

NATIONAL WEATHER SERVICE INSTRUCTION 10-514

OCTOBER 12, 2022

Operations and Services

Public Weather Services, NWSPD 10-5

NATIONAL WINTER WEATHER PRODUCTS SPECIFICATION

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

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Type of Issuance: Routine

SUMMARY OF REVISIONS: This instruction supersedes NWSI 10-514, “National Winter Weather Products Specification,” effective May 7, 2020. The following revisions were made to this instruction:

1. Added references to winter storm Key Messages by editing the section on the Heavy Snow and Icing Discussion.
2. Added a section on the Winter Storm Severity Index (WSSI).

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National Winter Weather Products Specification

Table of Contents:		Page
1	Introduction	4
2	Probabilistic Heavy Snow and Icing Discussion (product category QPFHSD).....	4
2.1	Mission Connection	4
2.2	Issuance Guidelines	4
2.2.1	Creation Software	4
2.2.2	Issuance Criteria.....	4
2.2.3	Issuance Time	4
2.2.4	Valid Time	5
2.2.5	Product Expiration Time	5
2.3	Technical Description.....	5
2.3.1	Universal Geographic Code (UGC) Type	5
2.3.2	Mass News Disseminator (MND) Broadcast Instruction Line	5
2.3.3	MND Product Type Line.....	5
2.3.4	Content	6
2.3.5	Format	6
2.4	Updates, Amendments, and Corrections	6
3	Probabilistic Heavy Snow & Icing Forecasts (prod cat. D[1-3]P[04S, 08S, 12S, 25Z]) ...	6
3.1	Mission Connection	6
3.2	Issuance Guidelines	7
3.2.1	Creation Software	7
3.2.2	Issuance Criteria.....	7
3.2.3	Issuance Time	7
3.2.4	Valid Time	7
3.2.5	Product Expiration Time	8
3.3	Technical Description.....	8
3.3.1	UGC Type.....	8
3.3.2	MND Broadcast Line.....	8
3.3.3	MND Header	8
3.3.4	Content	8
3.3.5	Format Examples.....	9
3.4	Updates, Amendments, and Corrections	12
4	Day 4-7 Winter Weather Outlook.....	12
4.1	Mission Connection	12
4.2	Issuance Guidelines... ..	12
4.2.1	Creation Software	12
4.2.2	Issuance Criteria	13
4.2.3	Issuance Time	13
4.2.4	Valid Time.....	13
4.2.5	Product Expiration Time	13
4.3	Technical Description... ..	13
4.3.1	UGC Type	13
4.3.2	MND Broadcast Instruction Line... ..	13
4.3.3	MND Product Type Line.....	13
4.3.4	Content... ..	13
4.3.5	Format.....	13

4.4	Updates, Amendments, and Corrections...	14
5	72-Hour Low Tracks Graphic (product category LWTk72).	14
5.1	Mission Connection.....	14
5.2	Issuance Guidelines.....	14
5.2.1	Creation Software.....	14
5.2.2	Issuance Criteria.....	14
5.2.3	Issuance Time.....	14
5.2.4	Valid Time.....	15
5.2.5	Product Expiration Time.....	15
5.3	Technical Description.....	15
5.3.1	UGC Type.....	15
5.3.2	MND Broadcast Instruction Line.....	15
5.3.3	MND Product Type Line.....	15
5.3.4	Content.....	15
5.3.5	Format.....	15
5.4	Updates, Amendments, and Corrections.....	16
6	72-Hour Low Tracks Graphic (Non-Technical) (no product ID or header).....	16
6.1	Mission Connection.....	16
6.2	Issuance Guidelines.....	16
6.2.1	Creation Software.....	16
6.2.2	Issuance Criteria.....	16
6.2.3	Issuance Time.....	16
6.2.4	Valid Time.....	17
6.2.5	Product Expiration Time.....	17
6.3	Technical Description.....	17
6.3.1	UGC Type.....	17
6.3.2	MND Broadcast Instruction Line.....	17
6.3.3	MND Product Type Line.....	17
6.3.4	Content.....	17
6.3.5	Format.....	17
6.4	Updates, Amendments, and Corrections.....	17
7	Winter Storm Severity Index.....	18
7.1	Mission Connection.....	18
7.2	Issuance Guidelines.....	18
7.2.1	Creation Software.....	18
7.2.2	Issuance Criteria.....	18
7.2.3	Valid Time.....	19
7.2.4	Product Expiration Time.....	19
7.3	Technical Description.....	19
7.3.1	UGC Type.....	19
7.3.2	MND Broadcast Instruction Line.....	19
7.3.3	MND Product Type Line.....	19
7.3.4	Content.....	19
7.3.5	Format.....	20
7.4	Updates, Amendments, and Correction.....	20

1 Introduction

This procedural directive describes the winter weather products issued by the Weather Prediction Center (WPC) for the contiguous United States (CONUS), guidelines associated with these products, detailed content and format for each product type.

2 Probabilistic Heavy Snow and Icing Discussion (product category QPFHSD).

2.1 Mission Connection

WPC issues a heavy snow and icing discussion that provides the meteorological reasoning for the 24-hour probabilistic heavy snow and icing guidance graphics for Days One, Two, and Three. This text message is used by NWS field offices and the general meteorological community (private sector and the media), including the aviation community. Key messages for major winter storms, which are collaborated with affected WFOs, ROCs, and other National Centers, are also provided to users.

2.2 Issuance Guidelines

2.2.1 Creation Software

WPC uses a text editor to issue the QPFHSD.

2.2.2 Issuance Criteria

The QPFHSD discussion follows the issuance of scheduled or event-driven updates to the probabilistic heavy snow and icing graphics. The discussion is routinely issued from September 15 to May 15, and event-driven at other times.

2.2.3 Issuance Time

See Table 1, below.

2.2.4 Valid Time

See Table 1, below.

<i>WPC Probabilistic Heavy Snow and Icing Discussion</i>				
<i>Issuance Time (UTC)</i>	<i>Valid Time (UTC)</i>	<i>AWIPS ID</i>	<i>WMO Header</i>	<i>Product Description</i>
0930	1200 Day 1 to 1200 Day 3 (72 hour valid period)	QPFHSD	FOUS11 KWBC	Text providing meteorological reasoning for 24-hour heavy snow and icing probabilistic graphics for Days 1, 2, and 3
2130	0000 Day 1 to 0000 Day 3 (72 hour valid period)	QPFHSD	FOUS11 KWBC	Text providing meteorological reasoning for 24-hour heavy snow and icing graphics for Days 1, 2, and 3

Table 1. Product Schedule and Valid Times for Heavy Snow and Icing Discussion

2.2.5 Product Expiration Time

The product expires after either the valid time or a new product is issued.

2.3 Technical Description

The HSD follows the format and content described in this section.

2.3.1 Universal Geographic Code (UGC) Type

Not applicable.

2.3.2 Mass News Disseminator (MND) Broadcast Instruction Line

Not applicable.

2.3.3 MND Product Type Line

The QPFHSD header is Probabilistic Heavy Snow and Icing Discussion.

2.3.4 Content

WPC issues a heavy snow and icing discussion that provides the meteorological reasoning for the 24-hour Days One, Two, and Three probabilistic heavy snow and icing guidance graphics. When applicable, key messages to users are also provided at the bottom of the discussion.

