

NATIONAL WEATHER SERVICE INSTRUCTION 10-503

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Operations and Services

Public Weather Services, NWSPD 10-5

WFO PUBLIC WEATHER FORECAST PRODUCTS SPECIFICATIONS

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

OPR: W/OS22 (A.Horvitz)

Certified by: W/OS22 (E. Jacks)

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-503, “WFO Public Weather Forecast Products Specification,” dated February 24, 2012. Changes are listed below.

1. Updated FAA Contractions Link, Appendix C
2. Updated Approving Official
3. Deleted use of “Near Term”, Section 2.3.5.1 and Section 2.3.5.2. “Near Term” is described in the Eastern Region Area Forecast Discussion Specifications.
4. Minor format and grammatical corrections

-signed-

06/30/2014

Christopher S. Strager
Acting Director, Office of Climate,
Water, and Weather Services

Date

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1 Introduction

This procedural directive provides product specifications for the Area Forecast Discussion (AFD) public product issued by the National Weather Service (NWS) Weather Forecast Offices (WFOs). Specifications include the guidelines associated with this product, detailed content, and format for the product type. Duplicated product specifications and format definitions from NWS Instruction 10-503 to include the Area Forecast Matrices (AFM), Point Forecast Matrices (PFM), Recreation Report (REC), State Forecast Product (SFP), Tabular State Forecast Product (SFT) and the Zone Forecast Product (ZFP) are currently contained in NWSI 10-204, *Derived Forecast Text Products Specifications*. Links are provided to these products from within NWSI 10-503.

The NWS is transitioning from providing weather forecast and warning information primarily via scheduled text products, to providing more detailed information derived from a digital forecast database. Digital forecast products dictated by events may be in the form of text, tabular, or graphics. While most products described or referenced in this instruction are prepared by automated formatters extracting information from a digital forecast database, others are created using a mixture of manual preparation and product formatters.

2 Area Forecast Discussion (product category AFD)

2.1 Mission Connection

The AFD is a semi-technical product primarily used as a means to explain the scientific rationale behind a forecast and summarize watches, warnings and/or advisories in effect. This highly visible product is used to convey forecast and watch/warning/advisory information primarily to federal agencies, weather sensitive officials, and the media. The AFD is also useful for coordination among WFOs and River Forecast Centers (RFCs), National Centers, and Center Weather Service Unit (CWSUs). The forecast insight provided in the AFD is beyond that which can be found in other NWS products.

2.2 Issuance Guidelines

2.2.1 Creation Software

The AFD should be composed using the Advanced Weather Interactive Processing System (AWIPS) Interactive Forecast Preparation System (IFPS) preformatted AFD shell, or other text editor if IFPS is unavailable.

2.2.2 Issuance Criteria

The AFD is issued at least twice a day by all WFOs in accordance with the mandatory Zone Forecast Product (ZFP) issuances. If applicable, additional AFDs should be issued to provide reasoning for forecast updates or to provide an explanation of rapidly-evolving mesoscale trends.

2.2.3 Issuance Time

WFOs should issue AFDs within the 2-hour period preceding or 1-hour period following the release of the ZFP. AFDs should be issued within 1-hour prior to, or after updated forecast packages.

2.2.4 Valid Time

AFDs are valid from time of release until the next complete update.

2.2.5 Product Expiration Time

AFDs do not contain a product expiration time.

2.3 Technical Description

AFDs should follow the format and content described in the following section.

2.3.1 Universal Geographic Code (UGC) Type

There is no UGC coding associated with the AFD product.

2.3.2 Mass News Dissemination (MND) Broadcast Instruction Line

There is no MND Broadcast Instruction Line associated with this product.

2.3.3 MND Product Type Line

All WFOs will use the AFD MND header, "AREA FORECAST DISCUSSION."

2.3.4 Content

The AFD consists of two primary sections: a narrative description of forecast information and reasoning, and a summary of public, marine and fire weather outlook/watch/ warning/advisory issuances. The discussions should focus on the most significant weather issues affecting a WFO's geographic area of responsibility during the seven day forecast period. Emphasis should be placed on those forecast periods where outlooks/watches/warnings/advisories are in effect, proposed, or are being considered. The narrative content of this product should be professional and remain focused on the meteorology. Editorial comments are inappropriate.

