

MidWest Tracker



March, 2008

Inside this issue...

1. Dale's Welcome!
2. What do you see?
3. For Spotters
4. Weather Alert Radio
4. Twister Sisters
5. Is All This Necessary?
6. Skywarn Digest Excerpts
8. Spotter Guide
9. Pictures from Last Year



Special Event March 25th, 2008

**MidWest will host the NWS
Spotter Training at the
Fitchburg Community
Center, 5510 Lacy Rd in
Fitchburg.**

**Information Showcase
4:30PM- 6:30PM**

**NWS Spotter Training
6:30PM to 8:30PM**

Welcome!

Dale Bernstein, President/CEO

MidWest 107



Here we are in the start of our 2008 season. January and February has now fallen behind us as March roars in as you are reading this fine newsletter.

MidWest remains strong and growing thanks to the many great members and supporters of MidWest that we have on board. For all they do and for going the extra mile at a drop of the hat. We most certainly and sincerely appreciate every single member's dedication to sustaining the growth of MidWest as we move forward in the commitment to serve our communities in the best means possible.

The MidWest ID Coordinator, Frank Weisensel, is just such a member. As for many of us, Frank's hat tree is pretty full. Having the duty of the MidWest ID Coordinator translates into countless hours of dedication compiling and processing of information even before the ID cards can then be assembled and delivered.

Among the many talents that Frank brings on board is his knowledge of procurement with regard to our business band radios, be they HTs, hard mounts, batteries, chargers, what ever your business band hardware needs, Frank is and remains the go to guy. His vast knowledge runs the gambit of his enjoyment of music and as an entertainer, to his military career, to his deep commitment to his family, friends and community.

Our hats off to you Frank, once again as always, a job well done sir. So when you're out and about, as with those many who give so much, just a small thank you goes a long way.

As we have seen, Mother Nature takes no heed of our calendar. We have seen significant storm activity ranging from snow, sleet, ice, winds

to tornadoes across this great nation and around the world in the early months of 2008. There is even a book out there promoting the prophesied end of time here in 2008, supposedly reveling the demise of the United States and the beginning of mans final war.

Such gibberish is no where even close to the comic pages, let alone such great works as *War and Peace*, yet it does shed light that there are those among us, who reel from the light of the future, of being not able to be part of the solution but remain part of the problem.

That is where we, we as MidWest, as family, friends, neighbors, we as a community, are and will remain as we give back to our fellow person. As we have experienced, it does indeed take a great deal of labor, a labor of honor and love to move forward. MidWest will continue to move forward, however always looking back as we learn and grow our commitment to those we serve.

Once again MidWest is honored to accept the invitation to host a NWS/Dane County Severe Weather Class to be held at the Fitchburg Committee Center, 5510 Lacy Road in Fitchburg Wisconsin, March 25th 2008. I personally and on behalf of MidWest and of our storm community, thank Mayor Tom Clauder and the Fitchburg Fire Department for their continued support.

MidWest is calling on all members to assist, to extend their many talents to assure this severe weather class is another roaring success that will out do the 2007 MidWest sponsored event, also held in the great city of Fitchburg.

Our good media friends will once again be present on March 25th helping all of us to get the message out, to be safe, be knowledgeable, learn, grow and share as you go.

As you peruse this fine newsletter, take heed of the many folks that make things happen, upcoming speakers, events, meetings and the great opportunities and events that lay before us.

Remember, the glass is never empty, more often then not it is only half full.

Forward,

db
107



Tim asks.... What do you see in the picture below?



