

AUTOMATED DSS

Fire Weather Products at WFO Marquette

Presented by: Keith Cooley
Co-Fire Weather Focal Point
NWS - Marquette



What is this Automated DSS?

- ▣ A PowerPoint presentation exported as PDF
 - ▣ Dynamically updating images from CR Briefing Page/WPC/CPC...several other sites
- ▣ Produced daily between 6 am and 7 am EDT
- ▣ Includes a 3-day Outlook
 - ▣ EHWO
 - ▣ Max Temperatures
 - ▣ Min Relative Humidity
 - ▣ Wind Gusts
 - ▣ Precipitation
 - ▣ Surface Features

How Does it Work?

- ▣ Dynamically Updating Images
 - Link to the specific image that is updated daily
 - ▣ Be sure to grab the updating link not a static image
 - Crop/Edit the image as need (this will be retained)
- ▣ VB Script for Add-in
 - Updates headings on each slide
 - Publishes the PDF to RSYNC when opened
 - Pings the Briefing Page to Verify the Site is Working
 - ▣ If not working page does not change at this point
- ▣ Task Scheduler is Utilized to Start/Stop the Briefing

EXAMPLE FROM OUR OFFICE



U.P. Fire Weather Briefing

8/19/2015

This presentation is automatically updated each day by 7 a.m. Eastern

Always check the [latest forecast](#) and contact your local NWS office for further details



National Weather Service – Marquette, Michigan

www.weather.gov/up



[NWSMarquette](https://www.facebook.com/NWSMarquette)

Issued: 8/19/2015 6:18 AM



[@NWSMarquette](https://twitter.com/NWSMarquette)





Fire Weather Outlook



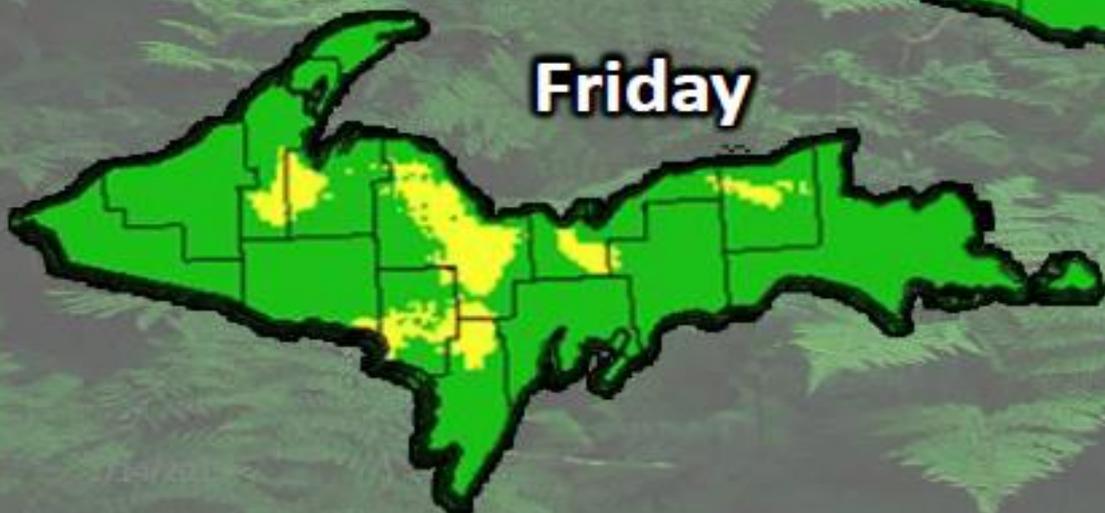
Today



Thursday



Friday



Low

Limited

Elevated

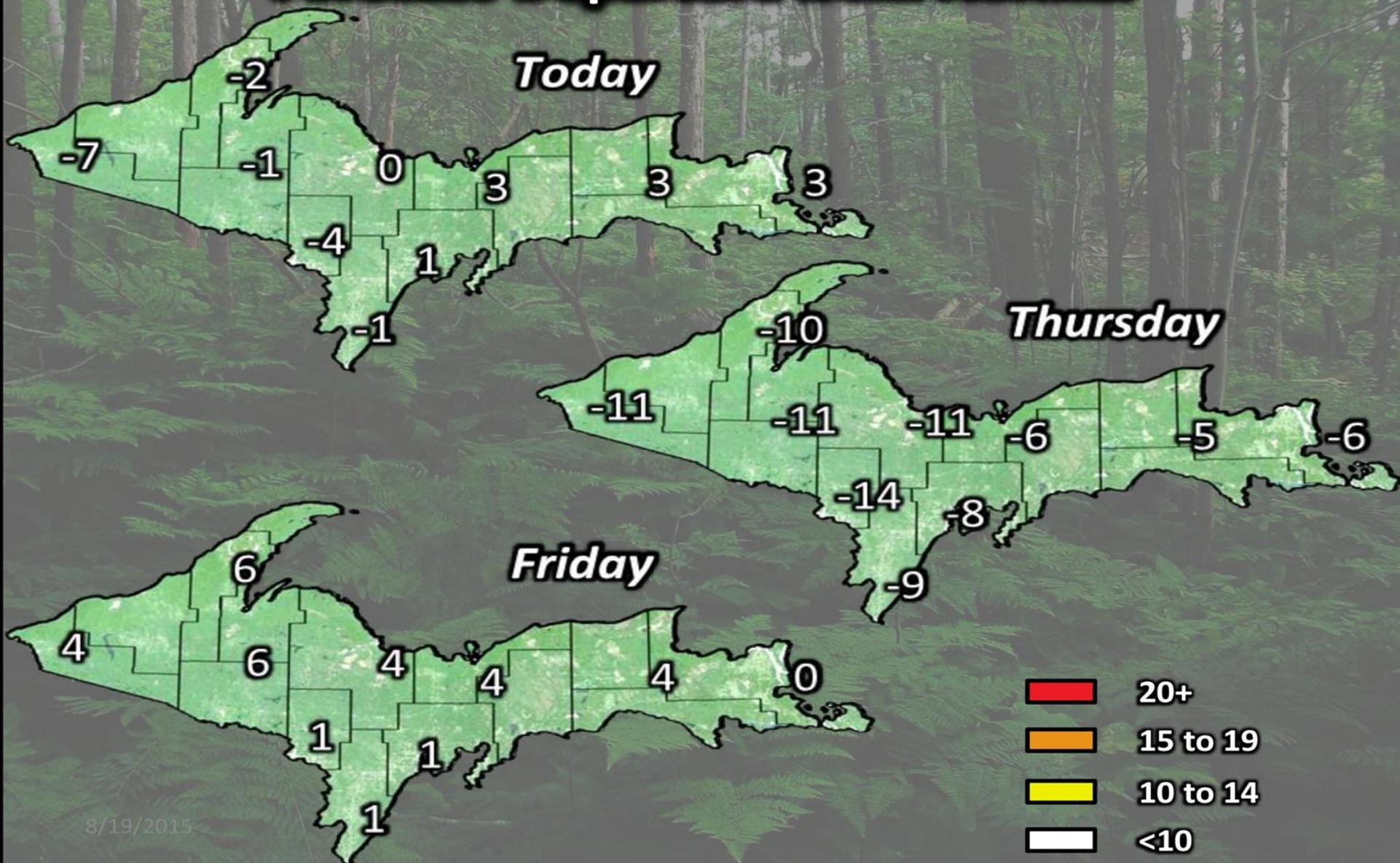
SIGNIFICANT – Weather conditions generally exceed Red Flag Warning Criteria



