

***NATIONAL WEATHER SERVICE CENTRAL REGION SUPPLEMENT 06-2003
APPLICABLE TO NWSI 10-515
November 11, 2019***

***Operations and Services
Public Weather Services NWSPD 10-5
WFO Non-Precipitation Weather Products Specification NWSI 10-515
Central Region Non-Precipitation Weather Products Specification***

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

OPR: W/CR1x3 (Derek Deroche)

Certified by: W/CR1 (Mike Hudson)

Type of Issuance: Routine

SUMMARY OF REVISIONS: This instruction supersedes NWS Central Region Supplement 06-2003 applicable to NWSI 10-515 dated March 18, 2011.

- Updates made to the Certified by and CR Director point of contacts.
- Lake Wind Advisory criteria for Central Region and examples in Appendix A removed as these are reflected in [NWSI 10-515](#).
- Removed population criteria for local adjustments to Excessive Heat Warnings.
- Removed issuance of Hard Freeze Watch/Warnings for CR offices.
- Updates made to Heat Advisory, Excessive Heat Warning and Wind Advisory for WFO Louisville and WFO Jackson.
- Updates made to indicate WFOs not issuing Wind Advisories

(Signed by) October 28, 2019

Chris Strager
Central Region Director

Date

WFO Non-Precipitation Weather Products Specification

Table of Contents:

1.	Introduction	1
2.	Non-Precipitation Storm Outlook (product category HWO).....	1
2.1	Issuance Guidelines.....	1
2.2	Issuance Criteria	1
3.	Non-Precipitation Watches (product category NPW).....	1
3.1.	Issuance Guidelines.....	1
4.	Non-Precipitation Weather Warnings (product category NPW).....	1
4.1	Issuance Guidelines.....	1
4.2	Issuance Criteria.....	1
4.3	Non-Precipitation Weather Warnings Products.....	1
5.	Non-Precipitation Weather Advisories (product category NPW).....	3
5.1	Issuance Guidelines	3
5.2	Issuance Criteria	3
5.3	Non-Precipitation Weather Advisory Products	3

1. Introduction. This supplement describes regionally defined variations to [NWSI10-515](#).
2. Non-Precipitation Outlook (product category HWO).
 - 2.1 Issuance Guidelines. In Central Region, the Hazardous Weather Outlook (product category HWO) is the product used to convey non-precipitation event potential.
 - 2.2 Issuance Criteria. Hazardous Weather Outlooks are described in the Central Region Supplement with [NWSI 10-517](#) (Multi-Purpose Weather Products Specification).
3. Non-Precipitation Watches (product category NPW).
 - 3.1 Issuance Guidelines. WFOs should issue a Non-Precipitation Watch when conditions are favorable (e.g., 50 % or greater chance) for a hazardous non-precipitation weather event to develop over part or all of the forecast area, but the occurrence is uncertain. If the forecaster is highly confident that the event will occur (e.g., greater than 80% confident), the forecaster should issue a warning as described in 5.2.2 of [NWSI 10-515](#).
4. Non-Precipitation Weather Warnings (product category NPW).
 - 4.1 Issuance Guidelines. See [NWSI 10-515](#)
 - 4.2 Issuance Criteria. In Central Region, supplemental advisory and warning criteria applicable to issuing non-precipitation weather warnings are defined as follows (i.e., 6.2.2.1 of [NWSI 10-515](#)).
 - 4.3 Non-Precipitation Warning Criteria.
 - A. Excessive Heat Warning – an Excessive Heat Warning (NPW) should be issued when conditions are observed or anticipated, and are expected to persist for at least a 48-hour period as seen in Figure 1. If Advisory criteria are expected for 4 or more consecutive days (Figure 2), WFOs should issue an Excessive Heat Warning to capture the duration effects of heat.

Several CR offices have additional guidance available through Heat Health Warning System algorithms. This tool is separate from the guidance criteria established in this supplement. Blending all available guidance into a cohesive decision making process is left to local management.