2.3.5 Format

Probabilistic Heavy Snow and Icing Discussion
NWS Weather Prediction Center College Park MD
343 PM EDT Wed Apr 13 2022

Valid 00Z Thu Apr 14 2022 - 00Z Sun Apr 17 2022

...Northern Plains/Upper Midwest...

Days 1-2...

...Significant and potentially historic blizzard continues for portions of the Northern Plains...

Blizzard conditions will persist across portions of North Dakota and eastern Montana as a strong closed low drifts east across the northern Plains tonight and into the Upper Midwest on Thursday. In addition to strong and gusty winds, moderate to heavy snows will focus on the west side of a potent surface-to-low level wave. This wave is forecast swing eastward from eastern North Dakota toward northern Minnesota. A quick changeover from rain to snow is also likely across far northern Minnesota underneath a mid-level low. Sufficient divergence near the left exit region of a strong upper-level jet will support snowfall rates around 1" per hour and the chance for moderate accumulating snow along the Minnesota-Canada border. WPC probabilities indicate that additional snow accumulations of 8 inches or more are possible

(30-40%) across portions of north-central and northern North Dakota, as well as far northern Minnesota. On Thursday, generally light wraparound snow is expected to shift east, with a few inches likely across northern Minnesota. Guidance also depicts a few snow squalls are possible within an area of steepening lapse rates south of the main low pressure center on Thursday from the Dakotas across southern Minnesota and into northern Wisconsin. Snow will continue to wane and winds subside as the low lifts farther northeast across Canada and high pressure settles into the northern Plains Friday into Saturday.

...Pacific Northwest and Northern California to the Northern Rockies...

Days 1-3...

An upper low in the southeastern portion of an omega block will remain in place over the Northwest, maintaining a cold and unsettled pattern across the region. A series of shortwaves moving through the broader scale flow will support periods of organized precipitation, producing locally heavy amounts including areas of heavy mountain snow. Locally heavy accumulations are expected for the southern Oregon and far northern California mountains tonight into Thursday. With snow levels remaining low, additional light accumulations can be expected across the Oregon lowland areas. Models show a relative break for most areas early Friday before another shortwave moves into southwestern Oregon and Northern California by early Saturday. Southwesterly flow ahead of the system will increase snow levels on Friday before it moves inland and towards the Northern Rockies on Saturday.

