NATIONAL WEATHER SERVICE INSTRUCTION 10-515

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Operations and Services

Public Weather Services, NWSPD 10-5

WFO NON-PRECIPITATION 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 directive supercedes NWSI 10-515 "WFO Non-Precipitation Weather Products Specification," effective November 1, 2005. The following revisions were made to this instruction:

1) Added Hard Freeze Warning in Section 6.2.2.1
2) Reworded Section 6.2.2 to allow for local flexibility based on significant impact
3) Added link to unlocked headlines guidance in Sections 5.4, 6.4, and 7.4.
4) Removed tropical products, Inland Hurricane and Tropical Storm Watches and Warnings in Tables 1 and 3, respectively, from NPW category. These products are now in NWSI 10-601 Section 7.3.

Signed 10/30/08

David B. Caldwell Date
Director, Office of Climate, Water, and Weather Services

WFO Non-Precipitation Weather Products Specification

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1. Introduction. This procedural directive describes the non-precipitation weather products issued by National Weather Service (NWS) Weather Forecast Offices (WFOs), guidelines associated with these products, and detailed content and format for each product type.

2. Non-Precipitation Weather Event and Definitions.

2.1 Non-Precipitation Weather Event. A non-precipitation event is a meteorological phenomenon that impacts public safety, transportation, and/or commerce.

2.2 Non-Precipitation Weather Event Beginning Time. A non-precipitation weather event begins when either the issuance criteria are forecast to be initially met or exceeded, or when public safety, transportation and/or commerce are adversely affected as a direct result of the expected or occurring meteorological conditions before criteria are met.

2.3 Non-Precipitation Weather Event Ending Time. A non-precipitation weather event ends when the issuance criteria are forecast to no longer be met, when meteorological conditions are expected to no longer pose a threat to public safety, transportation and/or commerce, or when such conditions are forecast to end.

3. Multi-tiered Concept. The NWS non-precipitation weather warning program will use, when appropriate, the multi-tiered concept to increase public awareness and promote a proper response to the impending hazardous non-precipitation weather event. Generically, the multi-tiered concept is:

a. **Outlook** – An outlook is used to indicate that a hazardous non-precipitation weather event may develop. It is intended to provide information to those who need considerable lead time to prepare for the event.

b. **Watch** – A watch is used when the risk of a hazardous non-precipitation weather event has increased, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so those who need to set their plans in motion can do so.

c. **Warning/Advisory** – These products are issued when a hazardous non-precipitation weather event is occurring, is imminent, or has a very high probability of occurrence. A warning is used for conditions posing a threat to life or property. An advisory is for less serious conditions that cause significant inconvenience and, if caution is not exercised, could lead to situations that may threaten life and/or property.

To properly apply the multi-tiered concept, it is important to have agreement between the forecast staff and other affected WFOs to reach a forecast consensus. This will reduce the on-again, off-again syndrome and geographical/time discontinuities, especially for the longer duration products like outlooks and watches. Proper coordination will enable the NWS to speak with one voice when alerting users to the potential for such an event.

4. Non-Precipitation Outlook (product category HWO).

4.1 Mission Connection. Non-precipitation outlooks provide our users and partners three to seven day (3-7) advance notice of a hazardous non-precipitation weather event which has the potential to threaten life or property. The primary goal of this product is to provide information to those who need considerable lead time to prepare for the event.

4.2 Issuance Guidelines. WFOs should use the Hazardous Weather Outlook (HWO) to issue non-precipitation outlooks. The HWO replaces the Special Weather Statement (SPS) as the tool to issue information about potentially hazardous non-precipitation weather expected within the next three to seven days. Non-precipitation outlooks should follow the issuance guidelines described in National Weather Service Instruction (NWSI) 10-517, section 4.2.

Exception: Based on local user requirements for major storms, some WFOs may issue a non-precipitation outlook under the product category SPS in addition to the HWO.

4.3 Technical Description. Non-precipitation outlooks should follow the format and content described in NWSI 10-517, section 4.3.

5. Non-Precipitation Watches (product category NPW).

5.1 Mission Connection. Non-precipitation watches provide our users and partners 12-to-72 hour advance notice of hazardous non-precipitation weather events which have the potential to threaten life or property. The primary goal of this product is to provide enough lead time for those who need to set their plans in motion.

5.2 Issuance Guidelines.

5.2.1 Creation Software. WFOs will use the AWIPS Graphical Hazard Generator (GHG) as the primary software to create and issue non-precipitation watches. WFOs outside the contiguous United States (OCONUS) will use regionally approved software.

5.2.2 Issuance Criteria. WFOs will issue a non-precipitation watch when conditions are favorable for a hazardous non-precipitation weather event to develop over part or all of the forecast area, but the occurrence is uncertain. WFOs should issue a non-precipitation watch for the second, third, or occasionally fourth forecast periods, when there is a 50 percent or greater chance of a hazardous non-precipitation weather event meeting or exceeding local warning criteria.

5.2.2.1 Non-Precipitation Watch Products. WFOs will issue the following non-precipitation watch products:

Non-Precipitation Watch Product Name	**Issuance Criteria**

Excessive Heat Watch	Conditions are favorable for an excessive heat event to meet or exceed local Excessive Heat Warning criteria in the next 24 to 72 hours.
Freeze Watch	Conditions are favorable for a freeze event to meet or exceed Freeze Warning criteria in the next 12 to 48 hours during the locally defined growing season.
High Wind Watch	Conditions are favorable for a high wind event to meet or exceed High Wind Warning criteria in the next 12 to 48 hours.

Table 1. Non-precipitation watch product table.

5.2.3 Issuance Time. The non-precipitation watch is an event-driven product. WFOs should issue the initial watch when the watch issuance criteria are met. Subsequent updates are issued at least once every 12 hours until a warning or advisory is issued or the watch is cancelled.

