

**NATIONAL WEATHER SERVICE INSTRUCTION 10-1807
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**Operations and Services
Service Outreach NWSPD 10-18**

THE SKYWARN® WEATHER SPOTTER PROGRAM

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

OPR: W/AFS12 (D. Hilderbrand)

Certified by: W/AFS1 (M. Tew)

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-1807, *The SKYWARN Weather Spotter Program*, dated September 28, 2017. This revision was made to reflect the latest agency priorities of external engagement to build a Weather-Ready Nation. Specific changes include:

- Removed appendices A, B, D, and E. The information contained in these appendices can be found on the SKYWARN program website <https://www.weather.gov/SKYWARN>
- Connected SKYWARN to local Integrated Warning Teams (IWTs)
- Clarified appropriate authorities and responsibilities.
- Updated SKYWARN Weather Spotter Safety information.
- Updated the different ways to provide SKYWARN reports.

August 3, 2022

Allison Allen

Date

Director

Analyze, Forecast, and Support Office

The SKYWARN Weather Spotter Program

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1. The SKYWARN® Weather Spotter Program Objective

SKYWARN® (<https://www.weather.gov/skywarn/>) is a National Oceanic and Atmospheric Administration’s (NOAA’s) National Weather Service (NWS) program that was formally established in the late 1960s. It consists of over 300,000 trained volunteer spotters who provide reports of weather and flooding to help meteorologists and hydrologists make life-saving warning decisions. Spotters are trained volunteers who provide timely reports of hazardous weather events that impact their communities (*e.g.*, amateur radio operators, emergency management and public safety officials, cooperative network (COOP) observers, Community Collaborative Rain, Hail and Snow Network (CoCoRaHs) observers, and other interested individuals). Although NWS uses data from radar, satellite, and other observing systems, technology cannot detect every instance of hazardous weather and flooding. SKYWARN spotter

reports provide vital “ground truth” that helps NWS meteorologists issue timely, accurate, and detailed warnings. Their reports can confirm hazardous weather and flooding detected by NWS technologies and enhance the situational awareness of the entire Integrated Warning Team—defined as “*a local or state-level team that consists of emergency management, broadcast media core partners, and the NWS – a team that shares the common goal and responsibility of improving the warning system and reducing fatalities, injuries and property damage due to natural hazards.*” Spotters also provide critical verification information that supports our Nation’s Disaster Declarations process and improves warning services. An effective SKYWARN Weather Spotter program assists the NWS to fulfill its mission of protecting life and property and enhancing our Nation’s economy.

2. Authorities and Responsibilities

2.1 Weather Forecast Offices

2.1.1 Warning Coordination Meteorologists

It is the responsibility of each Weather Forecast Office’s (WFO’s) Warning Coordination Meteorologist (WCM) or an office’s designee, as overseen by the Meteorologist-in-Charge (MIC), to implement, manage and administer the SKYWARN Weather Spotter program within their County Warning Area (CWA). MICs and WCMs are encouraged to enlist the support of other WFO staff in the implementation of the SKYWARN program. Responsibilities include the following:

- Conducting SKYWARN Weather Spotter training across their area of responsibility including an emphasis engaging socially vulnerable communities. For example, engaging communities in the high vulnerability category as defined by the Centers for Disease Control (<https://svi.cdc.gov/map.html>).
- Ensuring that SKYWARN Weather Spotter reporting effectively supports local warning operations including the Integrated Warning Team’s situational awareness and the NWS verification and Storm Data programs.
- Mentoring and training WFO staff in the local SKYWARN Weather Spotter program.
- Promoting the SKYWARN Weather Spotter program including maintaining a local website presence.
- Implementing service improvements to the SKYWARN Weather Spotter program.
- Working with local Amateur Radio Service operators as needed in relation to the SKYWARN Weather Spotter program and Section 8.2 of [NWS Instruction \(NWSI\) 10-1704](#).
- Reporting SKYWARN Weather Spotter activities through the NWS Outreach and Education Event System as per [NWSI 10-1804](#).

