power capability with relief operators assigned to ensure continuous operation.

7. DUTIES OF NCS



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7.1 The Hood County SKYWARN Net will be called to order by the NCS.

7.2 Volunteers of Hood County SKYWARN will be checked into the net from their mobile and home stations and wait for further instructions.

7.3 The NCS will advise the volunteers on the current weather situation, urgent spotter needs and if minimum reporting criteria will be required.

7.4 The NCS will note the location of all spotters to ensure that their safety is looked after regarding the track of any storm activity.

8. OPERATIONS

8.1 A list shall be maintained of all stations checking in with their callsign and location.

8.2 NCS will call for the National Weather Service to ensure that they are on the frequency.

8.3 A log of all reports received shall be kept and include the callsign, location and time of report as well as the reported observation.

8.4 Any weather reports that meet or exceed NWS minimums will be relayed to the NWS.

8.5 Any situation that is a threat to public safety shall also be reported the Hood County Sheriff's Office.

8.6 Stations with a report will call the NCS with their callsign and wait to be acknowledged by net control then they will give their report.

8.7 Stations do not transmit unless invited to do so by net control.

The only exception to this is for a station having EMERGENCY traffic.

8.8 If a station needs to leave the net prior to the completion, they will call net control and advise that they are standing down or stepping away for a period of time.

8.9 During times of imminent threat (Severe Thunderstorm or Tornado Warning) no reports shall be given that are below NWS minimum reporting criteria.

8.10 As mobile stations change location, please notify NCS of your new location.

8.11 Hold all non-life-threatening damage reports until after the weather threat is cleared from the area.

8.12 Upon completion of the net, all stationary stations will be considered stood down and NCS will call for each mobile station to make sure that they are secure.

Please see section 12 for detailed net operating procedures.

9. MINIMUM REPORTING CRITERIA

9.1 Winds 50 mph or greater.



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9.2 Hail 3/4" in diameter or greater. Please estimate in inches.

9.3 Flash flooding: rapidly rising water into areas that do not typically flood. The NWS no longer wants rainfall rates.

9.4 Tornadoes. Observe for rotation. Remain a safe distance away. Please give the following in your report immediately - slowly, methodically, and as brief as possible:

9.4.1 Your location - use cross roads or named roads, approximate distance and direction from any town.

9.4.2 Time of observation

9.4.3 Your distance and direction from the observed report

9.4.4 Define the tornado - "is it a rope, classic or wedge"

9.4.5 Direction the tornado is moving, approximate forward speed

10. POINTS OF CONTACT

***Hood County
Coordinator:***

Kenneth Morrow W5DTX
414 Siesta Ct.
Granbury, TX 76048
Phone: 214-437-4224
e-mail: w5dtx.km@gmail.com

***Hood County
Emergency
Management
Coordinator***

Jay Webster
Hood County Sheriff's Office
400 Deputy Larry Miller Dr.
Granbury, TX 76048
jwebster@co.hood.tx.us

Hood County Sheriff:

Roger Deeds - KE5WEA
Hood County Sheriff's Office
400 Deputy Larry Miller Dr.
Granbury, TX 76048
e-mail: rdeeds@co.hood.tx.us

11. FREQUENCY LIST

11.1 Repeaters

VHF Repeaters:

KE5WEA: 147.240, PL Tone (Tone Squelch) 162.2, Positive offset

W5DNT: 147.020, PL Tone 162.2, Positive offset

KE5WEA: 146.740, PL Tone 162.2, Negative offset

K5AB: 145.470, PL Tone 110.9, Negative offset

11.2 Simplex

VHF Simplex:

Simplex backup for repeater failure: 147.240 or 147.020



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Tactical Simplex:

Tac 1: 146.400

Tac 2: 146.420

Tac 3: 146.480

Tac 4: 147.430

Tac 5: 147.450

National Calling Frequency: 146.520

UHF Simplex:

Tactical Simplex:

Tac 1: 445.510

Tac 2: 445.520

Tac 3: 445.530

Tac 4: 445.580

Tac 5: 445.590

National Calling Frequency: 446.000

11.3 Neighboring SKYWARN Groups

Erath County 145.290, PL Tone 110.9, Negative offset

Johnson County 145.490, PL Tone 88.5, Negative offset

Parker County 147.040, PL Tone 110.9, Positive offset

Palo Pinto County 444.175, PL Tone 114.8, Positive offset

12. NET OPERATING PROCEDURES

12.1 When a net is active, it is important that standard operating procedures are followed to ensure that all traffic flows smoothly and that information is transferred accurately and orderly. New volunteers are encouraged to please check in to as many training nets as possible to get accustomed to how a net operates.

