What Happens to Your Severe Weather Report: A WFO Perspective

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Severe Weather Reports – Why?

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Why are severe weather reports important to the National Weather Service?

- They provide ground-truth information.
- They aid in our situational awareness.
- They assist us in our verification efforts.

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A Fact About Severe Reports:

- Severe weather reports have a positive impact on the entire integrated warning system.

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National Weather Service Mission:

“To provide weather and flood warnings, public forecasts and advisories for all the United States, its territories, adjacent waters, and ocean areas, primarily for the protection of life and property.”

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Forecast Offices Nationwide

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Building trust leads to better communication
Better Communication = More Reports

- Our spotter training focuses on teamwork.
- We nurture partnerships with emergency management.
- We proactively collaborate with the media.
- We are supportive of our volunteers - the Skywarn Spotters, Amateur Radio Operators, and Coop Observers.

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We are part of a larger team

- National Weather Service
- PD, FD, EMS, SO
- Local Media – Television and Radio Stations
- Skywarn Spotters and Amateur Radio Operators
- Emergency Management

This Team Protects Our Community

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The NWS Reporting Network

Public Reports

Emergency Management
PD  SO  FD  EMS

NWS Volunteers
Spotters; Hams; Coop Observers

Media

Storm Chasers

Newspapers; Radio; TV

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So How Do We Get Reports?

It’s not a simple answer.

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• Weather Forecast Offices (WFOs) are using MYSQL and PHP to develop Intranet contact databases. (Allowing for warning emails & much more) replacing the old contact binders

• WFOs have talented programmers writing programs to pull spotter information from these databases into AWIPS for graphical display.

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Advances in Information Technology

- The use of instant messaging is allowing for continual interaction during severe weather events between the NWS and our partners (such as the broadcast media).
- The ability to submit web reports in real-time through the Internet to your local NWS office.

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Reports…Reports…Everywhere

Improvements in communication…

• Have allowed offices to receive reports live from local television stations

• Have allowed for radar imagery and/or text to be sent through PDAs, pagers, cell phones, and Blackberry(s)

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Reports…Reports…Everywhere

The NWS gets reports…

• from Skywarn spotters relayed through Net Control operations via amateur radio

• through observational data from area mesonets, ASOS, AWOS

• through communication on the NAWAS (National Warning System)

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The NWS gets weather information...

- by appending contact numbers on severe weather warnings and statements and soliciting for reports.
- through public reports from people who have home weather stations.
- through area webcams.
Reports...Reports...Everywhere

The NWS gets reports...

• from the aviation and marine communities.
• from dedicated storm chasers.
• from post-event communications.
• from newspaper clipping services.

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Reports...Reports...Everywhere

In summary...

The 122 National Weather Service Offices across the country get severe weather reports in every imaginable way, from every possible resource.

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So what do we do with reports?

• Before a report is accepted, we must determine its accuracy.
• The consistency of the report is evaluated.
• We consider every report to be authentic until proven otherwise.
The Preliminary Local Storm Report

• If a real-time report is deemed to be legitimate, it goes into a special product issued by each National Weather Service Office – the LSR

• The LSR is the “Preliminary Local Storm Report”

• Emphasis should be placed on “Preliminary”

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The Preliminary Local Storm Report

• The LSR provides the SPC, adjacent WFOs, and our external partners with reported observations of hazardous weather events.

• The LSR serves as another level of awareness as a severe weather episode is unfolding.

• The LSR is decoded by SPC into the national and hourly reports which can be accessed at:

  http://www.spc.noaa.gov/climo

  www.srh.weather.gov
The Preliminary Local Storm Report

- LSRs are issued for severe weather events such as tornadoes, waterspouts, large hail, flash floods thunderstorm/marine wind gusts, and other types of severe weather events.

- LSRs should contain events that meet or exceed warning criteria.

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The Preliminary Local Storm Report

- LSRs are issued as close to real-time as possible.

- LSRs may “summarize” a list of reports during and/or at the end of an event.
The Preliminary Local Storm Report Office have several methods of issuing the LSR.

- Some offices issue LSRs immediately after a report is received and then issue a summary LSR at the end of the event.
- Some offices issue LSRs for each report, but append these new reports to an ongoing list of events.
- Some offices just issue summary LSRs.

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The Preliminary Local Storm Report

Regardless of LSR method, offices generally follow similar guidelines for determining LSR content:

- It doesn’t contain multiple reports of the same event.
- Unconfirmed events are omitted.
- Events where partial information would cause confusion are “temporarily” omitted until all data is gathered

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A good example of where partial information might cause confusion would be in the case of a tornado report. (Issues concerning intensity, path length, width, and area affected are very important)

In many cases, storm damage surveys immediately following an event will answer many questions and provide important details (hard evidence).
The Preliminary Local Storm Report

• Once that survey is complete, then the entire story can be told.

• Offices will normally provide final information either in an LSR, in a Public Information Statement, or as a write-up on the local office NWS website.

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Post-Event Reports

The first few days following the event are critical:

- Post-event phone calls are made.
- Additional reports trickle into the office.
- News clippings and videos are gathered.
- Rural networks are extremely important.
- Once another event occurs, details become sketchy.
- LSRs can be produced for events up to 7 days old.

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Post-Event Reports

- Eventually, once all reports are gathered in final form, the 122 NWS offices across the country begin the Storm Data” process.

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What is Storm Data?

- Storm Data is a monthly publication providing “severe and unusual” weather that occurs across the United States.
- The content for Storm Data comes directly from the local National Weather Service offices across the country.

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What is Storm Data?

- Very detailed and complete information
- Offices have 60 Days from the end of the month the event occurred to complete and submit Storm Data.
- It’s a grueling process for Storm Data focal points – it takes constant attention to do it right
- Normally a group of people are involved with quality assurance – the data must be accurate.
- Entries are done through the Storm Dat Program
Thank you for your reports!

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