2.1.2 SKYWARN Weather Spotter Training

As of this instruction’s effective date, there is no national training standard. NWS offices should use various means to provide SKYWARN Weather Spotter training, including capitalizing on

emerging technologies (*e.g.*, virtual reality). These can include the following:

- Classroom training: The local WCM or designee can personally organize and conduct SKYWARN Weather Spotter classes.
- Train-the-trainer: The local WCM has the authority to designate willing and knowledgeable WFO staff, emergency managers, public safety officials, training professionals, non-NWS meteorologists or SKYWARN Weather Spotters to serve as proxy.
- Website-based training: The local WCM has the authority to create and utilize a website-based training solution.
- Virtual training: The local WCM has the authority to conduct SKYWARN Weather Spotter training remotely through a virtual means, such as video conferencing or webinars.
- Cooperative Program for Operational Meteorology, Education, and Training (COMET®) modules: The local WCM has the authority to accept the existing COMET® modules (www.meted.ucar.edu/training_course.php?id=23), the “Role of the SKYWARN Spotter” and “SKYWARN Convective Basics” alone, in combination with local training, or as optional, pre-study materials for local training. *Note: it is important for WCMs to clarify their local approach to the COMET modules on the SKYWARN Weather Spotter section of the WFO web-site.*

Mixed training solutions are encouraged to maximize participation in the SKYWARN Weather Spotter program. The goal should be to make the local SKYWARN Weather Spotter Program training as useful as possible to the local WFO warning program and to the local Integrated Warning Team’s situational awareness.

The local WCMs have the authority to determine the appropriate training curriculum, methods, and recognition process used in their CWA.

2.1.3 SKYWARN Weather Spotter Reporting

The local WCM (or designee) has the authority to determine the appropriate SKYWARN Weather Spotter reporting criteria and methods that are utilized in their CWA, except as directed and supported by the Regional Headquarters (*i.e.*, to standardize reporting methods and software). Consistent and current reporting instructions should be provided to all trained SKYWARN Weather Spotters. Multiple reporting methods are encouraged to maximize participation in the SKYWARN Weather Spotter program. The goal should be to make the local SKYWARN Weather Spotter Program reporting as useful as possible to the local WFO warning program and to the local Integrated Warning Team’s situational awareness. The WFO should ensure that all reports are quality controlled for accuracy.

APPENDIX A outlines the advantages and disadvantages of most SKYWARN Weather Spotter program reporting methods.

2.2 Regional Headquarters

Each Regional Director will designate a person on their staff, usually the Regional WCM, to manage the SKYWARN Weather Spotter program within the region. The duties performed by the Regional SKYWARN Weather Spotter program managers include the following:

- Coordinating SKYWARN Weather Spotter programmatic, budgetary and policy issues with NWS Headquarters on behalf of their region's WFOs/WCMs.
- Directing and overseeing service improvements to the SKYWARN Weather Spotter program.
- When available, managing the regional budget and other resources for the SKYWARN Weather Spotter program.
- Promoting the SKYWARN Weather Spotter program.
- As necessary, developing and maintaining regional supplements to this directive.
- Supporting their region's local WFOs/WCMs in administering the program.

SKYWARN Weather Spotter reports are often used in the Significant Event Reporting conducted by Regional Operations Centers to the NWS Operations Center. Other regional headquarters' functions support the SKYWARN Weather Spotter program in areas such as training, observation/data collection, verification, procurement, and system operations.

2.3 National Weather Service Headquarters - Analyze, Forecast and Support Office

The National Weather Service Headquarters' (NWSH) Analyze, Forecast and Support Office (AFS) is responsible for a variety of activities supporting the SKYWARN Weather Spotter program. SKYWARN Weather Spotter program management responsibilities within AFS are managed by the Decision Support Integration Branch.

