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PNSWSH

Service Change Notice 18-90 Updated  
National Weather Service Headquarters Silver Spring MD  
700 AM EDT Thu Oct 25 2018

To:           Subscribers:  
              -NOAA Weather Wire Service  
              -Emergency Managers Weather Information Network  
              -NOAAPort  
              Other NWS Partners, Users and Employees

From:       Michelle Hawkins, Chief  
              Severe, Fire, Public and Winter Weather Services Branch

Subject: Updated: Polygon-based Snow Squall Warnings and Polygon-based  
Dust Storm Warnings and Dust Advisories Transition to Operational Status  
on or about November 1, 2018

Updated to correct the SAME Event Code from SVS to SQW.

Effective on or about November 1, 2018, the NWS will transition a series of products from demonstration to operational status. These products include the highly localized, polygon-based Snow Squall Warnings and Dust Storm Warnings; a new zone-based Blowing Dust Warning; and a new polygon-based Dust Advisory product at all NWS Weather Forecast Offices (WFOs).

The software that provides the capability to issue these products has been implemented in a phased manner at all WFOs. Provision of the new products will commence according to local office procedures.

The products will be issued for a portion of a county or counties within the warned area, as defined and depicted by the polygon Latitude/Longitude point pairs. Portions of counties would be described by ordinal directions (e.g., North, Northeast, East, Southwest, Central). After an initial issuance, WFOs would update the product for an extension of area or time by issuing a new product. The WFO issuing the initial message would cancel or allow it to expire when conditions no longer meet criteria.

Snow Squall Warning Product:

The Snow Squall Warning will provide three discrete information segments per the example below when the following conditions are expected:

HAZARD...White-out conditions in heavy snow and blowing snow  
SOURCE...Radar indicated and webcams  
IMPACT...Dangerous life-threatening travel

The Snow Squall Warning will use the new SQ.W Valid Time Event Code (VTEC) with an operational (O) fixed identifier in the P-VTEC line and Warning (W) significance code.

The Snow Squall Warning will use existing World Meteorological Organization (WMO) headers and Advanced Weather Interactive Processing System (AWIPS) identifiers as shown in the link below:

<https://www.weather.gov/media/notification/ref/ss.pdf>

The Snow Squall Warning product will be available via NOAA Weather Wire Services (NWWS), NOAAPort satellite broadcast and other sources under the WMO Header WWaa5i cccc:

-aa corresponds to US, AK, CA, GM, HW, or ZS  
-i is equal to 0 (zero) to 9  
-cccc is equal to the WFO 4-character site ID

The Snow Squall Warning product will use the county Universal Geographic Code (UGC).

The Snow Squall Warning will appear on the weather.gov webpage as well as the local WFO webpages with a priority of (number) 23 and display color of medium violet red.

Snow Squall Warnings will broadcast over NOAA Weather Radio All Hazards (NWR) using the NWR Specific Area Message Encoding (SAME) SQW Event Code according to local policy. The 1050 Hz Warning Alarm Tone will also be invoked. In general, NWR Public Alert receivers will activate, text screens will indicate "Unknown Warning" and color-coded lights will illuminate for "Warning."

Snow Squall Warnings will not be conveyed by broadcasters to the Emergency Alert System (EAS). NWS Offices will further discuss with respective emergency managers, state broadcasters associations and State Emergency Communications Committees on whether there is interest in conveying Snow Squall Warnings to the EAS in the future.

The NWS has requested activation of Wireless Emergency Alerts (WEA) for Snow Squall Warnings via the Federal Emergency Management Agency (FEMA) Integrated Public Alert and Warning System (IPAWS). IPAWS will pass the alert on to wireless carriers who expect to be capable of broadcasting Snow Squall Warning Wireless Emergency Alerts (WEA) to cell phones in the future.

#### Dust Storm Warning Products:

The existing zone-based Dust Storm Warning will be replaced by two distinct warning products: a polygon-based Dust Storm Warning and a zone-based Blowing Dust Warning. The polygon-based Dust Storm Warning will be issued when widespread or localized blowing dust is forecast to suddenly reduce visibility to less than one-quarter mile with sustained winds greater than 25 mph, resulting in dangerous and life-threatening travel conditions. The polygon-based Dust Storm Warning will provide three discrete information segments, per the example below, when the following conditions are expected:

HAZARD...Visibility less than one-quarter mile in blowing dust

SOURCE...Radar indicated and webcams  
IMPACT...Dangerous and life-threatening travel

The zone-based Blowing Dust Warning will be issued if similar conditions are forecast over a long duration, generally greater than 90 minutes.

