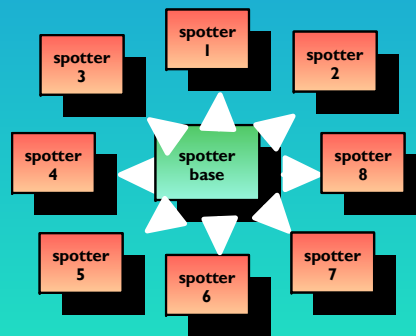


Advanced Spotter Training 2009

Lesson 10: Base Operations



From Last Time

- We covered how to be a part of a group, what is expected, and what you should expect.
- We discussed how a network prepares for severe weather.
- We discussed how a network responds to the potential for severe weather.
- We discussed how a network trains for severe weather.

This Time

- We will describe how things were done in our base when we actively ran the Tornado Spotter Network.
- We will explore how a base should function.
- Note that this lesson is NOT a substitute for actual base training.

Homework Review

Go over the homework problems from last time:

- **Think about how you can best operate within a group as a spotter.**
- **What method(s) would you prefer for being contacted. What method(s) do you think are most realistic?**
- **What style of deployment would you be able to perform?**
- **What is the form of communications you will most often use?**

Homework Review *(continued)*

- How would you develop a relay for spotters out of range of a radio base?
- What exercises would you recommend for the coming year? What exercises are you most likely to participate in?
- How often should a post-mortem be done on a severe weather event?

The Three Functions of a Spotter Base

- The first task of a spotter base is to serve as a tripwire for network activation.
 - Some networks rely on the NWS to tell them when to activate, and only do so when a watch is issued.
 - I believe that this is a mistake and will lead to situations where there are no organized spotters present for severe weather situations.

The Three Functions of a Spotter Base *(continued)*

- **The base should be running well before any severe weather begins to impact your area of responsibility.**
- **This places a lot of strain on the base personnel, but that is part of the job.**
- **Only in this way can the spotter network hope to respond to rapidly changing situations.**

The Three Functions of a Spotter Base *(continued)*

- **The second task of a spotter base is to act as a Storm Information Center.**
 - **The base personnel should have Internet access and have radar, satellite, and surface weather observations available.**
 - **They should be familiar with how to interpret all of the information that is coming in.**
 - **The base should also have radio and telephone equipment.**

The Three Functions of a Spotter Base *(continued)*

- In this way the base can collect information about the storm(s) entering the area so that they can direct spotters appropriately, and they can collect spotter reports to pass them on to the NWS.
- The base personnel will gather a good deal of information about how a storm is developing and behaving.

The Three Functions of a Spotter Base *(continued)*

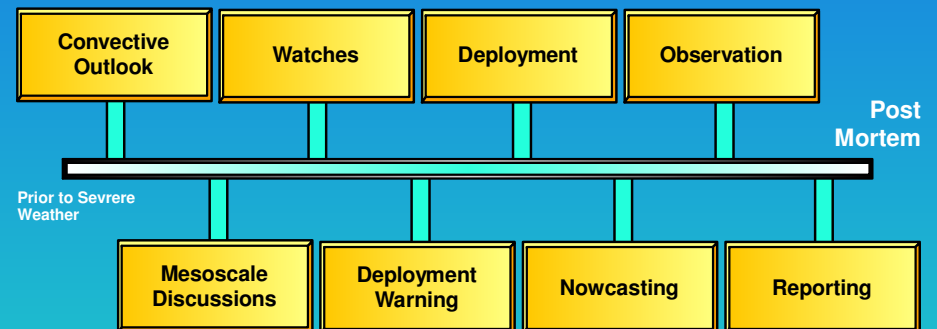
- With practice this can take some of the load off of the forecasters at the NWS since you will be able to tell them what is important, along with your conclusions about what is happening.

The Three Functions of a Spotter Base *(continued)*

- The third function of a spotter base is to serve as a record-center.
 - Each deployment is an educational opportunity.
 - Radar, satellite photos, weather maps, observations, reports, storm photos and video should be recorded and stored for future use in post-mortems and training sessions.