Details on page 7

From The Front Office

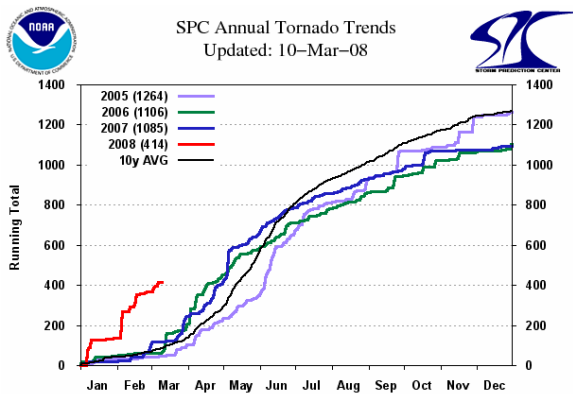
Dane and Rock County meetings are now held together at the Monona Community Center.



Dale (left) and Tim (right) in front of Dale's 107 unit

2008 Season Starts Off Above Average

Steve Fitzsimmons, MidWest 136



The red line that looks more like a rocket launch than a line on a graph represents the number of tornadoes we have seen so far in 2008. If this trend continues, we can be in for a very busy year and will need all the help and support you can give. As in every year, training and experience become increasingly important.

Where can you find training? This month the National Weather Service (NWS) will be conducting spotter training throughout the area. One such training event is sponsored by MidWest SSTRC on March 25th at the Fitchburg Community Center. For a list of other spotter training opportunities given by the NWS just follow this link... <http://www.crh.noaa.gov/mkx/?n=spotter-schedule>

Extensive training can also be found on the MidWest SSTRC website at... <http://www.midwestsstrc.org/training.php>

Also at [Madison Area Science and Technology](#)

And at the Milwaukee Area SkyWarn Assoc. http://www.mke-skywarn.org/storm_spotters.html



For severe weather spotters...and how is your story going to read?
*Rusty Kapela,
Warning
Coordination
Meteorologist*

Folks...below you'll find some words of wisdom from Scott Shevey, an advanced severe weather spotter who lives near Watertown. As you know, officially the National Weather Service doesn't recommend storm chasing due to the weather hazards. However, some spotters will go mobile. In these cases you should have a co-pilot who can help navigate and take pictures/video. Going solo is really asking for trouble. As always, your personal safety is your #1 priority – I don't need your severe weather report if you find yourself in a dangerous situation.

One summer afternoon a number of years ago, I was working at my computer when I found out that a tornado warning based on rotation had just been issued for a location in Dodge County about 15 miles west northwest of my location in Watertown. As a new mobile spotter, I of course wasted no time in grabbing up my camera and cell phone and heading out the door.

I found the perfect observation position on a narrow farm road about three miles from this rather impressive and somewhat intimidating storm; lightning cutting through a green-black sky, the clouds rolling and twisting, the wind howling. In viewing the developing storm and with spotter training enabling me to understand the nature of this situation, the logical and scientific approach taught to us was, in my case replaced by sense of vulnerability and of being overwhelmed. As the storm grew somewhat closer, I realized then what was needed: I took a step back, a few deep breaths, cleared my mind of emotion and started to logically access the situation.

A few thoughts for new spotters...

Information: don't ever be without some means of keeping up on what's happening around you. Whether you're mobile or stationary, keeping up on developing storms whose features for whatever can't see is essential to your safety

Knowledge: have exceptional knowledge of the anatomy of a thunderstorm, meaning plan to study thunderstorm mechanics and general meteorology on an ongoing basis. Many years ago I chased a tornadic thunderstorm and approached the system from the northwest to southeast, punching through what I now know to be the rear flank downdraft region: compounding this totally bad idea was the fact that I was driving my wife's new car. A lack of knowledge in this business equals bad information to your local NWS office and worse, endangering your own life: simply put, don't do it.

Escape route: regardless whether you're mobile or stationary, have an escape route planned; this is especially important for mobile spotters. Don't paint yourself into a corner.

