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Service Change Notice 19-94 Updated
National Weather Service Headquarters Silver Spring MD
1045 AM EST Fri Jan 24 2020

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

Subject: Updated: Addition of Risk Graphics for Individual Convective Threats in the Storm Prediction Center's Day 2 Outlook: Effective with the 1730 UTC Outlook on January 30, 2020

Updated to change effective date to January 30, 2020 and to add a start time to when the new products will be flowing (after the 1730 Coordinated Universal Time (UTC) issuance).

The Storm Prediction Center (SPC) will expand the suite of probabilistic forecast graphics to include individual Tornado Risk, Hail Risk, and Damaging Wind Risk to the Day 2 Convective Outlook (World Meteorological Organization (WMO) header: ACUS02 KWNS, Advanced Weather Interactive Processing System (AWIPS) ID: SWODY2) on January 30, 2020, with the issuance of the 1730 UTC outlook. These graphics are currently part of the operational suite provided in the Day 1 Convective Outlook, while the current Day 2 Convective Outlook includes only the "total severe" probabilistic graphic that coincides with the categorical outlook.

Research to operations and improvements in numerical forecast guidance, particularly with certain convection-allowing weather forecast models, are providing necessary confidence in the forecasting of these individual hazards into the Day 2 timeframe. These improvements have paved the way for SPC to issue forecasts of individual hazard probabilities for tornadoes, damaging wind, and hail potential, along with a separate probability for significant severe, if forecast, for each hazard type. These individual hazard probabilistic forecasts will replace the current "total severe" probabilistic forecast, fully mirroring the types of output from the Day 1 Convective Outlook, in terms of the Categorical risk forecast and the three individual probabilistic hazard forecasts.

The probability to categorical conversion table, currently used for SPC Day 1 Convective Outlook found on this webpage: https://www.spc.noaa.gov/misc/SPC_probotlk_info.html, will also be used for the Day 2 individual hazard probability to categorical conversions. The total categorical severe outlook will be driven by the highest probabilities in any of the individual tornado, damaging wind, or hail forecast.

Here is the listing of impacted products:

AWIPS ID	WMO HEADER	Description
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SWODY2	ACUS02 KWNS	Day 2 Convective Outlook Discussion
PTSDY2	WUUS02 KWNS	Day 2 Convective Outlook Areal Outline
RBG980	PGWI47 KWNS	Day 2 Red Book Graphic Categorical Outlook
	LDIZ27 KWNS	Day 2 NDFD Categorical Outlook
	LDIZ21 KWNS	NDFD/GRIB2 Probability of Tornadoes
	LDIZ22 KWNS	NDFD/GRIB2 Probability of Hail
	LDIZ23 KWNS	NDFD/GRIB2 Probability of Wind
	LDIZ24 KWNS	NDFD/GRIB2 Probability of Significant Tornadoes
	LDIZ25 KWNS	NDFD/GRIB2 Probability of Significant Hail
	LDIZ26 KWNS	NDFD/GRIB2 Probability of Significant Wind
GPHOT2	PGNE02 KWNS	Redbook Graphic Tornado Probabilities
GPHOH2	PENE02 KWNS	Redbook Graphic Hail Probabilities
GPHOW2	PWNE02 KWNS	Redbook Graphic Wind Probabilities

More detailed information about SPC's Day 2 Convective Outlook can be found in the Product Description Document (PDD) at:

https://nws.weather.gov/products/PDD/PDD_SPCDay2ConvectiveOutlook_2019.pdf

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National Service Change Notices are online at:

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

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