For Days 1-3, the probability of 0.10 inch or more of ice is less than 10 percent.

~~~Key Messages for April 13-14 Blizzard~~~

--Blizzard conditions will continue to impact portions of the northern Plains into Thursday.

--The combination of heavy snow and strong wind gusts will produce dangerously low visibilities, with significant blowing and drifting of snow.

--Travel will remain difficult to impossible, and widespread power outages and tree damage are expected. Significant impacts to livestock are also possible.

--Snowfall intensity will diminish by Thursday, with additional

accumulations up to a foot. Maximum storm total snowfall of three feet is possible in parts of eastern Montana and western and central North Dakota.

## **2.4 Updates, Amendments, and Corrections**

Products are updated, amended, or corrected, as necessary.

## **3 Probabilistic Heavy Snow & Icing Forecasts (prod cat. D[1-3]P [04S, 08S, 12S, 25Z]).**

### **3.1 Mission Connection**

WPC issues probabilistic heavy snow and icing guidance products to support the NWS winter weather watch / warning / outlook program, and to indicate heavy snow and icing threats to external users and partners. These products are issued in probabilistic form to better represent the forecast uncertainty associated with a particular event. A full suite of thresholds and accumulation periods is issued in probability of exceedance and percentile displays, available in both graphical and digital formats. A subset of the probability of exceedance data is derived and shown as separate graphics.

### **3.2 Issuance Guidelines**

#### **3.2.1 Creation Software**

WPC uses the Advanced Weather Interactive Processing System (AWIPS), National Centers AWIPS (N-AWIPS), and specialized post-processing software to generate these products.

#### **3.2.2 Issuance Criteria**

These are routine, schedule-driven products, issued as specified in Table 2. Charts are routinely issued year-round.

#### **3.2.3 Issuance Time**

The full probabilistic winter precipitation forecast suite is issued 6-times daily at 0200 UTC, 0630 UTC, 0830 UTC, 1400 UTC, 1830 UTC, and 2030 UTC. The subset of graphics distributed on AWIPS are noted in Table 2.

#### **3.2.4 Valid Time**

Day 1 encompasses the forecast period from 12 to 36 hours on the 00 / 12 Coordinated Universal Time (UTC) model forecast cycle (00 UTC for the 0900 issuance and 12 UTC for the 2100 issuance), Day 2 encompasses the forecast period from 36 to 60 hours on the 00 / 12 UTC model forecast cycle, and Day 3 encompasses the forecast period 60-84 hours on the 00 / 12 UTC model forecast cycle. The full suite of probability data are specified at this link:

[https://www.wpc.ncep.noaa.gov/pwpf/WPC\\_PWPF\\_WMO\\_Headers.pdf](https://www.wpc.ncep.noaa.gov/pwpf/WPC_PWPF_WMO_Headers.pdf)

The subset of graphics distributed on AWIPS are noted in Table 2.

| <b>WPC Probabilistic Heavy Snow and Icing Graphical Guidance Product Schedule</b> |                         |                 |                   |                                                                  |
|-----------------------------------------------------------------------------------|-------------------------|-----------------|-------------------|------------------------------------------------------------------|
| <b>Issuance Time (UTC)</b>                                                        | <b>Valid Time (UTC)</b> | <b>AWIPS ID</b> | <b>WMO Header</b> | <b>Product Description</b>                                       |
| 0900                                                                              | 1200 – 1200             | D1P04S          | PSBB04 KWNH       | Day 1 Probability of Receiving at least 4” of Snow Accumulation  |
|                                                                                   | 1200 – 1200             | D1P08S          | PSBB08 KWNH       | Day 1 Probability of Receiving at least 8” of Snow Accumulation  |