Lightning: Understand the characteristics of lightning and how to remain safe in it's presence. I have had a couple of close calls with lightning in my life: as a teenager, I was watching a storm that was passing from the "safety" of my parents' garage. It was a warm summer night and subsequently I was clad in shorts, a tee shirt and no shoes and standing on the concrete garage floor. A short time later, lightning struck a tree that was about 150 yards from where I was standing: a second later I found myself about 10 feet out on the driveway on my butt. What happened you ask? Lightning produces an intense magnetic field that induces a strong electrical current in anything conductive that's isolated from ground, in this case the "conductor" was the car that I was leaning against; my legs completed the circuit to ground from the metal bumper. Bottom line: lightning is an incredibly powerful and indiscriminate killer, deserving of your utmost respect.

Severe weather spotters, mobile and stationary have the opportunity to witness and enjoy some of the

most awesome spectacles that nature can provide while performing a valuable service to your community. You'll accomplish nothing if you underestimate these and other severe weather manifestations and become a statistic yourself.

Scott Shevey
Watertown

Did You Know? (From NWS website)

Wisconsin's temperature extremes run from a low of -55 degrees to a high of 114. Yikes! Also, [every rain drop falling from T-Storm starts as ice or snow.](#)

New Kind of Weather Alert Radio

Steve Fitzsimmons, MidWest 136



If you are looking for a new weather alert radio, this new clock radio from Emerson Research might just be your ticket. The radio is AM/FM and S.A.M.E. (Specific Area Message Encoding) capable. It has a battery backup and both sounds an alert and lights the panel when severe weather strikes as well as tunes into the local NWS station. The red message says "Warning", the yellow says "Watch" and the green says "Statement". I picked up mine at Target for \$39.95 and have been pretty happy with it.

Twister Sisters on WeTV



The Twister Sisters have their own show playing on WeTV where they show what happens and their experiences chasing tornadoes.

<http://twistersisters.wetv.com/>

Is All of This Necessary?

by [George E. Hrabovsky](#)

President, [Madison Area Science and Technology](#)



Why do we need to study the science of the air called meteorology? What is the importance of all of this technical stuff? I mean the meteorologists at the National

Weather Service and TV stations already know this stuff and they can tell me what to do, right?

The painful truth is that this is not true. The professionals are not going to be able to hold your hands when you are out in the field. The basic training given is good, but it is nowhere near enough to be adequate. So, what then do you need to know to be an effective spotter?

1) The air behaves like a fluid. It flows and sloshes around. That is wind. That is the behavior of fronts and the motion of storms. It is vital to know how these things behave, it is vital to know how fluids behave. The more general your knowledge of fluids, the better off you will be when you encounter such motions in the field.

2) Clouds condense out of the air from gaseous water vapor. This is what is called a change of phase. This is the heart of thermodynamics, the physics of heat. The better you understand how heat behaves, the better you will understand how clouds and storms form, how precipitation forms, and how the different thermal layers of the atmosphere behave. This is the basic element of severe weather forecasting.

3) As you heat a fluid it wants to rise. Boil water and watch it. You will see rolling water forming cells. These are convective cells. Convection is the action of a fluid rising due to heating from below. A similar effect happens in the air; in fact the

convective towers that form thunderstorms are completely governed by the interaction of the behavior fluids and heating.

How can you get such training? Do you need to become a physicist or meteorologist to be a spotter? No. Attend many basic spotter classes. Take the MidWest SSTRC advanced training. Take the MAST advanced training. In order. These are designed to give you the background you need. Ride with those who have taken those training courses and have field experience. Practice looking at clouds and explaining to yourself what you are seeing. Bounce ideas off your spotter partner. Make notes, keep recordings, take photos, and take video; then review them again and again until you understand them thoroughly.

To be an effective spotter you will need an intuitive understanding of fluids, heat, and their interaction. After all, all of the phenomena that we call severe weather (including tornadoes) are interactions of fluids with heat. Do you need to be able to make fluid and/or heat calculations? No. But you do need to be able to understand what you are seeing in a thunderstorm that is trying to make a potentially killer tornado. The clouds are a manifestation of the physics, and you can read the signs to tell what is coming.

