



*Please remember to check in using Zello!*

- *Our Zello channel is "SC Midlands SKYWARN"*

*Need help with Zello? Don't hesitate to get in touch with any of the following:*

- *Tim Starr at [k4rhk@gmail.com](mailto:k4rhk@gmail.com)*
- *Mike Majority at [n4vbv@ftc.net](mailto:n4vbv@ftc.net)*
- *Mark Goddard at [goddard.mw@gmail.com](mailto:goddard.mw@gmail.com)*

*Prior to the start of the 7:00 PM Zoom call, please check in by text or voice.  
EARLY ZELLO CHECK-INS ARE ACCEPTABLE, EVEN ENCOURAGED!*

*Once the 7:00 PM Zoom call has started, please check in by text during the call.*

***3<sup>rd</sup> Tuesday of the month Skywarn Zoom Call***

***May 19, 2026***

**Mark, KN4KRZ**

**NWS Columbia, Midlands Area, Acting Coordinator**

## Skywarn Training opportunities

**Weather 101 – Virtual 1-hour sessions,  
Underway during March, April, and May**


**Registration in advance is required.**

Link: <https://www.weather.gov/ohx/weather101>

Here is a link for all of the Weather 101 presentations in pdf format:

[Weather101 Class Presentations](#)

(Thanks Michael, KX4TKO, for sharing this!)



# NATIONAL WEATHER SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Local forecast by "City, St" or ZIP code


Go

[Location Help](#)

## NWS Nashville's Weather101

[Weather.gov](#) > [Nashville, TN](#) > [NWS Nashville's Weather101](#)

Nashville, TN  
Weather Forecast Office



The National Weather Service Presents  
**Weather101**

Weather101 is a series of FREE interactive online classes to help the public learn about meteorology, forecasting and the National Weather Service in general. These classes will explore the concepts formally found in what was our Advanced SKYWARN spotter classes, plus MORE!

Individuals or groups will be able to complete the courses in the comfort of their own home using the extremely user-friendly computer program, Go-To Meeting. **The only requirement will be speakers to listen, if you're using a computer.** If you want to ask questions, you will need to have a VOIP microphone (this is not a requirement).

Each class can be viewed on a Mac or PC, as well as on your iPad, iPhone or Android device by simply downloading the FREE Go-To-Webinar app in the app store on your device (you'll need the Webinar ID number supplied in the registration email).

To sign up for one of our online classes, simply click on the link beside the date/time you want to attend below, fill out the form and we will forward you a link to register on the Go-To Meeting website. Register, download the FREE software, and BAM! You can attend the one hour online class. Remember, if you're using the Go-To Meeting app on your iPad, iPhone or Android device, your Webinar ID number will be included in your registration email.

Date	Time (CT)	Class Title	Register
Tue, March 10	7 pm	Fire Weather	<a href="#">Click Here to Register</a>
Wed, March 11	10 am	Severe Storms	<a href="#">Click Here to Register</a>

Tue, May 19	7 pm	River Ice	<a href="#">Click Here to Register</a>
Wed, May 20	10 am	Quasi-Linear Convective Systems	<a href="#">Click Here to Register</a>
Thu, May 21	10 am	Hurricanes	<a href="#">Click Here to Register</a>

Classes are FREE & for ALL AGES!

All classes will run approximately 1 hour with a question and answer segment

No prior training is necessary, but registration is required

NOTE: Classes may be canceled with short notice due to severe weather!

Here's an overview of the topics in each class:



- Fire Weather**
- Risk and Mitigation
  - What is a Red Flag Warning?
  - Why do we do a fire weather forecast?



- Lightning**
- How does it form?
  - How deadly is it?
  - Where does it occur most often?



- Using Artificial Intelligence in Convective Outlooks**
- Smoothing Machine Learning
  - Machine Learning and Severe Weather Forecasting
  - Cross Analysis of SPC Forecast vs Machine Learning



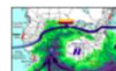
- River Ice**
- What is River Ice?
  - How does river ice forecast?
  - How do we forecast it?



