



# METRO SKYWARN NEWSLETTER

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## Drought & Tornadoes: 2021 in Review.

Todd Krause (K0MPX), WCM at National Weather Service in Chanhassen

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### Mission and Objectives

Metro Skywarn, Inc., is an organization of amateur radio operators and severe weather enthusiasts with interests in the areas of severe weather spotting and amateur radio communications as a public service. This organization will operate in the metro area of the Twin Cities of St. Paul and Minneapolis, Minnesota, and surrounding counties in the state of Minnesota.

We are a 501(c)(3) registered non-profit.

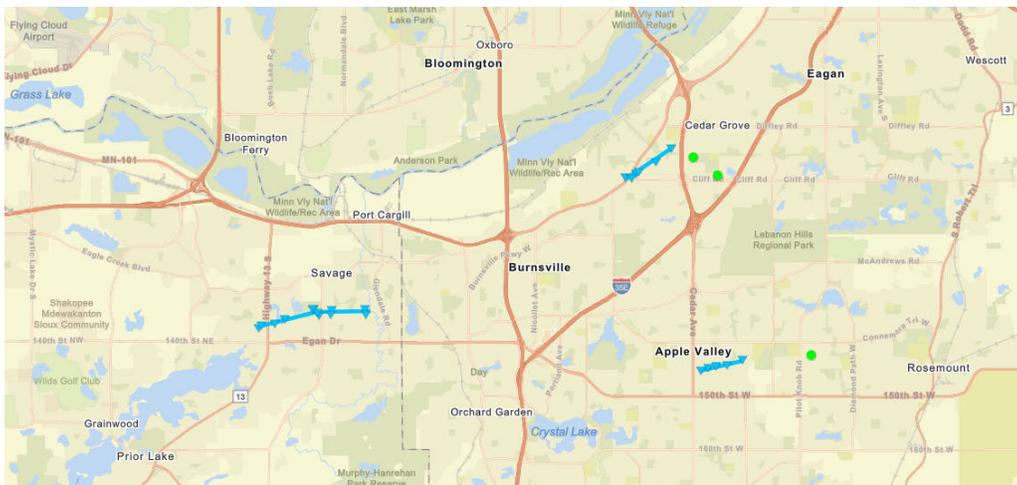
### Board of Directors

Chair.....KCOGWW.....Theresa Caspers  
 Vice Chair.....NONY.....Mike Miller  
 Treasurer.....KCOTSB.....Sandra Johnson  
 Secretary.....(Coming Soon!).....Jeffrey Kordiak  
 At Large.....KDOZCI.....Jarrod Schoenecker  
 At Large.....KOBHJ.....Benton Jackson  
 At Large.....KOBYH.....Tim Arimond  
 At Large.....Daniel Dix

### Committee Leads

Education & Training.....Theresa Caspers  
 Technology & Website.....Mike Miller  
 Social.....Daniel Dix  
 Operations.....Benton Jackson  
 Communications.....Jarrod Schoenecker  
 Fundraising.....Jarrod Schoenecker

Created in [Affinity Publisher](#) to Adobe PDF.  
 Newsletter by Jarrod Schoenecker.



## The three EF0 tornado paths on September 17, 2021, in Scott and Dakota Counties.

It was another quiet but unusual year for severe weather in the Twin Cities.

The season started out with a bang on **March 10** with a swath of large hail from Rosemount to South St Paul, including tennis ball-sized hail in northern Inver Grove Heights.

On **May 19**, a series of weak and brief tornadoes paralleled I35 from just west of Owatonna to south of Lakeville.

Then came the drought! With very few storms during June, July and much of August, the Twin Cities was enveloped in **severe drought** by August 24 (See graphic on page 4).

Slow improvement commenced in September, and the biggest storm of the year for the Twin Cities hit the southern suburbs in the very early morning hours of **September 17**. Widespread downburst damage affected Scott and Dakota Counties the most. Three EF0 tornadoes were embedded within the larger area of wind damage. The map above shows tornado damage path and points in Savage, Apple Valley, and Burnsville into Eagan from that day. Damage surveys were focused on areas where damage was especially concentrated and radar showed rotation.