Max Temperature Outlook



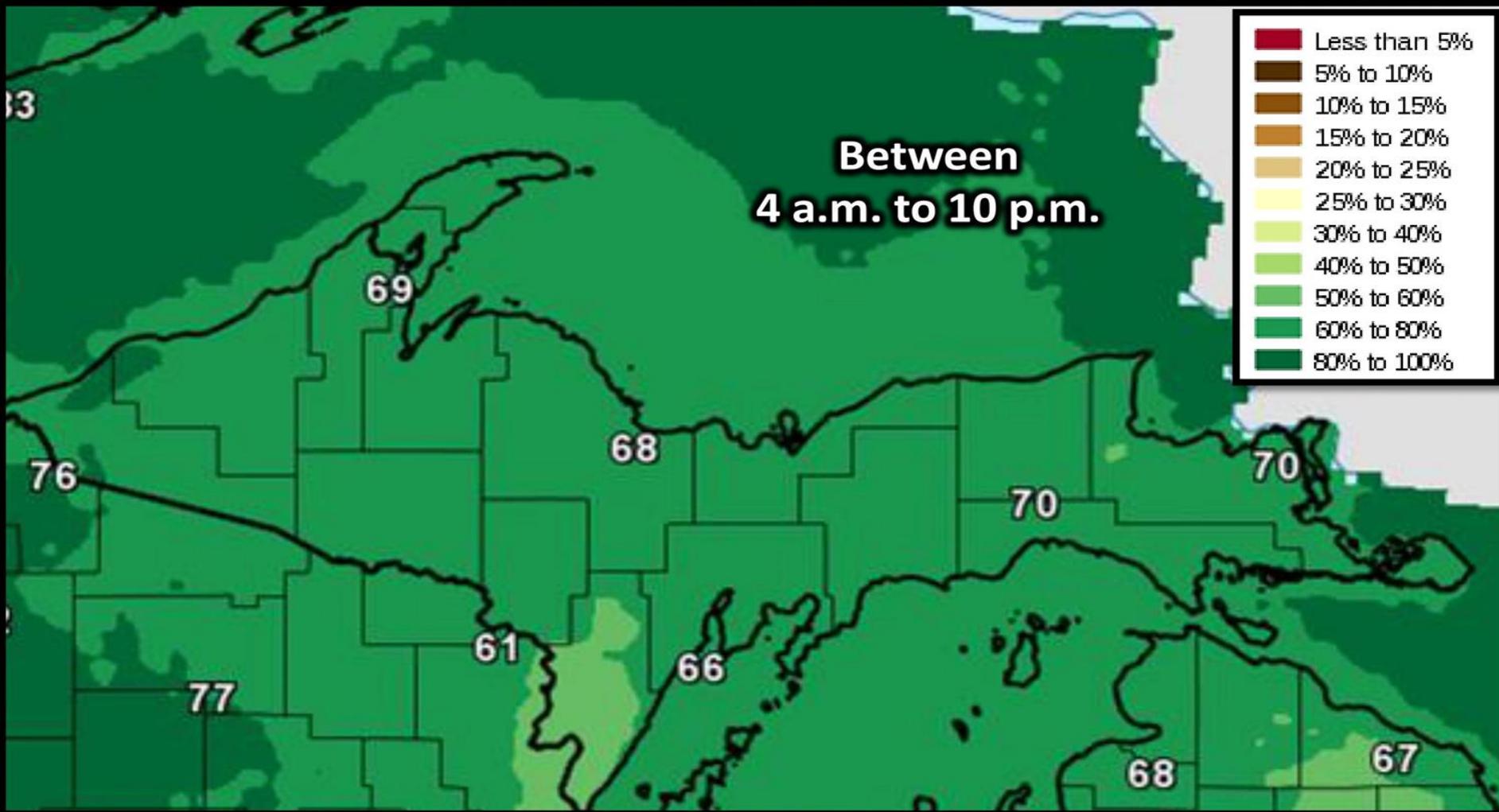
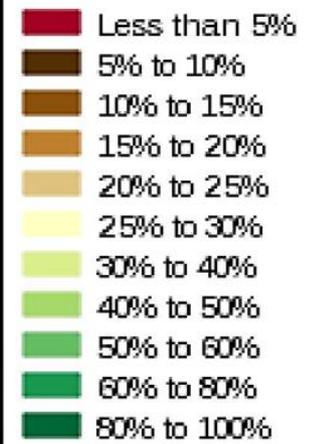
Forecast Departure from Normal