- a. Narrative Discussion. The narrative discussion is a concise explanation of forecast reasoning and should express the deliberations made by the WFO forecast team, as well as consensus decisions with adjacent offices, RFCs, and National Centers. Use of data sources, such as the Weather Surveillance Radar 88 Doppler (WSR-88D), Automated Surface Observing Systems, Profiler, satellite, local and national models, and local and national analysis are encouraged. The discussion should emphasize significant aspects of the forecast such as:
 - (1) Identification of the most significant hydrometeorological weather affecting the geographical area of responsibility during the 7 Day forecast period;

- (2) Identification of the forecast problem(s)-of-the-day and explanation of their solution(s);
- (3) An indication of forecast team confidence and probabilistic guidance on weather possibilities not found in other products;
- (4) Reasoning behind watch/warning/advisory issuance;
- (5) Differences in model guidance and an indication as to which model appears the most correct and why;
- (6) Reasoning for varying significantly from automated model output guidance products;
- (7) Reasons for significant changes from the previous forecast;
- (8) Expected timing of events such as beginning or ending of precipitation and degree of uncertainty;
- (9) A brief review of the synoptic situation;
- (10) If any section is updated, the overall product should be reviewed for internal consistency and that the mandatory elements, at a minimum, are refreshed.

b. Watch/Warning/Advisory Block. The Watch/Warning/Advisory Block (see Appendix A, section 1 for an example) is used to summarize public, fire weather and marine long duration hazardous weather contained in the associated forecast package. Include the watch/warning/advisory block in all AFDs in a separate section after the narrative discussion.

- (1) Hurricanes and Tropical Storms. WFOs will also include watches and warnings for hurricanes and tropical storms affecting their geographic area of responsibility.
- (2) Exclusions. WFOs should not list short duration warnings (of a few hours or less) for convective and flood events; including severe thunderstorm, tornado watches and warnings, and flash flood and flood warnings.

No formal coding schemes for the watch/warning/advisory block are required, but formal coding may be used in this section as produced by the IFPS process which extracts hazard information from the digital database. The areas affected may be described geographically and/or by forecast zones. Well known contractions are permitted in this section. If zones are not referenced, the geographical description should be detailed enough to allow for an accurate interpretation of the referenced

area. For example, instead of just "NRN," add a fraction or delineate with reference to station identifiers and/or prominent topographic features (such as "NRN QTR" or "NRN MO N OF MO RVR"). If topographic features are used without zone references, their approximate location within the state should be given. An example without zones would be "MT SHASTA SISKIYOU AREA OF XTRM NRN CA."

When no public and marine watch/warning/advisory information is needed, use the word "NONE."

- c. Preliminary Point Temperatures and Probability Of Precipitation (POPs). At regional discretion, the forecaster may include preliminary point forecasts of temperatures and/or POPs for key locations following the narrative (see section 2.3.5 for specific format).
- d. Use of Contractions. AFDs should be composed in plain language using complete words. Limited use of contractions is permitted (e.g., to avoid repetition of lengthy terms, or to allow forecasters to save time by expressing their thoughts more concisely) under the following two circumstances:
 - (1) All contractions will come from the United States Aeronautical Contractions Handbook 7340.1[x], where "x" is the most recent version. NWS contractions should be used as a first choice. If an NWS contraction cannot be found for a particular term, a contraction from other sources within the handbook is permitted (see Appendix C).

Contractions should be well-known by the user community (e.g., PAC NW for Pacific Northwest, TSTMS for thunderstorms, etc.).

2.3.5 Format.

The AFD is a single segment narrative product. At a minimum, a mandatory discussion identifier is used to organize the narrative discussion. Various other topic dividers may be used to organize, clarify, and allow for automatic retrieval of information from the product. When these optional section identifiers are used, they should be entered exactly as shown below using the same spelling, beginning with a period (.), and followed by three periods (...). The information that follows may either be on the same line or on subsequent lines (See Figure 1).

2.3.5.1 Narrative and Use of Topic Dividers

The narrative is primarily a free form text section. However, topic dividers are used to highlight the text which follows, and allow for automatic retrieval of program specific information. If used, there will be no deviation from exact spelling and format. Each topic will be followed by a double ampersand "&&" and a line feed to indicate the end of the section.

To begin the AFD narrative section, either use introductory topic divider format (a), or divider format (b) below (also See Figure 1).