... Continued on Page 4

# A Message from the Chair

Theresa Caspers (KC0GWW), Chair and Education Coordinator

Metro Skywarn has had to adapt to the ongoing pandemic by moving radio operators to members' homes who are net control operators. We've also kept training and board meetings online only.

These decisions were made in response to respect and follow how the National Weather Service in Chanhassen is operating. Most of these procedures will continue in 2022, but we will modify as we see necessary.

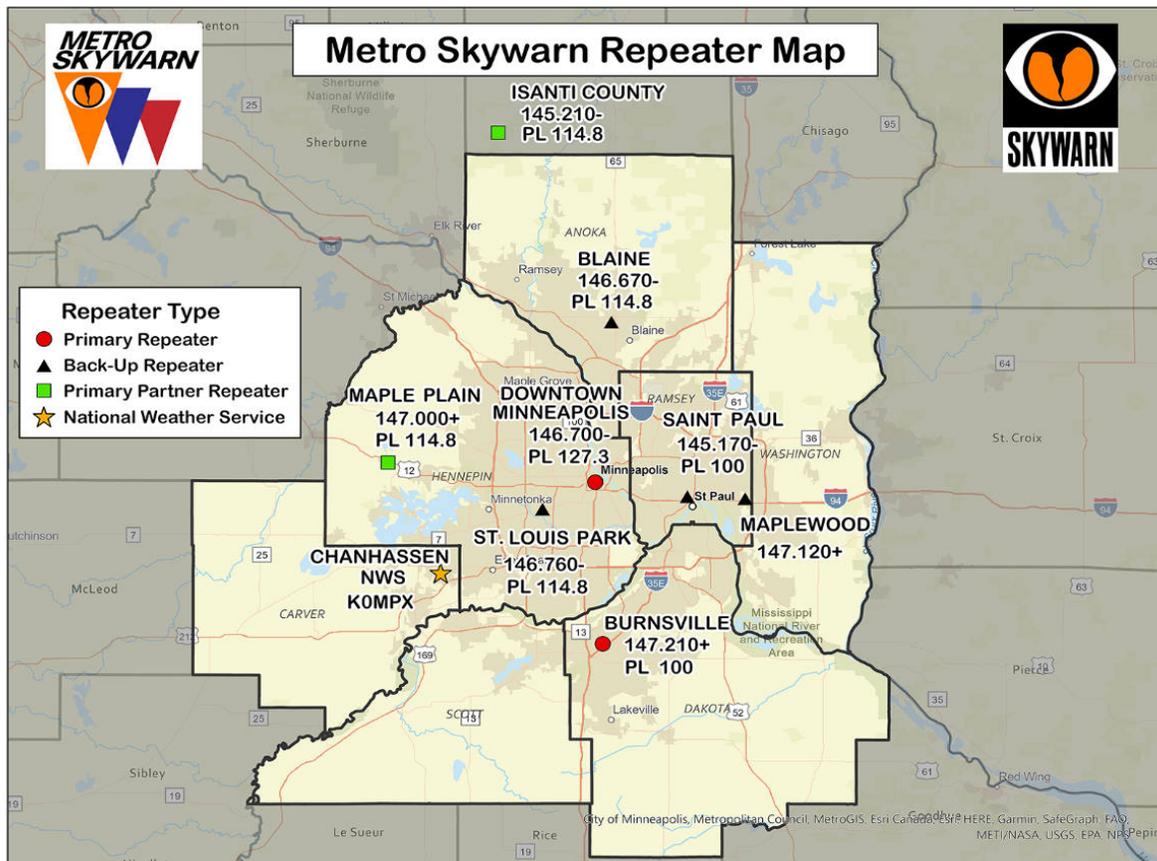
Last year started off with some severe weather early in the season and then quieted down as the drought set in. Once fall hit, we anticipated the season to be over. The historic serial derecho and tornado outbreak of December 15-16 put us on alert when several tornadoes and many significant severe wind gusts (75+ mph) were confirmed in southeastern Minnesota, close to the Twin Cities. These were the first recorded tornadoes in December for Minnesota.