5.2.4 Valid Time. A non-precipitation watch is valid for 12 to 48 hours after the issuance time, except as noted in Table 1. The valid time (event beginning and end time) is placed in the P-VTEC line and described in the watch headline. Excessive heat watches should be valid for the entire time of the expected heat episode, not just the daytime hours. For example, a heat episode expected to last three days should be covered by a single Excessive Heat Watch for the entire period rather than three separate daytime watches.

5.2.4.1 Event Beginning Time. The event beginning time is when the hazardous event is expected to begin. The event beginning time is placed in the P-VTEC line and described in the watch headline (e.g., FREEZE WATCH IN EFFECT FROM **LATE SUNDAY NIGHT** THROUGH MONDAY MORNING).

5.2.4.2 Event Ending Time. The event ending time is when the hazardous event is expected to end. The event ending time is placed in the P-VTEC line and described in the watch headline (e.g., FREEZE WATCH IN EFFECT FROM LATE SUNDAY NIGHT THROUGH **MONDAY MORNING**).

5.2.5 Product Expiration Time. The product expiration time is generally 12 hours after the issuance time and is placed at the end of the UGC string. The product expiration time is the time when users can expect to receive an updated NPW.

5.3 Technical Description. Non-precipitation watches will follow the format and content described in this section.

5.3.1 Universal Geographic Code Type. Non-precipitation watches will use the (Z) form of the UGC.

5.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

5.3.3 Mass News Disseminator Product Type Line. The non-precipitation watch MND line is "URGENT - WEATHER MESSAGE."

5.3.4 Non-Precipitation Watch Content. The non-precipitation watch may contain an overview section, but will include segmented forecast information.

5.3.4.1 Overview Section. The non-precipitation watch overview section is optional. If included, it should contain at least one of the following items:

a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, area affected and expected time of development. The overview headline will begin and end with three periods "..."

Examples:

...ANOTHER HIGH WIND EVENT TO IMPACT THE EAST SIDE OF THE SIERRA NEVADA MOUNTAINS ON MONDAY AND TUESDAY...

...A SIGNIFICANT HEAT WAVE MAY BE HEADED OUR WAY THIS WEEKEND...

b. Overview - a brief, non-technical description of the developing non-precipitation event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information will be preceded by a period ".".

5.3.4.2 Segmented Forecast Information. Each segment of the non-precipitation watch will include a watch headline followed by a descriptive text describing why the watch was issued. Each segment describes a specific hazardous non-precipitation weather event(s) for the same geographical area.

a. Watch Headline. The watch headline will include the following elements in the order shown:

(1) Leading ellipsis (...)
(2) Valid watch product name listed in Table 1.
(3) Event action phrase defined in Table 2.
(4) General event beginning day and time phrase defined in Appendix C (when applicable)
(5) General event ending day and time phrase defined in Appendix C (when applicable)
(6) Trailing ellipsis (...)

Exception: When necessary (e.g., mountainous terrain), areal descriptive terms and elevation indicators are permitted after the ending day and time phrase and before the trailing ellipsis.

Generic Watch Headline Format:

(1) Used when watch product is in effect:
...<watch product name> <event action phrase> FROM <event beginning date and time phrase> THROUGH <event ending date and time phrase>...

(2) Used to cancel a watch prior to event beginning date and time:
...<watch product name> <event action phrase>...

Event Action Phrase. The event action phrase in the watch headline corresponds with the VTEC action code. Only the following event action phrases in Table 2 will be used in non-precipitation weatherwatch headlines:

VTEC Action Code	Description	Required Event Action Phrase	Include Time/Date phrase?
NEW	Initial Issuance	IN EFFECT	Yes
EXA	Expansion of watch area	IN EFFECT	Yes
EXB	Expansion of watch area and change to watch valid time	IN EFFECT	Yes
CON	Continuation or update of event	REMAINS IN EFFECT	Yes
EXT	Extend/shorten event start and/or ending date/time	NOW IN EFFECT	Yes
CAN	Product cancelled prior to event end time	IS CANCELLED	No
UPG	Upgrade watch - no headline		

Table 2. Event action phrases for NPW watch headlines.

b. Watch Headline Examples:

(1) Initial issuance:
...HIGH WIND WATCH IN EFFECT FROM SUNDAY MORNING THROUGH MONDAY MORNING...

(2) Update:
...HIGH WIND WATCH REMAINS IN EFFECT FROM SUNDAY MORNING THROUGH MONDAY MORNING...

(3) Extended event end time:

...HIGH WIND WATCH NOW IN EFFECT FROM SUNDAY MORNING THROUGH MONDAY AFTERNOON...

(4) Expansion of watch area and shortened event start and end time: ...HIGH WIND WATCH IN EFFECT FROM SATURDAY EVENING THROUGH SUNDAY EVENING...

(5) Watch cancelled prior to event end time/date:
...HIGH WIND WATCH IS CANCELLED...

c. Watch descriptive Text. This section will provide the following watch information:

(1) National Weather Service attribution line. For the **initial** watch, include the following phrase to begin the text of a watch:

THE NATIONAL WEATHER SERVICE IN [WFO NAME or LOCATION] HAS ISSUED AN/A (e.g., EXCESSIVE HEAT/FREEZE/HIGH WIND) WATCH.

The attribution line is optional for subsequent issuances.

(2) Generalized quantitative wind speed amounts or Heat Index values, etc., and event timing, based upon local warning criteria (e.g., wind speeds greater than 40 mph possible, heat index values greater than 110 F possible).

(3) Reason watch was issued.

(4) Explanation of a watch and uncertainty involved. Include the following phrase to define a non-precipitation watch:

REMEMBER...AN/A (e.g., EXCESSIVE HEAT/FREEZE/HIGH WIND) WATCH MEANS CONDITIONS ARE FAVORABLE FOR A HAZARDOUS (EXCESSIVE HEAT/FREEZE/HIGH WIND) EVENT IN AND CLOSE TO THE WATCH AREA.