- Rip Currents**
- What is a rip current?
  - How does it form?
  - How do you escape one?



- Tsunami**
- What is a Tsunami?
  - Tsunami vs Tidal Wave
  - How are they forecast?



- North American Monsoon**
- What is a monsoon?
  - What is a haboob?
  - Where do these occur?



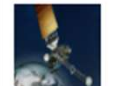
- Hurricanes**
- Hazards from Hurricanes
  - Saffir-Simpson Scale
  - More tropical information



- Severe Thunderstorms: What is needed?**
- Instability
  - Wind Shear
  - Lift



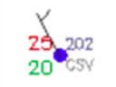
- The Emics**
- Who is the NWS?
  - What causes the weather?
  - What are some weather hazards?



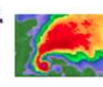
- Satellites**
- GOES 16-18
  - Satellite Channels
  - How do they help the NWS?



- Flash Flooding: The Forgotten Element of Severe Weather**
- Meteorological Causes of Flash Flooding
  - River Flooding
  - Breakdown of NWS Flood products



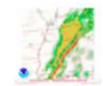
- Observations in 3-Dimensions: METAR and Upper Air Patterns**
- METAR breakdown and how they are used
  - Weather analysis maps: columnar fronts
  - Upper air patterns and their interactions with surface patterns



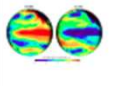
- The Radar**
- A quick explanation of Doppler
  - Reflectivity versus velocity
  - Dual Pol products



- Upper Air Soundings: What do they mean?**
- Explain the Upper Air process
  - Breakdown of various typically used parameters
  - Histograms



- Quasi-Linear Convective Systems (QLCSs): The Squall Line**
- What they are, what they aren't
  - How do they form?
  - Why do they give The South 'fit'?



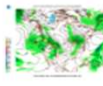
- Global Circulation**
- What is a El Niño?
  - What is a La Niña?
  - What other global circulation affect weather patterns?



- Winter Weather**
- How do we forecast snow?
  - Snow vs Ice
  - Winter weather impacts



- NWS Damage Surveys**
- What are they?
  - Why do we do them?
  - The Enhanced Fujita Scale



- Forecast Models**
- How do they work?
  - Types of weather models
  - How we use them in forecasting



## Hurricanes

- Hazards from hurricanes
- Saffir-Simpson Scale
- More tropical information



## Quasi-Linear Convective Systems (QLCSs): The Squall Line

- What they are, what they aren't
- How do they form?
- Why do they give The South fits?

Where to find weather links: <https://ares-sc.org/sc-midlands-ares-training-net/>

## Screenshot

### **National Weather Service – SKYWARN Weather links**

#### **Midlands Skywarn – Recent/Current Business**

*How do I submit a report to NWS Columbia? It depends, find your options here:* [Methods available to submit reports to NWS Columbia Rev. 4.16.26](#)

Last Skywarn Midlands Zoom Call [4.21.26 Skywarn Midlands Zoom presentation](#)

South Carolina Midlands Skywarn Flyer Rev. 4.6.26 [South Carolina Midlands Skywarn Flyer Rev. 4.6.26](#)

Learn about CoCoRaHS [CoCoRaHS – Community Collaborative Rain, Hail & Snow Network](#)

NWS Nashville – Weather 101 1-hour Classes ongoing March, April and May '26 – Review the schedule and register here: [NWS Nashville's Weather101](#)

Here is a link for all of the Weather 101 presentations in pdf format: [Weather101 Class Presentations](#) (Thanks Michael, KX4TKO, for sharing this!)