MidWest Forums

MidWest also has its own forums on the MidWest SSTRC web site at

<http://www.midwestsstrc.org/membersbbs/>

Tim will be posting future outlooks there as well.

New MidWest SSTRC Online Store! 

<http://www.createchinc.com/store/msstrc/>

[Selected articles from the Milwaukee Area Skywarn Association "Skywarn Digest".](#)

WEATHER RADAR: QUESTIONS AND ANSWERS

RADAR is an acronym for Radio Detection And Ranging. By Max Cooper, Contributing author and weather wise guy (masa@execpc.com)

Q: Why do TV station radars update faster than Weather Service radars?

A: The TV station radar typically scans the lowest level of a storm to show to it's viewers. But its the storm's upper level features that will most frequently generate warnings. Because of this Weather Service radars scan a storm from bottom to top in 3 and 4 dimensional graphics. This volume scan requires more time, but is critical data for the meteorologist to determine if a warning is needed. Future generation "Phased Array" radars will update in under 1 minute.

Q: How do you interpret the color-number scale often seen on radar?

A: All radars send out radio signals that reflect or scatter off of objects in the atmosphere. The reflected signal strength is measured in units called "DBZ" (Decibels of Reflectivity) and assigned a correlating color scale. Light/moderate rain/snow produces 5-30 DBZ signals and shows as blue-green colors. Heavy rain returns a 30-50 DBZ signal with yellows and oranges. Severe thunderstorms with heavy rain and large hail have the strongest signals, 50-75 DBZ, thus the reds, purples, or whites. These are not absolute values but generalities. Color scales and explanations on radar-tornado displays are much more complex.

Q: How does radar tell the difference between rain and snow?

A: It cannot tell the difference, but radar display software is programmed to change the screen colors based on the surface air temperatures at a given location. Around 32 degrees it shows a rain-snow mix, below freezing it shows snow and above 34 it shows rain. As displayed the exact rain-snow transition areas are not always precise. The next generation of "Polarmetric" radars can distinguish the difference and will be more precise.

Q: Why does the cable TV Weather Channel radar often shows rain or snow over my location, but sometimes nothing is hitting the ground?

A: Most likely the precipitation aloft has not yet fallen to the ground or it is evaporating before reaching the ground. This can happen when the air at the surface is very dry or the radar display is in 'Composite' mode. This mode scans for any atmospheric target from ground up, suspended aloft or still falling. Many commercial weather vendors use composite mode.

Q: What does the term "Hook Echo" mean?

A: The colored contours, shapes, and blobs on radar images are called Echoes. The Hook Echo is a small scale radar signature that resembles the shape of a fishing hook. Tornado producing storms often occur within areas were this shape is seen on a radar screen.

THE DESIGNATED WEATHER WATCHER

They Monitor And Warn Others.

The Designated Weather Watcher monitors the weather while others go about their business. This person has multiple sources of data and knows how to initiate a local warning action or whom to notify during a developing weather emergency. Recommended for all schools, hospitals, businesses, auditoriums, entertainment centers, nursing homes, mobile homes, athletic parks, RV sites, and tall building owners. On March 1st 2007 a tornado killed 8 students at the Enterprise Alabama High School. That same day a twister damaged the Sumter Regional Hospital in Americus Georgia. <http://www.mke-skywarn.org/dww.htm>

PREPARE YOUR BUSINESS DISASTER PLAN

Small Business Owners Should Expect the Unexpected. 10 Pages, 2.2 Mb PDF

The U.S. Small Business Administration and Nationwide Mutual Insurance Company have teamed up to launch this disaster planning guide for small business owners. The 10-page guide provides information business owners need to develop an effective plan to protect customers and employees in the event of a disaster. The guide provides key preparedness strategies to help small businesses identify potential hazards, create plans to remain in operation if the office is unusable, and understand the limitations of their insurance coverage. http://www.sba.gov/idc/groups/public/documents/sba_homepage/serv_disprep_planningguide.pdf

What are some of the common mistakes that spotters make (trained or otherwise) and what makes a good high quality storm report? (Marsha W., Lake Geneva, WI.)