As we begin the 2022 training and severe weather season, we have been working diligently to prepare.

The training team reviewed training materials, making any necessary changes and improvements. The trainers also tested of their computers and internet connections to ensure training will go seamlessly. Our net control stations are working on ensuring their equipment is ready to go for the severe weather season as well. Metro Skywarn gives great thanks to these people and organizations for their commitment to Metro Skywarn!

We have updated our **repeater information** and have a new map made of the locations, which you can see below and on the website. The frequency information is on your Metro Skywarn ID cards as well. Thanks to board member Jarrod Schoenecker and training committee member Matt Taraldsen for working on that.

We also thank you, the spotters, for hanging in there as things changed over the last two years. It's your reports that help give people timely warnings. Time will tell if 2022 will be a more active season and we look forward to hearing your reports on the nets!



<https://MetroSkywarn.org>

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# Technology Updates

Mike Miller (N0NY), Vice Chair & Technology Lead

Let's talk about privacy and our e-mail lists and database.

Besides all the technology Metro Skywarn uses for getting the flow of severe weather reports to the National Weather service, such as amateur radio and NWS chat, we use a database of information we've gathered from the classes we have taught. We also collect your name and e-mail when you subscribe to our "MSW Info" and/or "MWS Alert" e-mail lists. We are protective of this information so that only a few key board members and trainers have access to that information in our database. The information for those who are trained is also passed along to the National Weather Service in the Twin Cities.

We use the database for a number of things such as knowing who is making a report, tracking when you have last been trained and contacting you directly, should we need to.

We use the MSW Alert e-mail list to inform you of net activations only.

We use the MSW Info e-mail list to inform you of potential severe weather, classes, events and more!

While severe weather generally happens in the spring and summer months, the board and key advisors are active year-round and utilize this database as needed.

If you have questions such as, "When was I last trained?", this is something we can refer to our database and answer for you. Chances are, if you can't remember, it's time to register and take a class again!

We've switched to using **Mailchimp** for the MSW Alert and MSW Info e-mail lists, so it is important to have an email that you would see regularly, perhaps one that you would get on your smartphone. I strongly suggest that you refrain from using work email addresses that sometimes send back an out of office message back to us, causing our message from Mailchimp to bounce back and you will not get the message we have sent to you.

If you need to update or sign up again for either the MSW Alert or MSW Info e-mail lists, you can use the button-links on the bottom of our website to look up your name and e-mail address you used. You will be able make the changes there without having to contact us directly. These two e-mail lists are separate from our main database.

Due to the constraints of the new database and measures to keep your information secure, making a change to your information directly on our database is not possible, like it was in years prior. If you have any updates to your information, such as a change of address or a new call sign, please contact us at **Help@MetroSkywarn.org**, and include your name, call sign, MSW ID and any changes you want made. This information is also updated with your registration at classes.

If you have any comments or questions on the website or technology we use, feel free to contact me at **Webmaster@MetroSkywarn.org**.

Thanks for volunteering for Metro Skywarn!

The image shows a screenshot of a Mailchimp sign-up form titled "Stay Up to Date With The Latest News & Updates". The form includes a header with the Mailchimp logo, a green instruction bar, and two columns of text describing the "MSW ALERT LIST" and "MSW INFO LIST". A "Social Media Links" section with icons for Facebook, Twitter, Instagram, and YouTube is on the right. A blue arrow points from the text "Where to click to sign-up or change your information on our e-mail lists." to the "MSW INFO LIST" button.

**intuit mailchimp**

## Stay Up to Date With The Latest News & Updates

To subscribe or unsubscribe to either e-mail list, please select the appropriate button and follow the instructions.  
Only the Metro Skywarn board and net control stations have permission to post to these lists.

Only Metro Skywarn amateur radio net activation status, notification of nets and expected times.

Only Metro Skywarn information and events. No amateur radio net information is sent to this list.