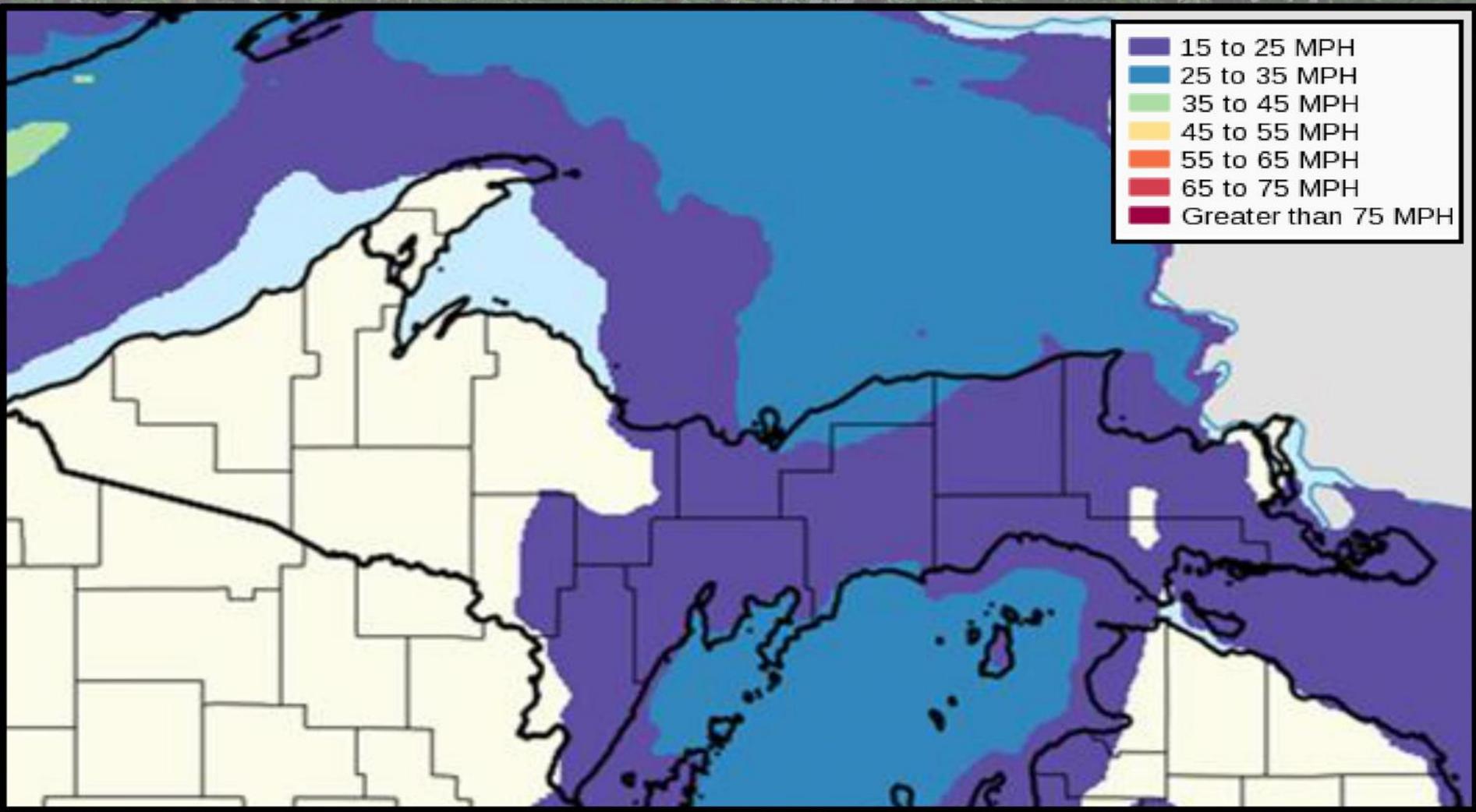
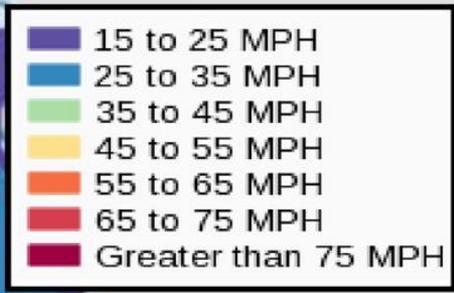
Min Relative Humidity Outlook Today



Between
4 a.m. to 10 p.m.

