

Metro Skywarn Newsletter

Editor: Dave Johnson, NØKBD

Summer 1996

Note: This newsletter was never mailed due to a delay in updating the database. It was however handed out at the state fair.

What's new with Metro Skywarn?

The busy part of the Metro Skywarn board's year is winding down just as the severe weather season arrives. The board continues to work on various projects.

The packet station NWS bbs continues its development. The station trustee, Jim wm0x, and Metro Skywarn packet consultant Ron kc6rco have been hard at work reconfiguring the station to simplify operations. Once the station is up and running, we'll be looking at permanently relocating NWS bbs on the local emergency frequency, 145.07 and run 9600 baud. There will be user access from most 1200 baud frequencies in town from the cross band links already in place. Once in full operation, many Skywarn emergency operation centers (eocs) served by the National Weather Service office in Chanhassen including St. Cloud, Elk River, and North Branch will be able receive timely information regarding severe weather. Other regional nets in Wilmar, Waseca and elsewhere will be invited to participate. The end result will be a regional emergency packet network.

Other Skywarn representatives will be looking into putting live time radar on amateur television and perhaps even the Internet. The National Weather Service, Metro Emergency Managers association are collaborating on a project of placing and operating a donated doppler radar system in a good location in the metro area and creating the means for local eocs to access.

The Skywarn mailing list has been given considerable attention lately. There are over one thousand hams on the list receiving this newsletter, yet only 600 or so have retrained in the last two years. The board will review the list this next board meeting with the idea of deleting those that haven't retrained in the past four years. The hope is that those that haven't found the time to retrain will do so in the future.

The board always needs more help. Anyone wishing to participate in board activities is invited to attend the meetings held the first Thursday of each month. Call Dave at 434-0600 for directions.

May 18th Severe weather outbreak

By Jim Richardson wm0x, forecaster at the National Weather Service

The severe weather season in terms of peak tornado frequency is just about here. Our first outbreak of severe weather occurred just a little later than normal but was it ever an outbreak! You may remember the outlook of an earlier start of severe weather, compared

to last year, in the late winter issue of this newsletter!

There were two nights of severe weather in May (as of this writing). On Friday night, May 17, most of the severe storms occurred in western and northwest Minnesota but there were a few reports of hail around the Twin Cities. Bloomington did activate the net for a short time that night and spotters reported some hail up to marble size. No warnings were issued for the Twin Cities but a few were issued for west central Wisconsin. The storm prediction center (formally known as the National Severe Storms Forecast Center) had predicted a significant outbreak of severe weather that Friday afternoon and night but it turned out to be more localized in eastern South Dakota and western Minnesota.

By the early morning hours of Saturday May 18, it was becoming apparent that severe thunderstorms could develop again by Saturday evening. The "cool" front that passed through the area Friday night had stalled over northern Illinois and Iowa. Even though much drier dew points had swept in from the Dakotas on west winds during the day Saturday, some rapid changes were forecast to occur by late Saturday afternoon. Low and mid level winds over Iowa were forecast to switch rapidly to the south and begin transporting unstable air back into Minnesota. In addition, a strong southwest jet stream was propagating toward Minnesota. Strongly worded special weather statements advising of the severe weather threat were issued and broadcast on NOAA weather radio during the day Saturday.

Thunderstorms developed about on schedule over eastern South Dakota late Saturday afternoon. A tornado watch was issued for southern Minnesota about 745 pm Saturday evening. The first batch of thunderstorms to affect the Twin Cities caused some large hail around 10 pm. Bloomington activated the net about 10 pm. Several good reports of hail were reported to net control.

The line of dangerous thunderstorms developed in southwest Minnesota just north of the advancing warm front and with a small low pressure area. The line advanced through southern Minnesota greater than 50 mph causing very damaging winds in spots. The National Weather Service in Chanhassen issued 101 warnings, (tornado and severe thunderstorm) that night. Some of these warnings included up to nine counties at a time due to the rapid movement and widespread damaging wind potential.

The National Weather Service greatly appreciates Metro Skywarn remaining active during the severe weather event into the early morning hours of Sunday. Even though spotting can be difficult at night, reports of hail ..strong winds..and even damage can be forwarded from home.

(editors note: while spotting can still be useful to the NWS at night, it is inherently more dangerous. Spotting in a car is not recommended since visibility is limited to lightning flashes. Instead, spotters are recommended to spot from home. As always, safety comes first. If severe weather is imminent, head for the basement or an interior room, away from windows, and under something heavy. Under the basement stairwell if away from windows can be a good location.)

A wild weekend across the USA

04/22/96 - 09:07 pm et - from the USA Today homepage.

Nearly 110 tornadoes ripped across the Mississippi valley and southern plains over the weekend starting April 19, with 65 of them occurring on Friday. One person was killed in Illinois on Friday and one in Mississippi on Saturday. A tornado killed two children in Arkansas Sunday night. The wild weather is continuing Monday in the central USA with more severe weather and heavy rain expected.