- a. .DISCUSSION...
- or
- b. .SHORT TERM [Time Period]... **and** .LONG TERM [Time Period]...
(used in conjunction with one another)

All other topic dividers are optional, and should be included as appropriate. The following is a comprehensive list of the topic dividers:

- .UPDATE...[Insert brief reason for forecast update. Provide additional details within .SHORT TERM/.LONG TERM or .DISCUSSION sections]
- .PREV DISCUSSION [HHMM]...[Append previous AFDs (or significant portions thereof. Do not include delimiters or the Watch/Warning/Advisory Blocks from the previous AFDs)]
- .SYNOPSIS...[Insert brief weather depiction & movement of systems]
- .MARINE...[Insert marine weather /sea state information]
- .AVIATION...[Insert aviation weather/ceiling and visibility information]
- .FIRE WEATHER...[Insert fire weather information/low relative humidity, strong wind, dry lightning.]
- .HYDROLOGY...[Insert hydrologic information/QPF, rivers]
- .CLIMATE...[Insert climatological information/records, long range outlook]
- .PRELIMINARY POINT TEMPS/POPS...[Insert temp/POP data - use plain language site names for easy identification]

Topic dividers should be logically ordered *beneath* the mandatory introductory dividers based on the significance of the information. However, there are *two exceptions* as follows:

- (1) If “.SYNOPSIS...” is used, it should be ordered *above* the mandatory introductory divider as a broad overview to the discussion that follows.
- (2) If “.UPDATE...” is used, it should be ordered *above* the mandatory introductory divider to ensure it is not overlooked by the reader. If the update also refers to the synopsis portion, the “.UPDATE...” may be placed above the “.SYNOPSIS...” section as appropriate.

When a WFO generates preliminary point temps/pops, the “.PRELIMINARY POINT TEMPS/POPS...” should be the *final* topic divider.

2.3.5.2 Watch/Warning/Advisory Block

The Watch/Warning/Advisory Block is a list of the active hazards and the areas affected. This section will be formatted as follows:

".XXX WATCHES/WARNINGS/ADVISORIES. . ." beginning at the left margin and one blank line below the last line of the text, where XXX is the modernized three letter identifier of the issuing office. If a WFO's County Warning and Forecast Area (CWFA) falls entirely within one state, the use of state identifications are not necessary. If a WFO's CWFA covers multiple states, begin a new line with the two-letter state identification followed by three dots (...) and the list of watches, warnings and advisories applicable to that state. (See Figure 1 for format example).

FXaaii cccc ddhhmm AFDxxx	<i>WMO heading AWIPS ID</i>
<u>Product Format</u>	<u>Description of Entry</u>
AREA FORECAST DISCUSSION (see section 5.3.3 for exceptions) NATIONAL WEATHER SERVICE city state time am/pm time_zone day mon dd yyyy	<i>(MND/NWS Product Name) (Issuing Office or Agency) (Issuing Time/Date)</i>
...[headline to highlight any topical forecast information]...	<i>(Topical Headline - Optional)</i>
.UPDATE... &&	<i>(Optional, but if used it should appear above the introductory divider and may appear above .SYNOPSIS as appropriate)</i>
.SYNOPSIS... &&	<i>(Optional, but if used it should appear above the introductory divider)</i>
.DISCUSSION... .SHORT TERM [time period]... .LONG TERM [time period]... [insert narrative text]	
&&	
.MARINE... &&	<i>(Optional)</i>
.AVIATION... &&	<i>(Optional)</i>
.FIRE WEATHER... &&	<i>(Optional)</i>
.HYDROLOGY... &&	<i>(Optional)</i>
.CLIMATE... &&	<i>(Optional)</i>
.PREV DISCUSSION... &&	<i>(Optional)</i>
.PRELIMINARY POINT TEMPS/POPS... site name ttt ttt ttt / ppp ppp ppp ppp site name ttt ttt ttt / ppp ppp ppp ppp etc... &&	<i>(Optional)</i>
.[XXX] WATCHES/WARNINGS/ADVISORIES...(where XXX=issuing office 3-letter identifier) [watch, warning, advisory information and associated locations or enter the word "NONE" followed by a period]	
<i>OR...FOR MULTIPLE STATES USE THE FOLLOWING FORMAT:</i>	
[ST]...[watch, warning, advisory information and associated locations or NONE]. (where ST = two letter state ID)	
[ST]...[watch, warning, advisory information and associated locations or NONE].	
\$\$ Name/Initials/Forecaster ID(s)	<i>(Optional)</i>

Figure 1. Area Forecast Discussion Product Format.

