Metro Skywarn Newsletter

Editor: Dave Johnson, NØKBD
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NEXRAD: THE NEXT GENERATION RADAR

By Todd Krause, Warning and Coordination Meteorologist, National Weather Service

Last fall, a powerful Doppler radar was installed in Chanhassen. While some paperwork has been signed and it has been accepted, it is not yet commissioned. Even so, those of us at the Twin Cities National Weather Service have been very pleased with its performance to date, and we expect the new radar to be commissioned in about one year. During 1995, we will be operating both the new radar and the old one (which is at the airport), just to make sure that the new Doppler radar performs properly during the upcoming severe weather season. Sometime thereafter, probably in 1996, we expect the new radar to be commissioned, and the old one will be turned off permanently.

Will we still need spotters? ABSOLUTELY!

The new radar, as powerful as it is, is still a machine! It cannot prove the existence of a tornado or downburst. For storms within a certain distance of Chanhassen, the radar CAN detect the overall circulation within the entire thunderstorm, and such circulation often occurs prior to the development of tornadoes. So for this kind of storm, we will sometimes issue tornado warnings, prior to touchdown! However, only a small percentage of such "rotating" thunderstorms do indeed produce tornadoes. Thus we will issue SOME tornado warnings ahead of time, but we will not issue tornado warnings for every rotating storm, lest we issue way too many false alarms (the "cry wolf" syndrome). For those rotating storms that we do not issue tornado warnings, we will likely instead issue a severe thunderstorm warning. Spotters need to watch rotating storms very closely.

Not only that, but some tornadoes develop from "non-rotating" thunderstorms (e.g., the April '94 Stillwater tornado). There will be no circulation evident to the radar, and so this kind of tornado will touch down without a radar-based tornado warning (although there may well be a severe thunderstorm warning at the time). Spotters need to watch these storms as well, so that we can issue some advance warning.

Given these strengths and limitations of tornado detection by radar, it is imperative that all of you continue with Metro Skywarn. Furthermore, remember that both types of storms can also produce damaging wind and/or large hail. The new radar, as wonderful as it is, is still a machine! Nothing can improve upon a real-time spotter report. Please invite any and all amateur radio operators who might be interested in joining the spotter program. We need you!

A New Weather Service!

By Todd Krause, Warning and Coordinating Meteorologist, National Weather Service.
Most of our Twin Cities staff at the National Weather Service will be moving to our new office in Chanhassen on March 15. A small number of employees will stay behind at our airport office. Net operators (stationed at Bloomington, Ramsey county or Dakota county) will relay your report to our Chanhassen office, staffed by the Carver County Radio Club..

The other big change will be on April 1, when we will begin warning operations for an additional 23 counties (instead of St. Cloud and Rochester handling the warnings). Our new counties include cities such as Mora, Alexandria, Granite Falls, Mankato, Albert Lea and Fairmont. Rochester will continue warning for southeast Minnesota, but we will take over their south central counties, as well as all counties from St. Cloud. Many of these counties have tremendous participation by the amateur radio community, and we will be receiving their severe weather reports as well.

Between the new radar, our office move, and the additional counties, there will be quite a change for all of us! We thank you for your assistance and understanding. We look forward to improving our service to you during severe weather.

Grace Under Pressure

By Scott Woelm AAØBW
It's late May and a Tornado Watch has been issued that covers most of Minnesota including the Twin Cities. Despite religiously attending a SKYWARN training class for each of the last 3 years, you have had little or nothing to report. In fact, over your entire association with Metro SKYWARN, despite all of your training and lots of opportunity, you have never been able to report anything.

That's about to change! You're set up at your favorite spotting location and a thunderstorm is in the vicinity! The rain and hail have passed by to your northeast and the rainfree base of a potentially severe cell is now in range! A severe thunderstorm WARNING was issued a few moments ago, as a spotter just to your north reported "golf ball sized" hail, so you know the storm is sporting a pretty strong updraft. Soon, you spot a lowering and it begins to rotate! Yes, this is what you have waited for! You watch it for 1 to 3 minutes, and it's becoming clear to you that this is a rotating wall cloud! You head back towards the car to call in the report!

However, someone has beaten you to it. Another spotter has called the rotating wall cloud into Net Control. The Net Control asks for a confirmation, and you quickly reach for the mike! After all, this is "your" report, right? Before you can key up, another spotter reports that he is also seeing a rotating wall cloud. Soon, FIVE OTHER stations are also reporting the SAME wall cloud! Suddenly the "controlled Net" is out of control. Now what do you do? Call it in, or should you wait? You want to contribute something! Does this scenario sound familiar? It should, as this is what happened on Memorial Day (May 30) of last year. We had a potentially tornadic situation, and it seemed as if every spotter and their brother reported it. Obviously it's important to participate; without you the

SKYWARN system would not exist. However, there is a time when "too much" participation is detrimental to the cause. On that day, the Net Control was flooded with "the same" report, and it caused quite a bit of chaos on frequency. Many of those who reported in were not trying to disrupt the Net, they just wanted to report what they saw. Some stations were so excited by seeing the activity, they completely forgot Net protocol and just jumped in with their report! Once again, no one was intentionally trying to disrupt the Net, but unfortunately that was the result.