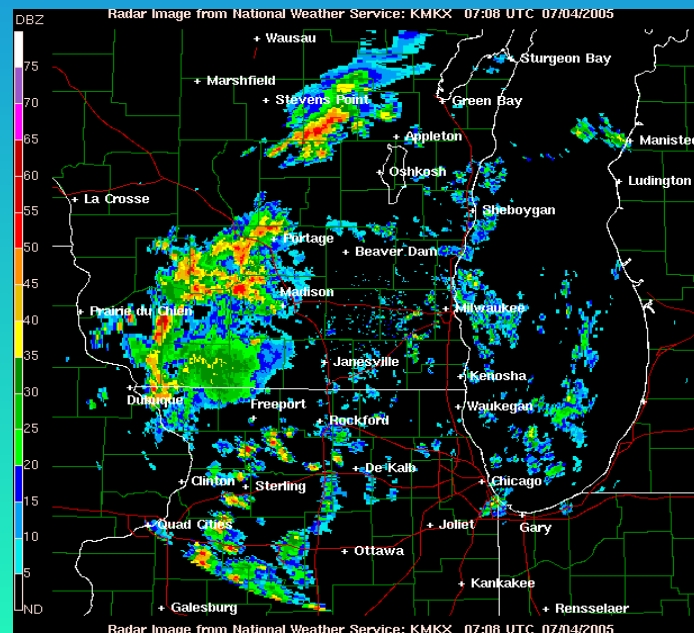
First Discussion!

- Think about how you can help out with any or all of these base functions.



Section 2

Primary Base Operations



Network Activation

- It is the responsibility of the spotter base to activate the network.
- It is the responsibility of the spotter to make this task possible.
- Here is what a good base should do to maintain a high-level of readiness:

Network Activation (*continued*)

- **Perform a daily check of SPC Convective Outlooks to see if there is a chance of storms in your area. Do not simply accept what SPC says as holy writ. Check it out for yourself. If you think there is a chance of severe weather then have the base in a standby condition.**

Network Activation (*continued*)

- **Find out what spotters will be available should you need activate.**
- **If you are in a standby condition and you become aware of rapid storm development upstream from you then activate the base.**
- **If storms look like they will be effecting your area in the next couple of hours activate the network.**

Network Activation (*continued*)

- **Activate if SPC puts out a watch for your area.**
- **As a spotter you can help out by being aware of the possibility of severe weather.**
- **If you are available for spotting then have some way that the base can let you know if an activation occurs.**

Network Activation (*continued*)

- **Have a radio or scanner that operates on the base's frequency; have email running to receive an email activation, etc.**
- **Try not to rely on the phone or related equipment unless there are only a few spotters in your network.**
- **If an activation occurs, contact the base as soon as possible to tell them when you will be available and where.**

Network Activation (*continued*)

- **Ascertain what the situation is and if there is some place in particular that the base wants you to go to.**
- **Call the base and ask them what they think.**
- **Do not assume that a nice sunny morning means there will be no severe weather.**

Network Activation (*continued*)

- **Do not assume that a media forecast is correct (or the NWS for that matter).**
- **Check and double check.**

Storm-Information Center

- The base will have several sources of information.
- Radar is available through the Internet and the base will be responsible for passing on regular radar reports during a deployment.
- In this way, the base can coordinate with you on how to optimize you as a spotter in the present situation.

Storm-Information Center

(continued)

- **Satellite photos are also available.**
- **These can give clues about development beyond local radar range, and before precipitation occurs.**
- **It can also identify overshooting tops.**
- **The base should incorporate satellite data into their planning and information reports.**

Storm-Information Center *(continued)*

- **Surface observations are also available and can give important clues as to the surface wind field and other critical information that can be important for finding existing boundaries and other small-scale weather features of significance.**

Storm-Information Center ***(continued)***

- **Scanners can be used to monitor law enforcement and emergency responders in your area, and the base should have a couple of these operating to pick up reports for spotters to investigate.**
- **Spotter reports can also be collected and disseminated.**

Storm-Information Center *(continued)*

- **All of these sources allow the base personnel to develop a good understanding of how the storm situation is developing.**
- **They can pass the information they get onto the NWS and the spotters in the field.**