2.3.1 AFS Decision Support Integration Branch

It is the responsibility of the Preparedness and Resilience Program Lead within the AFS Decision Support Integration Branch (DSIB) to manage the SKYWARN Weather Spotter program on a national basis. This includes the following:

- Coordinating SKYWARN Weather Spotter programmatic, budgetary, and policy issues within NWSH on behalf of our Regional Headquarters and our local offices.
- Directing and overseeing service improvements to the SKYWARN Weather Spotter program.
- When available, managing the national budget and other resources for the SKYWARN Weather Spotter program.
- Promoting the SKYWARN Weather Spotter program.
- Serving as the Office of Primary Responsibility (OPR) for this procedural directive.
- As necessary, developing and maintaining memorandum of understanding or memorandum of agreement with national partners.

- Manage the status (renewal) of the SKYWARN copyright.

The AFS DSIB manages national resources, such as the “[Weather Spotter’s Field Guide](#),” and works to ensure this and other tools are available for use by the Regional Headquarters and our local offices. Other NWSH functions support the SKYWARN Weather Spotter program in areas, such as training, observation/data collection, verification, procurement, and system operations.

2.3.2 Office of the Chief Learning Officer

The Office of the Chief Learning Officer (OCLO) supports the SKYWARN Weather Spotter program by overseeing the annual process of allocating training resources for NWS science, operations, and services. Three of the OCLO’s divisions (Decision Support and Communications Services Division, Warning Decision Training Division, and the Forecast Decision Training Division) provide instructional resources covering the SKYWARN Weather Spotter program. The OCLO also manages the grant supporting COMET, which provides instructional resources focused on the SKYWARN Weather Spotter program. Coordination occurs with COMET to ensure the development and provision of SKYWARN Weather Spotter training materials meet the needs and requirements of the Regional Headquarters and local WFOs/WCMs.

2.4 SKYWARN Weather Spotter Safety

Safety is the top priority for the SKYWARN Weather Spotter program. The NWS does not encourage its SKYWARN weather spotters to engage in storm chasing. However, the NWS does recognize that SKYWARN spotters, engaged in mobile activities, may encounter severe weather and should be alert to rapidly changing weather conditions that could impact their personal safety. All SKYWARN spotter training should include instruction that safety is the top priority; spotters should never put themselves in harm’s way and should obey all federal, state, and local laws and directives from public safety officials. Specific safety content can be found on the [SKYWARN website, including](#):

- Personal safety is the primary objective of every spotter. Never put yourself in harm’s way. This includes attempting to walk or drive over obstructions such as flooded roadways and downed power lines, and positioning yourself under objects that have a potential to fall or be blown over due to severe weather.
- Always obey federal, state, and local laws and directives from public safety officials.

Note: A non-paid volunteer observer engaged in observation work may be considered as having employee coverage under the Federal Employees Compensation Act (FECA). Final determination as to eligibility and extent of coverage rests with the Office of Workers Compensation Programs, which administers FECA. Any spotter injured while providing observational duties should notify their local NWS office. The local NWS office and their regional headquarters should work with the Office of Workers’ Compensation Programs for resolution. Refer to [NWSI 10-1310](#) for more detail. Legal assistance in these matters can be obtained from the General Litigation Division of the Department of Commerce (DOC) Office of General Counsel.

2.5 Reporting of False Weather Spotter Reports

Instances of false weather spotter reports that *significantly impact a WFO's life saving warning operations* should be reported by the local WCM/MIC to Regional Headquarters and the National WCM. It is the responsibility of the National WCM to archive these instances. When appropriate, AFS can coordinate potential legal support from the Weather, Satellites, and Research Section of the NOAA Office of General Counsel.

2.6 American Radio Relay League

The American Radio Relay League (ARRL – www.arrl.org) is a noncommercial membership organization of radio amateurs, organized for the promotion of interest in Amateur Radio. The NWS may work with ARRL Section Amateur Radio Emergency Service volunteers at the local level to establish SKYWARN radio networks, and/or other specialized weather emergency alert and relief systems. These local SKYWARN radio organizations act as communicators and spotters when severe weather and other disasters strike. The working partnership between the NWS and the ARRL is formally documented through a Memorandum of Understanding (posted on SKYWARN website). NWS WCMs, or their designees, are responsible for maintaining this working partnership with the local Amateur Radio SKYWARN volunteers (if applicable).

