

***NATIONAL WEATHER SERVICE EASTERN REGION SUPPLEMENT 02-2003***

***APPLICABLE TO NWSI 10-513***

***November 13, 2007***

***Operations and Services***

***Public Weather Services, NWSPD 10-5***

***WFO Winter Weather Products Specification, NWSI 10-513***

***WINTER WEATHER WATCH/WARNING/ADVISORY PROCEDURES, AND THRESHOLDS***

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**NOTICE:** This publication is available at: <http://www.nws.noaa.gov/directives/>.

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***SUMMARY OF REVISIONS:*** This Supplement replaces ERS 02-2003, “Winter Weather Watch/Warning/Advisory Policy, Procedures, and Thresholds”, dated July 1, 2004, issued with NWSI 10-513, and contains the following revisions:

1. In section 4.1, removed reference to AWIPS Watch/Warning/Advisory (WWA) software.
2. In Section 4.2 and 4.8, removed reference to Special Weather Statements (SPS) and enhanced wording on use of Hazardous Weather Outlooks.
3. In section 4.2, “Release of winter storm products and their updates should be timed to occur prior to scheduled news broadcast times” has been deleted and replaced with “Release of winter storm products and their updates should be coordinated with surrounding WFOs to ensure consistency of information.”
4. In section 4.2, added “WFOs should also produce a summary PNS at the end of an event.”
5. In section 4.3, added Lake Effect Snow and Blowing Snow Advisory as an authorized headline.

<signed>

October 23, 2007

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Date

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- 1) Purpose. The purpose of this Supplement is to document Eastern Region (ER) procedures for winter weather products in addition to the guidelines set forth in NWS Instruction 10-513 *WFO Winter Weather Product Specification*.
- 2) Background. Winter weather product inconsistencies between offices cause confusion and diminished customer confidence. In addition, the widespread use of computer graphics makes such inconsistencies more noticeable.
- 3) Policy. To maximize product utility, ER field offices must strive to issue externally consistent watch, warning and advisory (WWA) products. To accomplish this goal, forecasters must understand issuance thresholds, use the same interpretation of these thresholds, and collaborate with adjacent offices on hazard type, timing, and magnitude. Collaboration of forecasts delivers more consistent products and yields more accurate forecasts.
- 4) Issuance Procedures.
  - 4.1 Software. All ER offices will use the latest nationally approved software, as the primary issuance tool for all winter weather watch/warning/advisory products.
  - 4.2 Triggering Procedures. When forecast conditions provided in the forecast database are expected [to meet or exceed local winter weather criteria](#) within 12 to 48 hours, the appropriate WWA will be issued (see section 4.3).

Winter precipitation forecasts (including hazards grids) must be included in the first 48 hours of the forecast database and ideally go out further in time to ensure national requirements are met. Snowfall forecasts contained in the legacy text products such as the Zone Forecast Product, Area Forecast Matrices (AFM) and Point Forecast Matrices (PFM) will be consistent with amounts provided in the local database. Snowfall forecast data are not to be included in the Coded Cities Forecast (CCF) or State Forecast Tabular (SFT).

Text formatters will use “Mid point values” (rounded up to the nearest inch) of the forecast snowfall range and serve as the primary criterion for WWA issuances.

Event duration, timing and rates of snow accumulation/ice accretion should also be considered when determining the need for a WWA, e.g. (high precipitation rate during a rush hour, first event of season, or long-duration event with high impact). WWAs may be issued based on public impact alone. For example, if a storm is not expected to reach warning criteria, but heavy, wet snow, or a mixture of snow, freezing rain and ice pellets will significantly affect rush hour or holiday transportation, commerce, or electrical power service, a warning headline can be used. This rule applies especially during early and late season storms, and in locations where winter weather is rare.

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Winter storm outlook information will be mentioned in the Hazardous Weather Outlook (HWO) when there is a 30% chance or greater of meeting/exceeding warning criteria. Watches are recommended when there is a 50% or greater chance of meeting/exceeding warning criteria; warnings are recommended when there is an 80% or greater chance of meeting/exceeding warning criteria.