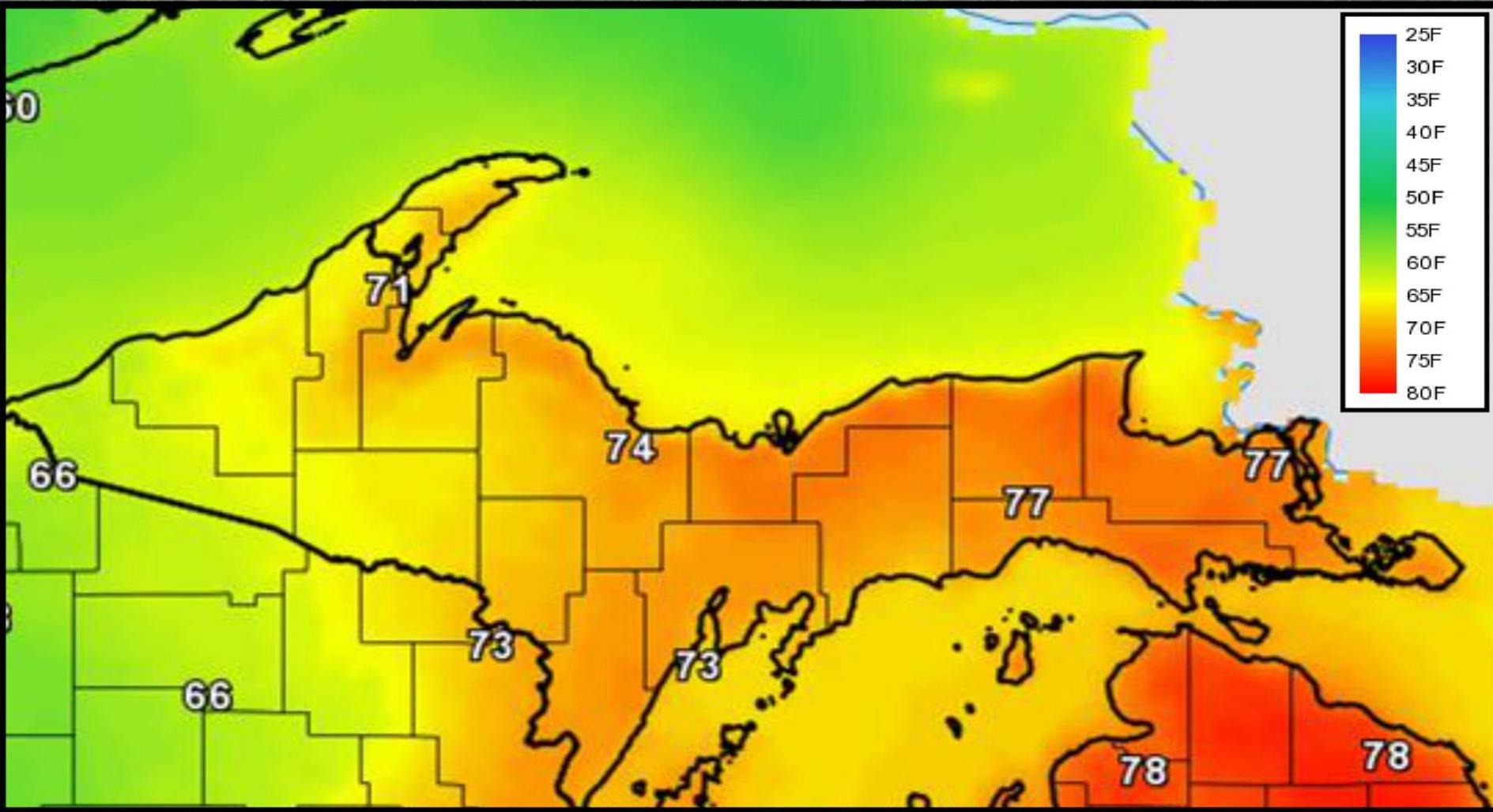


Peak Wind Gust Today

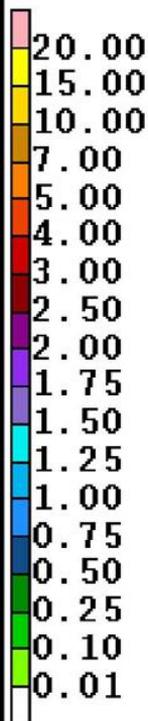




Max Temperature Today



Total Precipitation Forecast Today

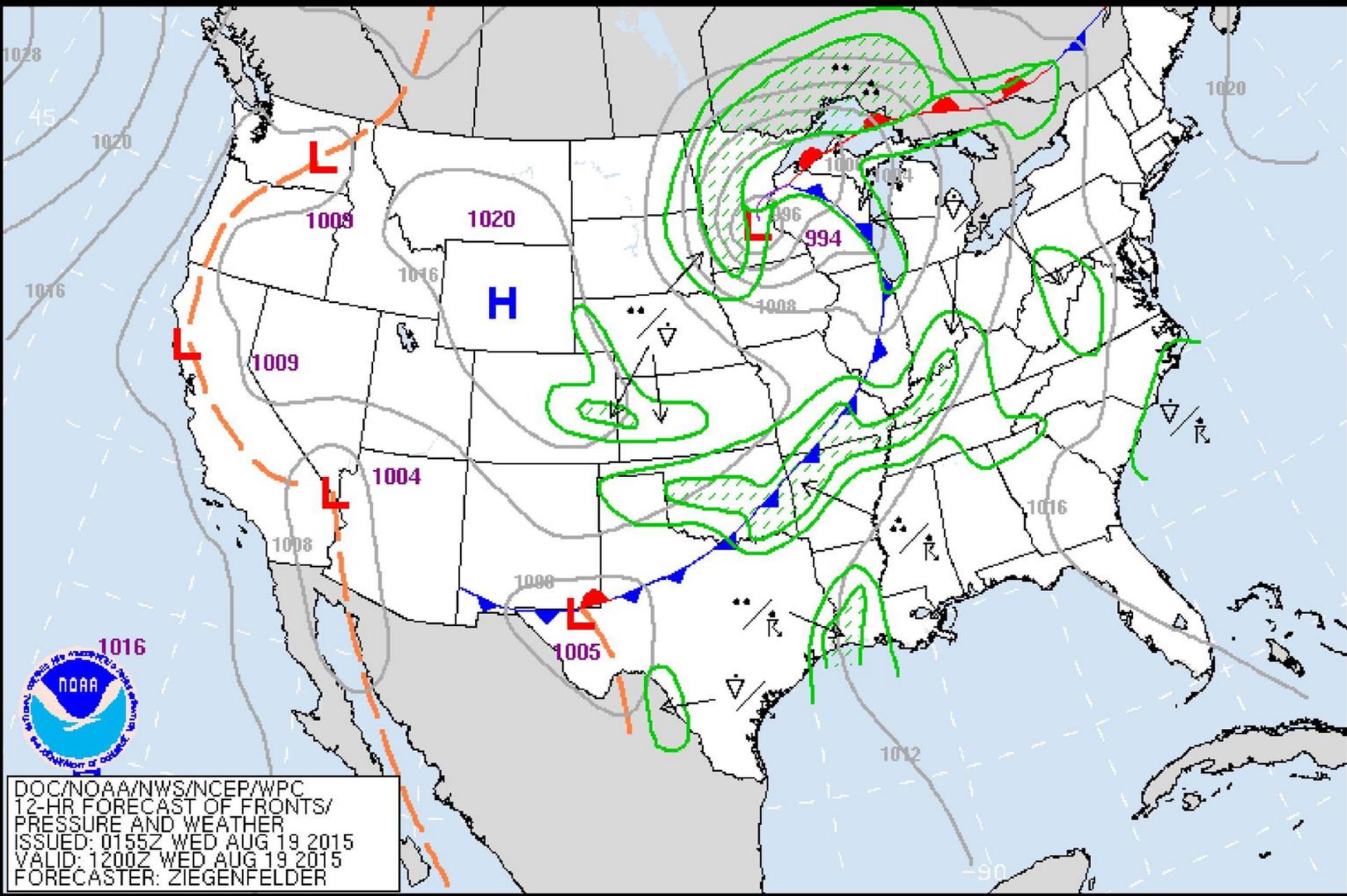


24-HR DAY 1 OPF
VALID 12Z WED AUG 19 2015
THRU 12Z THU AUG 20 2015
ISSUED: 0828Z WED AUG 19 2015
FORECASTER: BURKE
NOAA/NWS/NCEP/WPC



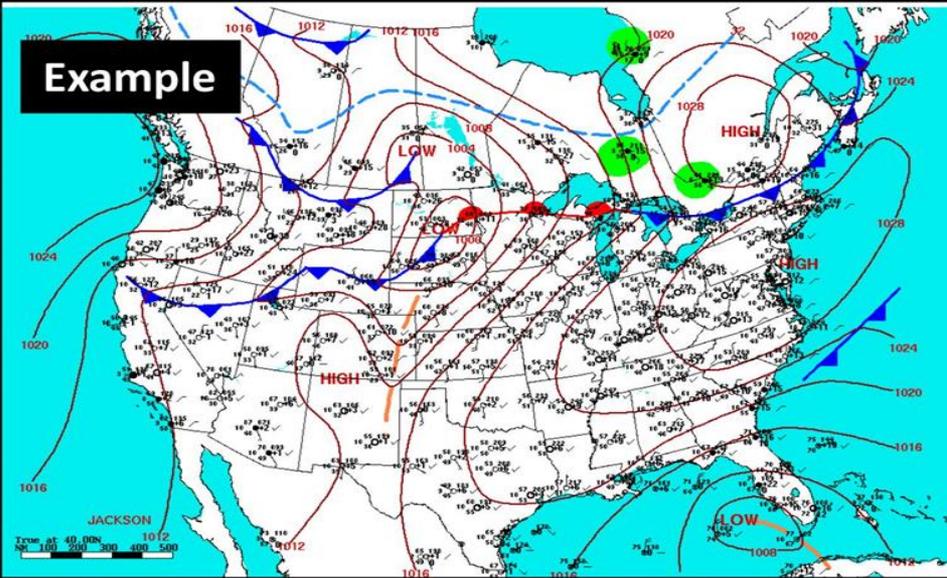
This is a national forecast – local forecasts may be slightly different