(5) Brief potential impact or Call To Action (CTA) statements. CTAs can be effective in reminding people what actions to take in preparing themselves for the potential hazardous non-precipitation weather event.

d. Order of Segments. Non-precipitation watches are usually placed last in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:

(1) Cancellation
(2) Warnings
(3) Advisories
(4) Watches

e. Order of Headlines. More than one headline is required in a segment when two or more non-precipitation weather events are forecast to occur for the same UGC or geographical area.

The order of headlines will follow the order of segments.

Examples:

(1) Dense Fog Advisory and Excessive Heat Watch in effect for the same geographical area.

...DENSE FOG ADVISORY IN EFFECT UNTIL 9 AM EST THIS MORNING...
...EXCESSIVE HEAT WATCH IN EFFECT FROM THURSDAY AFTERNOON THROUGH FRIDAY AFTERNOON...

(2) High Wind Warning and Wind Advisory in effect for the same mountain zone(s).

...HIGH WIND WARNING IN EFFECT UNTIL 11 AM PST WEDNESDAY ABOVE 3000 FT...
...WIND ADVISORY IN EFFECT UNTIL 11 AM PST WEDNESDAY AT OR BELOW 3000 FT...

5.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
NPWxxx	*(AWIPS ID)*
URGENT – WEATHER MESSAGE	*(Product Name or MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
…<Overhead headline statement>…	(*Optional)*
.<General non-precipitation weather synopsis>	*(Optional – one to three Paragraphs)*
stZ001-005>015-ddhhmm-	*(UGC: **Z** & expiration time)*
/k.aaa.cccc.pp.s.####.yymmddThhnnZ_B-yymmddThhnnZ_E/	*(P-VTEC Line(s))*
zone st-zone st-zone st-	(*Zone Names)*
INCLUDING THE CITIES OF city…city…city.	*(City Names – Optional)*
Time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
…WATCH HEADLINE…	
<Descriptive Text>	*(Two to three paragraphs)*
{Includes the following information: 1. NWS attribution line *(Optional after initial issuance)* 2. Why watch was issued 3. Potential Impact 4. Definition of watch with uncertainty 5. Call to Action statements}	
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional after last segment)*

Figure 1. Generic format for a non-precipitation watch.

5.4 Updates, Cancellations, and Corrections. WFOs will update non-precipitation watches at least once every 12 hours, or when there is a change in timing, areal extent, or expected conditions. WFOs should issue the updated NPW before the product expiration time is reached.

Non-precipitation watches are either upgraded into warnings or advisories, or cancelled.

WFOs will issue a NPW to cancel a watch when the forecaster believes the threat of hazardous non-precipitation weather will not develop.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

Since AWIPS Build 8.2, GFE GHG software provides the capability for forecasters to edit the headlines by "unlocking" them (Note, the default setting keeps headlines "locked".). A description of best practices for editing headlines is maintained at: HEADLINES.

5.5 Upgrade Watch to Warning or Advisory. When a non-precipitation weather watch is upgraded to a non-precipitation weather warning or non-precipitation weather advisory for the same geographical area, the NPW segment will contain one headline and two P-VTEC lines. The headline will list the new warning or advisory only. The first P-VTEC line will use the UPG action code to show the old non-precipitation weather watch is being upgraded. The second P-VTEC line will either use the NEW action code to start the new non-precipitation weather warning or advisory, or use the EXA or EXB action code to extend an existing weather warning or advisory into this geographical area.

5.5.1 Upgrade Watch to Warning Segment Example.

MIZ001>003-031100
/O.UPG.KMQT.HW.A.0002.040103T0800Z-040103T2300Z/ ***(P-VTEC line 1)***
/O.NEW.KMQT.HW.W.0003.040103T0800Z-040103T2300Z/ ***(P-VTEC line 2)***
KEWEENAW-NORTHERN HOUGHTON-ONTONAGONINCLUDING THE CITIES OF...COPPER HARBOR...HOUGHTON...ONTONAGON 400 PM EST FRI JAN 2 2004

...HIGH WIND WARNING IN EFFECT FROM 3 AM TO 6 PM EST SATURDAY...
(Only one headline used - lists active non-precipitation weather warning)

<descriptive text>

$$

6. Non-Precipitation Weather Warnings (product category NPW).

6.1 Mission Connection. Non-Precipitation weather warnings provide our users and partners advance notice of hazardous non-precipitation weather events that threaten life or property.

6.2 Issuance Guidelines.

6.2.1 Creation Software. WFOs will use the AWIPS Graphical Hazard Generator (GHG) as the primary software to create and issue non-precipitation warnings. WFOs outside the contiguous United States (OCONUS) will use regionally approved software.

6.2.2 Issuance Criteria. WFOs will issue non-precipitation weather warnings when hazardous non-precipitation weather is imminent, occurring or highly likely over part or all of the forecast area. WFOs should issue a non-precipitation weather warning for the first, second, or

occasionally third forecast periods, when there is an 80 percent or greater chance of a hazardous non-precipitation weather event meeting or exceeding local warning criteria. During non-precipitation events, WFOs may issue warning products based on significant public impact for events which do not meet local warning criteria. For example, a long duration heat event is forecasted but either heat index values or overnight values are not going to be met, but will be close. If heat related illnesses are sure to be a consequence of this prolonged event, then an Excessive Heat Warning would be warranted. Another example is for a Freeze Warning late in the season. The local criteria states Freeze Warnings will be issued after the average last freeze date, i.e. April 15. However, due to an unprecedented warm March that allowed the growing season to start early, new growth may be susceptible to freeze damage in early April and a Freeze Warning is warranted.

