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PNSWSH

Technical Implementation Notice 15-45
National Weather Service Headquarters Washington DC
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From: David Novak
 Director, Weather Prediction Center

Subject: Addition of Probabilistic Winter Precipitation Forecast (PWPF)
Grids on the Satellite Broadcast Network: Effective November 16, 2015

Effective Monday, November 16, 2015, at 1800 Coordinated Universal Time (UTC), the National Centers for Environmental Prediction's (NCEP's) Weather Prediction Center (WPC) will begin distributing the operational Probabilistic Winter Precipitation Forecast (PWPF) grids on the Satellite Broadcast Network (SBN).

The PWPF provides a probabilistic forecast of snowfall and freezing rain over the continental United States in 12-, 24-, 48- and 72-hour increments. The product has been displayed on the NCEP/WPC webpages since 2012. With this implementation, NCEP/WPC will distribute the PWPF grids on the SBN at 2.5 km resolution in Gridded Binary 2 (GRIB2) format.

The probabilistic winter precipitation forecasts provide information in two different forms:

- Probabilities of exceedance, which show the probability that accumulations of snow or freezing rain will equal or exceed the given threshold for the given time period.
- Percentile accumulations, which show the probability of snow or freezing rain accumulating no more than the depicted amount.

The product headers may be constructed as follows:

T1 T2 A1 A2 ii CCCC

T1 = H

T2 = I

A1 = N

A2 specifies the following parameters for snow products:

B - F012

C - F018

D - F024

E - F030

F - F036
G - F042
H - F048 I - F054
J - F060
K - F066
L - F072

A2 specifies the following parameters for freezing rain products:

N - F012
O - F018
P - F024
Q - F030
R - F036
S - F042
T - F048
U - F054
V - F060 W - F066
X - F072

ii specifies the following parameters for snow products:

02 - 12-hour snowfall \geq 1 inch threshold
03 - 12-hour snowfall \geq 2 inch threshold
04 - 12-hour snowfall \geq 4 inch threshold
05 - 12-hour snowfall \geq 6 inch threshold
06 - 12-hour snowfall \geq 8 inch threshold
07 - 12-hour snowfall \geq 12 inch threshold
08 - 12-hour snowfall \geq 18 inch threshold
09 - 24-hour snowfall \geq 1 inch threshold
10 - 24-hour snowfall \geq 2 inch threshold
11 - 24-hour snowfall \geq 4 inch threshold
12 - 24-hour snowfall \geq 6 inch threshold
13 - 24-hour snowfall \geq 8 inch threshold
14 - 24-hour snowfall \geq 12 inch threshold
15 - 24-hour snowfall \geq 18 inch threshold

20 - 48-hour snowfall \geq 2 inch threshold
21 - 48-hour snowfall \geq 4 inch threshold
22 - 48-hour snowfall \geq 8 inch threshold
23 - 48-hour snowfall \geq 12 inch threshold
24 - 48-hour snowfall \geq 18 inch threshold
25 - 48-hour snowfall \geq 24 inch threshold
26 - 48-hour snowfall \geq 30 inch threshold
30 - 72-hour snowfall \geq 2 inch threshold
31 - 72-hour snowfall \geq 4 inch threshold
32 - 72-hour snowfall \geq 8 inch threshold
33 - 72-hour snowfall \geq 12 inch threshold
34 - 72-hour snowfall \geq 18 inch threshold
35 - 72-hour snowfall \geq 24 inch threshold
36 - 72-hour snowfall \geq 30 inch threshold

40 - 12-hour 5th percentile snowfall accumulation
41 - 12-hour 10th percentile snowfall accumulation

42 - 12-hour 25th percentile snowfall accumulation
43 - 12-hour 50th percentile snowfall accumulation
44 - 12-hour 75th percentile snowfall accumulation
45 - 12-hour 90th percentile snowfall accumulation
46 - 12-hour 95th percentile snowfall accumulation

50 - 24-hour 5th percentile snowfall accumulation
51 - 24-hour 10th percentile snowfall accumulation
52 - 24-hour 25th percentile snowfall accumulation
53 - 24-hour 50th percentile snowfall accumulation
54 - 24-hour 75th percentile snowfall accumulation
55 - 24-hour 90th percentile snowfall accumulation
56 - 24-hour 95th percentile snowfall accumulation