2.6.1 SKYWARN Recognition Day

SKYWARN Recognition Day (<https://www.weather.gov/crh/skywarnrecognition>) was developed in 1999 by the NWS and the ARRL. It celebrates the contributions that volunteer SKYWARN spotters make to our nation's weather warning system. NWS WCMs or their designees are encouraged to conduct SKYWARN Recognition Day for their CWA. NWS offices may use social media and other outreach efforts to recognize and engage local SKYWARN spotters.

2.7 Spotter Network

As appropriate, local WCMs are encouraged to integrate Spotter Network reports into their office's operations. Reporting Spotter Network (<http://www.spotternetwork.org>) members have completed training and provide NWS offices with invaluable data for warning decision-making. The working partnership between the NWS and the Spotter Network is formally documented through a Memorandum of Understanding (posted on SKYWARN [website](#)).

2.8 Community Collaborative Rain, Hail and Snow Network

As appropriate, local WCMs are encouraged to integrate the CoCoRaHS into their local SKYWARN Weather Spotter program. CoCoRaHS (www.cocorahs.org) is a unique non-profit, community-based network that works to accurately measure and map precipitation: rain, hail, and snow. NOAA is one of the sponsors of the CoCoRaHS program.

2.9 SKYWARN Branding Terms of Use

The General Law Division of the DOC Office of General Counsel provides legal support for SKYWARN branding issues. Appendix B states the terms of use for NWS's SKYWARN Weather Spotter program branding.

APPENDIX A – SKYWARN Weather Spotter Program Reporting

Method	Advantages	Limitations
NWS Chat	<ul style="list-style-type: none"> • Real-time two-way communication. • Great situational awareness tool. 	<ul style="list-style-type: none"> • Need an account. • Participation limited by Terms of Use -- see www.nws.noaa.gov/directives/sym/pd01017022curr.pdf. • Requires Internet connection.
Telephone	<ul style="list-style-type: none"> • Direct communication. • Immediate contact with NWS. 	<ul style="list-style-type: none"> • Telephone traffic due to numerous reports. • Have to find the local NWS WFO telephone number or create a dedicated spotter line. • Cell phone coverage limitations.
Texting (via office cell phone)	<ul style="list-style-type: none"> • Direct communication. • Immediate contact with NWS. • Reduced telephone traffic. 	<ul style="list-style-type: none"> • Office needs a dedicated cell phone to receive texts. • Restriction of phone number to just spotters (and potential for sharing of number).
Amateur Radio	<ul style="list-style-type: none"> • Direct communication. • Immediate contact with NWS. 	<ul style="list-style-type: none"> • Must be licensed radio operator. • A severe weather net may not be operational during smaller events.
Internet - Local WFO Web-based Form	<ul style="list-style-type: none"> • Reports received by NWS quickly. 	<ul style="list-style-type: none"> • Requires Internet connection.
Internet - Spotter Network.org	<ul style="list-style-type: none"> • Report received by NWS quickly. 	<ul style="list-style-type: none"> • Requires Internet connection. • Must take online training. • Not all WFOs have their AWIPS systems set up to receive these reports.

<p>Internet – email</p>	<ul style="list-style-type: none"> • Allows for web links, photographs, and videos to be sent. • Allows for detailed description. 	<ul style="list-style-type: none"> • During events, the NWS may not be monitoring email. • Better for sending photos, web links, and videos after an event occurs. • Not all offices support this capability.
<p>Social Media (e.g., Facebook, Twitter) Local office account</p>	<ul style="list-style-type: none"> • Quick dissemination of information to a wide audience. • Mobile phone apps or computer. • Allows for web links, photographs, and videos to be sent. • NWS offices can data mine for commonly used hashtags (e.g., #snow, #wind, #orwx) and geotagged searches. 	<ul style="list-style-type: none"> • Mobile phone app requires a data phone. • Have to use the proper format to have the data seen by NWS. • Requires internet connection. • May not be monitored in real-time. • Not all offices support this capability.
<p>Observation Reporting Apps (e.g., mPING)</p>	<ul style="list-style-type: none"> • Great for high volume events. • Popular technology. 	<ul style="list-style-type: none"> • Requires app download. • Mobile phone app requires a data phone.
<p>CoCoRaHS - Community Collaborative Rain, Hail and Snow program (www.cocorahs.org)</p>	<ul style="list-style-type: none"> • Snow, hail and heavy rainfall information is automatically sent to the NWS. 	<ul style="list-style-type: none"> • Have to be a CoCoRaHS observer.