6.2.2.1 Non-Precipitation Weather Warning Products. WFOs will issue the following non-precipitation weather warning products using the issuance criteria defined in Table 3 for each product:

Warning Product Name	Issuance Criteria
Dust Storm Warning	Widespread or localized blowing dust reducing visibilities to 1/4 mile or less. Sustained winds of 25 mph or greater are usually required.
Excessive Heat Warning	*Heat Index (HI) values forecast to meet or exceed locally defined warning criteria for at least two days (Typical values: 1) Maximum daytime HI>=105°F north to110°F south and 2) Minimum nighttime lows >=75°F).
Freeze Warning	Minimum shelter temperature is forecast to be 32°F or less during the locally defined growing season.
Hard Freeze Warning	Minimum shelter temperature is forecast to be 28°F or less (slightly lower or higher based on local criteria) during the locally defined growing season.
High Wind Warning	Wind speeds forecast to meet or exceed locally defined warning criteria. (Typical values are sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration).

Table 3. Non-Precipitation Warning product table.
** Note: Excessive Heat Warning criteria is highly variable in different parts of the country due to climate variability and the affect of excessive heat on local population. WFOs are strongly encouraged to develop local criteria in cooperation with local emergency and health officials, and/or utilize detailed heat/health warning systems based on scientific research.*

6.2.3 Issuance Time. A non-precipitation weather warning is an event-driven product and is initially issued when a hazardous non-precipitation weather event is expected to meet or exceed

local warning criteria. WFOs should issue updated warnings at least once every six to eight hours until the event ends or is cancelled.

6.2.4 Valid Time. A non-precipitation weather warning is valid up to 36 hours after the issuance time. The valid time (event start and end times) is placed in the P-VTEC line(s) and is described in the warning headline. In extreme cases (e.g., long duration excessive heat events), the valid time may exceed 36 hours from the time of issuance. In most cases, Excessive Heat Warnings should be valid for the entire time of the expected heat episode, not just the daytime hours. High nighttime temperatures, the number of consecutive abnormally hot days, and occurrence early vs. late in the season all have a significant impact on whether heat is considered excessive in a local area. Simply issuing a product for the hottest part of the day may not completely capture the hazard in many instances.

6.2.4.1 Event Beginning Time. The event beginning time is when the non-precipitation weather warning event is expected to begin. The event beginning time is placed in the P-VTEC line for the initial warning issuance. For subsequent warning updates, the event beginning time is only included in the P-VTEC line when issuance time is prior to the event beginning time. Otherwise, the event beginning time is zeroed out to indicate the event has begun (e.g., 000000T0000Z). If the issuance time is three or more hours prior to the event beginning time, the event beginning time is placed in the warning headline (e.g., FREEZE WARNING IN EFFECT FROM **10 PM THIS EVENING** TO 9 AM EST MONDAY). Otherwise, the event beginning time is omitted (e.g., FREEZE WARNING IN EFFECT UNTIL 9 AM EST MONDAY).

6.2.4.2 Event Ending Time. The event ending time is when the non-precipitation weather warning event is expected to end. The event ending time can match the product expiration time if the warning is in effect for eight hours or less. The event ending time is placed in the P-VTEC line and is described in the warning headline (e.g., FREEZE WARNING IN EFFECT UNTIL 9 AM EST MONDAY). The event ending time should generally not exceed 36 hours from the time of issuance.

6.2.5 Product Expiration Time. The product expiration time is generally 6 to 8 hours after the issuance time and should coincide with the next expected update or when the event is forecast to end. The product expiration time is placed in the UGC line.

6.3 Technical Description. Non-precipitation weather warnings will follow the format and content described in this section.

6.3.1 Universal Geographic Code Type. Non-precipitation weather warnings will use the (Z) form of the UGC.

6.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

6.3.3 Mass News Disseminator Product Type Line. The non-precipitation weather warning MND line is “URGENT-WEATHER MESSAGE.”

6.3.4 Content. The non-precipitation weather warning may contain an overview section, but will include segmented forecast information.

6.3.4.1 Overview Section. The non-precipitation weather warning overview section is optional. If included, it should contain at least one of the following items:

a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, area affected and expected time of development. The overview headline will begin and end with three periods "...".

Examples:

...A MAJOR HIGH WIND EVENT WILL IMPACT THE PACIFIC NORTHWEST SATURDAY...

...EXCESSIVE HEAT WARNINGS ISSUED FOR CENTRAL PENNSYLVANIA TODAY...

b. Overview - a brief, non-technical description of the developing non-precipitation event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information will be preceded by a period ".".

6.3.4.2 Segmented Forecast Information. Each segment of a non-precipitation weather warning will include a warning headline followed by a descriptive text describing why the warning was issued. Each segment describes a specific hazardous non-precipitation weather event(s) for the same geographical area.

a. Warning Headline. The warning headline will include the following elements in the order shown:

(1) Leading ellipsis (...)
(2) Valid non-precpitation weather warning product name listed in Table 4.
(3) Event action phrase defined in Table 5.
(4) Specific event beginning day and time phrase defined in Appendix C (when applicable)
(5) Specific event ending day and time phrase defined in Appendix C (when applicable)
(6) Elevation or area phrase (optional)
(7) Trailing ellipsis (...)

Exception: When necessary (e.g., mountainous terrain), areal descriptive terms and elevation indicators are permitted after the ending day and time phrase and before the trailing ellipsis.

Generic Warning Headline Format.
(1) Warning product issuance time prior to event beginning time:
...<warning product name> <event action phrase> FROM <event beginning

date and time phrase> TO <event ending date and time phrase>...

(2) Warning product issuance time equals event beginning time:
...<warning product name> <event action phrase> UNTIL <event ending date and time phrase>...