Dust Advisory Products:

The new polygon-based Dust Advisory will be issued when widespread or localized blowing dust suddenly reduces visibility to between one quarter of a mile and one mile resulting in hazardous travel conditions. The polygon-based Dust Advisory will provide three discrete information sections, per the example below, when the following conditions are expected:

HAZARD...Visibility between one-quarter and one mile in blowing dust  
SOURCE...Radar indicated and webcams  
IMPACT...Hazardous travel

The existing Blowing Dust Advisory will remain a zone-based product and will be issued if similar conditions persist over a long duration, generally greater than three hours.

The polygon-based Dust Storm Warning and Dust Advisory will use existing WMO headers and AWIPS identifiers as shown in the link below:

<https://www.weather.gov/media/notification/ref/ds.pdf>

All Dust Warning and Advisory products will be available via NWWS, NOAAPort satellite broadcast and other sources under the WMO Header WWaa7i cccc:

-aa corresponds to US, AK, CA, GM, HW, or ZS  
-i is equal to 0 (zero) to 9  
-cccc is equal to the WFO 4-character site ID

The polygon-based (with county UGC) Dust Storm Warning and Dust Advisory will have an AWIPS Identifier of DSWxxx where xxx is equal to WFO site ID.

The zone-based (with zone UGC) Blowing Dust Warning and Blowing Dust Advisory will have an AWIPS Identifier of NPWxxx, where xxx is equal to 3-character WFO site ID.

The Dust Storm Warning will use the existing VTEC code DS.W and the Dust Advisory will use the new DS.Y VTEC code. Both of these products will use existing WMO headings and AWIPS identifiers for dissemination over NOAAPort and NWWS.

NWS will broadcast the polygon-based Dust Storm Warning over NWR and disseminate with both SAME (using the DSW Event Code) and 1050 Hz warning alarm tones.

NWS will display the warning polygon on NWS radar depictions.

NWS will continue to activate WEA for Dust Storm Warnings.

The Dust Storm Warning and the Blowing Dust Warning will appear on the weather.gov webpage as well as the local WFO webpages with a priority of number (40) and display color of bisque. The Dust Advisory and the Blowing Dust Advisory will appear on the weather.gov webpage as well as the local WFO webpages with a priority of number (87) and display color of dark khaki.

The Blowing Dust Warning will be broadcast over NWR. This warning will not be disseminated using the SAME or 1050 Hz Warning Alert Tones. The warnings will not be disseminated via the EAS.

Common Alerting Protocol:

The Snow Squall Warning and Dust Storm Warning products will be disseminated in Common Alerting Protocol (CAP) format through several methods. CAP is pre-parsed and is intended for use by the weather enterprise and other partners. For more information on CAP and how to obtain it via NOAAPort, NWS web file services, in raw eXtensible Markup Language (XML) format or via a web service Application Programming Interface (API), please see the following Service Change Notice issued on September 1, 2017:

[https://www.weather.gov/media/pdfs/notification/pdfs/scn17-98cap1\\_2.pdf](https://www.weather.gov/media/pdfs/notification/pdfs/scn17-98cap1_2.pdf)

Examples of these products, including more information about activation of the EAS and WEA, can be found in the Product Description Documents linked below:

Dust Storm Warning/Dust Advisory:

[https://nws.weather.gov/products/PDD/PDD-DustStormWarningandAdvisoryProducts\\_Ops.pdf](https://nws.weather.gov/products/PDD/PDD-DustStormWarningandAdvisoryProducts_Ops.pdf)

Snow Squall Warning:

<https://nws.weather.gov/products/PDD/PDD-NewSnowSquallWarning.pdf>

Additional information on UGC and VTEC can be found in NWS Instructions (NWSI) 10-1701 and NWSI 10-1703, respectively at:

<https://www.nws.noaa.gov/directives/sym/pd01017001curr.pdf>

<https://www.nws.noaa.gov/directives/sym/pd01017003curr.pdf>

For questions or comments on these new products, please contact:

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National Service Change Notices are online at:

<https://www.weather.gov/notification/archive>

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