Table Credit: COMET®

APPENDIX B – SKYWARN Branding Terms of Use

The SKYWARN® Service Marks

The SKYWARN® program is nationally known through its two primary service marks (hereinafter the ‘marks’) which are the word mark SKYWARN®, and the logo, which depicts a tornado within an orange, eye-shaped design, shown to the right. The term “SKYWARN” may or may not appear within the lower portion of the logo. NOAA holds federal service marks to protect its exclusive rights in these marks with the United States Patent and Trademark Office. These marks represent the cumulative goodwill earned through the valiant and dedicated efforts of SKYWARN® volunteer spotters since the late 1960s.



Use of the SKYWARN® Service Marks by Third Parties

NOAA/NWS retain the exclusive right to determine how and where these SKYWARN® marks are used, and reserves the right to control the quality of their use. All use of the marks shall inure to the sole and exclusive benefit of NOAA/NWS. Generally, permission is granted for the use of these marks, without further written agreement, when used in direct connection with, or in direct support of, the volunteer SKYWARN programs in each of the NOAA/NWS’ WFOs.

NOAA requests that any prominent use of the term SKYWARN, or the SKYWARN logo, be accompanied by the ® symbol to the upper right of the mark, or in the lower right of the logo, along with a notice at the bottom of the page, reading as follows:

“SKYWARN® and the SKYWARN® logo are registered trademarks of the National Oceanic and Atmospheric Administration, used with permission.”

Each WCM is granted the authority to determine the appropriate usage of the marks by Local Volunteer Organizations in connection with each respective program, subject to reasonable oversight from the NOAA/NWS chain of command.

The marks may be used on clothing, hats, badges, decals, signs, and other paraphernalia used by SKYWARN® spotters to identify them as affiliated with the NOAA/NWS SKYWARN® program. NOAA will permit text being added to the SKYWARN® logo to brand local Volunteer SKYWARN Programs. For example, a particular vendor might want to create hats and t-shirts with the text "Wakefield SKYWARN Spotter Network" or "SKYWARN NWS Wakefield" on or around the logo. NOAA reserves the right to contest any branding use of the “SKYWARN” name and logo, should it be done in bad faith.

This limited permission is conditioned on all elements and entities involved in the use of the marks being of a high quality and acting in lawful and professional manners, and are subject to the quality review by NOAA/NWS. Any person or entity using the marks hereby agrees to immediately stop using the marks should NOAA/NWS, in their sole discretion, determine for any reason that the use of the marks is not in the best interests of the SKYWARN® program.

NOAA will permit limited use of the term SKYWARN® within Internet domain names to be

registered and used by Volunteer SKYWARN Programs. For example, a particular town or county might register "JohnsonCountySKYWARN.org" or "GreenvilleSKYWARN.org," and maintain an online presence/community that furthers the mission of the respective program, as well as the SKYWARN® program. However, NOAA reserves the right to contest any such domain name containing the name "SKYWARN," should the registrant use the domain in bad faith.

NOAA does not permit the registration of any trademarks, trade names, or other attempts to "own" any name in which "SKYWARN" is a component. NOAA considers any attempt to do so as an infringement of its trademark rights, and will contest the effort in the appropriate venue. The marks may not be used in any manner that is inconsistent with the purposes and goals of the SKYWARN® program. These rules are subject to change at any time for any reason in the sole and exclusive discretion of NOAA/NWS.