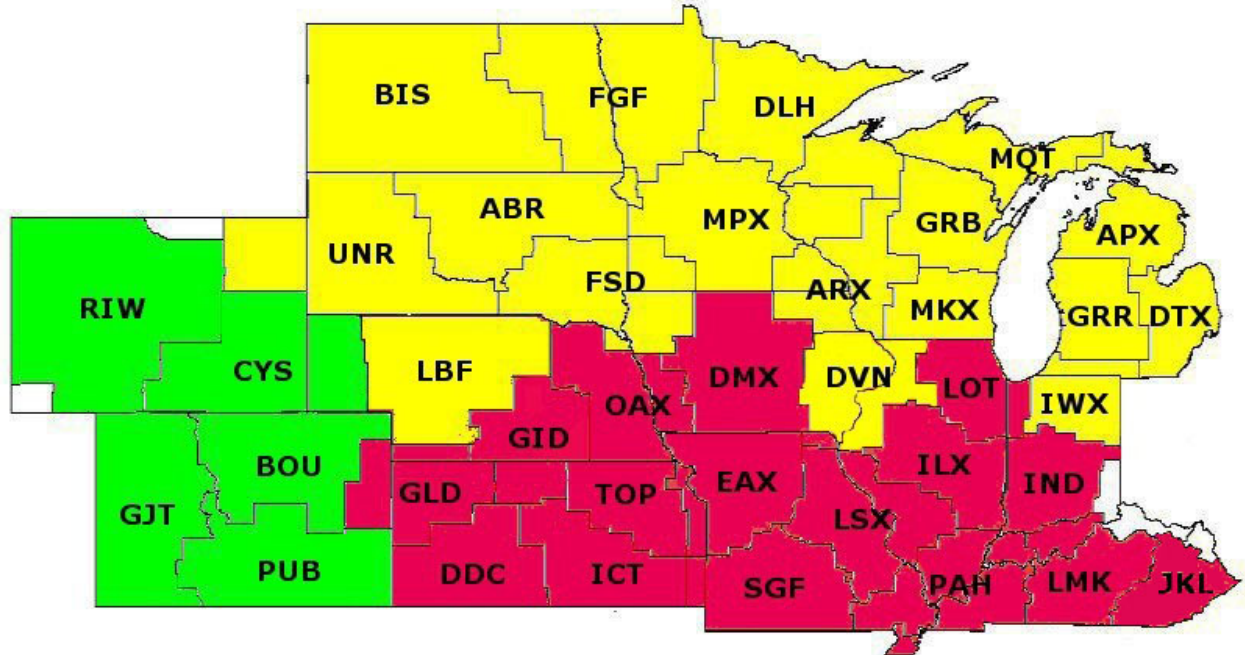


Fig. 1. Central Region office groups for Excessive Heat Warning Criteria

Central Region Excessive Heat Warning criteria:

- 1 North and Eastern (yellow shaded area)
 - Max Heat Index (HI) around 105 &
 - Min HI around 75 or higher
- 2 Central (red shaded area)
 - Max HI around 110 &
 - Min HI around 75 or higher
- 3 Western (green shaded area)*
 - High Plains/Front Range/Valleys
 - Max HI around 105 &
 - Min HI around 75 or higher
 - Mountains
 - Max HI around 100 &
 - Min HI around 75 or higher

* WFO Grand Junction does not issue Excessive Heat Warnings for their Utah counties.

The use of the word “around” conveys a range of +/- two degrees on either side of the base criteria to give WFO forecasters flexibility especially during marginal events. Base criteria may be adjusted, typically in urban areas, to match agreements with health care partners.

- B. Freeze Watch/Warning - The freeze/frost season is defined by the WFO Meteorologist in Charge or designee, based on input from partners in the agricultural and horticultural fields such as state extension services and/or state climatologists involved with agriculture. This determination should be made each season since the dates of potential frost/freezing impacts vary from year to year depending on antecedent conditions. CR offices will not issue Hard Freeze Watch or Warning products. Forecasters may provide information related to hard freeze conditions within the Freeze Watch and Warnings products.

To ensure coordination of headlines across the Region, WFOs will track their dates of issuing freeze warnings on the MRCC Frost/Freeze page at <https://mrcc.illinois.edu/VIP/guidance/welcome.jsp>.