**MSW ALERT LIST**

**MSW INFO LIST**

### Social Media Links

**Where to click to sign-up or change your information on our e-mail lists.**

# Drought & December Tornadoes

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The most bizarre severe weather outbreak I've ever seen took place on **December 15**. Severe weather didn't strike the Twin Cities, but all seven metro counties were in a tornado watch.

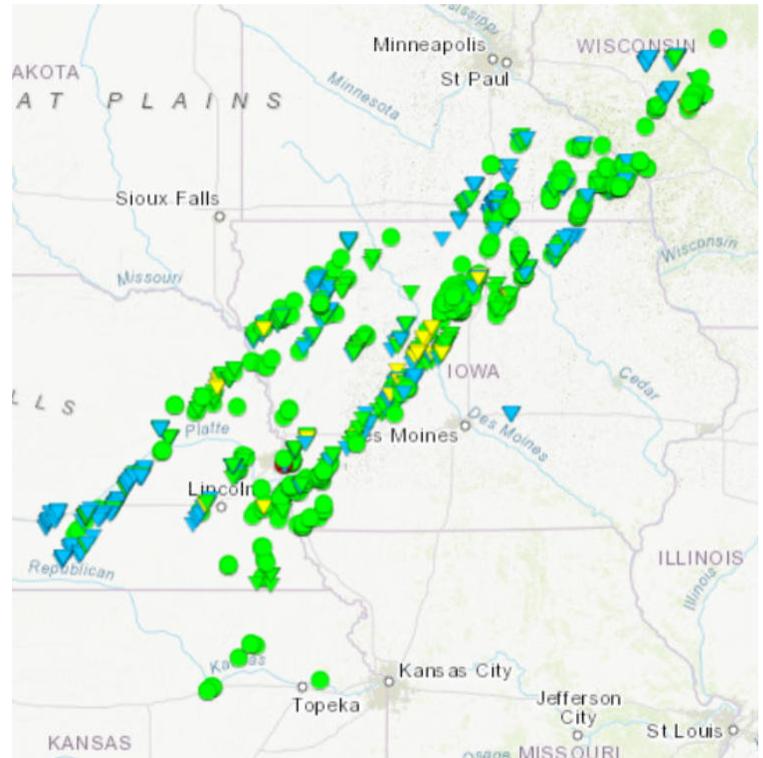
Tornadoes and downbursts hit from Kansas to Wisconsin, with damage in south central and southeastern Minnesota. The map to the right shows the thunderstorm wind (circles) and most of the tornado (triangles) damage points.

The December outbreak set national records. The latest tally has it as the fourth largest tornado day ever in the country, regardless of the time of year! The 120 tornadoes were counted so far across four states, including 63 in Iowa (a state record). That number may still rise when satellite images become available as the ground becomes snow-free.

It also set a **record** of greatest total of thunderstorm significant wind reports (75+ mph) for a single day in the country at 64, no matter what time of year!

Minnesota had never had a December tornado, that we know of, and in one day we got 22! The 22 tornadoes puts it in fourth place for greatest number of tornadoes in a day for Minnesota. The outbreak on **June 17, 2010**, with 48 tornadoes, the **June 16, 1992**, outbreak with 27 tornadoes, and the outbreak on **September 20, 2018**, with 25 tornadoes had more tornadoes in a single day in Minnesota.

(Below) National Weather Service surveyed tornado and wind damage points from December 15, 2021.

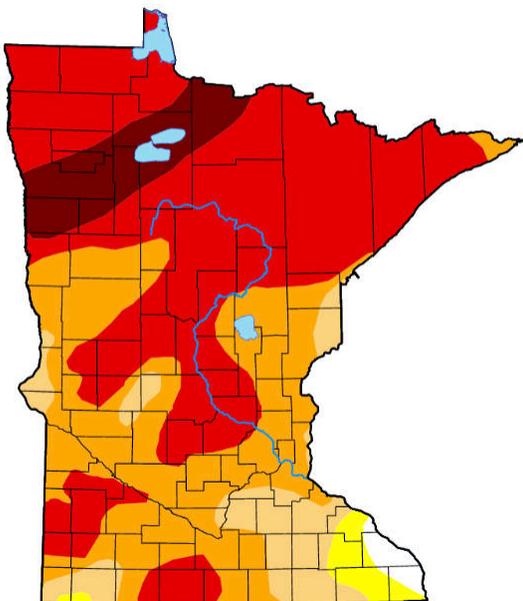


To our east, the tornado that hit Stanley, Wisconsin, east of Chippewa Falls, is now the farthest north a tornado in December has happened east of the Rocky Mountains. There have been a few December tornadoes in the states of Oregon and Washington.