### **Handy Weather Reference Links**

<https://www.weather.gov/cae/>

[NOAA/NWS Storm Prediction Center](#)

[NWS 7-Day Forecast 34N 81.05W](#)

[Blitzortung.org – Live Lightning Map](#)

[RC Winds – Real time and historic weather data for Richland County – Temperature, Wind speed, Rainfall](#)

[\NWS Hazardous Weather Outlook for Columbia, SC](#)

[Atlantic 7-Day Graphical Tropical Storm/Hurricane Outlook \(noaa.gov\)](#)

[Skywarn Storm Spotter Program \(weather.gov\)](#)

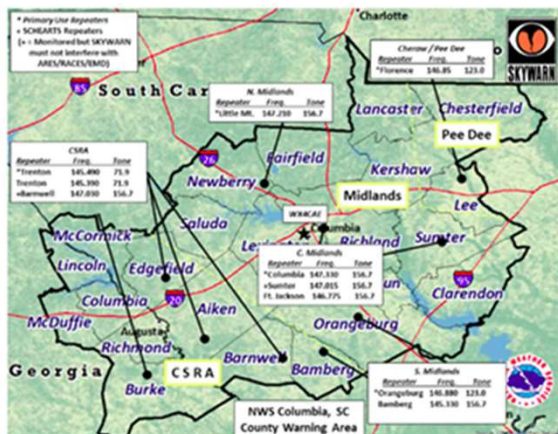
## Link to: [Methods available to submit reports to NWS Columbia Rev.4.16.26](https://www.weather.gov/cae/skywarn-ham)

<https://www.weather.gov/cae/skywarn-ham>

### NWS Columbia's County Warning Area (CWA) & Amateur Radio Network

NWS Columbia utilizes the 2-Meter amateur radio network across Central SC and the CSRA to obtain severe weather reports. When a significant severe weather outbreak is anticipated, NWS meteorologists will ask for Net Control Stations to SKYWARN radio nets in areas threatened by severe weather. We may also call Amateur Radio Operators into our office to collect reports from the area nets, or establish one as well. The Call Sign for the NWS Columbia Office during an organized radio net is **WX4CAE**. When calling net control, simply call **Columbia SKYWARN**. It is not the intent of the net to provide the latest conditions and forecasts. The purpose of the net is to receive reports, not give them out. During an active weather net, the operator may monitor the following repeaters:

- 147.210 MHz - Little Mountain Repeater
- 145.450 MHz - Trenton Repeater
- 147.155 MHz - Bishopville Repeater
- 147.015 MHz - Sumter Repeater
- 145.450 MHz - Savannah River Site (CSRA Backup)



#### Midlands counties:

Lancaster  
Newberry  
Fairfield  
Kershaw  
Saluda  
Lexington  
Richland  
Sumter  
Calhoun  
Orangeburg  
Clarendon

#### Pee Dee counties:

Chesterfield  
Lee

We have a PACE plan for taking weather reports and relaying them to the National Weather Service.

**P – Primary** – Zello “SC Midlands Skywarn” channel – as described on Page 1.

**A – Alternate** – FleetTalk – via the linked repeater system by radio, or alternatively by Echolink or AIIStar – as described on Page 1. (See Page 3 for details about FleetTalk.)

**C – Contingency** – Designated Skywarn repeaters, per the NWS sketch, attached, with some caveats

#### N. Midlands

Little Mountain – 147.210 (+) PL 156.7 (Shared with Newberry and Fairfield ARES)

#### C. Midlands

Columbia – 147.360 (+) PL 100.0 – Instead of 147.330 (Richland ARES Tactical Frequency)

Fort Jackson – 146.775 (-) PL 156.7 – (Shared with Kershaw ARES)

Sumter – 145.430 (-) PL 156.7 – Instead of 147.015 (SC Heart repeater)

#### S. Midlands

Orangeburg – Vance 2M 146.805 (-) PL 156.7 – instead of 146.880 (SC Heart Repeater)

Vance GMRS 462.600 (+) PL 156.7

Nesses GMRS 462.575 (+) PL 156.7

#### Pee Dee

Florence – 146.850 (-) PL 123.0

Pageland FleetTalk Repeater

Sumter FleetTalk Repeater

We expect that Zello, FleetTalk, and the Skywarn designated repeaters listed above will provide sufficient capability to monitor the weather and relay weather reports to NWS. Should all those fail, we could rely on HF. Of course, not everyone has HF capability, so that would not be optimal.