For wind chill WWAs, the colder boundary of the forecast wind chill interval will serve as the criterion for issuance.

Release of winter storm products and their updates should be coordinated with surrounding WFOs to ensure consistency of information.

- 4.3 Authorized Headlines. ER offices will use the following types of headlines in WSW segments:

TYPE	WATCH	WARNING	ADVISORY
<b>Blizzard</b>	✓	✓	
<b>Winter Storm</b>	✓	✓	
<b>Lake Effect Snow</b>	✓	✓	✓
<b>Wind Chill</b>	✓	✓	✓
<b>Heavy Snow</b>		✓	
<b>Ice Storm</b>		✓	
<b>Freezing Rain</b>			✓
<b>Winter Weather</b>			✓
<b>Snow</b>			✓
<b>Snow and Blowing Snow</b>			✓
<b>Blowing Snow</b>			✓
<b>Lake Effect Snow and Blowing Snow</b>			✓

*Issuance of an event specific advisory or warning requires a **high level of confidence**. If the event precipitation type cannot be determined with a **high level of confidence**, or more than one winter weather precipitation type is possible, the forecast team will issue a Winter Storm Warning or Winter Weather Advisory.*

- 4.4 Content of Segments. The four basic segment types (cancellation, warning, advisory or watch) may be subdivided into as many zone groupings as needed to address differing precipitation types or amounts across the forecast area. For cancellation segments, a UGC expiration time of one hour will be used. Forecasters must keep each segment's text **brief and to the point**. The basis of the warning (quantitative values and phenomena) should be included in the first sentence (e.g., "A quarter to one-half inch of ice accumulation expected. Travel will be hazardous, with downed tree limbs and power outages possible.") **Localized extreme snowfall values should not be mentioned**, as most people will not observe the extremes. References and/or comparison to historical events will be reserved for warning situations and should only be mentioned if confidence is high that a comparable event is unfolding.
- 4.5 Reporting Storm Events. Public Information Statements (PNS) will be the primary public product to summarize the latest winter precipitation, high wind observation or wind chill occurrences to the public, and will be done using the format shown in resource links (see Section 5). A disclaimer must be appended to the PNS noting that the information within the PNS is UNOFFICIAL.
- At a minimum, PNSs should be issued every three to six hours during an event. WFOs should also produce a summary PNS at the end of an event. Observations and related reports are permitted in other products to support warning or advisory content.
- 4.6 Local Issuance Delays. Offices will not develop local policies which routinely mandate delays in issuing WWAs, e.g. never issuing a "Winter Storm Watch" for the third period or a "Winter Storm Warning" for the second period. Issuances should be based on science and forecaster consensus. In addition, updates should be issued prior to the expiration time of the earlier warning to avoid gaps in warning coverage.
- 4.7 NWS Attribution. To identify the NWS as the information source, all **initial** advisory, watch, and warning segments should begin with "The National Weather Service...". Additionally, the segment should end with "Stay tuned to NOAA Weather Radio or your favorite media source of weather information for the latest updates."
- 4.8 Relationship to Outlooks. Winter Storm Outlooks: information on impending winter storms in days 1-7 will be included in the HWO. WFOs should emphasize the HWO on local web pages and NWR when particularly dangerous winter storms are possible in the outlook period.
- 4.9 Best Practices. ER has instituted a Best Practices Program to promote WFO operational excellence through the sharing of both operational and training

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procedures, methods, and strategies common to superior performing programs. This document can be viewed by accessing the [Eastern Region Watch/Warning Advisory Resource Page](http://www.werh.noaa.gov/MSD/Resources/Winter/resource.htm) at <http://www.werh.noaa.gov/MSD/Resources/Winter/resource.htm>

All ER WFOs are expected to review and incorporate the documented winter weather best practices into their pre-season preparation activities (drills, training, etc) and operations.

- 5) Criteria. Warning and Advisory criteria can be viewed by accessing the [Eastern Region Watch/Warning Advisory Resource Page](http://www.werh.noaa.gov/MSD/Resources/Winter/resource.htm) .