60 - 48-hour 5th percentile snowfall accumulation
61 - 48-hour 10th percentile snowfall accumulation
62 - 48-hour 25th percentile snowfall accumulation
63 - 48-hour 50th percentile snowfall accumulation
64 - 48-hour 75th percentile snowfall accumulation
65 - 48-hour 90th percentile snowfall accumulation
66 - 48-hour 95th percentile snowfall accumulation

70 - 72-hour 5th percentile snowfall accumulation
71 - 72-hour 10th percentile snowfall accumulation
72 - 72-hour 25th percentile snowfall accumulation
73 - 72-hour 50th percentile snowfall accumulation
74 - 72-hour 75th percentile snowfall accumulation
75 - 72-hour 90th percentile snowfall accumulation
76 - 72-hour 95th percentile snowfall accumulation

ii specifies the following parameters for freezing rain products:

01 - 12-hour freezing rain \geq 0.01 inch threshold
02 - 12-hour freezing rain \geq 0.10 inch threshold
03 - 12-hour freezing rain \geq 0.25 inch threshold
04 - 12-hour freezing rain \geq 0.50 inch threshold
05 - 12-hour freezing rain \geq 1 inch threshold
10 - 24-hour freezing rain \geq 0.01 inch threshold
11 - 24-hour freezing rain \geq 0.10 inch threshold
12 - 24-hour freezing rain \geq 0.25 inch threshold
13 - 24-hour freezing rain \geq 0.50 inch threshold
14 - 24-hour freezing rain \geq 1 inch threshold
20 - 48-hour freezing rain \geq 0.10 inch threshold
21 - 48-hour freezing rain \geq 0.25 inch threshold
22 - 48-hour freezing rain \geq 0.50 inch threshold
23 - 48-hour freezing rain \geq 1 inch threshold
30 - 72-hour freezing rain \geq 0.10 inch threshold
31 - 72-hour freezing rain \geq 0.25 inch threshold
32 - 72-hour freezing rain \geq 0.50 inch threshold
33 - 72-hour freezing rain \geq 1 inch threshold

40 - 12-hour 5th percentile freezing rain accumulation
41 - 12-hour 10th percentile freezing rain accumulation
42 - 12-hour 25th percentile freezing rain accumulation

43 - 12-hour 50th percentile freezing rain accumulation
 44 - 12-hour 75th percentile freezing rain accumulation
 45 - 12-hour 90th percentile freezing rain accumulation
 46 - 12-hour 95th percentile freezing rain accumulation
 50 - 24-hour 5th percentile freezing rain accumulation
 51 - 24-hour 10th percentile freezing rain accumulation
 52 - 24-hour 25th percentile freezing rain accumulation
 53 - 24-hour 50th percentile freezing rain accumulation
 54 - 24-hour 75th percentile freezing rain accumulation
 55 - 24-hour 90th percentile freezing rain accumulation
 56 - 24-hour 95th percentile freezing rain accumulation
 60 - 48-hour 5th percentile freezing rain accumulation
 61 - 48-hour 10th percentile freezing rain accumulation
 62 - 48-hour 25th percentile freezing rain accumulation
 63 - 48-hour 50th percentile freezing rain accumulation
 64 - 48-hour 75th percentile freezing rain accumulation
 65 - 48-hour 90th percentile freezing rain accumulation
 66 - 48-hour 95th percentile freezing rain accumulation
 70 - 72-hour 5th percentile freezing rain accumulation
 71 - 72-hour 10th percentile freezing rain accumulation
 72 - 72-hour 25th percentile freezing rain accumulation
 73 - 72-hour 50th percentile freezing rain accumulation
 74 - 72-hour 75th percentile freezing rain accumulation
 75 - 72-hour 90th percentile freezing rain accumulation
 76 - 72-hour 95th percentile freezing rain accumulation

Table 1: Sample Product Headers

Product	WMO Header
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12-hour snow >=2 in at F18	HINC03 KWNH
24-hour 50th percentile snow at F48	HINH53 KWNH
48-hour freezing rain >= 0.25 inches at F60	HINV21 KWNH
72-hour 90th percentile freezing rain	HINX75 KWNH

These products are available online at:

http://www.wpc.ncep.noaa.gov/pwvf/wwd_accum_probs.php

For more information, please contact:

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National Technical Implementation Notices are online at:

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

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