So what does all this boil down to? Well, the key really is patience, and practicing that will make things run a lot smoother the next time the Twin Cities area is faced with a tornadic situation. The Metro will see another tornado sometime, and that's where it will be very important for all of us to be as professional as possible. Before you go out to spot, maybe it would be a good idea to look over the spotter check in procedures. Sure, we all know them, but reviewing them before the event occurs may help you when the "heat is on". If what you are seeing has already been reported and confirmed, continue to watch it until it dissipates. If a tornado is on the ground, other spotters will probably be focusing their attention on it, so you may want to keep your eyes open for other development. Remember the class video that showed two of them on the ground simultaneously? Also, if you are close to the area of concern, you may want to start looking at escape routes as well!

It is now mid June of 1995, and a non-rotating wall cloud is doing its thing right before your eyes! You have strong inflow at your back, and it is cranking right into the area where the wall cloud is. Suddenly, you see a plume of dirt and debris being kicked up underneath the wall cloud, a tornado!!! No one else is reporting it, so this is your chance to contribute, and in a big way! What is the first thing you should do?

Take a deep breath, exhale, and calmly and professionally report what is occurring.

That advice may sound silly and elementary, but it's not easy to do during the event. Severe thunderstorms and tornadoes are very exciting, and they can really get your blood moving, so next time you are in a position to report something, take a moment to relax, and then make it a solid and professional report. That way, the next time we're faced with a tornadic situation in the Metro, we can all demonstrate Grace Under Pressure!

METRO SKYWARN ELECTS BOARD OF DIRECTORS

Spotters who attended Metro Skywarn's first annual meeting at Hamfest Minnesota October 29, 1995, elected its first Board of Directors. Dave Johnson, NØKBD was elected Board Chair. Dave was Co-coordinator last year and has been active with the former committee the past two years, served as a trainer last year and has been spotter for several years.

Leland Helgerson, WBØMLL was elected Vice Chair. Leland will continue as Resources Committee Chair. Leland has been active with the former committee last year and a spotter for many years. Leland maintains the 146.67 repeater for the Anoka County Radio

Club and has been a valuable resource for Metro Skywarn with his technical expertise.

Lynn Delong, NØCVI was elected Secretary and will serve as the organization's first Fundraising Committee Chair. Lynn has been active with the former Committee and has been a spotter for several years. Lynn brings to the organization considerable fundraising expertise and will lead Metro Skywarn towards self-sufficiency.

Jerry Jensen, WTØW was elected Treasurer. Jerry has been the Bloomington Emergency Operating Center (EOC) supervisor for the past three years, served as a trainer last year and has been perennial President of the Bloomington Radio Club and an active Volunteer Examiner for Amateur Radio for many years.

Walt Marty, NØRCY, past year's Co-coordinator continues as one of three Directors at large. Walt also has served as Operations Committee Chair and Dakota County EOC Supervisor for the past three years and server as a trainer the last year.

Bill Hughes, NØQHP was elected as Director at Large. Bill has been the Ramsey County EOC Supervisor for several years and is the County's Operations and Planning Officer. Bill is one of our most experienced emergency communicators and will coordinate the Operations Division of Metro Skywarn.

Audrey Zellman, NØOKX is the third Director at Large. She was active on the Development Committee last year and helped shape the current structure of Metro Skywarn. Audrey has been a driving force in the Carver Radio Club. She will work with Max Roesler, N0RGH to help shape the new National Weather Service EOC in Chanhassen.

Clyde Green, NØDVP joins the team this year as Public Information Committee Chair. He will put together a public relations campaign for the Board. Clyde has been active in the Mobile Corps and with the Minneapolis Red Cross in Emergency Communications for years.

Paul Emeott, KØLAV returns this year as Development Committee Chair. He will explore the future relationship with the local National Weather Service office and its larger area of responsibility and out state Skywarn groups. You'll remember Paul as the trustee and main technician for the 25/85 repeater.

The Metro Skywarn Team is very excited about the prospects growth for this year and development in the future. Join us and share your talents in emergency communications, meteorology, technical skill, leadership, and fundraising. Just a healthy interest in Skywarn is all that's needed to get more involved. Call Dave at 434-0600 eves or send email to daveej@nØkbd.ampr.org or via packet to: NØKBD@WBØGDB.#STP.MN.USA.NOAM.