|                                                                                   | 1200 – 1200             | D1P12S          | PSBB12 KWNH       | Day 1 Probability of Receiving at least 12” of Snow              |
|                                                                                   | 1200 – 1200             | D1P25Z          | PSBB25 KWNH       | Day 1 Probability of Receiving at least .25” of Ice Accumulation |
| 2100                                                                              | 0000 – 0000             | D1P04S          | PSBB04 KWNH       | Day 1 Probability of Receiving at least 4” of Snow Accumulation  |
|                                                                                   | 0000 – 0000             | D1P08S          | PSBB08 KWNH       | Day 1 Probability of Receiving at least 8” of Snow Accumulation  |
|                                                                                   | 0000 – 0000             | D1P12S          | PSBB12 KWNH       | Day 1 Probability of Receiving at least 12” of Snow              |
|                                                                                   | 0000 – 0000             | D1P25Z          | PSBB25 KWNH       | Day 1 Probability of Receiving at least .25” of Ice Accumulation |
| 0900                                                                              | 1200 – 1200             | D2P04S          | PSBC04 KWNH       | Day 2 Probability of Receiving at least 4” of Snow Accumulation  |
|                                                                                   | 1200 – 1200             | D2P08S          | PSBC08 KWNH       | Day 2 Probability of Receiving at least 8” of Snow Accumulation  |
|                                                                                   | 1200 – 1200             | D2P12S          | PSBC12 KWNH       | Day 2 Probability of Receiving at least 12” of Snow Accumulation |
|                                                                                   | 1200 – 1200             | D2P25Z          | PSBC25 KWNH       | Day 2 Probability of Receiving at least .25” of Ice Accumulation |
| 2100                                                                              | 0000 – 0000             | D2P04S          | PSBC04 KWNH       | Day 2 Probability of Receiving at least 4” of Snow Accumulation  |
|                                                                                   | 0000 – 0000             | D2P08S          | PSBC08 KWNH       | Day 2 Probability of Receiving at least 8” of Snow Accumulation  |
|                                                                                   | 0000 – 0000             | D2P12S          | PSBC12 KWNH       | Day 2 Probability of Receiving at least 12” of Snow Accumulation |
|                                                                                   | 0000 – 0000             | D2P25Z          | PSBC25 KWNH       | Day 2 Probability of Receiving at least .25” of Ice Accumulation |
| 0900                                                                              | 1200 – 1200             | D3P04S          | PSBD04 KWNH       | Day 3 Probability of Receiving at least 4” of Snow Accumulation  |
|                                                                                   | 1200 – 1200             | D3P08S          | PSBD08 KWNH       | Day 3 Probability of Receiving at least 8” of Snow Accumulation  |
|                                                                                   | 1200 – 1200             | D3P12S          | PSBD12 KWNH       | Day 3 Probability of Receiving at least 12” of Snow Accumulation |
|                                                                                   | 1200 – 1200             | D3P25Z          | PSBD25 KWNH       | Day 3 Probability of Receiving at least .25” of Ice Accumulation |