(3) Warning product cancellation or expiration statement:
...<warning product name> <event action phrase>...
Event Action Phrase. The event action phrase in the warning headline corresponds with the VTEC action code. Only the following event action phrases in Table 4 will be used in non-precipitation weather warning headlines:

VTEC Action Code	Description	Required Event Action Phrase	Include Time/Date ?
NEW	Initial warning issuance	IN EFFECT	Yes
EXA	Expansion of warning area	IN EFFECT	Yes
EXB	Expansion of warning area and change to warning valid time	IN EFFECT	Yes
CON	Continuation or update of warning	REMAINS IN EFFECT	Yes
EXT	Extend/shorten warning start and/or ending date/time	NOW IN EFFECT	Yes
CAN	Warning cancelled prior to event end time	IS CANCELLED	No
EXP	Advisory approaching the expiration time. Used up to 30 minutes prior to advisory end time.	WILL EXPIRE AT	Yes
	Advisory has expired. Used up to 30 minutes after advisory expiration has passed.	HAS EXPIRED	No
UPG	Upgrade - Not applicable		

Table 4. Event action phrases for NPW warning headlines.

b. Warning Headline Examples:

(1) Initial issuance or expansion in area:
. ..HIGH WIND WARNING IN EFFECT FROM 7 AM THIS MORNING TO 11 AM EST WEDNESDAY...

(2) Update: ...HIGH WIND WARNING REMAINS IN EFFECT UNTIL 11 AM EST WEDNESDAY...

(3) Change to event end time: ...HIGH WIND WARNING NOW IN EFFECT UNTIL 5 PM EST WEDNESDAY...

(4) Cancelled prior to event end time/date:
...HIGH WIND WARNING IS CANCELLED...

(5) Expiration statement up to 30 minutes prior to event end time: ...HIGH WIND WARNING WILL EXPIRE AT 5 PM EST WEDNESDAY..

(6) Expiration statement up to 30 minutes after event end time:
...HIGH WIND WARNING HAS EXPIRED...

c. Warning descriptive Text. This section will include the following warning information:

(1) National Weather Service attribution line. For the **initial** warning, include the following phrase to begin the text of a warning:

THE NATIONAL WEATHER SERVICE IN [WFO NAME or LOCATION] HAS ISSUED AN/A (e.g., EXCESSIVE HEAT/ FREEZE/HIGH WIND) WARNING.

The attribution line is optional for subsequent issuances.

(2) Quantitative wind speed amounts or Heat Index, etc. (e.g., Northwest winds 35 to 45 mph, Heat Index 110 to115), and event timing.

(3) Reason warning was issued. Include non-precipitation weather element(s) prompting the warning.

(4) Definition of a warning when event has not yet begun. Use the following phrase to define a warning:

REMEMBER...A (HIGH WIND/EXCESSIVE HEAT/DUST STORM, etc.) WARNING MEANS HAZARDOUS WEATHER CONDITIONS ARE IMMINENT OR HIGHLY LIKELY.

(5) Brief CTA statements, safety rules.

d. Order of Segments. Non-precipitation weather warnings are placed second in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:

(1) Cancellation

(2) Warnings
(3) Advisories
(4) Watches

e. Order of Headlines. More than one headline is required in a segment when two or more non-precipitation weather events are forecast to occur for the same UGC or geographical area.

The order of headlines will follow the order of segments.

Examples:

(1) Dust Storm Warning and Excessive Heat Watch in effect for the same geographical area.

...DUST STORM WARNING IN EFFECT UNTIL 9 AM EST THIS MORNING...
...EXCESSIVE HEAT WATCH IN EFFECT FROM THURSDAY AFTERNOON THROUGH FRIDAY AFTERNOON...

(2) High Wind Warning and Wind Advisory in effect for the same mountain zone(s).

...HIGH WIND WARNING IN EFFECT UNTIL 11 AM PST WEDNESDAY ABOVE 3000 FT...
...WIND ADVISORY IN EFFECT UNTIL 11 AM PST WEDNESDAY AT OR BELOW 3000 FT...

6.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
NPWxxx	*(AWIPS ID)*
URGENT – WEATHER MESSAGE	*(Product Name or MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
…<Overhead headline statement>…	(*Optional)*
.<General non-precipitation weather synopsis>	*(Optional – one to three Paragraphs)*
stZ001-005>015-ddhhmm-	*(UGC: **Z** & expiration time)*
/k.aaa.cccc.pp.s.####.yymmddThhnnZ_B-yymmddThhnnZ_E/	*(P-VTEC Line(s))*
zone st-zone st-zone st-	(*Zone Names)*
INCLUDING THE CITIES OF city…city…city.	*(City Names – Optional)*
Time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
…WARNING HEADLINE…	
<Descriptive Text> {Includes the following information: 1. NWS attribution line *(Optional after initial issuance)* 2. Why watch was issued (non-precipitation weather element(s) prompting the warning) 3. Detailed wind speed amounts of Heat Index values, etc. (e.g., Northwest winds 35 to 45 mph, heat indices around 115) 4. Timing of the event (beginning, ending, timing of worst conditions, duration) 5. Definition of warning (before event begins) 6. Potential impact, call to action statement}	*(Two to three paragraphs)*
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional after last segment)*

Figure 2. Generic format for a non-precipitation weather warning.

6.4 Updates, Cancellations, and Corrections. WFOs will update non-precipitation weather warnings at least once every six to eight hours until the event ends or is cancelled. WFOs should issue the updated NPW before the product expiration time is reached. The frequent updates will keep our users and partners informed on the current and short term aspects of the hazardous weather event. Update warnings whenever there is a change in timing, areal extent, or expected conditions. WFOs will issue a NPW to cancel a warning when the forecaster believes the

weather threat has diminished before the valid time expires. WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

Since AWIPS Build 8.2, GFE GHG software provides the capability for forecasters to edit the headlines by "unlocking" them (Note, the default setting keeps headlines "locked".). A description of best practices for editing headlines is maintained at: HEADLINES.

6.5 Downgrade Warning to Advisory. When a non-precipitation weather warning is downgraded to a non-precipitation weather advisory for the same geographical area, the NPW segment will contain two headlines and two P-VTEC lines. The first headline and P-VTEC line are used to cancel the warning, and the second headline and P-VTEC line are used to issue the new advisory.

