

***NATIONAL WEATHER SERVICE ALASKA REGION SUPPLEMENT 07-2002***

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

***APPLICABLE TO NWSI 10-515***

***OCTOBER 27, 2011***

***Operations and Services***

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

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

***WFO Non-Precipitation Weather Products Specification, NWSI 10-515***

***ALASKA WFO WINTER WEATHER AND***

***NON-PRECIPIATION WEATHER PRODUCTS SPECIFICATION***

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**OPR:** W/AR1x2 (A. Fish)

**Certified by:** W/AR1 (C. Scott)

**Type of Issuance:** Routine

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**SUMMARY OF REVISIONS:** This supplement supersedes Alaska Region Supplements (ARS) 06-2002, Alaska WFO Winter Weather Products Specification, dated February 9, 2009, applicable to National Weather Service Instruction (NWSI) 10-513 and NWSI 10-515.

The following changes were made in this issuance:

1. Replaced Watch, Warning and Advisory criteria appendices with live links to similar tables hosted by Alaska Region Headquarters.
2. Highlighted impact based guidance.
3. Further clarified appropriate product timelines and content.
4. Link to format and examples included.

/SIGNED/

October 13, 2011

Frank P. Kelly

Date

Regional Director

## WFO Winter Weather and Non-Precipitation Weather Products Specification

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### Quick Reference Web Links:

[Criteria Guidelines for Winter Weather \(WSW\)](#)

[Criteria Guidelines for Non-Precipitation Weather \(NPW\)](#)

[Volcanic Ashfall Event Products and Statement Guidelines](#)

[WSW and NPW Product Format](#)

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1. Introduction. The items, links and appendices contained in this document compile the Alaska Region Winter Weather and Non-Precipitation program policies which supplement those stated in [NWSI 10-513](#), [NWSI 10-515](#), and [NWSI 10-517](#).
2. Societal Impacts and Forecaster Judgment. Written instructions cannot address every operational situation. All Weather Forecast Office (WFO) personnel must exercise initiative and professional judgment to minimize risk to public safety and property in situations not explicitly covered by written instructions. Protection of life and property and impact to commerce shall take precedence in these decision making processes.

As such, criteria for watches, warnings and advisories are considered guidance only, not strict thresholds. Forecasters may issue watches, warnings or advisories for societal impacts such as significant travel hazards or power outages, even if the stated thresholds are not met.

For example, an advisory may be appropriate for a snowfall event that does not meet strict advisory criteria if it occurs near rush hour when societal impacts are greater. Other examples include early or late season events or climatologically unusual or infrequent events such as the first snowfall of the season or strong wind in a typically more sheltered area.

3. Warnings and Advisories. Warnings and Advisories provide the public and public safety officials with detailed alerts of weather events that impact safety, property and/or commerce. WFOs will strive to provide as much lead time as scientifically possible in order to aid decision makers.

3.1 Criteria Guidelines. [Criteria Guidelines for Winter Weather \(WSW\)](#) and [Criteria Guidelines for Non-Precipitation Weather \(NPW\)](#) hazards for all Alaska zones can be accessed by clicking the link above, with special [Guidelines for Volcanic Ashfall Events](#). WFOs will issue WSW and NPW warnings and advisories generally based upon these regionally and locally defined criteria, though as noted in section 2, forecaster judgment takes precedence as not all events of high impact fall into strict criteria.

WFO Station Duty Manuals (SDM) will contain updated Criterion Guidelines.

Changes to criteria guidelines shall be coordinated and approved by the Alaska Region Environmental and Scientific Services Division (ESSD). Requests for change shall, at minimum, include documentation of local requirements, impacts, outreach conducted, and a summarized review of pertinent local climatology.

- 3.2 Content and Format: It is imperative to provide updated information within the warning and advisory statements that describe the evolution of conditions and/or changes in the forecast leading up to and during the event.

Statements will describe the severity of conditions (i.e., wind speed, snowfall amounts, reduction to visibility, etc.), timing, description of area(s) to be impacted, expected impacts, and

appropriate call-to-action statements.

Call-to-action statements should be pre-coordinated with public safety officials to convey appropriate information for the type and severity of event.

Statements will follow the format described in [WSW and NPW Product Format](#) document, where examples are also provided.

3.3 Winter Storm vs. Ice Storm Warnings. Occasionally, significant rainfall (ambient air temperature above 32° F) occurs during the cold season in Alaska when the ground surface temperature remains well below freezing. Under these conditions, rain freezes on contact with ground surfaces (NOT tree limbs, power lines, etc. as with an Ice Storm) and severely impacts transportation and commerce. To clearly convey this hazard, the terminology WINTER STORM WARNING may be used in lieu of ICE STORM WARNING. Instructions and criteria for this instance of issuing a WINTER STORM WARNING will be documented in the WFO SDM.

3.4 Wind Advisory Exemptions. In Alaska Region, wind advisories are optional as defined by local criteria, and as noted in the [Criteria Guidelines for Non-Precipitation Weather \(NPW\)](#) hazards for Alaska zones. In lieu of advisories, headlines will be used in the zone forecast product (ZFP) to highlight significant wind events that do not meet warning criteria. These headlines will adhere to the format stated in [ARS 09-2004, Alaska Region Public Weather Products](#).