| 2100                                                                              | 0000 – 0000             | D3P04S          | PSBD04 KWNH       | Day 3 Probability of Receiving at least 4” of Snow Accumulation  |
|                                                                                   | 0000 – 0000             | D3P08S          | PSBD08 KWNH       | Day 3 Probability of Receiving at least 8” of Snow Accumulation  |
|                                                                                   | 0000 – 0000             | D3P12S          | PSBD12 KWNH       | Day 3 Probability of Receiving at least 12” of Snow Accumulation |
|                                                                                   | 0000 – 0000             | D3P25Z          | PSBD25 KWNH       | Day 3 Probability of Receiving at least .25” of Ice Accumulation |

**Table 2. Probabilistic Heavy Snow and Icing Chart Issuance and Valid Times****3.2.5 Product Expiration Time**

The product expires after the valid time or a new probabilistic heavy snow and icing forecast is issued, whichever comes first.

**3.3 Technical Description**

Charts should follow the format and content described in this section.

**3.3.1 UGC Type**

Not applicable.

**3.3.2 MND Broadcast Line**

Not applicable.

**3.3.3 MND Header**

Not applicable.



### 3.3.4 Content

The PWPF forecasts provide information in the following formats:

Probabilities of exceeding a threshold show filled contour levels of probability that the 24-hour, 48-hour, or 72-hour accumulation of winter precipitation (snow and ice) will equal or exceed the given threshold. As an example, consider the 6-inch threshold for snowfall. If a point of interest falls within the 40% contour on the probability map, then the chance of snowfall exceeding 6 inches is 40% or greater. As the threshold values increase, the probabilities of exceeding them decrease.

The above probability of exceedance data are used to derive a subset of graphics distributed on AWIPS and the SBN in more simplified format:

- a. Snowfall - closed lines represent the probability (slight, moderate, and high) that enclosed areas will receive equal to or greater than a specific threshold accumulation (4", 8" or 12") of snowfall in a 24 hour period.
- b. Freezing Rain - depicts the probability in the same manner and time period as snowfall, but with an accumulation threshold of 0.25" (one quarter of an inch) of freezing rain.
- c. The probability thresholds are:
  - (1) SLIGHT (SLGT): 10% to less than 40% chance of occurrence within the outlined area.
  - (2) MODERATE (MDT): 40% to less than 70% chance of occurrence within the outlined area.
  - (3) HIGH: 70% or greater chance of occurrence within the outlined area.

Percentile accumulations for 24-, 48-, or 72-hour intervals show filled contours of snowfall or freezing rain amounts for which the probability of observing that amount or less is given by the percentile level. For example, if the 75th percentile map shows six inches of snow at a location, then the probability of getting up to six inches of snow is 75% at that point. Conversely, there is only a 25% probability of snowfall exceeding six inches at the location in this example.

Percentile accumulations increase as the percentile level increases. To illustrate this point, take the previous example, but instead of the 75th percentile map consider the 10th percentile map showing two inches of snow at the location. In this case, the probability of getting up to but no more than two inches of snow is just 10%. The probability of getting more than two inches is 90%; so, a significant accumulation of snow is likely.

### 3.3.5 Format Examples

Examples of Days 1-3 Snow and Ice Accumulation charts follow.

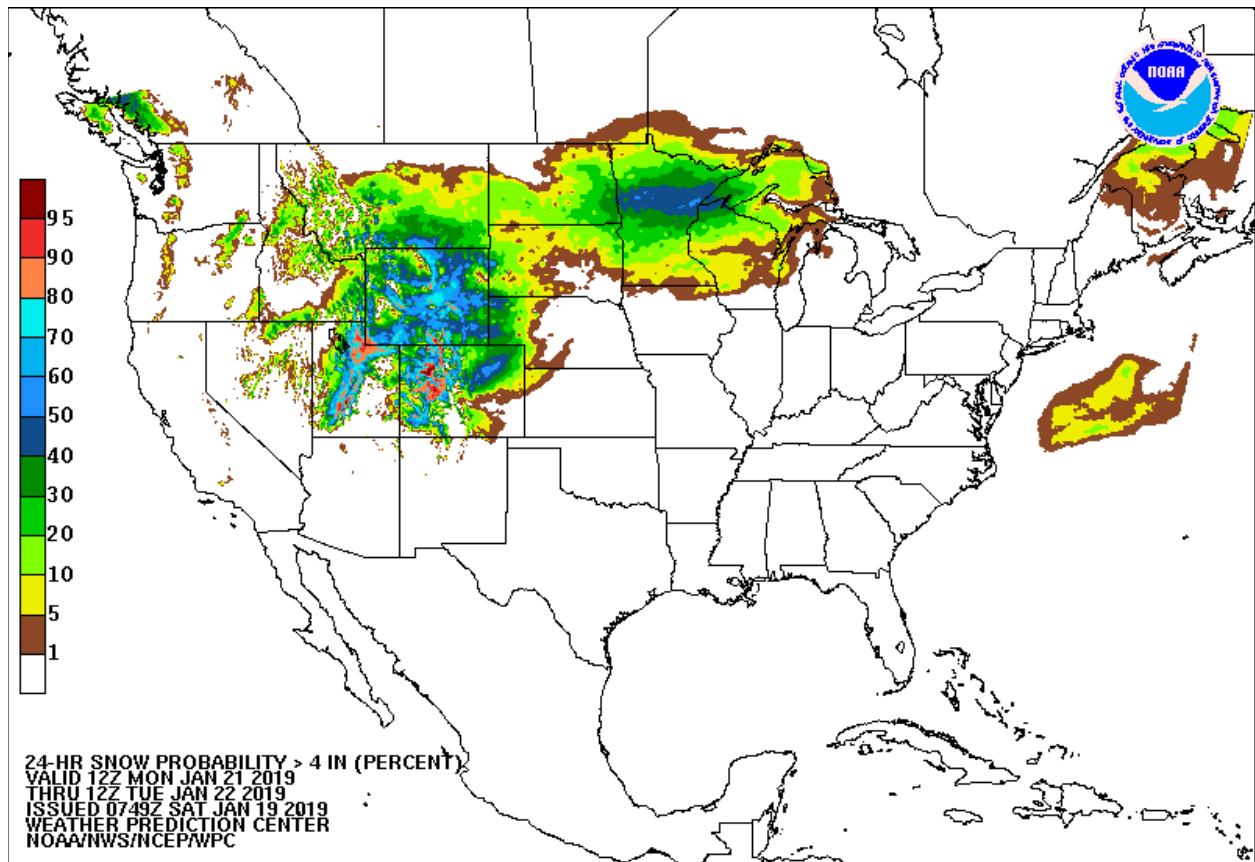


Figure 1. Probability of Greater than 4 inches of snow in a 24 hour period Chart.

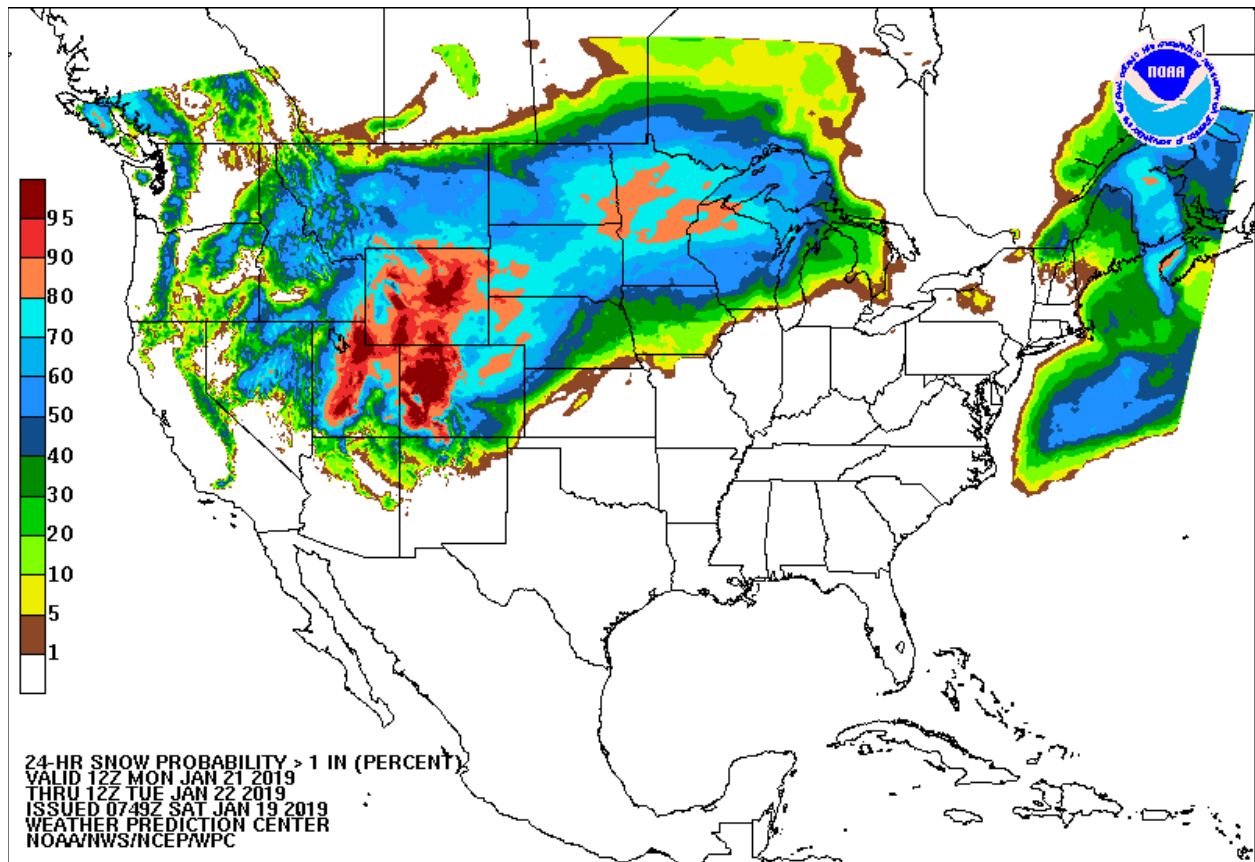
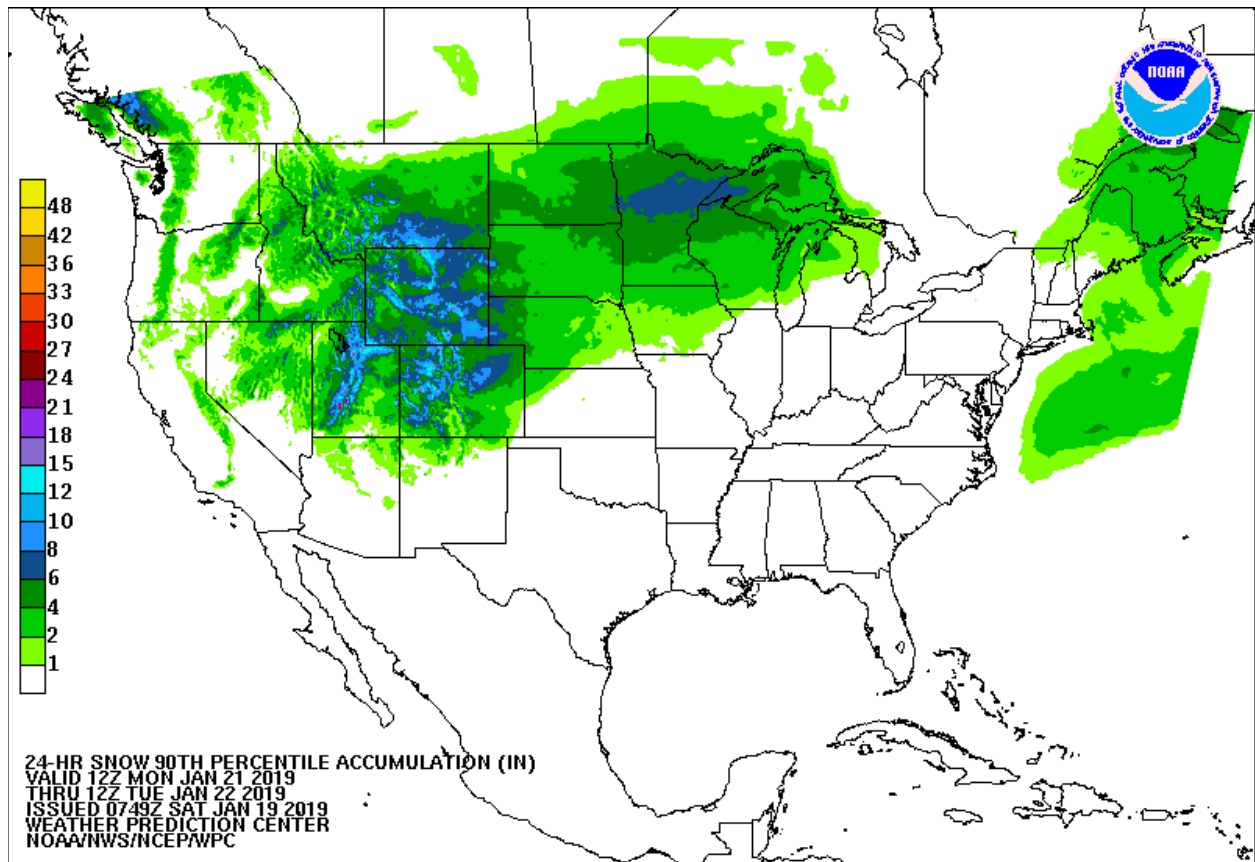
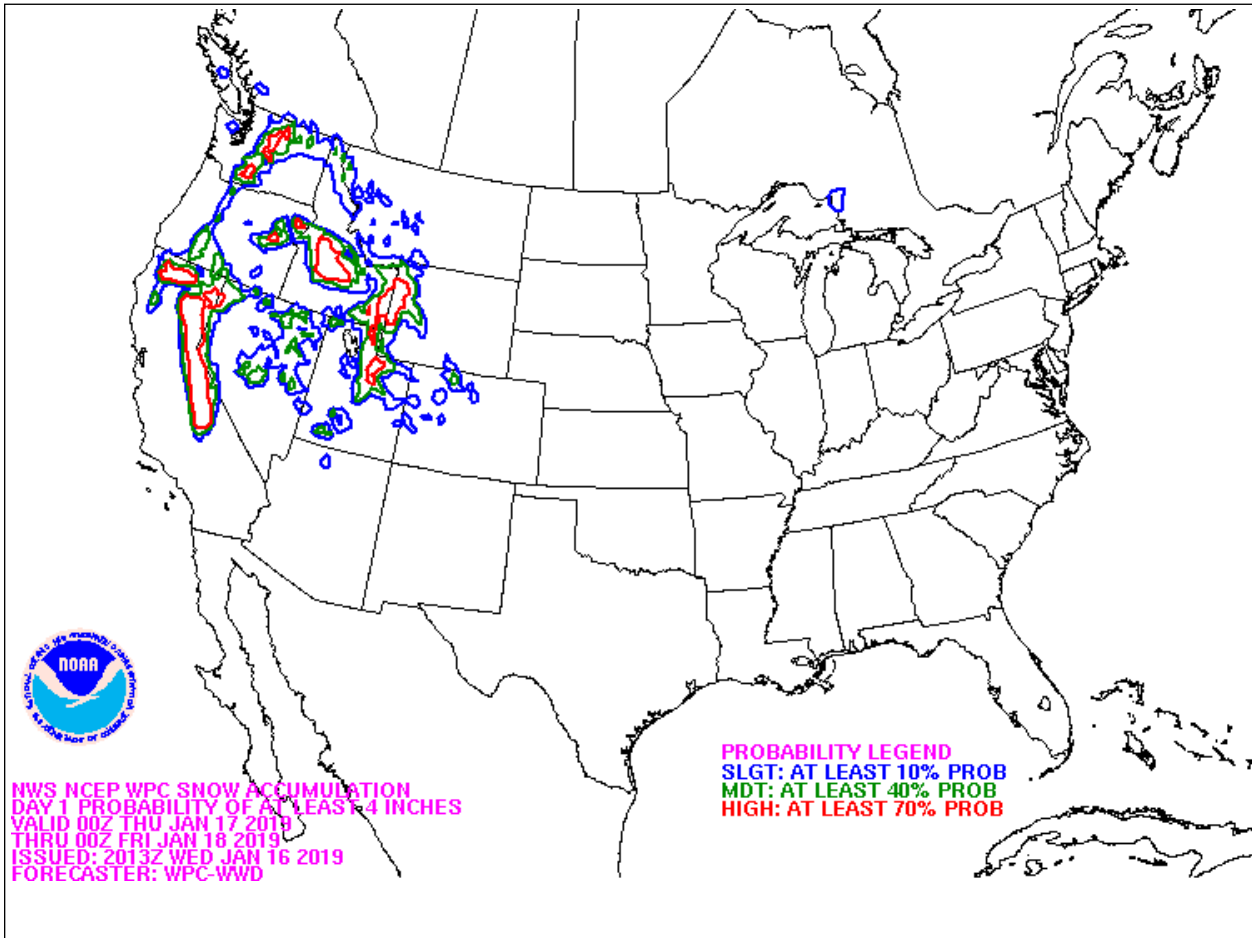


Figure 2. Probability of Greater than 1 inch of snow in a 24-hour period Chart.