- C. High Wind Warning - A High Wind Warning should be issued when the following conditions are observed or anticipated:
1. For all areas of Central Region except for the mountain areas of Colorado, Wyoming and eastern Utah:
 - Sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration.
 2. For mountain areas in Colorado, eastern Utah and Wyoming serviced by WFO Cheyenne, WFO Grand Junction, WFO Riverton, WFO Pueblo and WFO Boulder:
 - Sustained winds of 50 mph or greater lasting 1 hour or longer, or
 - Winds of 75 mph or greater for any duration.

5. Non-Precipitation Weather Advisories (product category NPW).

5.1 Issuance Guidelines. See [NWSI 10-515](#)

5.2 Issuance Criteria. In Central Region, supplemental advisory criteria applicable to issuing non-precipitation weather advisories are defined as follows (i.e., 7.2.2.1 of [NWSI 10-515](#)).

5.3 Non-Precipitation Weather Advisory Products.

- A. Heat Advisory – a Heat Advisory should be issued when conditions are observed or anticipated as seen in Figure 2.

Several CR offices have additional guidance available through Heat Health Warning System algorithms. This tool is separate from the guidance criteria established in this supplement. Blending all available guidance into a cohesive decision making process is left to local management.

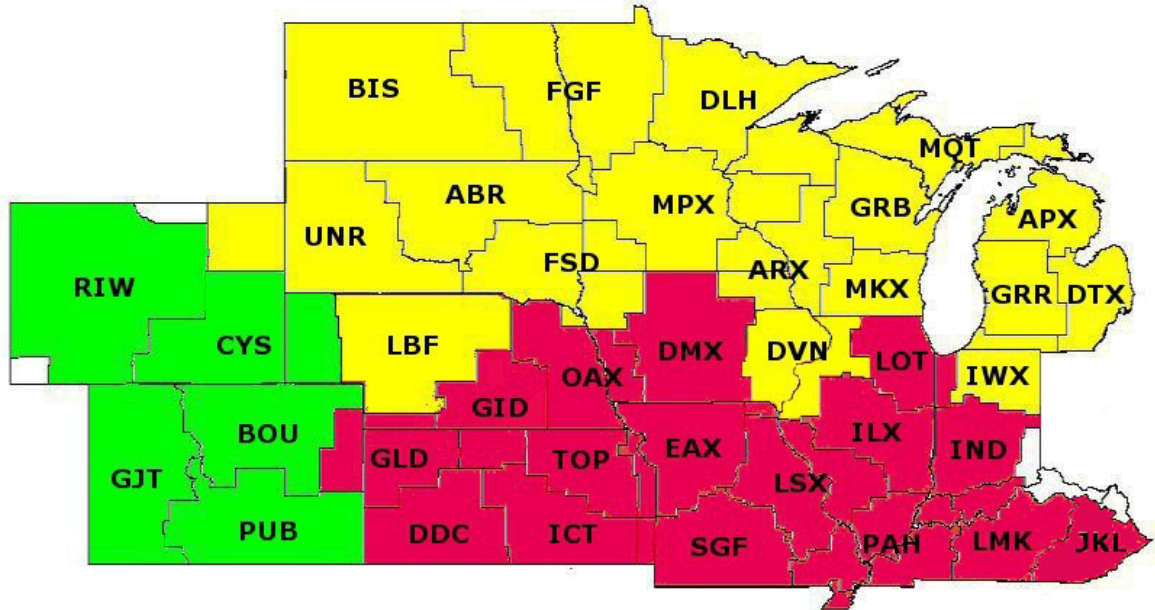


Fig. 2. Central Region office groups for Heat Advisory Criteria

Central Region Heat Advisory criteria:

- 1 Northern and Eastern (yellow shaded area)
 - Max HI around 100 or higher
- 2 Central (red shaded area)
 - Max HI around 105 or higher
- 3 Western (green shaded area)*
 - Plains/Front Range/Valleys
 - Max HI around 100 or higher & Min HI around 75 or higher
 - Mountains
 - Max HI around 95 or higher & Min HI around 75 or higher

* WFO Grand Junction will issue a Heat Advisory for their four Utah counties when the Max HI is ≥ 105 and the overnight temperature is ≥ 80 for at least two consecutive days.