Surface Weather Features Today

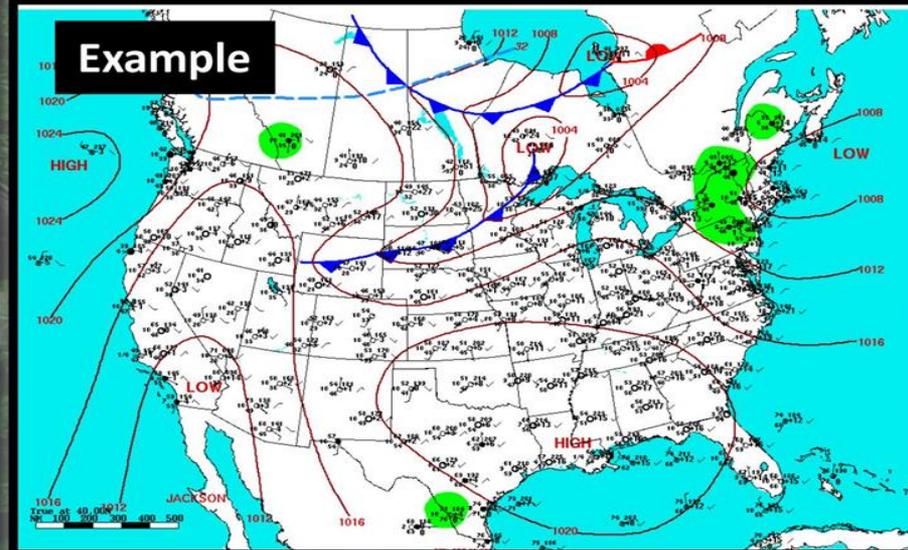


Watch-out Pattern Examples

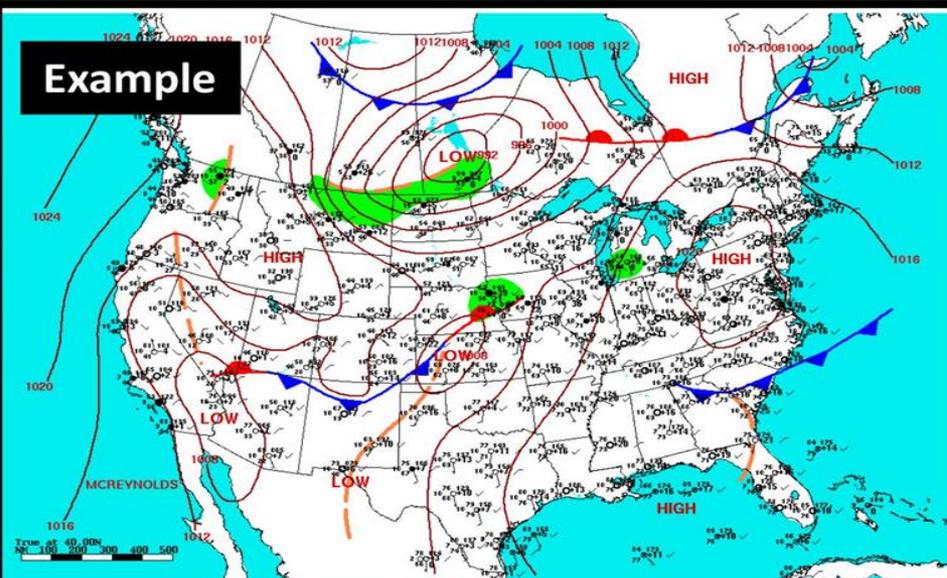
Example



Example



Example



***** Not a Forecast *****



Drought and Long-Term Outlook

8/19/2015

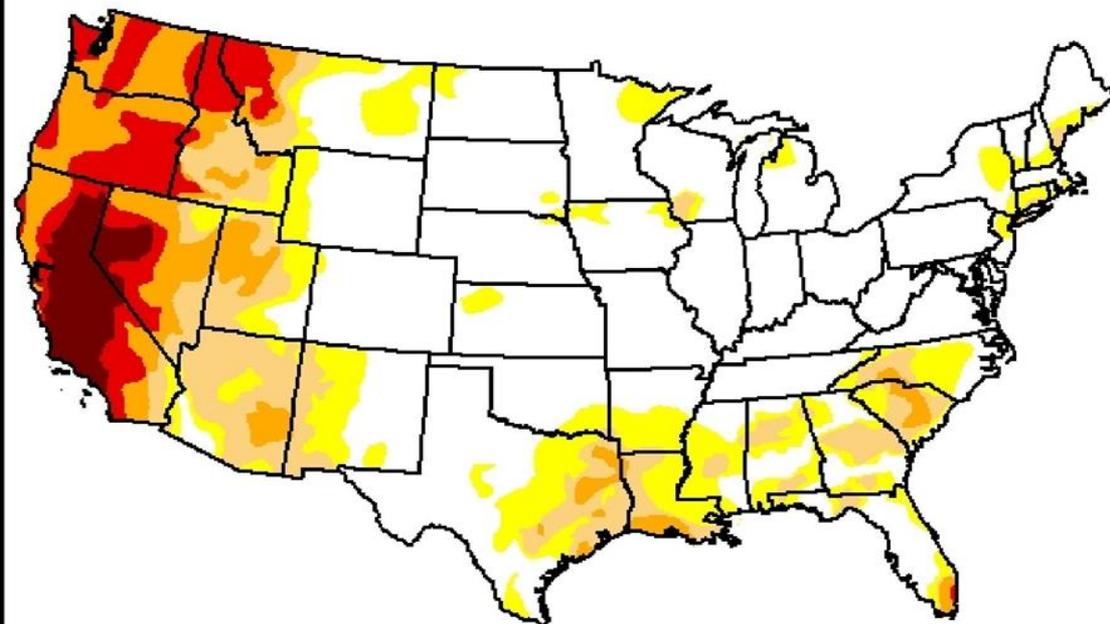
U.S. Drought Monitor

Total U.S.

August 11, 2015
 (Released Thursday, Aug. 13, 2015)
 Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	51.65	48.35	27.52	14.97	7.69	2.51
Last Week 8/4/2015	52.97	47.03	26.02	14.62	7.37	2.36
3 Months Ago 5/12/2015	49.32	50.68	28.96	14.77	6.00	2.62
Start of Calendar Year 12/31/2014	60.84	39.16	23.96	14.14	7.49	2.12
Start of Water Year 9/30/2014	59.89	40.11	25.54	15.59	7.86	3.22
One Year Ago 8/12/2014	60.55	39.45	28.09	18.41	8.55	3.17



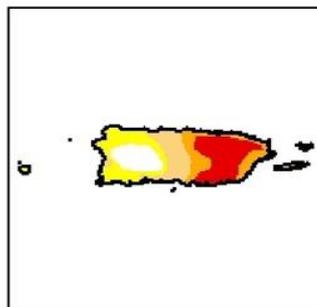
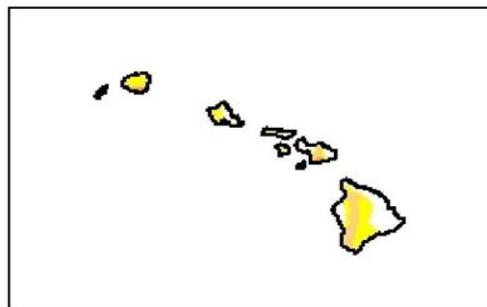
Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brian Fuchs
 National Drought Mitigation Center