6.5.1 Downgrade Warning to Advisory Segment Example.

MIZ001>003-031700¬
/O.CAN.KMQT.HW.W.0003.000000T0000Z-040103T2300Z/ (P-VTEC line 1)
/O.NEW.KMQT.WI.Y.0004.040103T0900Z-040103T2300Z/ (P-VTEC line 1)
KEWEENAW-NORTHERN HOUGHTON-ONTONAGON-
INCLUDING THE CITIES OF...COPPER HARBOR...HOUGHTON...ONTONAGON
400 AM EST SAT JAN 3 2004

...HIGH WIND WARNING IS CANCELLED...
...WIND ADVISORY IN EFFECT UNTIL 6 PM EST THIS EVENING…
(Two headlines used - lists cancelled warning, then new advisory)

<descriptive text>

$$

6.6 Replace Warning with Warning. When a non-precipitation weather warning is replaced with another warning for the same geographical area, the NPW segment will contain two headlines and two P-VTEC lines. The first headline and P-VTEC line are used to cancel the old warning, and the second headline and P-VTEC line are used to start the new warning.

6.6.1 Replace High Wind Warning with Dust Storm Warning Segment Example.

ORZ045-081200¬
/O.CAN.KPDT.HW.W.0004.000000T0000Z-031108T1900Z/ (P-VTEC line 1)
/O.NEW.KPDT.DS.W.0001.031108T0647Z-031108T1900Z/ (P-VTEC line 2)

FOOTHILLS OF THE BLUE MOUNTAINS OR-
INCLUDING THE CITIES OF...PENDLETON...MILTON-FREEWATER...
HEPPNER AND CONDON
1047 PM PST THU NOV 7 2003

...HIGH WIND WARNING IS CANCELLED...
...DUST STORM WARNING IN EFFECT UNTIL 11 AM PST FRIDAY...
(Two headlines used - lists cancelled warning, then new warning)

<descriptive text>

$$

7. Non-Precipitation Weather Advisories (product category NPW)**.**

7.1 Mission Connection. Non-precipitation weather advisories provide our users and partners advance notice of hazardous non-precipitation weather events which could lead to life-threatening situations if caution is not exercised.

7.2 Issuance Guidelines.

7.2.1 Creation Software. WFOs will use the AWIPS Graphical Hazard Generator (GHG) as the primary software to create and issue non-precipitation advisories. WFOs outside the contiguous United States (OCONUS) will use regionally approved software. .

7.2.2 Issuance Criteria. WFOs will issue non-precipitation weather advisories for hazardous non-precipitation weather events that cause significant inconveniences, and if caution is not exercised, could lead to life-threatening situations over part or all of the forecast area. WFOs should issue non-precipitation weather advisories for the first, second, or occasionally third forecast periods, when there is an 80 percent or greater chance of a hazardous non-precipitation weather event meeting or exceeding local advisory criteria.

7.2.2.1 Non-Precipitation Weather Advisory Products. WFOs should issue the following non-precipitation weather advisory products using the issuance criteria defined in Table 5 for each product:

Advisory Product Name	Issuance Criteria
Air Stagnation Advisory	Atmospheric conditions stable enough to cause air pollutants to accumulate in a given area. Criteria developed in conjunction with the local or state EPA and the product issued at their request.
Ashfall Advisory	Airborne ash plume resulting in ongoing deposition at the surface. Ashfall may originate directly from a volcanic eruption or from the resuspension (by wind) of a significant amount of relic ash.
Blowing Dust Advisory	Widespread or localized blowing dust reducing visibilities to one mile or less, but greater than 1/4 mile. Winds of 25 mph or greater are usually required.
Dense Fog Advisory	Widespread or localized fog reducing visibilities to 1/4 mile or less.
Dense Smoke Advisory	Widespread or localized smoke reducing visibilities to 1/4 mile or less.
Freezing Fog Advisory	Very light ice accumulation from freezing fog.
Frost Advisory	Minimum shelter temperature forecast to be 33 to 36°F during the locally defined growing season, on nights with good radiational cooling conditions (e.g., light winds and clear skies).
Heat Advisory	*Heat Index values forecast to meet or exceed locally defined advisory criteria for one to two days (Typical values: 1) Maximum daytime HI>=100°F north to105°F south 2) Minimum nighttime lows>=75°F).
Lake Wind Advisory	Sustained wind speeds of 20 to 29 mph (or locally defined) lasting for 1 hour or longer for regions which have a significant user community. The need for this product is locally determined.
Wind Advisory	Sustained wind speeds of 30 to 39 mph lasting for 1 hour or longer or locally defined.

Table 5. Non-precipitation advisory product table.
**Note: Excessive Heat Advisory criteria is highly variable in different parts of the country due to climate variability and the effect of excessive heat on local population. WFOs are strongly encouraged to develop local criteria in cooperation with local emergency and health officials, and/or utilize detailed heat/health warning systems based on scientific research.*

7.2.3 Issuance Time. Advisories are event-driven products and are initially issued when a hazardous non-precipitation weather event is expected to meet or exceed local advisory criteria. WFOs should issue updated advisories at least once every six to eight hours until the event ends or is cancelled.

7.2.4 Valid Time. A non-precipitation weather advisory is valid up to 36 hours after the issuance time. The valid time (event start and end times) is placed in the P-VTEC line(s) and is

described in the warning headline. In extreme cases (e.g., long duration fog event), the valid time may exceed 36 hours from the time of issuance. In most cases, Excessive Heat Advisories should be issued for the entire time of the expected heat episode, rather than just the daytime hours. High nighttime temperatures, the number of consecutive abnormally hot days, and occurrence early vs. late in the season all have a significant impact on whether heat is considered excessive in a local area. Simply issuing a product for the hottest part of the day may not completely capture the hazard in many instances.