2.4 Updates and Corrections

AFDs should be updated between regular issuances to explain major changes to the forecast, to provide a technical explanation of mesoscale trends, or supply information which may be of particular interest to users. A previous AFD (or significant portions of a previous AFD) may be appended to the update to provide background information and a more thorough discussion of the entire forecast. For clarity, the issuance time of the previous AFD should also be included. WFOs will correct AFDs for format and grammatical errors as required. Users may more easily recognize AFD section changes when using the Internet (red color) highlight option. Offices may also utilize the glossary option for web presentation of the AFD to improve its readability. An example of this option is contained within the example AFD in Appendix A.

3 Area Forecast Matrices (product category AFM)

Instructions for the Area Forecast Matrices (AFM) can be found in NWSI 10-204: Derived (*Forecast Text Products Specifications*).

http://www.weather.gov/os/public/dir/AFM_Specifications.pdf

4 Point Forecast Matrices (product category PFM)

Instructions for the Point Forecast Matrices (PFM) can be found in NWSI 10-204: Derived (*Forecast Text Products Specifications*).

http://www.weather.gov/os/public/dir/PFM_Specifications.pdf

5 Recreation Report (product category REC)

5.1 Mission Connection

The Recreation Report (REC) relays reports on conditions for resorts and recreational areas. This report, which may also contain forecast information, is for the general public.

5.2 Issuance Guidelines

5.2.1 Creation Software

The REC may be composed using the AWIPS text editor or any other text editor.

5.2.2 Issuance Criteria

The REC does not have mandatory issuance criteria. Issuance criteria should be determined based upon user needs.

5.2.3 Issuance Time

The REC is a non-scheduled product issued on an as needed basis. Release times should be determined locally based upon user needs.

5.2.4 Valid Time

RECs are valid from the time of release until the next issuance.

5.2.5 Product Expiration Time

The REC product expiration time is determined locally.

5.2.6 Event Expiration Time

Not applicable.

5.3 Technical Description

5.3.1 UGC Type

The REC may use Zone coding or descriptive geographic terminology, as appropriate.

5.3.2 MND Broadcast Instruction Line

The REC does not contain an MND Broadcast Instruction Line.

5.3.3 MND Product Type Line

The REC does not have a mandatory MND. The MND should be descriptive in nature and determined based upon user needs.

5.3.4 Content

The REC may contain the entire range of meteorological variables, e.g., sky cover, weather, wind, temperature, snow depth, tides, water temperature, etc. Specific content should be determined based upon user needs.

5.3.5 Format

The REC is a free-form text product.

SXaaai cccc ddhhmm	<i>(WMO Heading)</i>
RECxxx	<i>(AWIPS ID)</i>
stZ.....	<i>(UGC:Zone, if applicable)</i>
RECREATION FORECAST (or similar)	<i>(MND)</i>
NATIONAL WEATHER SERVICE city st	<i>(Issuing Office)</i>
time am/pm time_zone day mmm dd yyyy	<i>(Issuing time and date)</i>
[TEXT]	
\$\$	<i>(UGC Delimiter)</i>
Name/Initials/Fcstr ID	<i>(Optional)</i>

Figure 2. Recreational Forecast Generic Format.

5.4 Updates and Corrections

Corrections are issued as required. Updates are issued based upon user needs.

6 State Forecast Product (product category SFP)

Instructions for the State Forecast Product (SFP) can be found in NWSI 10-204: Derived (*Forecast Text Products Specifications*).

http://www.weather.gov/os/public/dir/SFP_Specifications.pdf

7 Tabular State Forecast Product (product category SFT).

Instructions for the Tabular State Forecast Product (SFT) can be found in NWSI 10-204: Derived (*Forecast Text Products Specifications*).

http://www.weather.gov/os/public/dir/SFT_Specifications.pdf

8 Zone Forecast Product (product category ZFP).

Instructions for the Zone Forecast Product (ZFP) can be found in NWSI Directive 10-204: (*Derived Forecast Text Products Specifications*).

http://www.weather.gov/os/public/dir/ZFP_Specifications.pdf

APPENDIX A - Product Guidelines and Examples

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1 Area Forecast Discussion Example