3.5 Dense Fog Advisory Exemptions. According to customer outreach, dense fog does not meet the advisory criteria of “hazardous” as defined in NWSI 10-515 for all zones in Alaska Region. This is due to the frequency of dense fog in many maritime locations and the lack of highway thoroughfares. [Criteria Guidelines for Non-Precipitation Weather \(NPW\)](#) hazards notes where dense fog advisories are required. In lieu of advisories, headlines will be used in the ZFP to highlight the occurrence of dense fog. Such headlines will adhere to the format stated in [ARS 09-2004, Alaska Region Public Weather Products](#).

3.6 Volcanic Ashfall Events. While relatively rare, Ashfall events are generally of high impact and a potential source for public confusion. To mitigate confusion and highlight impacts, special [Volcanic Ashfall Event Products and Statement Guidelines](#) were developed in conjunction with the Alaska Volcano Observatory. The [Volcanic Ashfall Event Products and Statement Guidelines](#) outline the appropriate product (Warning, Advisory, or Special Weather Statement), accumulation terms, and call to action phrases based on eruptive activity and anticipated ashfall amounts.

When an eruption occurs, WFO forecasters will coordinate closely with the Alaska Aviation Weather Unit (AAWU) lead forecaster and the [Volcanic Ashfall Event Products and Statement Guidelines](#) for composition of the appropriate statement. The AAWU lead forecaster also serves as lead forecaster for the Anchorage Volcanic Ash Advisory Center (VAAC). The Anchorage VAAC is responsible for the preparation and dissemination of aviation products (SIGMETs,

Volcanic Ash Advisories) associated with the event.

Immediately upon learning of a possible volcanic event, the VAAC will collect additional information from various sources and will have the most current and accurate information about the volcanic event. WFO forecasters must ensure there is consistency among statements regarding hazardous weather (i.e. public information statements, outlooks, etc.) and the VAAC's products. In all cases, the VAAC lead forecaster will have the final determination concerning key points in the event.

4. Watches. WFOs will issue a Winter Weather Watch (product category WSW) or Non-Precipitation Watch (product category NPW) when conditions are favorable for a hazardous weather event to develop over part or all of the forecast area, but the occurrence is uncertain. Watches are generally issued 24 to 48 hours prior to the event beginning time when there is a 60-percent or greater probability of a hazardous weather event meeting or exceeding warning conditions as described section 3. Watches shall not be issued within 12 hours of the event start time, unless the WFO gathers user feedback and performs verification that supports shorter lead times. This documentation shall be coordinated and approved by the Alaska Region ESSD. Alaska Region WSW and NPW Watch products are defined in the [Criteria Guidelines for Winter Weather \(WSW\)](#) and [Criteria Guidelines for Non-Precipitation Weather \(NPW\)](#) hazards.

5. WFO and WSO Coordination. When a watch, warning, or advisory is issued, the WFO will make every effort to contact (and receive acknowledgement from) the appropriate Weather Service Offices (WSO) when their met watch zone(s) is included in the product. Local SDMs will include back-up schedules for part-time WSOs.

The WSO staff will contact the area WFO shift team leader when, in the opinion of the WSO staff, warning or advisory conditions are likely and there is no warning or advisory in effect or being coordinated by the area WFO.

6. Special Weather Statements (SPS). The SPS may also be used to raise awareness of a weather hazard for any forecast period. For shorter lead times, the SPS can be used to alert users of a weather hazard not expected to meet warning or advisory conditions. To minimize confusion, a hazardous weather event currently addressed in a watch, warning, or advisory should not also be mentioned in an SPS. In these instances, information should be communicated in the watch, warning, or advisory statement(s).

For longer lead times, the SPS can be treated as a Hazardous Weather Outlook (HWO) including weather events that are not expected to meet warning criteria but will still have significant societal impacts. For more information on using an SPS as an HWO, please refer to [ARS-02-2003, Alaska Multi-Purpose Weather Products Specification](#).

7. Creation Software. WFOs will generate all WSW and NPW statements with the Graphical Forecast Editor (GFE) Graphical Hazards Generator (GHG) and will include

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experimental VTEC codes. SPS statements will be generated with the GFE text formatter or Warn-Gen (as appropriate).

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**APPENDIX A**


**Waiver for Issuance of Product Category SPS instead of HWO for Winter Weather and Non-Precipitation Outlooks**



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**NATIONAL WEATHER SERVICE**  
1325 East-West Highway  
Silver Spring, Maryland 20910-3283

NOV 19 2002

MEMORANDUM FOR: Richard C. Przywarty  
Director, Alaska Region

FROM:   
Gregory A. Mandt  
Director, Office of Climate, Water,  
and Weather Services

SUBJECT: Waiver from Hazardous Weather Outlook Product

Your request for a waiver from the Hazardous Weather Outlook (HWO) product per National Weather Service Instruction 10-517 is approved.

I anticipate the HWO policy to change as we receive feedback from our customers. One change that has already been proposed is for segmentation. If changes in the national HWO policy occur, this waiver will be rescinded. Of course, you will be able to request a new waiver to the new policy if you desire.

cc:

W/CS22 - James B. Lee  
W/CS22 - Richard S. Okulski