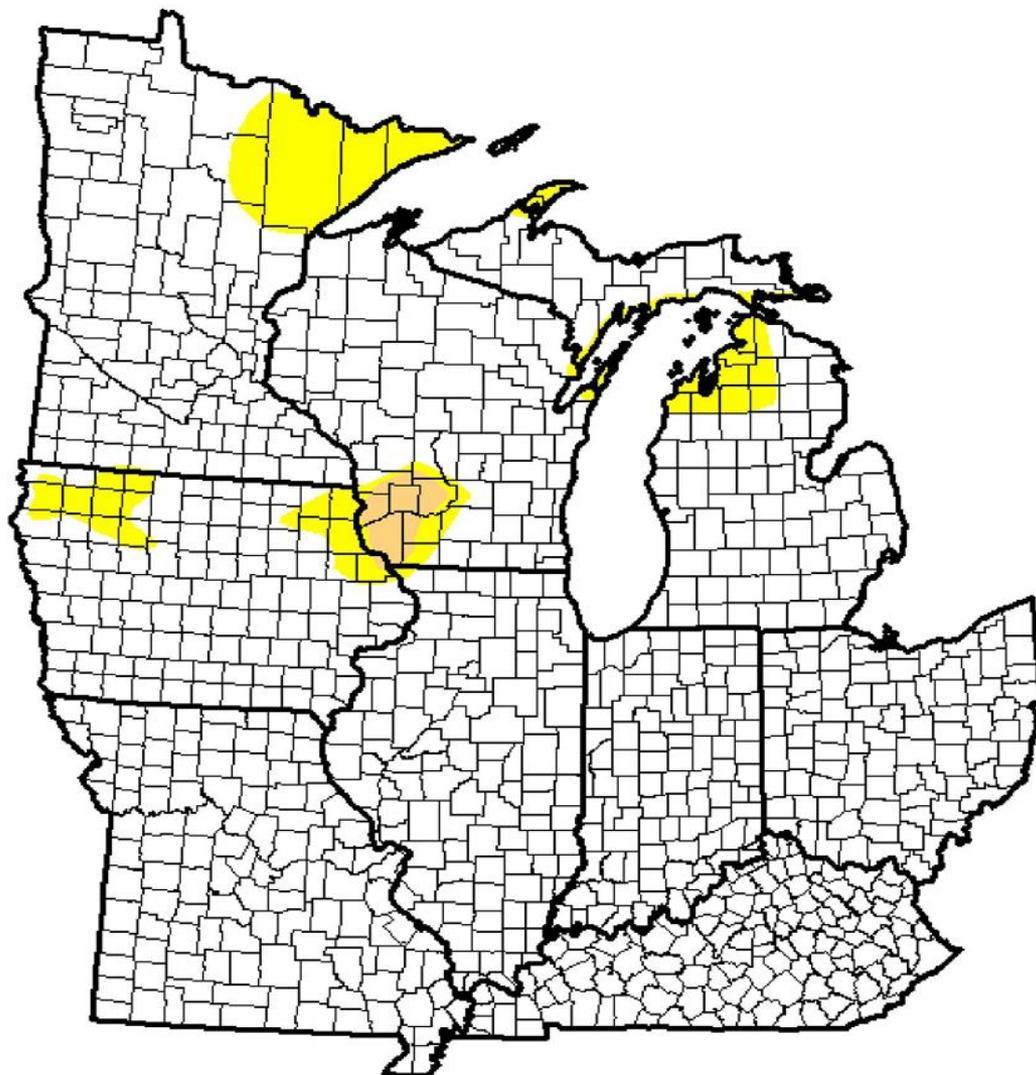
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor Midwest

August 11, 2015
(Released Thursday, Aug. 13, 2015)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	93.15	6.85	0.73	0.00	0.00	0.00
Last Week <i>8/4/2015</i>	89.91	10.09	0.00	0.00	0.00	0.00
3 Months Ago <i>5/12/2015</i>	54.56	45.44	21.01	5.90	0.00	0.00
Start of Calendar Year <i>12/30/2014</i>	83.08	16.92	0.11	0.00	0.00	0.00
Start of Water Year <i>8/30/2014</i>	90.69	9.31	0.38	0.00	0.00	0.00
One Year Ago <i>8/12/2014</i>	88.27	11.73	1.66	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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National Drought Mitigation Center