**Figure 3. 90<sup>th</sup> Percentile Snow Accumulation in a 24-hour period.**



**Figure 4. Probability of at least 4 inches of snow accumulation in 24 hours Chart.**

### **3.4 Updates, Amendments, and Corrections**

WPC updates the product as necessary for format or other changes as necessary.

## **4 Day 4-7 Winter Weather Outlook**

### **4.1 Mission Connection**

The Day 4-7 Winter Weather Outlook is a probabilistic forecast depicting the probability of winter precipitation (snow/sleet) exceeding 0.25 inches (~6 mm) water equivalent over a 24-hour period (12Z – 12Z). This graphic is used by NWS field offices and the general meteorological community including the private sector and the media to support advanced planning of hazardous winter weather.

### **4.2 Issuance Guidelines**

#### **4.2.1 Creation Software**

WPC uses the AWIPS and N-AWIPS software to generate this product.

#### 4.2.2 Issuance Criteria

This is a year-round product.

#### 4.2.3 Issuance Time

The Winter Weather Outlook is issued no later than 0900 UTC and 2100 UTC daily, or when any corrections or amendments are needed.

#### 4.2.4 Valid Time

The Winter Weather Outlook is valid until expiration time or until a new Winter Weather Outlook is issued.

| WMO Header  | Product Description  | Valid Time      | Format |
|-------------|----------------------|-----------------|--------|
| RHUE12 KWNH | WWO Prob $\geq 0.25$ | Day 4 (12z-12z) | GRIB2  |
| RHUF12 KWNH | WWO Prob $\geq 0.25$ | Day 5 (12z-12z) | GRIB2  |
| RHUG12 KWNH | WWO Prob $\geq 0.25$ | Day 6 (12z-12z) | GRIB2  |
| RHUH12 KWNH | WWO Prob $\geq 0.25$ | Day 7 (12z-12z) | GRIB2  |

**Table 3. Day 4-7 Winter Weather Outlook WMO headers and valid times and format.**

#### 4.2.5 Product Expiration Time

The product expires at expiration time or when a new product is issued, whichever comes first.

### 4.3 Technical Description

The chart should follow the format and content described in this section.

#### 4.3.1 UGC Type

Not applicable.

#### 4.3.2 MND Broadcast Instruction Line

Not applicable.

#### 4.3.3 MND Product Type Line

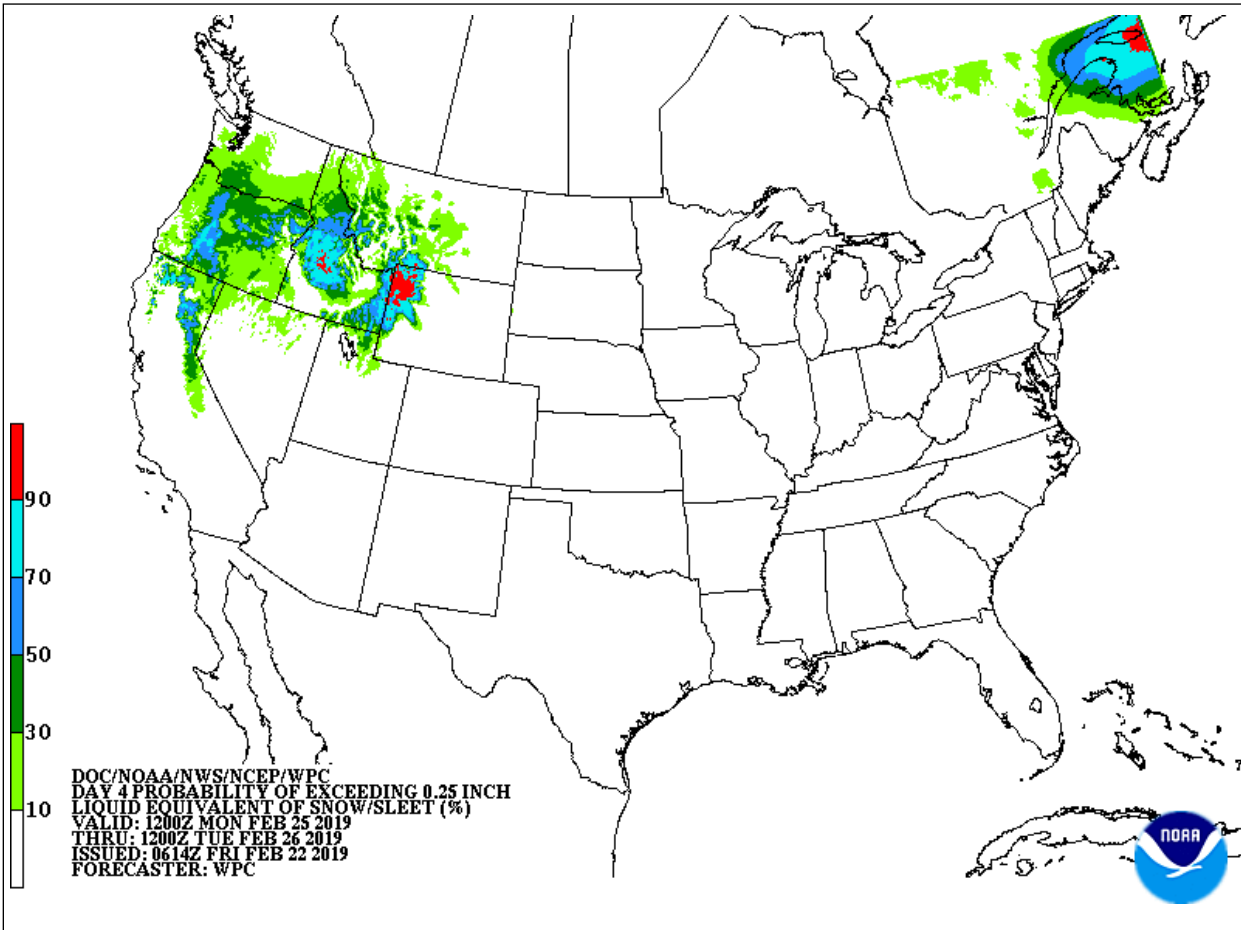
Not applicable.

#### 4.3.4 Content

The Day 4-7 Winter Weather Outlook is a probabilistic forecast depicting the probability of winter precipitation (snow/sleet) exceeding 0.25 inches (~6 mm) water equivalent over a 24-hour period (12Z – 12Z). The product is comprised of 4 products (graphical and digital) displaying the forecast for Day 4, Day 5, Day 6, and Day 7. The outlook is prepared twice daily by Weather Prediction Center (WPC) medium range forecasters.

#### 4.3.5 Format

The forecasts are presented on an interactive WPC webpage at the following URL: [http://www.wpc.ncep.noaa.gov/wwd/pwpf\\_d47/pwpf\\_medr.php](http://www.wpc.ncep.noaa.gov/wwd/pwpf_d47/pwpf_medr.php) as Probability of Exceeding 0.25 inch liquid equivalent of snow/sleet. An example is shown below.



**Figure 5. Day 4 Probability of Exceeding 0.25 inch Liquid Equivalent of Snow/Sleet Chart.**

#### 4.4 Updates, Amendments, and Corrections

WPC updates the product as necessary for format or other changes as necessary.

### 5 72-Hour Low Tracks Graphic (product category LWTK72)

#### 5.1 Mission Connection

WPC issues a graphical chart, which depicts the initial and forecast location and central pressure of significant surface lows impacting the CONUS in 12-hour increments out to 72 hours into the future. This graphic is used by NWS field offices and the general meteorological community including the private sector and the media.

#### 5.2 Issuance Guidelines

### **5.2.1 Creation Software**

WPC uses the N-AWIPS software to generate this product.

### **5.2.2 Issuance Criteria**

This is a schedule-driven product, routinely issued from September 15 to May 15.

### **5.2.3 Issuance Time**

The low tracks graphic is issued at 0900 UTC and 2100 UTC daily, or when any corrections or amendments are needed.