A: The most common mistakes are in the form of mental preparation, getting your facts in order, and not being clear on your location. However, there is always one absolute. Common mistakes and quality reporting is covered by a 15 minute audio-video training course at <http://www.wdtb.noaa.gov/modules/spotters/player.html> This show requires a high speed internet.

2008 CALENDAR

March 9 -- National Daylight Saving Time begins.
March 17-21 --National Flood Safety Awareness Week.
June 1-7 National Rip Current Awareness Week.
June 22-28 National Lightning Safety Awareness Week.

WISCONSIN RELATED

March 8 8th Anniversary: Saint Francis (Milwaukee Co) F1 Tornado, 16 injured.

WISCONSIN RELATED Continued...

- April 8-9** Wisconsin Governor's Conference on Emergency Management.
- April 21-25** Wisconsin Tornado & Severe Weather Awareness Week.
- May 14** Wisconsin Weather Radio Awareness Day.
- May 31** 10th Anniversary: Hurricane Force Winds, 128 MPH in Dodge Co, 3 killed.
- June 12** Wisconsin Heat Awareness Day.
- June 28-29** Wisconsin Amateur Radio Operator Recognition Days.
- Nov 10-14** Wisconsin Winter Awareness Week.

2008 TORNADO & SEVERE WEATHER AWARENESS WEEK

Governor Doyle has proclaimed April 21-25, 2008 as Tornado and Severe Weather Awareness Week in Wisconsin. On April 24, 2008, a statewide tornado drill is planned between 1-2 PM.

The drill tests your ability to receive weather warnings, activate your safety plans, and reveal weaknesses in those plans. Test your plan for home, work, and school. Your goals should be: Detect the warning, disseminate the information, and activate safety/shelter plans. If actual severe weather occurs on April 24, the drill is rescheduled for Friday April 25th. The mock watch and warnings times remain the same.

The mock watch & warnings will also tone activate your NOAA All Hazards Weather Radios. During the week a variety of information statements on severe weather concepts will be broadcast on the weather radio, sent out to the weather wire networks, and the Milwaukee Skywarn mail roster. **Mock watch and warning times:**

http://www.mke-skywarn.org/upcoming_events.htm

Information statements:

http://www.crh.noaa.gov/mkx/?n=severe_weather_awareness

Governor's Proclamation: http://www.mke-skywarn.org/weather_proclamation.htm



1. Rear Flanking downdraft. See sunshine on the wall cloud from the left side. Assuming the cell is moving from left to right.
2. Wall cloud, probably rotating.
3. Funnel cloud or suspect tornado. We can not see debris from this distance.
4. Rain free base near the wall cloud.
5. LP Supercell or LP storm. Can't see much but does not appear to be producing much in the way of rain.

MidWest SSTRC Inc. Mission Statement

The MidWest Severe Storm Tracking/ Response Center (*MidWest SSTRC Inc.*) is comprised of members whose primary purpose is to assist in providing early detection of severe weather. We communicate this critical information to government officials, other recognized agencies and organizations including the National Weather Service allowing for timely public severe weather warnings and providing emergency response as appropriate. *MidWest SSTRC Inc. endeavors to assist in any way it can in the protection of life and property from any threat, be it natural or man made.* MidWest SSTRC Inc. is a 501c3 Non-Profit Corporation

Wednesday Night Nets

Check-in begins at 7pm on the Ham Radio side on 444.375 MHz. Test your radios.

Check-ins begin at 7:30pm on the Business Band side on 451.275 MHz. Practice your TLCS.