000
 FXUS66 KSEW 131729
 AFDSEW

AREA FORECAST DISCUSSION
 NATIONAL WEATHER SERVICE SEATTLE WA
 930 AM PST TUE DEC 13 2011

.SYNOPSIS...A WEAK COLD FRONT WILL PASS TO THE NORTH OF THE AREA TODAY. THIS FRONT WILL BECOME STATIONARY ACROSS BRITISH COLUMBIA THROUGH WEDNESDAY FOR A CONTINUED CHANCE OF RAIN OVER THE COAST AND NORTH. A LOW PRESSURE SYSTEM WILL MOVE ACROSS THE REGION WEDNESDAY NIGHT AND THURSDAY FOR A HIGHER CHANCE OF RAIN AND MOUNTAIN SNOW.

&&

.SHORT TERM...CLOUDS COVER ALL BUT THE EXTREME SOUTH OF WESTERN WASHINGTON AS A WEAK SYSTEM MOVES INTO SOUTHERN BRITISH COLUMBIA. MOST FOG HAS DISSIPATED EXCEPT FOR THE SOUTHWEST INTERIOR. THERE IS LIGHT RAIN OVER SOUTHERN VANCOUVER ISLAND BUT NONE HAS APPEARED IN WASHINGTON OBSERVATIONS NOR IN CAMERAS SO FAR. WILL KEEP THE DRY FORECAST FOR TODAY. LAST NIGHT WAS COLD...IN THE TEENS AND 20S...AND NOW WITH SUBSTANTIAL CLOUD COVER HIGHS ARE NOT LIKELY TO RISE HIGHER THAN THE MID 30S.

THERE COULD BE A LITTLE PRECIPITATION TONIGHT AND WEDNESDAY OVER NORTHERN AREAS. MODEL POPS INCREASE TO LIKELY OR BETTER OVER ALL AREAS WEDNESDAY NIGHT AND THURSDAY. WITH THE COLD AIR MASS IN PLACE AT LEAST SOME OF THIS PRECIPITATION IS LIKELY TO BE SNOW. 1000-850 MB THICKNESSES ON WEDNESDAY NIGHT ARE BELOW 1300M IN PLACES. WILL ADDRESS THIS IN THE AFTERNOON PACKAGE. BURKE

.LONG TERM...PREVIOUS DISCUSSION...THE MEDIUM RANGE SOLUTIONS INDICATED THAT AN UPPER RIDGE WILL PREVAIL OVER THE REGION THROUGH THE EARLY PART OF THIS WEEKEND. IF THIS TREND HOLDS...THE CHANCE OF PRECIP CAN BE REMOVED FROM THE FORECAST ALTOGETHER. AN UPPER TROF MAY AFFECT THE AREA EARLY NEXT WEEK FOR A THREAT OF PRECIP.

&&

.HYDROLOGY...FLOODING IS NOT EXPECTED FOR THE NEXT 7 DAYS.

&&

.AVIATION...SURFACE HIGH PRESSURE WILL BE CENTERED OVER EASTERN WASHINGTON WITH LIGHT LOW-LEVEL OFFSHORE FLOW TODAY. WESTERLY FLOW ALOFT WILL AFFECT THE AREA AS THE UPPER LEVEL RIDGE OVER THE AREA BREAKS DOWN.

SATELLITE IMAGERY SHOWS SOME HIGH CLOUDS OVER THE NORTHERN AND WESTERN PORTIONS OF THE FORECAST AREA WITH MOSTLY CLEAR SKIES OVER THE REMAINDER OF WESTERN WASHINGTON. THE REMAINING FOG/STRATUS IS LIMITED TO OLM/TCM SOUTHEASTWARD...AND SHOULD LIFT/SCATTER LATER THIS MORNING. MID/HIGH-LEVEL CLOUDS ARE EXPECTED OVER WESTERN WASHINGTON FOR THE REMAINDER OF THE DAY.