### **5.2.4 Valid Time**

The low tracks graphic is valid until expiration time or until a new low tracks graphic is issued.

### **5.2.5 Product Expiration Time**

The product expires at expiration time or when a new low tracks graphic is issued, whichever comes first.

## **5.3 Technical Description**

The chart should follow the format and content described in this section.

### **5.3.1 UGC Type**

Not applicable.

### **5.3.2 MND Broadcast Instruction Line**

Not applicable.

### **5.3.3 MND Product Type Line**

Not applicable.

### **5.3.4 Content**

The chart depicts the initial and forecast location and central pressure of surface lows associated with significant winter weather in the CONUS in 12-hour increments out to 72 hours into the future (ending at 12 UTC on the 2100 UTC issuance and ending at 00 UTC on the 0900 UTC issuance). The initial position and central pressure of existing lows at 00 UTC or 12 UTC are depicted in black, with initial model positions of existing lows shown in cyan. WPC's forecast low positions and track forecast are depicted in black. The WPC forecast central pressure and all available computer model forecast positions for a given time period are depicted with symbols in colors matching the valid date and time of the forecast, as shown in the index. The spread of model forecast positions provides users with a sense of the uncertainty associated with the forecast.

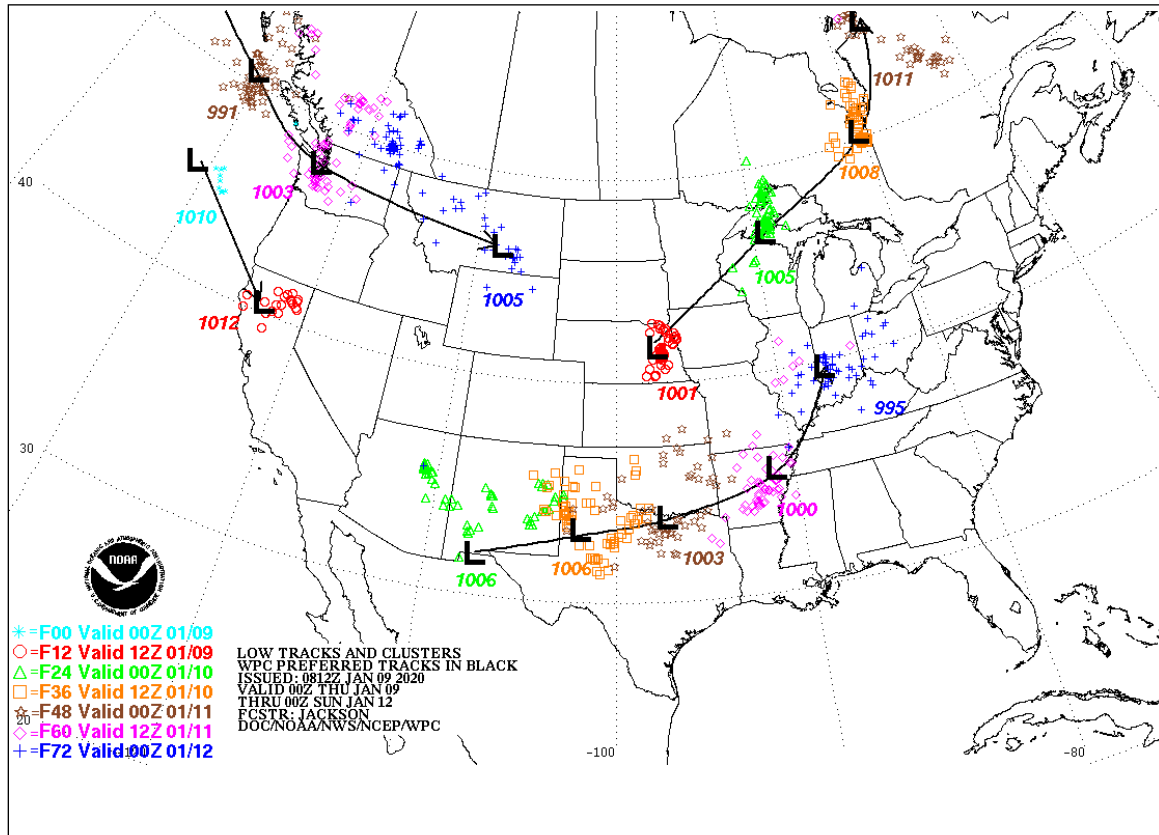


### 5.3.5 Format

The forecasts are presented on a WPC webpage at the following URL:

[https://www.wpc.ncep.noaa.gov/lowtracks/lowtrack\\_ensembles.gif](https://www.wpc.ncep.noaa.gov/lowtracks/lowtrack_ensembles.gif) as low tracks and clusters.

An example is shown below.



**Figure 6. LWTk72 – 72-Hour Low Tracks**

### 5.4 Updates, Amendments, and Corrections

WPC does not update/amend this product, but will correct it for format and grammatical errors as required.

## 6 72-Hour Low Tracks Graphic (Non-Technical) (no product ID or header).

### 6.1 Mission Connection

WPC issues a non-technical version of the 72-hour low tracks graphic chart which depicts the forecast location of significant surface lows impacting the CONUS in 12-hour increments out to 72 hours into the future. Due to its non-technical nature, this graphic can be used by the public as well as the general meteorological community, including the private sector and the media.

### 6.2 Issuance Guidelines

### **6.2.1 Creation Software**

WPC uses the N-AWIPS software to generate this product.

### **6.2.2 Issuance Criteria**

This is a schedule-driven product, routinely issued from September 15 to May 15.

### **6.2.3 Issuance Time**

The non-technical low tracks graphic is issued at 0900 UTC and 2100 UTC daily, or when any corrections or amendments are needed.

### **6.2.4 Valid Time**

This product is valid until expiration time or until a new non-technical low tracks graphic is issued.

### **6.2.5 Product Expiration Time**

The product expires at expiration time or when a new nontechnical low tracks graphic is issued, whichever comes first.

## **6.3 Technical Description**

The chart should follow the format and content described in this section

### **6.3.1 UGC Type**

Not applicable.

### **6.3.2 MND Broadcast Instruction Line**

Not applicable.

### **6.3.3 MND Product Type Line**

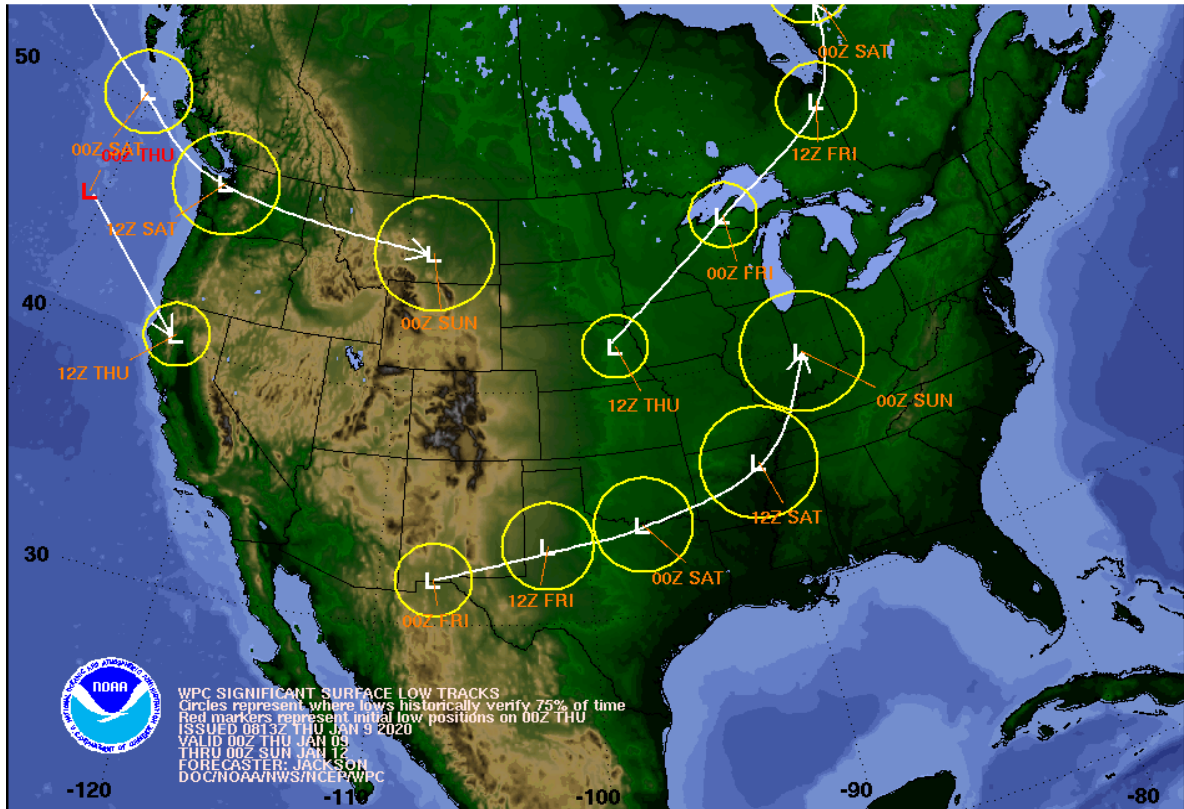
Not applicable.

### **6.3.4 Content**

The chart depicts the forecast location of surface lows associated with significant winter weather in the CONUS in 12-hour increments out to 72 hours into the future (ending at 12 UTC on the 2100 UTC issuance and ending at 00 UTC on the 0900 UTC issuance). The forecast positions and track of the low are displayed in white. The initial position of existing lows at 00 UTC or 12 UTC will be depicted in red without circles. The yellow circles around each forecast low position represent a 75% probability that the observed low will be located within the circle. Note: This probability is derived from the previous season's verification data.

