

Product/Service Description Document
Polygon Special Weather Statement
NWS Eastern Region

Part I - Mission Connection

- a. Product/Service Description – The National Weather Service’s (NWS) mission is to provide weather forecasts and warnings for the protection of life and property and to provide weather information for the Nation’s economic well-being. There is a continuing need to improve the specificity and accuracy of our forecasts. NWS currently issues and disseminates Special Weather Statements for sub-warning criteria using geopolitical (e.g., county) boundaries.
- b. Product Type – Official
- c. Purpose - Threat-based polygon warnings, or storm-based warnings were implemented nationally in 2008 and essential to effectively warn for severe weather and flash floods. SB warnings show the specific meteorological threat area and are not restricted to geopolitical boundaries. By focusing on the true threat area, polygons help improve NWS warning accuracy and quality. ER initiated an experimental Polygon Storm-Based Special Weather Statements (SBS) at Weather Forecast Offices (WFO) Blacksburg, VA and State College, PA in 2009 to promote increased accuracy of alerting the public to significant weather events. The SBS methodology allows the forecaster the opportunity to be spatially specific, eliminating large areas needlessly alerted when compared to issuing a county based SBS. Based on positive feedback from partners and users, the SBS has been transitioned to an official product.
- d. Audience - The target audience for this product is the general public, television media community, emergency managers, state and local officials.
- e. Presentation Format – Eastern Region WFOs will issue SBS for select storms when they are in accordance with NWS Eastern Region Supplement 05-2010. Latitude/longitude information will be included at the bottom of the product in the exact same format as Severe Thunderstorm, Tornado, and Flash Flood Warnings.
- f. Polygon/Storm-Based Special Weather Statement Example:

SPECIAL WEATHER STATEMENT
NATIONAL WEATHER SERVICE BLACKSBURG VA
921 PM EDT TUE MAY 10 2011

NCZ004-005-VAZ032-033-043-110215-
FRANKLIN VA-HENRY VA-PATRICK VA-ROCKINGHAM NC-STOKES NC-
921 PM EDT TUE MAY 10 2011

...STRONG THUNDERSTORMS WILL AFFECT FRANKLIN...HENRY...PATRICK...
ROCKINGHAM AND STOKES COUNTIES...

AT 919 PM EDT...STRONG THUNDERSTORMS WERE ALONG A LINE FROM FERRUM TO 3 MILES WEST OF WOOLWINE...MOVING SOUTHEAST AT 30 MPH.

THESE STORMS WILL PRODUCE PEA-SIZED HAIL. VERY HEAVY RAIN WILL FALL FROM THESE STORMS...AND WILL CAUSE WATER TO POND ON ROADS AND QUICKLY FILL ROADSIDE DITCHES AND SMALL STREAMS.

THESE STORMS WILL BE NEAR FAIRY STONE STATE PARK...AND PHILPOTT DAM AROUND 930 PM...BASSETT AROUND 935 PM...STANLEYTOWN...SANVILLE...AND STUART AROUND 940 PM...FIELDALE...COLLINSVILLE...AND CRITZ AROUND 945 PM AND VILLA HEIGHTS AROUND 950 PM.

LAT...LON 3674 8044 3674 8040 3680 8039 3682 8034
3684 8034 3687 8024 3691 8020 3693 8003
3658 7970 3655 7971 3654 7967 3642 7956
3626 8005

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Part II – Technical Description

- a. Format and Science Basis - Using the above format, SBS will illustrate the specific meteorological threat area and not be restricted to geopolitical boundaries. By focusing on the true threat area, polygons will help improve NWS awareness and quality. SBS will promote improved graphical displays, and in partnership with the private sector, support a wider warning distribution through cell phone alerts, pagers, web-enabled Personal Data Assistants (PDA), etc.
- b. Availability – The product will be issued as needed during events when storms reach criteria as defined in NWS Eastern Region Supplement 05-2010