



# Story County Amateur Radio Emergency Service Severe Weather Net Standard Operating Procedure



## 1. Scope

This document provides specific procedures for amateur radio operators within Story County to support a severe weather spotter network. Activities supported include:

- Provide severe weather observations from Story and adjacent counties to the National Weather Service office in Johnston and Story County Emergency Management.
- Provide storm damage reports from Story and surrounding counties to the National Weather Service office in Johnston and Story County Emergency Management.

## 2. Preparation

All amateur radio operators are encouraged to monitor the developing weather situation through forecasts and outlook products provided through local weather sources including:

- NOAA Weather Radio (WXL-57, Des Moines, 162.550 MHz)
- Internet Weather Sources
- Local Media (AM/FM Radio, Television).

If conditions indicate that severe weather will develop within the next several hours, amateur radio operators should monitor the following amateur radio repeaters:

- 147.240+, Story County ARES Repeater, Ames
- 147.075+, Sheldahl Amateur Radio Repeater (Central Iowa ARES)

EC, AECs and other amateur radio operators should periodically make their availability known on 147.240.

## 3. Activation Procedures

### 3.1 Request to Activate Spotter Network

A request to activate the severe weather spotter network may be made by the following:

- Story County Emergency Management Agency
- National Weather Service, Johnston
- Local government

- Any amateur radio operator who observes threatening weather moving into Story or adjacent counties

### **3.2 Activation Procedure**

The following steps should be taken to activate the amateur radio severe storm spotter network:

1. Attempt to notify the EC and all AEC's
2. Designate a net control station and establish a net on the 147.240+ MHz repeater. An announcement should be made on the 147.075+ MHz repeater to notify the National Weather Service amateur radio station (if activated) and any other amateur radio operators listening who wish to participate that a Story County net is being established on the 147.240+ repeater
3. The net control station should request listening amateur radio operators to check in identifying their call sign, location, and if in fixed or mobile operation.

## **4. Operational Procedures**

### **4.1 Standby Net Operation**

The net may be operated in Standby mode if severe weather is not an immediate threat to Story County. This mode may be used if weather related traffic is necessary but does not warrant full-time occupation of the repeater. Net control should periodically announce that the net is in Standby mode, and stations may call other stations without permission from net control. It is suggested that extra time is used between transmissions in the event that priority or emergency traffic can be announced.

### **4.2 Active Net Operation**

The net shall be operated in Active mode when severe weather is in progress or imminent. During an active net, the net control station shall limit radio traffic to weather and safety related traffic only. This is considered a formal net, and all radio traffic should flow through the designated net control station. The net control station should request severe weather related information from spotters in the field, and periodically broadcast minimum reporting criteria for severe weather as necessary to control redundant reports and limit traffic to manageable levels.

### **4.3 Net Control**

The net control station should be run from an amateur radio station that has capabilities to reach the 147.240+ MHz and 147.075+ MHz repeaters via radio (preferably with emergency power). The net control station should also have access to telephone or public safety radio communications to contact Story County Emergency Management, Story County E911 Communications, and the National Weather Service in Johnston.

### **4.4 National Weather Service Liaison**

A method to pass spotter reports to the National Weather Service office in Johnston shall be established. The net control station, or another station designated by net control, should serve as a single contact point to avoid duplicate reports. The communication method shall be (in order of preference):

1. Via amateur radio on 147.075+ MHz directly to the amateur radio station at the National Weather Service office in Johnston (if manned)
2. Via telephone to the National Weather Service office in Johnston, at 1-800-SKYWARN (759-9276)

#### **4.5 Story County Emergency Management Liaison**

A method to pass spotter reports to Story County Emergency Management shall be established. The net control station, or another station designated by net control, should serve as a single contact point to avoid duplicate reports. The communication method shall be (in order of preference):

1. Via telephone at 515-382-7315
2. Via Story County E911 Communications by phone at 515-382-7469 (or 911 if an emergency)
3. Via the Story County 800MHz trunked system

#### **4.6 Spotters**

Spotters should consist of amateur radio operators who have received yearly training through the National Weather Service spotter course. It is recommended that spotters register with the National Weather Service and be assigned a spotter ID.

#### **4.7 Spotter Positioning**

Spotters should be located in an area that provides them visibility, particularly to the NW, W, and SW of their area. Spotters may be positioned at their home station (fixed) or mobile.

Mobile spotters should remain particularly alert to dangerous weather and have an escape route. Mobile spotters should position themselves in locations that avoid traffic hazards and protect themselves from lightning. The net control station should periodically check the welfare and location of mobile spotters.

#### **4.8 Reporting Criteria**

Severe weather spotters should report:

- Severe weather observations that exceed the minimum reporting criteria established by the net control station, including:
  - Tornado, funnel cloud, or associated cloud rotation

- Hail greater than ¾ inch diameter
  - Winds in excess of 58 mph
  - Excessive rain
  - Frequent lightning
  - Flooding
- Storm Damage
  - Threats to life or property

Observations should include:

- Time that the condition was observed, if other than current
- Source of the report, if not a personal observation
- Description of the condition
- Location of the reporting station (using common references) and relative location of the severe weather condition if different than his location. This should include the estimated direction and speed of the severe weather condition, if possible
- Description of damage, and injuries

Observations should not include “light rain here”, “clear in the west”, etc reports unless requested by net control.

## **5. Safety Considerations**

The priority of all spotters, whether fixed or mobile, should be safety. Fixed spotters should have a designated shelter and should seek shelter if dangerous conditions approach. Fixed spotters should follow lightning and tornado safety rules when threatened.

Mobile spotters are particularly vulnerable to hazardous conditions. Story County ARES does not specifically request amateur radio operators to respond to designated locations to watch for severe weather. Amateur radio operators wishing to spot from their mobiles operate at their own risk. Mobile spotters should position themselves, if possible, where shelter is available and have an escape route. Your vehicle is not sufficient protection from a tornado! Mobile spotters should pay attention to lightning safety rules, and be aware of traffic hazards.

## **6. Termination**

Participation is terminated when the severe weather threat has passed the area. Net termination should occur in agreement with the National Weather Service or Story County Emergency Management. Stations that wish to terminate prior to the closure of an Active net should notify net control, if traffic levels permit. Net control should confirm net termination with designated liaisons and with mobiles actively engaged in tracking cells.

## **7. Preparedness**

ARES members should prepare themselves for Severe Weather Net operations as follows:

- Make sure the radio to be used is not vulnerable to a lightning strike.
- Providing a source of emergency power for radios in the event of power failure.
- Extra charged batteries
- Keeping abreast of severe weather forecasts and outlooks, such as the Central Iowa Thunderstorm Outlook issued daily by the National Weather Service in Johnston.