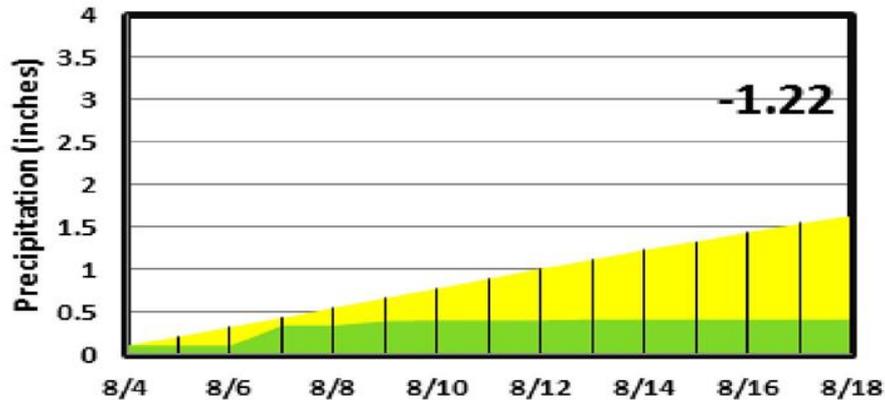




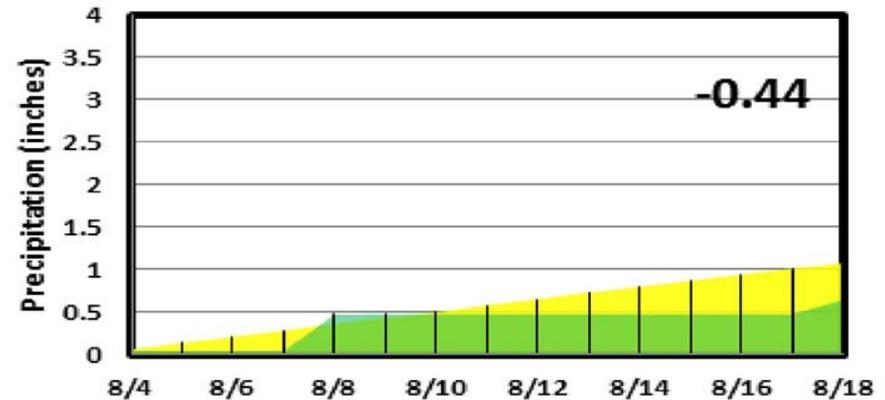
2-Week Precipitation



2-Week Rainfall Totals vs. Average Ironwood



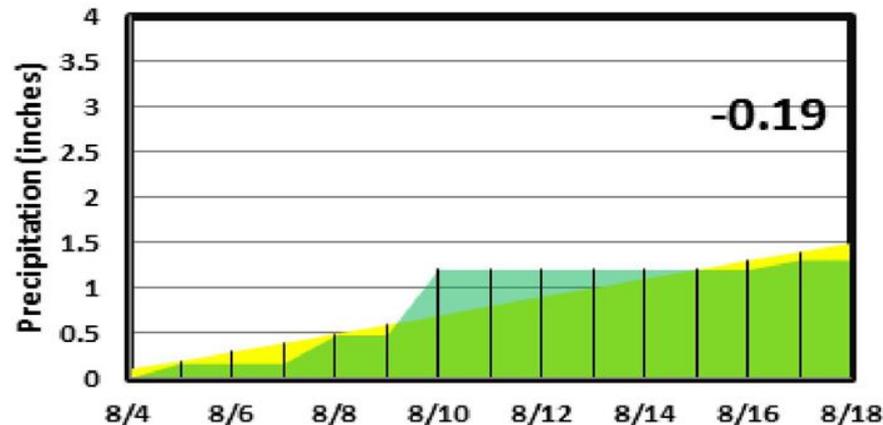
2-Week Rainfall Totals vs. Average Jacobsville



Observed Accumulation

Normal Accumulation

2-Week Rainfall Totals vs. Average NWS MQT

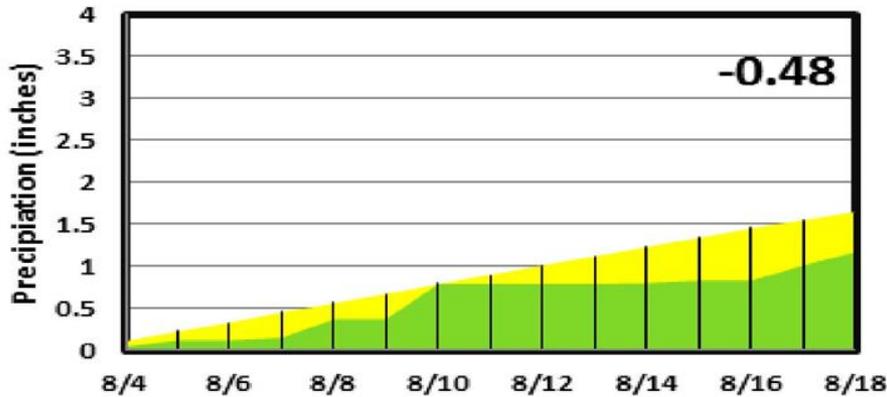




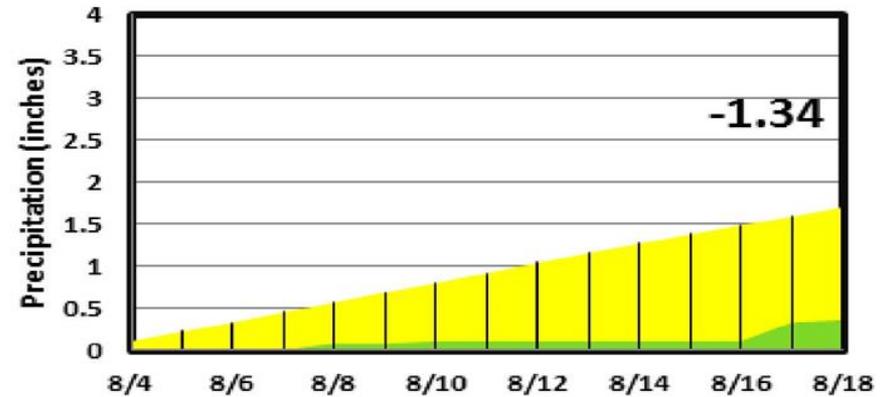
2-Week Precipitation



2-Week Rainfall Totals vs. Average Norway



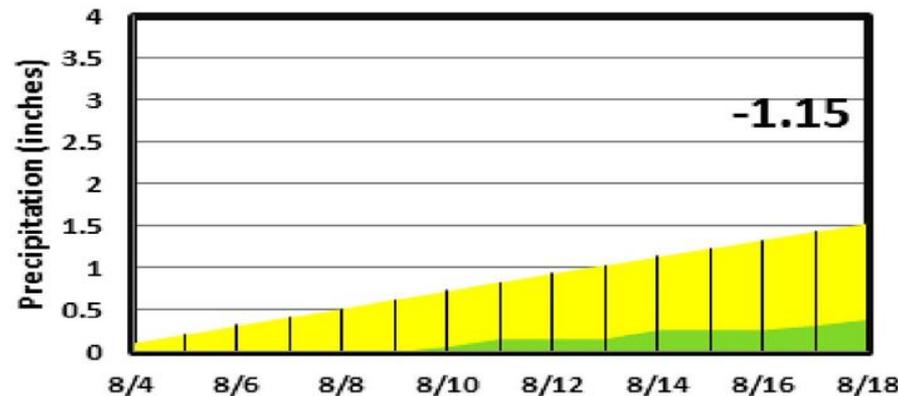
2-Week Rainfall Totals vs. Average Munising