Spotter Quick Reference Guide

NOAA's National Weather Service (NWS)

<http://www.weather.gov/milwaukee>

rusty.kapela@noaa.gov

<http://espotter.weather.gov>



Your reports are critical to helping the NWS achieve its mission of saving lives and property through the issuance of timely warnings. **NWS needs these reports:** tornadoes, funnel clouds, wall clouds, hail ¼ inch in diameter and larger, tstm & non-tstm wind gusts (estimated or measured) of 40 mph or higher, flash flooding (or water over the curb), and extent of damage (property, trees, power-lines, etc). It takes years to be a good spotter. Study and train and attend free NWS spotter classes. Spotting will be very difficult at times, especially at night. When spotting, try to have a partner (two heads are better than one). Below is a set of charts designed to aid you in judging the severity of a weather condition.

Damaging Winds:

Straight-line Wind Gust Estimates	
45-57 mph (39-49 kts)	Non severe. Large trees bend; twigs, small limbs break, and a few larger dead or weak branches may break. Old/weak structures (e.g., sheds, barns) may sustain minor damage (roof, doors). A few loose shingles removed from houses.
58-74 mph (50-64 kts)	Severe. Large limbs break; shallow rooted trees pushed over. Semi-trucks overturned. More significant damage to old / weak structures. Shingles, awnings removed from houses; damage to chimneys and antennas; mobile homes, carports incur minor structural damage; large billboard signs may be toppled.
75-89 mph (65-77 kts)	Hurricane force. Widespread tree damage (trees either broken or uprooted). Mobile homes may incur more significant structural damage; be pushed off foundations or overturned. Roofs may be partially peeled off industrial/commercial/warehouse buildings. Some minor roof damage to homes. Weak or open structures (e.g. farm buildings, airplane hangars) may be severely damaged.
90+ mph (78+ kts)	Significant severe. Groves of trees flattened. Mobile homes severely damaged; moderate roof damage to homes. Roofs partially peeled off homes and buildings. Barns and sheds completely demolished.

Tornado:

Enhanced Fujita Scale (EF-Scale)	
EF0: 65 - 85 mph - Light damage	Loss of roofing material, large tree branches broken, some large trees uprooted
EF1: 86 - 110 mph - Moderate damage	considerable loss of roof material, mobile home flipped to side or over, bent light poles
EF2: 111 - 135 mph - Considerable damage	large roof sections removed, most wall still standing, light pole collapses
EF3: 136 - 165 mph - Svr damage	exterior walls & some interior walls of homes removed, complete destruction of mobile
EF4: 166 - 200 mph - Devastating damage	all home walls collapsed, partial destruction of masonry motels and strip malls
EF5: > 200 mph - Incredible damage	destruction of home (or shopping mall), home slab swept clean, steel buildings deformed

Note: You need not give an EF-scale estimate with a tornado report. Tornado intensity is largely determined after NWS damage assessments.

Large Hail:

Hail Sizes	
0.25" - .375 - Pea	0.50" - Small Marble
0.75" - Penny	0.88" - Nickel
1" - Quarter	1.25" - Half Dollar
1.5" - Ping Pong Ball	1.75" - Golfball
2" - Lime	2.5" - Tennis Ball
2.75" - Baseball	3" - Large Apple
4" - Softball	4.5" - Grapefruit
4.75 - 5" - CD/DVD	

Note: NEVER report "large marble-sized" hail. Small marble is assumed to be ½"

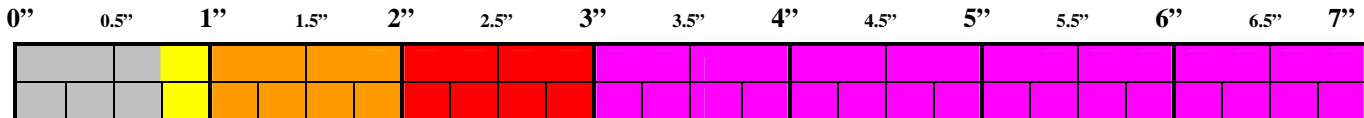
Watch/Warning Definitions

A **Severe Thunderstorm Watch** means conditions are favorable for thunderstorms to producing large hail in excess of ¾ inch, and/or damaging winds in excess of 58 mph for the next several hours. An isolated tornado cannot be ruled out. A **Severe Thunderstorm Warning** means radar has detected, or a report has indicated, a severe thunderstorm producing large hail or damaging winds is in progress or is imminent.