If Advisory criteria are expected for 4 consecutive days or more, WFOs should issue an Excessive Heat Warning.

Longer durations of heat conditions just under advisory criteria can also pose a risk to the public. WFOs should collaborate with their neighbors and consider issuing a heat advisory to cover these conditions if they are expected to last for 4 consecutive days or more. These conditions are:

- 1 Northern and Eastern (yellow shaded area)
 - Max HI 95 to 100 for 4 or more consecutive days
- 2 Central (red shaded area)
 - Max HI 100 to 105 degrees for 4 or more consecutive days
- 3 Western (green shaded area)*
 - Plains/Front Range/Valleys
 - Max HI 95 to 100 or higher & Min HI around 75 or higher for 4 or more consecutive days
 - Mountains
 - Max HI 90 to 95 or higher & Min HI around 75 or higher for 4 or more consecutive days

The use of the word “around” conveys a range of +/- two degrees on either side of the base criteria to give WFO forecasters flexibility especially during marginal events. Base criteria may also be adjusted, typically in urban areas, to match agreements with health care partners. Adjustments to base criteria should not be made for cities with less than 200,000 people.

- B. Frost Advisory - The freeze/frost season is defined by the WFO Meteorologist in Charge or designee, based on input from partners in the agricultural and horticultural fields such as state extension services and/or state climatologists involved with agriculture. This determination should be made each season since the dates of potential frost/freeze impacts vary from year to year depending on antecedent conditions.

To ensure coordination of headlines across the Region, WFOs will track their dates of issuing freeze warnings on the MRCC Frost/Freeze page at <https://mrcc.illinois.edu/VIP/guidance/welcome.jsp>.

- C. Wind Advisory - a Wind Advisory should be issued when the following conditions are observed or anticipated:
1. For all areas of Central Region outside the locations noted in 5.3.C.2 and 5.3.C.3:
 - Sustained wind speeds of 30 to 39 mph lasting for 1 hour or longer, or winds of 45 mph to 57 mph for any duration.
 2. For areas of eastern Kentucky serviced by WFO Louisville and WFO Jackson:
 - Sustained winds of 30 to 39 mph lasting for 1 hour or longer, or winds of 40 to 57 mph for any duration.
 3. For mountain areas in western Colorado and eastern Utah serviced by WFO Grand Junction:
 - Sustained winds of 40 to 49 mph lasting for 1 hour or longer, or winds of 58 to 74 mph for any duration.

4. For areas of Colorado other than the valley areas of western Colorado serviced by WFO Grand Junction; all of Wyoming; the Black Hills of South Dakota and the high plains of Nebraska and Kansas serviced by WFO Dodge City, WFO Goodland, WFO North Platte and WFO Hastings:
 - Wind advisories are not issued for these areas.
- D. Dense Fog/Freezing Fog Issuance – On occasion the occurrence of fog coincident with sub-freezing temperatures results in difficult collaboration issues, as well as being a potential source of confusion to the public. The directive does mention criteria for both these events, but does not link the two advisory products directly and the freezing fog definition leaves room for interpretation.

What is most important is consistent, collaborated information which conveys impact and provides the best service possible to meet the needs of our users as opposed to relying solely on specific criteria. Therefore, to aid in the forecasters decision making process, Central Region offices will use the following chart for clarity:

	Air Temperature > 32F	Air Temperature <= 32F
If Dense Fog is present or forecast	Issue Dense Fog Advisory. There will be no freezing.	What is the primary hazard? In most cases, it's probably safe to assume it is the dense fog and limited visibility for travel. If so, suggest using Dense Fog Advisory . Note the freezing and possible slippery conditions in the text of the product. Could also cover the freezing issue in an SPS.
If Dense Fog is not present or forecast	No advisory needed. May choose to do an SPS for any existing fog, as appropriate.	Cover the situation with an SPS or issue a Freezing Fog Advisory, as deemed appropriate given the conditions.