12.2 Typical Net

- a. When the net is called, the NCS will inform the volunteers as to the situation at hand.
- b. Volunteers will be asked to check in and what information to give.
- c. Nets do not use the "This is" and pause check in. When NCS calls for check-ins, simply follow the procedures below and check-in. NCS will deal with doubles accordingly, time is of the essence.
- d. ALWAYS give the call sign phonetically during check in. Use International Radiotelephony Spelling Alphabet. See section 17.
- e. On occasion, the NCS may first ask for check ins from a specific section of the county. If you are not in that area, please stand by until the NCS takes general check ins.
 1. If you are mobile, the NCS will ask for any mobile spotters and place you accordingly.
- f. All nets are directed. Only transmit when called upon by NCS and direct all communication to NCS.
 1. If you have EMERGENCY or PRIORITY traffic, break in at any time with the words "BREAK-BREAK" or "PRIORITY".
 2. If you need to "go direct" with another station on the net, call the NCS and ask permission to do so.
- g. Allow time for the repeater to open when you transmit. A two-count in your head is usually enough. A short delay will keep you from cutting off the front of your



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- transmission.
- h. Allow time for other stations to break in between transmissions. A three-count in your head before you respond is usually enough time to allow another station to transmit if they need to do so. Start this count after the repeater squelch tail closes.
 - i. Always keep your transmissions brief. After transmitting your information, listen for any questions that the NCS or others may have of you.
 - j. If you need to leave the net before its conclusion, call the NCS and ask for permission to do so. Let the NCS know if you are just "stepping away" or if you need to "stand down".
 - k. Upon the conclusion of the net, the NCS will read the closing script, and allow all stations to stand down. The NCS will then take a count of any mobile operators that have not returned to base. The NCS will stay in touch with the mobile spotters until they secure.

13. HAND

13.1 H.A.N.D.

To assist in emergency situations the following report format has been developed that follows the letter of the word HAND.

H – Have: What type of emergency do you have? Is it a fire, accident with injury, medical emergency?

A – At: You are at what location? An address or distance and direction from the nearest major intersection.

N – Need: What assistance do you need? Fire and rescue, Police or Ambulance?

D – Details: What details will help responders? Details are those things that responders need to know before arriving on the scene. For instance, there is a fire; a fuel or chemical spill, are there fumes, are there multiple victims, are there other hazards for which they need to prepare? If there is a Hazardous Materials Placard on a vehicle involved in an accident, the numbers tell the responders the nature of the material involved. **Do not approach vehicles that display Hazardous Material Placards.** If the placard cannot be seen from your location, do not approach the vehicle and stay up wind if possible. Just tell the NCS that there is a Hazardous Materials Placard.

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14. NET SCRIPTS

14.1 SKYWARN Net Activation Script

IS THERE ANY EMERGENCY OR PRIORITY TRAFFIC ON THE FREQUENCY? THIS IS _____.

(PAUSE AND HANDLE RESPONSES)

NOTHING HEARD

THIS IS _____, NET CONTROL STATION FOR THE HOOD COUNTY SKYWARN NET ON THE KE5WEA REPEATER. THIS NET IS CALLED FOR A SKYWARN ACTIVATION. THE NATIONAL WEATHER SERVICE IN FORT WORTH HAS REQUESTED SPOTTER ACTIVATION FOR (STATE TYPE OF WARNING AND DETAILS GIVEN).

THIS IS A DIRECTED NET, WHICH MEANS DO NOT TRANSMIT UNLESS DIRECTED TO DO SO. EMERGENCY OR PRIORITY TRAFFIC MAY BREAK AT ANY TIME BY USING THE WORD "BREAK-BREAK OR PRIORITY", UN-KEY THE MIC AND WAIT TO BE ACKNOWLEDGED. THOSE NOT PARTICIPATING IN THIS NET ARE RESPECTFULLY ASKED TO KEEP THE FREQUENCY CLEAR.