#### E – Emergency

HF – 3.990 (+/-) LSB, 7.232 (+/-) LSB per the SC ARES/RACES Tactical Guide

5.12.26 NWS Columbia Midlands Skywarn FT Net – PLUS NWS Skywarn designated repeaters

FleetTalk Check-ins - Ordered by County

#	Member Id	Call Sign	State	M/P	Remarks	QSL Info	City	Status	RST Rcvd	RST Sent	County	Name	Grid Square
15		WB6GUC	SC		(no club info)	MCBEE					Chesterfield	Gordon N Cole	EM94uk
17		W4JMY	SC		(no club info)	DIR... PAGELAND					Chesterfield	Jeffrey M Yarbrough	EM94ts
3		KE4TLC	SC		(no club info)	Lugoff					Kershaw	Paul D Brown	EM94oe
33		KB1ND	SC		(no club info)	LUGOFF					Kershaw	Ronald C Jarosz	EM94pf
19		KR4LIP	SC		(no club info)	Indian Land					Lancaster	Marcus Moore	EM95ma
16		KQ4FNT	SC		(no club info)	Bishopville					Lee	Douglas E Watson Jr	EM94wg
1		K4RHK	SC		(no club info)	Swansea					Lexington	Timothy E Starr	EM93lr
5		KD4HDR	SC		(no club info)	Lexington					Lexington	Russell D Rhodes	EM93jw
6		KX4TKO	SC		(no club info)	Irmo					Lexington	Michael R Connelly	EM94jc
7		W1MRC	SC		(no club info)	Lexington					Lexington	Matthew R Crook Sr	EM93iw
8		AB4MG	SC		(no club info)	Pelion					Lexington	Richard E Prosser	EM93is
9		KO4AQU	SC		(no club info)	GILBERT					Lexington	James G Gunter	EM94ga
32		AE6E	SC		(no club info)	Springdale					Lexington	Craig Scott	EM93kw
2		KB7KRB	SC		(no club info)	PROSPERITY					Newberry	Kenneth R Bradley	EM94fc
10		KM4RCN	SC		(no club info)	BLYTHEWOOD					Richland	Henry J Younts	EM94mf
11		KR4EFQ	SC		(no club info)	Columbia					Richland	Richard B Ocain	EM92mx
18		KN4KRZ	SC		(no club info)	COLUMBIA	(top)				Richland	Mark W Goddard	EM92mx
27		N4PRF	SC		(no club info)	Eastover					Richland	Paul R Finan Sr	EM93pw
4		AD4BP	SC		(no club info)	LEE SVILLE					Saluda	Robert E Puryear	EM94ga
12		KR4LKN	SC		(no club info)	Sumter					Sumter	Chris Stearns	EM92jv
13		N4RSM	SC		(no club info)	Sumter					Sumter	Richard S Marks	EM92jw
14		K4FYR	SC		(no club info)	Dalzell					Sumter	David W Shillibeer	EM94sa

5.12.26 Midlands Skywarn FT Repeater Net Check-ins

**Midlands Counties**

- Lancaster – 1
- Newberry – 1
- Fairfield
- Kershaw – 2
- Saluda – 1
- Lexington – 7
- Richland – 4
- Sumter – 3
- Calhoun
- Orangeburg
- Clarendon
- Midlands total – 19**

**Pee Dee Counties**

- Chesterfield – 2
- Lee – 1
- Pee Dee total – 3**

**Grand Total - 22**

Check-in on Skywarn designated repeaters

**147.210 – Little Mountain repeater**  
 KX4TKO, Mike – NCS  
 AB4MG, Rick  
 KM4RCN, Jack  
 KO4AQU, James  
 KN4KRZ, Mark  
 5