KSEA...FOG/STRATUS HAS LIFTED/SCATTERED AT THE TERMINAL THIS MORNING. THE REST OF THE DAY SHOULD SEE THICKENING MID AND HIGH CLOUDS WITH RELATIVELY LIGHT WINDS. JMV

&&

.MARINE...LIGHT SURFACE GRADIENTS OVER THE WATERS ARE EXPECTED THROUGH TODAY. A DISSIPATING FRONT WILL APPROACH FROM THE NORTHWEST LATER TODAY INTO TONIGHT BUT WILL NOT BE STRONG ENOUGH TO PRODUCE SMALL CRAFT ADVISORY WINDS OVER ANY OF THE WATERS. ANOTHER FRONT ARRIVES WEDNESDAY NIGHT INTO THURSDAY. MODELS HAVE HAD A HARD TIME COMING TO CONSENSUS ON WHERE THE PARENT SURFACE LOW WILL END UP. THERE STILL IS THE POTENTIAL FOR SOME SMALL CRAFT ADVISORY WINDS ESPECIALLY OVER THE COASTAL WATERS AS THIS LOW MOVES INTO THE AREA...BUT AS WITH THE SYSTEM FOR LATER TUESDAY IT WILL BE WEAKENING AS IT ARRIVES. SURFACE HIGH PRESSURE REBUILDS ON FRIDAY AND REMAINS OVER THE AREA ON SATURDAY. JMV

&&

.SEW WATCHES/WARNINGS/ADVISORIES...
WA...NONE.
PZ...NONE.

&&

\$\$

YOU CAN SEE AN ILLUSTRATED VERSION OF THE FORECAST DISCUSSION AT WWW.WEATHER.GOV/SEATTLE/GAFD/LATEST_WEBAFD.HTML.

2 Recreational Report (REC) Examples.

2.1 Fort Peck Lake Recreational Forecast.

SXUS45 KGGW 281535
RECGW

FORT PECK LAKE RECREATION FORECAST
NATIONAL WEATHER SERVICE GLASGOW MT
935 AM MDT FRI AUG 28 2009

MTZ017-022-023-290015-
DAM AREA OF FORT PECK-DUCK CREEK-YORK ISLAND-HAXBY POINT-
935 AM MDT FRI AUG 28 2009

.REST OF TODAY...HIGHS 80 TO 85. NORTH WINDS AROUND 10 MPH.
.TONIGHT...LOWS AROUND 55. NORTH WINDS AROUND 10 MPH EARLY IN THE
EVENING BECOMING LIGHT.
.SATURDAY...HIGHS 80 TO 85. EAST WINDS 10 TO 15 MPH.
.SATURDAY NIGHT...LOWS AROUND 50. EAST WINDS 10 TO 15 MPH.

\$\$

MTZ022-023-290015-
DRY ARM AREA OF FORT PECK-ROCK CREEK-NELSON CREEK-TIMBER CREEK-
935 AM MDT FRI AUG 28 2009

.REST OF TODAY...HIGHS 80 TO 85. NORTH WINDS AROUND 10 MPH.
.TONIGHT...LOWS 50 TO 55. NORTH WINDS AROUND 10 MPH EARLY IN THE
EVENING BECOMING LIGHT.
.SATURDAY...HIGHS AROUND 80. LIGHT AND VARIABLE WINDS BECOMING
EAST AROUND 10 MPH IN THE LATE MORNING.
.SATURDAY NIGHT...LOWS AROUND 50. EAST WINDS AROUND 10 MPH.

\$\$

MTZ016-017-021-022-290015-
WEST END OF FORT PECK-THE PINES-HELL CREEK-UL BEND-CROOKED CREEK-
935 AM MDT FRI AUG 28 2009

.REST OF TODAY...HIGHS 80 TO 85. LIGHT AND VARIABLE WINDS
BECOMING NORTH AROUND 10 MPH IN THE AFTERNOON.
.TONIGHT...LOWS AROUND 55. NORTHEAST WINDS AROUND 10 MPH EARLY IN
THE EVENING BECOMING LIGHT.
.SATURDAY...HIGHS 80 TO 85. LIGHT AND VARIABLE WINDS BECOMING
SOUTHEAST 10 TO 15 MPH IN THE AFTERNOON.
.SATURDAY NIGHT...LOWS AROUND 50. EAST WINDS 10 TO 15 MPH.