DO I HAVE A BACKUP NET CONTROL ON THE FREQUENCY? PLEASE COME NOW YOU'RE YOUR CALLSIGN.

BREAK

THIS IS _____, NET CONTROL STATION FOR THE HOOD COUNTY SKYWARN NET. I WILL NOW TAKE CHECK-INS. PLEASE CHECK IN WITH YOUR CALLSIGN, PHONETICALLY. SPEAK SLOWLY AND ENUNCIATE SO THAT I CAN GET A GOOD COPY.

PLEASE COME NOW WITH YOUR CALLSIGN:

14.2 SKYWARN NET Closing Script

I AM NOW CLOSING THE HOOD COUNTY SKYWARN NET. I WOULD LIKE TO THANK EACH STATION FOR THEIR PARTICIPATION IN THIS NET. I WOULD ALSO LIKE TO THANK KE5WEA FOR THE USE OF THE REPEATER.

I NOW RETURN THIS REPEATER TO REGULAR AMATEUR USE.

73

_____ IS CLEAR.



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14.3 SKYWARN Training Net Script

IS THIS FREQUENCY IN USE? THIS IS _____.

(PAUSE AND HANDLE RESPONSES)

NOTHING HEARD

IS THERE ANY EMERGENCY OR PRIORITY TRAFFIC ON THE FREQUENCY? THIS IS _____.

(PAUSE AND HANDLE RESPONSES)

NOTHING HEARD

THIS IS _____, NET CONTROL STATION FOR THE HOOD COUNTY SKYWARN TRAINING NET ON THE KE5WEA REPEATER. THIS NET IS CALLED FOR SKYWARN TRAINING ON THE THIRD WEDNESDAY OF EACH MONTH AT 19:30 HOURS.

ANY AND ALL RADIO AMATEURS ARE WELCOME TO CHECK IN. THIS IS A DIRECTED NET, WHICH MEANS DO NOT TRANSMIT UNLESS DIRECTED TO DO SO. EMERGENCY OR PRIORITY TRAFFIC MAY BREAK AT ANY TIME BY USING THE WORD "BREAK-BREAK OR PRIORITY", UNKEY THE MIC AND WAIT TO BE ACKNOWLEDGED. THOSE NOT PARTICIPATING IN THIS NET ARE RESPECTFULLY ASKED TO KEEP THE FREQUENCY CLEAR.

BREAK

THIS IS _____, NET CONTROL STATION FOR THE HOOD COUNTY SKYWARN TRAINING NET. I WILL NOW TAKE CHECK-INS. PLEASE CHECK IN WITH YOUR CALLSIGN, PHONETICALLY, AND STATE YOUR NAME. SPEAK SLOWLY AND ENUNCIATE SO THAT I CAN GET A GOOD COPY.

PLEASE COME NOW WITH YOUR CHECK-INS:
ACKNOWLEDGE ALL CHECK-INS

TRAINING PROGRAM -

CALL FOR LATE CHECK-INS

14.4 SKYWARN TRAINING NET Closing Script

THIS IS _____, I AM NOW CLOSING THE HOOD COUNTY SKYWARN TRAINING NET. I WOULD LIKE TO THANK EACH STATION FOR THEIR PARTICIPATION IN THIS NET. I WOULD ALSO LIKE TO THANK KE5WEA FOR THE USE OF THE REPEATER.

I NOW RETURN THIS REPEATER TO REGULAR AMATEUR USE.

73, _____ IS CLEAR.



15. INTERNATIONAL RADIOTELEPHONY SPELLING ALPHABET

15.1 ICAO Alphabet with Morse Code

A	Alfa	.-	S	Sierra	...
B	Bravo	-...	T	Tango	-
C	Charlie	-.-. .	U	Uniform	..-
D	Delta	-..	V	Victor	...-
E	Echo	.	W	Whiskey	.-.
F	Foxtrot	..-. .	X	X-ray	-..-
G	Golf	--.	Y	Yankee	-.--
H	Hotel	Z	Zulu	--..
I	India	..	1		.-.-.-
J	Juliet	.-.-.-	2		..-.-.-
K	Kilo	-.-	3		...--
L	Lima	.-..	4	-
M	Mike	--	5	
N	November	-. .	6		-....
O	Oscar	---	7		--...
P	Papa	.-.-. .	8		---..
Q	Quebec	---.-	9		----.
R	Romeo	.-. .	0		-----

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