How the weather stirred up April 19-22 storms

04/21/96 - 07:32 pm et - from the USA Today homepage by Chris Cappella, USA Today information network

Earlier Friday April 19, 1996, forecasters saw all of the atmospheric parameters for a tornado outbreak merging over the midwest by that evening.

The National Weather Service's storm prediction center issued a high risk of severe thunderstorms and tornadoes during the day Friday. A high risk outlook is typically reserved for the most potentially widespread and destructive storms.

An extremely powerful jet stream aloft blowing in from the west combined with a thick layer of very moist, unstable air in the low levels to set the stage for explosive thunderstorm development. An intensifying area of low pressure over the central and northern plains provided the mechanism to lift the unstable air while also creating favorable wind shear to produce the most violent thunderstorms called supercells. These rotating storms produce the strongest tornadoes and were seen developing on doppler radar from small, puffy cumulus clouds to 50,000 foot monsters in less than an hour Friday evening. Rapid storm formation is the trademark of an extremely volatile atmosphere.

A renewed round of severe weather hit Sunday April 20 as a potent branch of the jet stream roaring inland from the Pacific Ocean at 150 mph. Continued to manufacture vigorous waves of low pressure over the Pacific Ocean and send them crashing ashore in the west. Once ashore and over the Rockies, the storms moved onto the plains where they intensified vigorously. Drawing warm air north from the Gulf of Mexico to clash with cool air flowing southward sets the stage for severe thunderstorm formation.

Overview of the April 19 - 22, 1996 outbreak

From the USA Today homepage

The year's first major tornado outbreak hit the midwest and south Friday evening into Monday night, April 19 - 22, killing six people, and devastating the downtowns of Berea, KY., and Fort Smith, Ark. By Monday afternoon 111 tornadoes had been reported.

"It's been a pretty impressive system," says Fred Ostby of the National Weather Service's

storm prediction center in Kansas City, MO. "But it's not unexpected this time of year. Down through the years, we've had a lot of Aprils with worse outbreaks."

The six deaths brought the month's USA tornado toll to 13, compared with one in April 1995 and seven in April 1994. The 30-year average is 34 deaths in April, the deadliest month.

May has more twisters but April's are deadlier because "weather systems are stronger. Winter is still trying to hold on to the northern half of the country as warm, humid air moves north." Ostby says.

Ostby notes that 105 of the 111 tornadoes reported Friday until Monday afternoon, including all the killer tornadoes, hit areas with tornado watches in effect.

The outbreak began Friday night when twisters swept Missouri and Iowa into Indiana, killing one person in Illinois. On Saturday, tornadoes hit the southeast, killing one person in Mississippi, but doing the most damage to Berea, KY.

Sunday night more tornadoes roared from Oklahoma into Arkansas, killing two children in Fort Smith, Ark. Two hours later, around 1 a.m. Monday, a tornado hit St. Paul, Aark., killing a man and his son.

Considering the number of tornadoes and the damage, Ostby says the death toll is low. He credits better warnings and tornado education. But warning systems fail, as Fort Smith learned.

A few minutes before the tornado hit Fort Smith, the "hot line" telephone directly from the National Weather Service office in Tulsa, Okla., to the police dispatcher rang. "The dispatcher picked it up and the line went dead," says Cpl. Tom Randolph of the Fort Smith police.

Dan Devore, the meteorologist in charge of the weather service's Tulsa office said forecasters began working on a warning at 11:08 and sent it out less than a minute later. Devore said the storm hit at 11:15. And as one forecaster prepared the warning, another attempted to get Fort Smith on the telephone.

Winds of 70 to 80 mph that preceded the tornado, or lightning ahead of the storm, might have knocked out phone lines before the storm hit, Devore said.

Ostby says this illustrates one reason why people should stay alert when watches are posted. "You can't just sit around and wait for someone to knock on your door and tell you a tornado is coming."

Get notified of Skywarn nets on your very own pager!

Minn comm is offering Skywarn spotters a chance to get notification of Skywarn net activation via a Minn comm pager. If you wish to purchase or rent a pager from Minn comm, just fill out the form on the back page of the newsletter. If you already subscribe to their service, just call and have yourself added to the Skywarn group page list. Below is a list of pager codes and a brief explanation. Cut it out and tape to your pager.

Skywarn pager codes:

162550 - Warning on weather radio.

999 - Net formally activated

111 - Net informally activated or in standby

000 - Net shut down

How to reach us

By phone: call evenings Board Chair: Lynn DeLong, nØcvi at 566-1299 or secretary: Dave Johnson, nØkbd at 434-0600.

By email: lynn.delong@hamlink.mn.org or daveej@winternet.com

By packet: on the wxtalk bbs on 145.67 or nØkbd@wbØgdb.#msp.mn.usa.noam

On the world wide web: the Metro Skywarn homepage, url=
<http://www.winternet.com/~daveej>