

***NATIONAL WEATHER SERVICE WESTERN REGION SUPPLEMENT 1-2005
APPLICABLE TO NWSI 10-1601
MARCH 21, 2008***

***Operations and Services
Performance, NWSPD 10-16
Verification Procedures, NWSI 10-1601***

WESTERN REGION VERIFICATION PROCEDURES

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

OPR: W/WR1x4 (J. Lorens)
Type of Issuance: Routine

Certified by: W/WR1 (C. Gorski)

SUMMARY OF REVISIONS: This directive supersedes NWS Western Region Supplement 1-2005, dated September 21, 2006.

The following changes were made in this issuance:

1. Change references to NWS Verification (Stats on Demand) web site to “NWS Performance Management” web site.

Signed 02/29/08
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1. Introduction: Western Region (WR) Weather Forecast Offices (WFOs) verify certain types of weather warning, and watches, as specified below. The Warning Coordination Meteorologist (WCM), or specific Focal Point (as assigned), generally manage the local WFOs verification efforts, but the overall responsibility of the office verification program resides with the Meteorologist in Charge (MIC). This supplement covers Winter Storm Watches/Warnings, High Wind Watches/Warnings, Coastal Flood Watches/Warnings, and certain types of marine, aviation, and fire weather products. Warning verification information is available at the National Weather Service (NWS) “Performance Management” web site: <https://verification.nws.noaa.gov/> General verification procedures and related information is described in NWSI 10-1601, “Verification Procedures”.

2. Winter Storm, High Wind, and Coastal Flood Watch/Warning Verification Data: Each WR WFO will provide monthly verification data (for the previous month) to WR Meteorological Services Division (MSD), no later than the end of the third full week of each month. The following specific information (monthly totals or averages, as noted below) will be provided for each warning/watch type:

- a. Total number of watches issued (note: each zone counts as a separate watch)
- b. Total number of watches which led to verified warnings
- c. Average watch lead time (for watches which led directly to verified warnings; do not count watches which were cancelled and later re-issued). Individual watch lead time is defined as the elapsed time from watch issuance to the time warning criteria were first met.
- d. Total number of warnings not preceded by a watch
- e. Total number of warnings issued
- f. Total number of warnings which verified
- g. Total number of warnings which did not verify
- h. Total number of events (meeting warning criteria)
- i. Total number of warned events

- j. Total number of unwarned events
- k. Average warning lead time (event-based)

3. Marine Warning Verification: National marine verification procedures are described in NWSI 10-1601. Marine verification statistics for wind speed and wave height, including limited marine warning/advisory information, are maintained at the NWS Performance Management web site.

Because of limited nature of this national marine verification information, WR Coastal WFOs should develop and/or maintain local marine verification programs, with emphasis on forecast improvement. As minimum, each WFO should locally verify Gale, Storm, and Hurricane Force Wind Warnings, to the maximum extent possible. Coastal WFOs are also encouraged to locally verify marine wind speed, wind direction, and wave height forecasts through the duration of Coastal Waters Forecasts (CWF).

4. Aviation Verification: Terminal Aviation Forecast (TAF) verification information is available at the NWS “Stats on Demand” web. Other supplemental verification programs may be used by the WFO, but statistics from “Stats on Demand” will be used for any regional or national purposes. Aviation verification results will be evaluated by the WFO management team on a routine basis to determine strengths and weaknesses of the WFOs TAF program

WFOs are requested to produce reports for their staff and WR MSD on a quarterly basis, to be submitted not later than January 30, April 30, July 30, and October 30. The WFO can determine which statistics are most important and relevant to track for the quarterly report. However, at a minimum, the quarterly TAF report should contain the POD and FAR, for IFR and worse (1000/3), for the 0-6 hour period, for all TAF sites and routine issuance times (00Z, 06Z, 12Z, 18Z).

5. Fire Weather Verification: WR WFOs will perform minimum routine fire weather product verification as detailed below. Additional verification may be performed by local agreement and clarified in Area Operating Plans (AOP). As a minimum, verification results will be included in all WFO Fire Weather Annual Reports. Please see Western Region Fire Weather Supplement 4-2005 for more information:

<http://www.nws.noaa.gov/directives/sym/pd01004001w042005curr.pdf>.

5.1 Red Flag Warning (RFW): FAR, POD, and CSI will be calculated for Red Flag Warnings. However, verification statistics will be maintained separately for warnings issued for (expected) dry lightning events and (expected) synoptic events (i.e., wind and low humidity). Specific “Red Flag” criteria will be clearly defined in the AOP. Annual goals for FAR, POD, and CSI will be listed in the Western Region Annual Operating Plan and should be reflected in WFO AOPs.

5.2 Fire Weather Watches (RFW): Track the number of total watches issued and the number of watches that were followed by Red Flag Warnings.