7.2.4.1 Event Beginning Time. The event beginning time is when the non-precipitation weather advisory event is expected to begin. The event beginning time is placed in the P-VTEC line for the initial advisory issuance. For subsequent advisory updates, the event beginning time is only included in the P-VTEC line when issuance time is prior to the event beginning time. Otherwise, the event beginning time is zeroed out to indicate the event has begun (e.g., 000000T0000Z).

If the issuance time is three or more hours prior to the event beginning time, the event beginning time is placed in the advisory headline (e.g., FROST ADVISORY IN EFFECT FROM **10 PM THIS EVENING** TO 9 AM EST MONDAY). Otherwise, the event beginning time is omitted (e.g., FROST ADVISORY IN EFFECT UNTIL 9 AM EST MONDAY).

7.2.4.2 Event Ending Time. The event ending time is when the non-precipitation weather event advisory event is expected to end. The event ending time can match the product expiration time if the advisory is in effect for eight hours or less. The event ending time is placed in the P¬VTEC line and is described in the advisory headline (e.g., FROST ADVISORY IN EFFECT UNTIL 9 AM EST MONDAY). The event ending time should generally not exceed 36 hours from the time of issuance.

7.2.5 Product Expiration Time. The product expiration time should be 6 to 8 hours after the issuance time and should coincide with the next expected update or when the event is forecast to end. The product expiration time is placed in the UGC line.

7.3 Technical Description. Non-precipitation weather advisories will follow the format and content described in this section.

7.3.1 Universal Geographic Code Type. Non-precipitation weather advisories will use the (Z) form of the UGC.

7.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

7.3.3 Mass News Disseminator Product Type Line. The advisory MND line is "URGENT-WEATHER MESSAGE."

7.3.4 Content. The non-precipitation weather advisory may contain an overview section, but will include segmented forecast information.

7.3.4.1 Overview Section. The advisory overview section is optional. If included, it should contain at least one of the following items:

a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, area affected and estimated time of development. The overview headline will begin and end with three periods "...". For example:

...STRONG GUSTY WINDS WILL IMPACT SOUTHWEST MICHIGAN TODAY...
...DENSE FOG EXPECTED ACROSS PARTS OF NORTHEAST OHIO TONIGHT...

b. Overview - a brief, non-technical description of the developing non-precipitation weather event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information will be preceded by a period ".".

7.3.4.2 Segmented Forecast Information. Each segment of a non-precipitation weather advisory will include the advisory headline followed by a descriptive text describing why the advisory was issued. Each segment describes a specific hazardous non-precipitation weather event(s) for the same geographical area.

a. Advisory Headline. The advisory headline will include the following elements in the order shown:

(1) Leading ellipsis (...)
(2) Valid non-precipitation weather advisory product name listed in Table 5
(3) Event action phrase defined in Table 6
(4) Specific event beginning day and time phrase defined in Appendix C (when applicable)
(5) Specific event ending day and time phrase defined in Appendix C (when applicable)
(6) Trailing ellipsis (...)

Exception: When necessary (e.g., mountainous terrain), areal descriptive terms and elevation indicators are permitted after the ending day and time phrase and before the trailing ellipsis.

Generic Advisory Headline Format.

(1) Advisory product issuance time prior to event beginning time:
...<advisory product name> <event action phrase> FROM <event beginning date and time phrase> TO <event ending date and time phrase>...
(2) Advisory product issuance time equals event beginning time:
...<advisory product name> <event action phrase> UNTIL <event ending date and time phrase>...
(3) Advisory product cancellation or expiration statement:
...<advisory product name> <event action phrase>...

Event Action Phrase. The event action phrase in the advisory headline corresponds with the VTEC action code. Only the following event action phrases in Table 8 will be used in non-precipitation weather advisory headlines:

VTEC Action Code	Description	Required Event Action Phrase	Include Time/Date ?
NEW	Initial advisory issuance	IN EFFECT	Yes
EXA	Expansion of advisory area	IN EFFECT	Yes
EXB	Expansion of advisory area and change to advisory valid time	IN EFFECT	Yes
CON	Continuation or update of advisory	REMAINS IN EFFECT	Yes
EXT	Extend/shorten advisory start and/or ending date/time	NOW IN EFFECT	Yes
CAN	Advisory cancelled prior to event end time	IS CANCELLED	No
EXP	Advisory approaching the expiration time. Used up to 30 minutes prior to advisory end time.	WILL EXPIRE AT	Yes
	Advisory has expired. Used up to 30 minutes after advisory expiration has passed.	HAS EXPIRED	No
UPG	Upgrade to warning - no headline		

Table 6. Event action phrases for NPW advisory headlines.

b. Advisory Headline Examples:

(1) Initial issuance or expansion in area:
...WIND ADVISORY **IN EFFECT** FROM 7 AM THIS MORNING TO 11 AM EST WEDNESDAY...

(2) Update:
...WIND ADVISORY **REMAINS IN EFFECT** UNTIL 11 AM EST WEDNESDAY...

(3) Extend event end time:
...WIND ADVISORY **NOW IN EFFECT** UNTIL 5 PM EST WEDNESDAY...

(4) Cancelled prior to event end time/date:
...WIND ADVISORY IS **CANCELLED**...

(5) Expiration statement up to 30 minutes prior to event end time:
...WIND ADVISORY WILL EXPIRE AT 5 PM EST WEDNESDAY..

(6) Expiration statement up to 30 minutes after event end time:
...WIND ADVISORY HAS EXPIRED...

c. Advisory descriptive Text. This section will include the following advisory information:

(1) National Weather Service attribution line. For the **initial** advisory, include the following phrase to begin the text of the advisory:

THE NATIONAL WEATHER SERVICE IN [WFO NAME or LOCATION] HAS ISSUED A (e.g., HEAT/FROST/WIND) ADVISORY.
The attribution line is optional for subsequent issuances.