As widespread and significant as the December 15<sup>th</sup> outbreak was, we know of no injuries nor any fatalities in Minnesota. This is a testament to the messaging by everyone involved, including media, public safety and spotter organizations.

Thanks to all spotters for their great help in 2021 and in previous years. A great deal of time and effort is spent by so many volunteers with Metro Skywarn. We are deeply grateful for your service and dedication in helping others, and we know that will continue in 2022 and for many years to come.

## U.S. Drought Monitor Minnesota



**August 24, 2021**  
(Released Thursday, Aug. 26, 2021)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	1.15	98.85	96.58	87.63	57.65	8.07
<b>Last Week</b> 08-17-2021	1.15	98.85	96.56	88.29	49.77	8.07
<b>3 Months Ago</b> 05-25-2021	26.79	73.21	13.42	0.18	0.00	0.00
<b>Start of Calendar Year</b> 12-29-2020	1.60	98.40	23.40	0.28	0.00	0.00
<b>Start of Water Year</b> 09-29-2020	54.95	45.05	8.39	0.00	0.00	0.00
<b>One Year Ago</b> 08-25-2020	68.89	31.11	12.23	0.00	0.00	0.00

**Intensity:**

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author:**  
Curtis Riganti  
National Drought Mitigation Center



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

(Left) Drought conditions in Minnesota on August 24, 2021.

# Training Update

Theresa Caspers (KCOGWW), Education Coordinator & Chair

After we had to cancel most of our training in 2020 due to the COVID-19 pandemic, we brought back training in 2021 in a virtual format. Moving virtual was definitely new territory for Metro Skywarn. We settled on using Zoom as the virtual training platform and Typeform as the online registration.

The feedback we received for online training was great! We had a lot of people who returned to training after not renewing their certification for many years. There were a few spotters who reached out to me saying they appreciated having training online as their disability prevented them from attending in-person training. We are so happy they're able to participate in a spotter training again.

We'll be holding training online in 2022 again due to the ongoing pandemic. If it is safe to bring back a few classes in person, we will try to do so. If the board decides we can hold classes in person again, it will likely be with short notice and have some safety requirements. Even after the pandemic has waned, Metro Skywarn is pleased to announce we will still be offering at least some of our classes virtually.

Our classes this year will be about 3 hours long this year, similar to last year. We will again be using Zoom and Typeform for training and registration. Classes started March 1 and last one is May 21. Like last year, there will be 10 total classes.

If you didn't attend training in 2021, you are due this year!

Registration is required to attend a class. If you're unable to attend a class you signed up for, we ask that you cancel to allow another spotter to register in your place.

Check out the class schedule and sign-up for training at <https://metroskywarn.org/calendar/>.

If you have any questions or concerns, please email training at [Training@MetroSkywarn.org](mailto:Training@MetroSkywarn.org).



## 2022 SKYWARN Class Schedule

<b>March 1</b>	<b>6-9 p.m.</b>
<b>March 12</b>	<b>1-4 p.m.</b>
<b>March 23</b>	<b>6-9 p.m.</b>
<b>April 2</b>	<b>9 a.m.-Noon</b>
<b>April 14</b>	<b>6-9 p.m.</b>
<b>April 23</b>	<b>9 a.m.-Noon</b>
<b>April 27</b>	<b>6-9 p.m.</b>
<b>April 30</b>	<b>9 a.m.-Noon</b>
<b>May 10</b>	<b>6-9 p.m.</b>
<b>May 21</b>	<b>1-4 p.m.</b>

*All classes virtual on Zoom. Registration Required.  
Visit [www.MetroSkywarn.org](http://www.MetroSkywarn.org) for more information and to register.*