**147.360 – K4HI repeater**  
 KN4KRZ, Mark – NCS  
 KX4TKO, Mike  
 KM4RCN, Jack  
 KR4EFQ, Richard  
 N4PRF, Paul  
 5

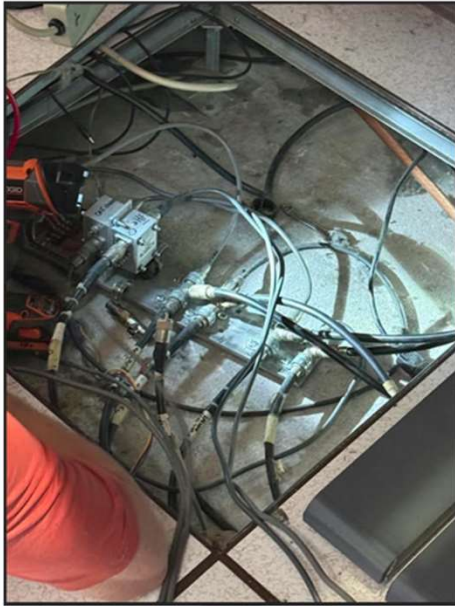
Continued

**146.775 – Ft. Jackson repeater**  
 KN4KRZ, Mark – NCS  
 KR4LKN, Chris  
 N4RSM – Richard  
 KE4TLC, Dion  
 KX4TKO, Mike  
 AE6E, Craig  
 KB1ND, Ron  
 7

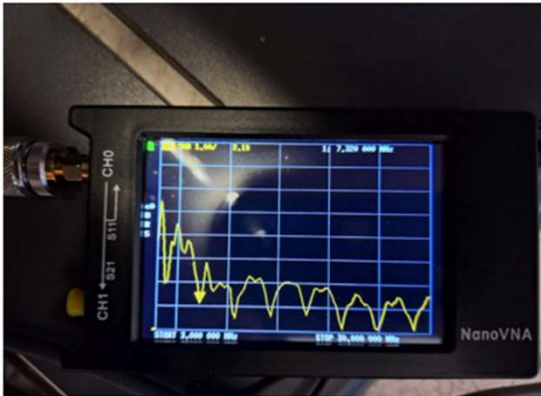
**145.430 – Sumter repeater**  
 N4RSM, Richard – NCS  
 KR4LKN, Chris  
 KB1ND, Ron  
 KM4RCN, Jack  
 K4FYR, David  
 WB6GUC, Gordon  
 6

Amateur radio antennas





2 Meter Beam – Aimed at Trenton/CSRA SWR



HF antenna Ham bands

### Antenna Testing

Contact with CSRA (Ron Hall, KJ4CN)

Using the Yagi\* that appeared to be aimed closest to the direction of CSRA

**Trenton repeaters** 145.490 – Success 145.390 – Not readable

**St. Matthews repeater** 146.460 – Success

Using the vertical (omnidirectional) – Very noisy

HF – 40 meters – Not readable\*\*

Contact with Pee Dee

(Gordon, WB6GUC)

Using the Yagi\* that appeared to be aimed closest to the direction of Pee Dee

Florence repeater 146.850 – Not readable

**Fort Jackson repeater** 146.775 – Success

Using the vertical (omnidirectional) – Not readable

## ***Opportunities/Recap***

### **Training**

Weather 101 – March, April & May

Other training, as available

### **Spotter engagement**

Continue to explore outreach opportunities with Amateur radio clubs, ARES groups, County Ems/EOCs

### **PACE**

***Primary*** – Zello – We practice Zello regularly, during monitoring/activations and on the 3<sup>rd</sup> Tuesdays of the month.

***Alternate*** – FleetTalk – We practice FleetTalk regularly, during monitoring/activations and on the 2<sup>nd</sup> Tuesdays of the month.

***Contingency*** – ***Skywarn designated repeaters – Follow up with the South Midlands repeaters.***

***Emergency*** – Suggestions for HF practice

SC Statewide ARES HF Net – Tuesdays, 6:00 PM on frequency 3.990 (+/-) LSB

SC SSB (NTS) – Daily, 7:00 PM on frequency 3.915 LSB

**NWS Columbia** – Continue efforts to restore radio capabilities.

Last visit Thursday, May 14<sup>th</sup>

Schedule a follow-up visit.

Evaluate options for 2<sup>nd</sup> and 3<sup>rd</sup> Tuesdays at 7:00 PM.

Perhaps have Zoom calls once per quarter instead of every month(?)