(2) Quantitative wind speed amounts or Heat Index values, etc. (e.g., Northwest winds 25 to 35 mph, Heat Index 100 to 105), and event timing.

(3) Reason advisory was issued. Include non-precipitation weather element(s) prompting the advisory.

.

(4) Brief call to action statements, safety rules.

d. Order of Segments. Advisories are placed third in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:

(1) Cancellation
(2) Warnings
(3) Advisories
(4) Watches

e. Order of Headlines. More than one headline is required in a segment when two or more non-precipitation weather events are forecast to occur for the same UGC or geographical area. The order of headlines will follow the order of segments.

Examples:

(1) Dense Fog Advisory and Excessive Heat Watch in effect for the same geographical area.

...DENSE FOG ADVISORY IN EFFECT UNTIL 9 AM EST THIS MORNING...
...EXCESSIVE HEAT WATCH IN EFFECT FROM THURSDAY AFTERNOON THROUGH FRIDAY AFTERNOON...

(2) High Wind Warning and Wind Advisory in effect for the same mountain zone(s).

...HIGH WIND WARNING IN EFFECT UNTIL 11 AM PST WEDNESDAY ABOVE 3000 FT...
...WIND ADVISORY IN EFFECT UNTIL 11 AM PST WEDNESDAY AT OR BELOW 3000 FT...

7.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
NPWxxx	*(AWIPS ID)*
URGENT – WEATHER MESSAGE	*(Product Name or MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
…<Overhead headline statement>…	(*Optional)*
.<General non-precipitation weather synopsis>	*(Optional – one to three Paragraphs)*
stZ001-005>015-ddhhmm-	*(UGC: **Z** & expiration time)*
/k.aaa.cccc.pp.s.####.yymmddThhnnZ_B-yymmddThhnnZ_E/	*(P-VTEC Line(s))*
zone st-zone st-zone st-	(*Zone Names)*
INCLUDING THE CITIES OF city…city…city.	*(City Names – Optional)*
Time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
…ADVISORY HEADLINE…	
<Descriptive Text> {Includes the following information: 1. NWS attribution line *(Optional after initial issuance)* 2. Why advisory was issued (non-precipitation weather element(s) prompting the advisory 3. Detailed wind speed amounts of Heat Index values, etc. (e.g., Northwest winds 25 to 35mph, heat indices around 105) 4. Timing of the event (beginning, ending, timing of worst conditions, duration) 5. Potential impact, call to action statements}	*(Two to three paragraphs)*
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional after last segment)*

before the product expiration time is reached. The frequent updates will keep our users and partners informed on the current and short term aspects of the non-precipitation weather event. Update advisories whenever there is a change in timing, areal extent, or expected conditions. WFOs will issue a NPW to cancel an advisory when the forecaster believes the weather threat has diminished before the valid time expires.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

Since AWIPS Build 8.2, GFE GHG software provides the capability for forecasters to edit the headlines by "unlocking" them (Note, the default setting keeps headlines "locked".). A description of best practices for editing headlines is maintained at: HEADLINES.

7.5 Upgrade Advisory to Warning. When a non-precipitation weather advisory is upgraded to a non-precipitation weather warning for the same geographical area, the NPW segment will contain one headline and two P-VTEC lines. The headline will list the new warning only. The first P-VTEC line will use the UPG action code to show the old advisory is being upgraded. The second P-VTEC line will either use the NEW action code to start the new advisory, or use the EXA or EXB action code to extend an existing advisory into this geographical area.

7.5.1 Upgrade Advisory to Warning Segment Example.

OKZ006>008-011>024-033>036-TXZ083-221600¬
/O.UPG.KOUN.HT.Y.0004.000000T0000Z-030622T2300Z/ ***(P-VTEC line 1)***
/O.NEW.KOUN.EH.W.0003.030622T0900Z-030623T2300Z/ ***(P-VTEC line 2)***
ALFALFA OK-BECKHAM OK-BLAINE OK-CADDO OK-CANADIAN OK-CUSTER OK¬DEWEY OK-GARFIELD OK-GRANT OK-GREER OK-HARDEMAN TX-HARMON OK¬JACKSON OK- KAY OK-KINGFISHER OK- KIOWA OK- LOGAN OK-MAJOR OK-NOBLE OK-PAYNE OK-ROGER MILLS OK-WASHITA OK-

INCLUDING THE CITIES OF....ALTUS OK...CLINTON/WEATHERFORD OK...ELK CITY OK...EL RENO OK...ENID OK...GUTHRIE OK...HOBART OK...PONCA CITY OK... STILLWATER OK
4 AM CDT SUN JUN 22 2003

...EXCESSIVE HEAT WARNING IN EFFECT UNTIL 6 PM CDT MONDAY...

(One headline used - lists new warning only)

<descriptive text>
$$

7.6 Replace Advisory with Advisory. When a non-precipitation weather advisory is replaced with another advisory for the same geographical area, the NPW segment will contain two headlines and two P-VTEC lines. The first headline and P-VTEC line are used to cancel the old advisory, and the second headline and P-VTEC line are used to start the new advisory.

7.6.1 Replace Wind Advisory with Blowing Dust Advisory Segment Example.

ORZ045-081200-

/O.CAN.KPDT.WI.Y.0011.000000T0000Z-031108T1900Z/ ***(P-VTEC line 1)***
/O.NEW.KPDT.DU.Y.0007.031108T0647Z-031108T1900Z/ ***(P-VTEC line 2)***
FOOTHILLS OF THE BLUE MOUNTAINS OR-
INCLUDING THE CITIES OF...PENDLETON...MILTON-FREEWATER...
HEPPNER AND CONDON
1047 PM PST THU NOV 7 2003

...WIND ADVISORY IS CANCELLED...
...BLOWING DUST ADVISORY IN EFFECT UNTIL 11 AM PST FRIDAY...

(Two headlines used - lists cancelled advisory, then new advisory)

<descriptive text>

$$