### **6.3.5 Format**

The forecasts are presented on a WPC webpage at the following URL:  
[https://www.wpc.ncep.noaa.gov/wwd/lowtrack\\_circles.gif](https://www.wpc.ncep.noaa.gov/wwd/lowtrack_circles.gif) as low tracks and circles representing historical verification. An example is shown below.



**Figure 7. 72-Hour Low Tracks (Non-Technical)**

#### 6.4 Updates, Amendments, and Corrections

WPC does not update / amend this product, but will correct it for format and grammatical errors as required.

### 7 Winter Storm Severity Index (WSSI).

#### 7.1 Mission Connection

The purpose of the WSSI is to provide NWS forecasters, partners, and the public with an indication of the severity of winter weather hazards and the potential for related societal impacts. The WSSI does not depict official warnings and should always be used in context with official NWS forecasts and warnings.

#### 7.2 Issuance Guidelines

##### 7.2.1 Creation Software

WPC creates this product through the use of Geographic Information Systems (GIS) by screening the official National Weather Service (NWS) gridded forecasts from the National Digital Forecast Database (NDFD) for winter weather elements and combining those data with non-meteorological or static information datasets (e.g., climatology, land-use, urban areas) to derive potential impacts.

### **7.2.2 Issuance Criteria**

This is a year-round product.

### **7.2.3 Issuance Time**

The WSSI will be updated every two hours at approximately 0100 Coordinated Universal Time (UTC), 0300 UTC, 0500 UTC, etc. No communication system changes are required to view this web-based information.

### **7.2.4 Valid Time**

This product is valid until expiration time or until a new graphical product is issued.

### **7.2.5 Product Expiration Time**

The product expires at the end of the posted valid time or when a new graphical product is issued, whichever comes first.

## **7.3 Technical Description**

The product should follow the format and content described in this section.

### **7.3.1 UGC Type**

Not applicable

### **7.3.2 MND Broadcast Instruction Line**

Not applicable

### **7.3.3 MND Product Type Line**

Not applicable

### **7.3.4 Content**

The WSSI comprises six individual, but equally weighted components of winter storms derived from both official NWS Forecast datasets from NDFD and non-meteorological datasets. These raw and calculated forecast values are then used for a series of additional calculations to compute individual WSSI components, which are then categorized to impact scale. The final WSSI value is the maximum from among all components for each grid point at the native 2.5 km NDFD resolution. The summary graphic (Overall WSSI) is the maximum forecasted impact from any of the six impact components. The six components are:

- Blowing Snow
- Flash Freeze
- Ground Blizzard
- Ice Accumulation
- Snow Amount
- Snow Load

The 6 levels of impact are given the following descriptors: No Impacts, Limited, Minor, Moderate, Major, and Extreme.

### 7.3.5 Format

The graphics are available for the 116 WFOs on individual websites along with one national viewer that encompasses the Contiguous United States (CONUS). These pages depict local and national views of the WSSI for Day 1, Day 2, and Day 3 as well as a combined Days 1-3 image. These webpages are updated every two hours at approximately 0100 Coordinated Universal Time (UTC), 0300 UTC, 0500 UTC, etc. The publicly-shared output is available as static images and in GIS format (KMZ, SHP). Participating WFOs will include links to the WSSI on their local web pages. The forecasts are presented on a WPC webpage at the following URL: <https://www.wpc.ncep.noaa.gov/wwd/wssi/wssi.php>.

### 7.4 Updates, Amendments, and Correction

WPC does not update/amend this product.

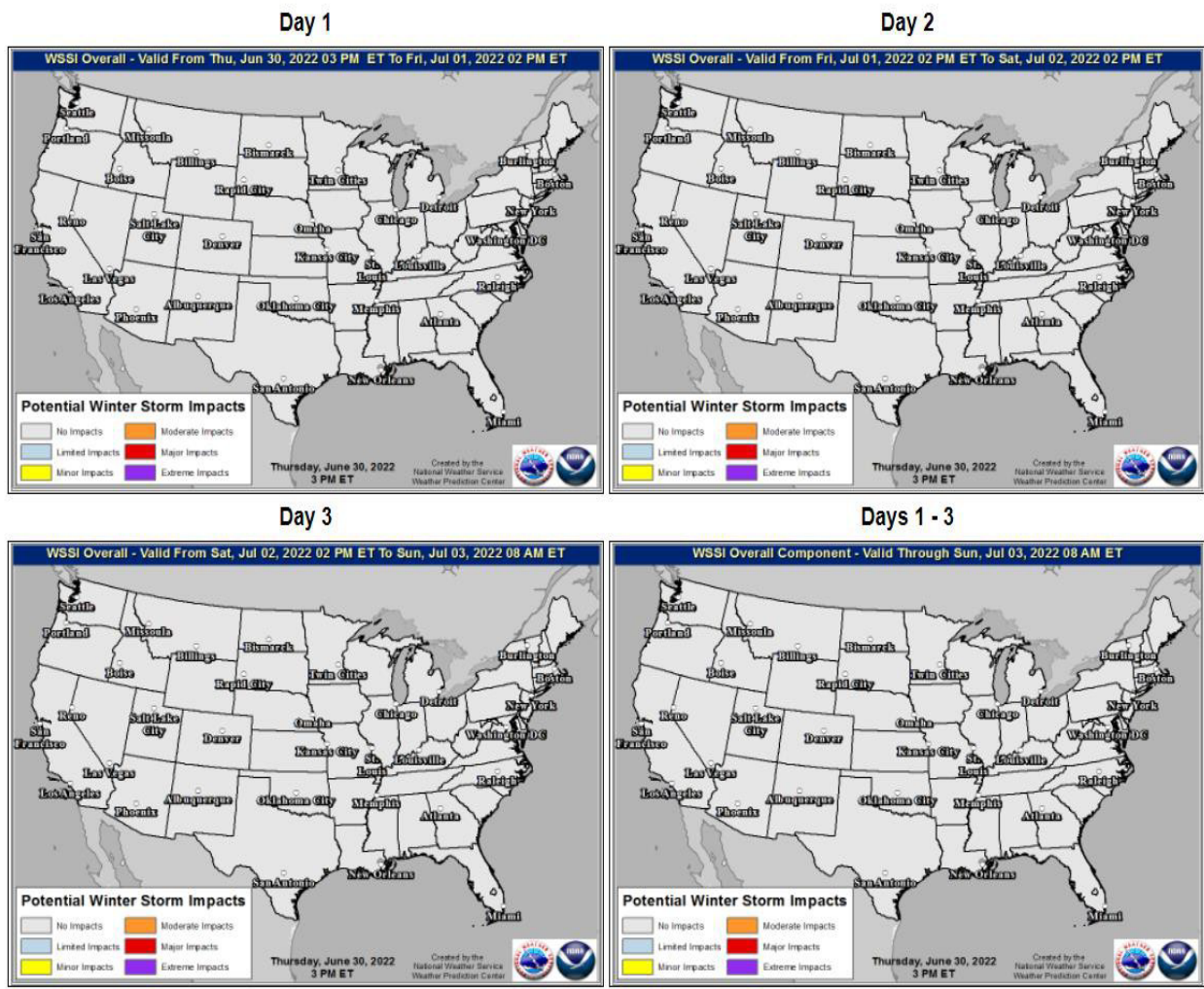


Figure 8. Winter Storm Severity Index Static Images for Day 1, 2, 3 and Days 1-3