A **Tornado Watch** means conditions are favorable for tornadoes. A **Tornado Warning** means radar has indicated a possible tornado (mesocyclone) or a report has indicated a tornado as being in progress.

Personal Notes

Hail Ruler:



Tips for providing useful reports

- Good spotters practice safety first (safety #1 priority, report is #2 priority). Never put yourself or others in harm's way.
- Be sure you know what you're reporting...false reports do more harm than no report at all. Not sure? – Don't report.
- Some tools to help you provide accurate reports include:
 - A NOAA Weather Radio All Hazards A correctly set watch
 - Any weather measuring instrument This guide sheet
 - A pad and a pencil or pen A ruler – lower left

- An accurate report should include the following:
 - A detailed explanation of the particular hazard, including any damage, injuries and fatalities.
 - Exact time of event occurrence and time of call.
 - Location of Event – distance and direction from a village or city within a tenth of a mile (within the same county as the event). If you are stationary, know your location ahead of time!
 - Any additional significant information.
 - Your name and e-mail address so we can contact you with possible questions (optional).
- An example of an accurate report to a 911 center:

“My name is Joe Smith and I am a trained weather spotter. I observed straight-line wind gusts estimated around 75 mph at 5:58 pm about 1.2 miles south-southeast of Beaver Dam in Dodge County. A tree fell onto a house injuring 2 people in Beaver Dam at 5:58 pm.”
- Ways to relay your report to the National Weather Service include:
 - eSpotter (online) NWS toll free number
 - Call 911 Amateur Radio

Severe Weather Myths

- The safest place to escape to while traveling as a tornado threatens is under an overpass.
- Tornadoes avoid bodies of water such as lakes and rivers as well as mountains, large hills, swamps, and marshes.
- Large cities are protected from tornadoes because of their high-rise buildings.
- If a thunderstorm is not overhead, you can not be struck by lightning.
- It is safe to take a truck or SUV into flood waters because of their weight.
- Open windows & doors to equalize air pressure so building doesn't explode.
- The southwest side of the basement is the safest place & I'm 100% safe in any basement (are you safe if a car or other large object is deposited into a basement by a tornado?)

Some pictures from last years popular spotter training event



MidWest Tracker is a monthly publication of the MidWest Severe Tracking & Response Center, Inc. Your comments are always welcome. Please send any comments and suggestions to Dale Bernstein at dale.bernstein@midweststrc.org or Steve Fitzsimmons at midwestnewslettereditor@midweststrc.org. Thank you!

Severe Weather Spotter Class/Seminar

**** Free of charge to the public! **
(No Reservations Necessary)**

Date: Tuesday March 25, 2008



Agenda: 4:30pm — 6:30pm: Information Showcase

FEMA, National Weather Service, Fitch-Rona EMS,
American Red Cross, ProAlert.us, MAST,
and many more organizations will be there

6:30pm — 8:30pm: NWS Spotter Class

**Venue: Fitchburg Community Center
5510 Lacy Road
Fitchburg, WI 53711**

Severe Weather Class

Hosted by: Midwest SSTRC

**Sponsored by:
Dane County Emergency Management**

**Class Presented by:
Rusty Kapela, NWS Warning
Coordination Meteorologist**

Contact Information

Dale Bernstein, President/CEO
Email: dale.bernstein@midwestsstrc.org
Phone: (608)221-8097, (608)-577-9360
Or visit www.midwestsstrc.org