\$\$

2.2 Mount Rainier Recreational Forecast.

SXUS46 KSEW 281234
RECSEW

MOUNT RAINIER RECREATIONAL FORECAST
NATIONAL WEATHER SERVICE SEATTLE WA
530 AM PDT FRI AUG 28 2009

.SYNOPSIS
A LOW PRESSURE SYSTEM OFFSHORE WILL CONTINUE TO APPROACH
THE AREA DURING THE DAY TODAY...RESULTING IN INCREASING CLOUDS.
EXPECT THE LOW PRESSURE SYSTEM TO MOVE OVER WESTERN WASHINGTON
TONIGHT FOR A BETTER CHANCE OF SHOWERS...ALONG WITH A RISK OF
THUNDERSTORMS. THE UPPER LOW WILL SLOWLY MOVE SOUTHEAST DURING THE
DAY SATURDAY...THEREBY KEEPING THE THREAT OF SHOWERS GOING. DRY
WEATHER WILL RETURN ON SUNDAY AS HIGH PRESSURE BUILDS OVER THE AREA.

&&

.TODAY...INCREASING CLOUDS. FREEZING LEVEL 13500 FEET.
 .TONIGHT...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS OR THUNDERSTORMS.
 SNOW LEVEL 12000 FEET.
 .SATURDAY...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS OR THUNDERSTORMS.
 SNOW LEVEL LOWERING TO 10500 FEET.
 .SATURDAY NIGHT...MOSTLY CLOUDY. A CHANCE OF SHOWERS OR THUNDERSTORMS.
 SNOW LEVEL 10500 FEET.
 .SUNDAY...PARTLY SUNNY. A CHANCE OF MORNING SHOWERS. SNOW LEVEL
 RISING TO 12500 FEET.
 .SUNDAY NIGHT...BECOMING MOSTLY CLEAR. FREEZING LEVEL 14500 FEET.

&&

TEMPERATURE AND WIND FORECASTS FOR SELECTED LOCATIONS.

	TODAY	TONIGHT	SAT	SAT NIGHT	SUN
SUMMIT (14411 FT)	24 S 55	18 W 25	14 N 17	23 N 15	28 NE 10
CAMP MUIR(10188 FT)	52 S 35	46 W 17	37 N 12	34 NE 12	42 E 10
PARADISE (5420 FT)	70 SE 8	47 SW 6	58 NW 6	45 N 6	67 N 6
LONGMIRE (2700 FT)	80 CALM	50 CALM	69 CALM	48 CALM	76 CALM

++ TEMPERATURES AND WIND FOR THE SUMMIT AND CAMP MUIR ARE AVERAGE
 CONDITIONS EXPECTED IN THE FREE AIR AT THOSE ELEVATIONS.
 ++ TEMPERATURES FOR PARADISE AND LONGMIRE ARE THE EXPECTED HIGHS AND
 LOWS. WIND IS THE AVERAGE WIND EXPECTED DURING THAT PERIOD.

.EXTENDED FORECAST..

.MONDAY...MOSTLY SUNNY. FREEZING LEVEL 14000 FEET.
 .MONDAY NIGHT AND TUESDAY...MOSTLY CLEAR. FREEZING LEVEL 13500 FEET.
 .TUESDAY NIGHT AND WEDNESDAY...MOSTLY CLEAR. FREEZING LEVEL 13000
 FEET.
 .WEDNESDAY NIGHT...MOSTLY CLEAR. FREEZING LEVEL 13500 FEET.
 .THURSDAY...PARTLY SUNNY. FREEZING LEVEL 13500 FEET.

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APPENDIX B - Federal Meteorological Handbook No. 1

The following web link will access the latest edition of Federal Meteorological Handbook No. 1(FMH-1), "Surface Weather Observations and Reports" which embodies the United States conversion to the World Meteorological Organization's (WMO) Aviation Routine Weather Report/Aviation Selected Special Weather (METAR/SPECI) code formats. It was compiled under the auspices of the Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) and embodies the work of meteorological code experts from the United States Departments of Commerce, Transportation, Defense, and Energy. The FMH-1 incorporates all of the United States' exceptions to the international METAR/SPECI format standard that is prescribed in the WMO Publication No. 306 on Meteorological Codes.

FMH-1, Surface Weather Observations and Reports and Related Pen and Ink Changes:
<http://www.ofcm.gov/fmh-1/fmh1.htm>.

APPENDIX C - US Department of Transportation FAA 7340.1[x] Contractions

The following web link will access the list of official USA-AERONAUTICAL CONTRACTIONS. These approved word and phrase contractions are used by personnel of the Federal Aviation Administration (FAA). This list is also used by other agencies (including the NWS) that provide air traffic control, communications, weather, charting, and associated services.

FAA Contractions: <http://www.faa.gov/documentLibrary/media/Order/CNT.pdf>