Message Center

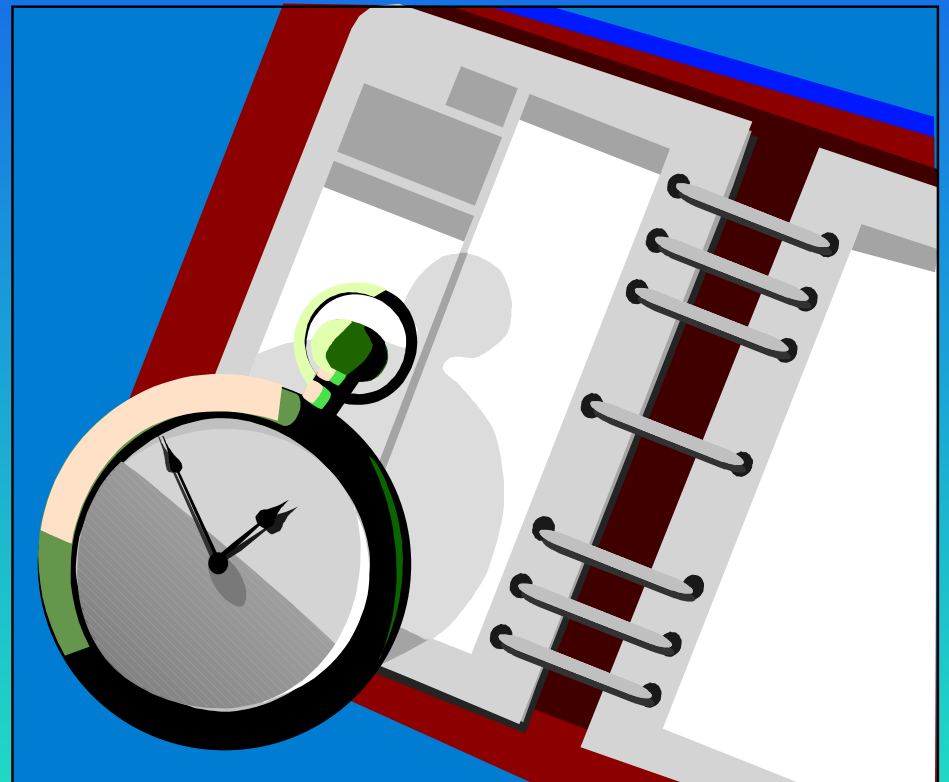
- The base receives information from spotters and passes it onto the NWS (and possibly the local 911 center if a life-threatening situation develops).
- This information should also be given to the spotter network.

Message Center (*continued*)

- **Often the NWS will contact the base to request specific information.**
- **Such requests need not be relayed to field spotters if the base already has the information.**
- **Otherwise, the base will attempt to meet the request by sending field personnel to investigate.**
- **In this way the base also acts as a message center.**

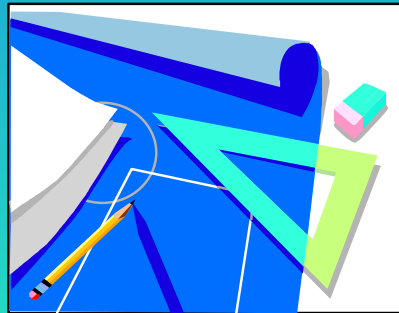
Second Discussion!

- Think about what you can do as a field spotter to make the job of base personnel easier



Section 3

Skills Necessary for Base Operations



Record-Keeping

- All reports should be logged with time, location, and the substance of the report, if time permits.
- Any significant radar pictures, satellite photos, maps, etc. should also be saved for a post-mortem and possible training aids.
- Individual spotters should have a camera and/or video camera with them to record what they see.

Record-Keeping (*continued*)

- **The base should have a place for all of these records.**
- **Using a word-processor can make record keeping easier.**

Nowcasting and Forecasting

- A necessary skill to develop is the ability to predict what the weather will be in the near future (over the next hour, or so); called *nowcasting*.
- The ability to predict what the weather will be hours or days from now is also important, and is called *forecasting*.
- It is important that base personnel develop these skills.

Nowcasting and Forecasting *(continued)*

- **Nowcasting is vital to positioning mobile spotters.**

Spotter Tactics and Navigation

- It is also important that the base personnel have an intimate knowledge of local roads (I recommend the DeLorme gazetteers).
- This will help spotters to get into position and to have a good safe route away from potential trouble.

Spotter Tactics and Navigation *(continued)*

- **With such knowledge of the roads, topography, and the storm situation, the base can assign spotters to locations effectively.**
- **Without it, such deployments will be hit-or-miss by luck, and that is unacceptable.**

A Word (or more) About Where to Go From Here

- **You have traveled a long way to get here.**
- **You are nearly done.**
- **After your exam you will be a certified spotter.**
- **This is, of course, only the beginning.**
- **Every year we learn new things about storms, and we will have a yearly refresher course (only a couple of lessons) to cover the new material.**

A Word (or more) About Where to Go From Here (*continued*)

- I anticipate that every few years enough new material will be accumulated to completely redo this course.
- There is also base training, forecasting training, and weather analysis training, for those who want it.
- The point is that the process never stops, it only starts.
- You can go as far as you want.

A Word (or more) About Where to Go From Here (*continued*)

- **Even if you choose to do only the minimal training; that, coupled with the experience you will gain, will be a lot!**