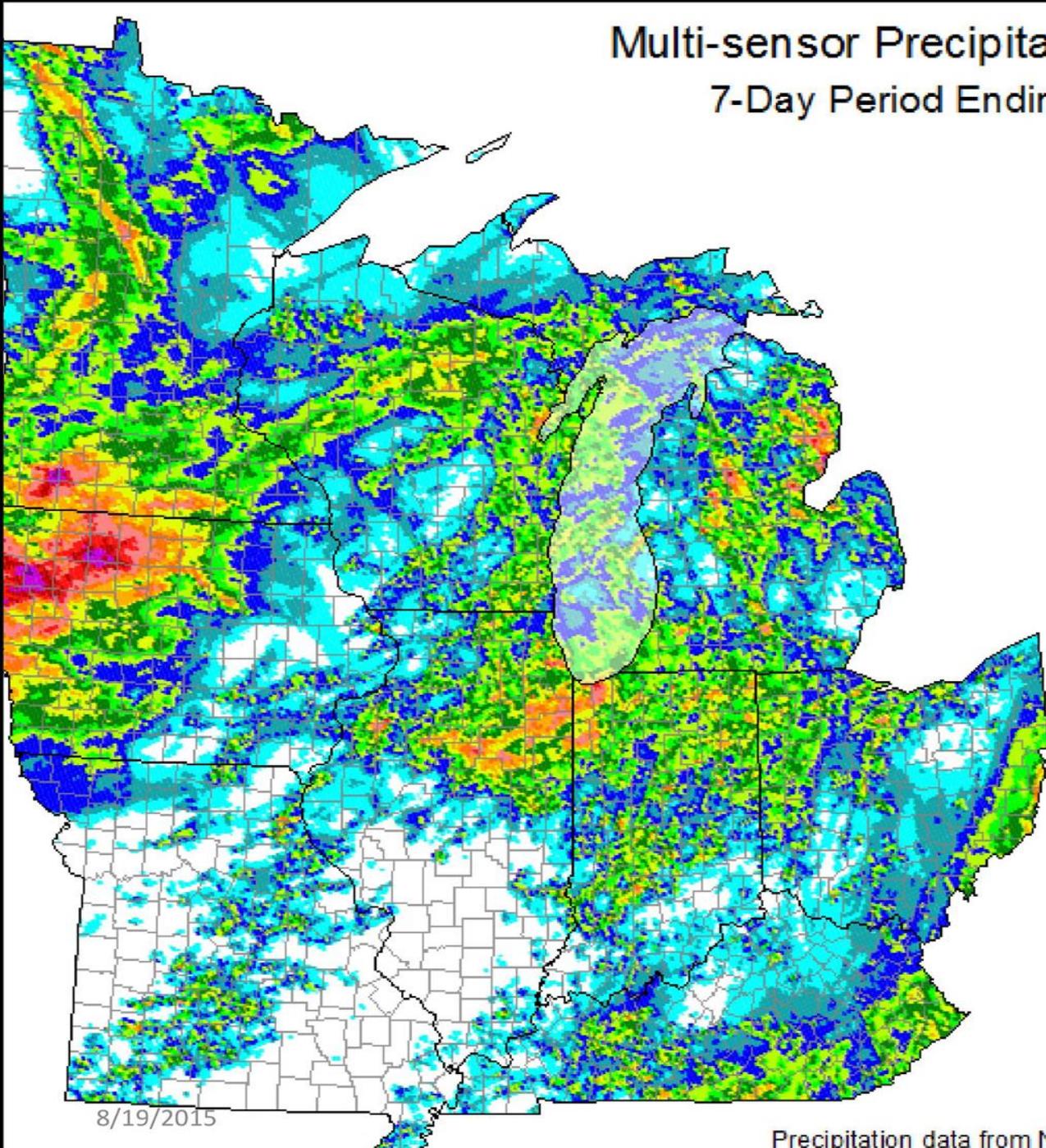
Observed Accumulation

Normal Accumulation

2-Week Rainfall Totals vs. Average Sault Ste. Marie



Multi-sensor Precipitation: Observed (inches) 7-Day Period Ending the Morning of 8/18/2015



- > 10.0
- 8.0 to 10.0
- 6.0 to 8.0
- 5.0 to 6.0
- 4.0 to 5.0
- 3.0 to 4.0
- 2.5 to 3.0
- 2.0 to 2.5
- 1.5 to 2.0
- 1.0 to 1.5
- 0.75 to 1.00
- 0.50 to 0.75
- 0.25 to 0.50
- 0.10 to 0.25
- 0.01 to 0.10
- < 0.01 (Not Shown)
- Missing Data

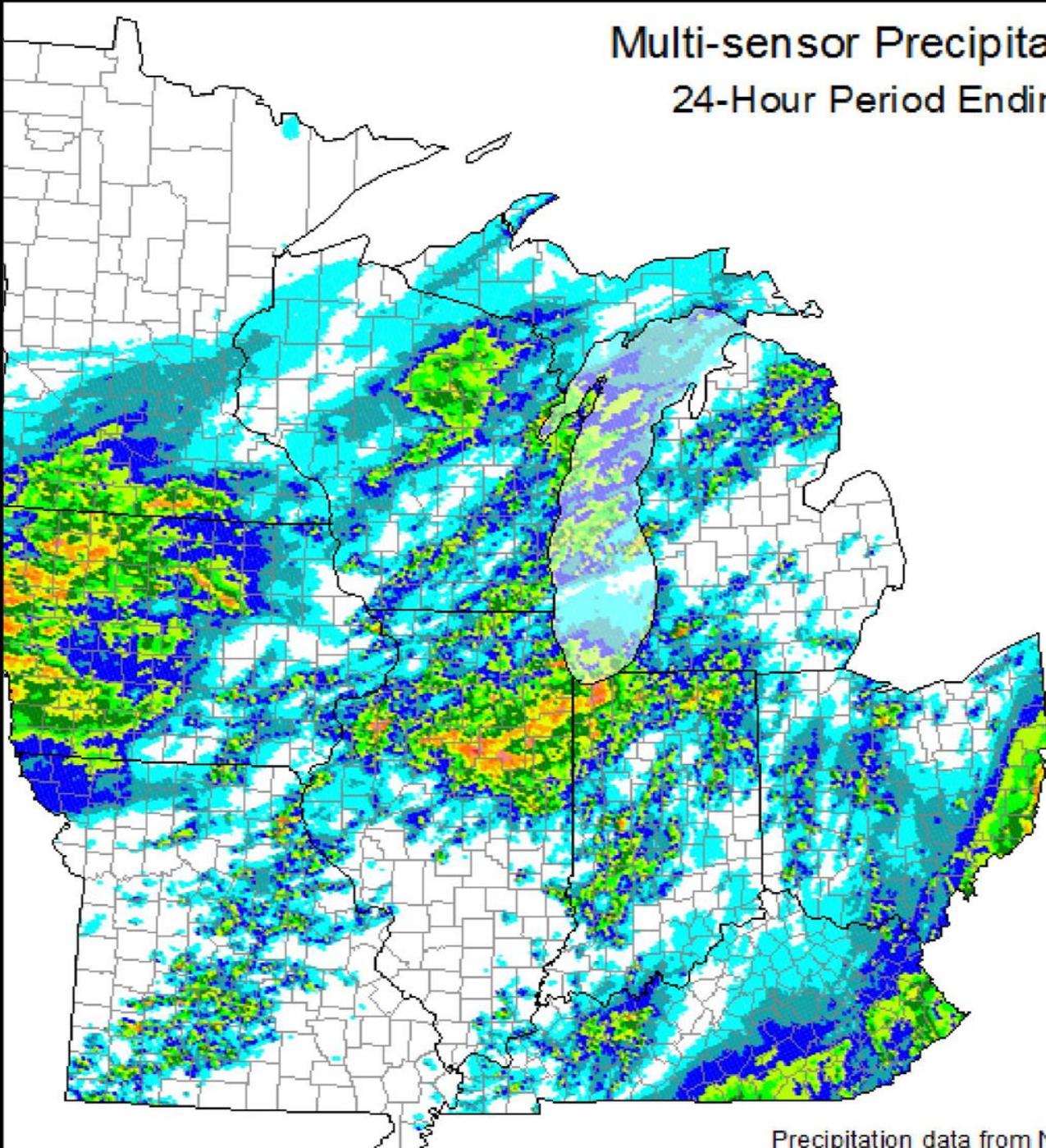
8/19/2015



Precipitation data from NWS AHPs: <http://water.weather.gov/precip>

Multi-sensor Precipitation: Observed (inches)

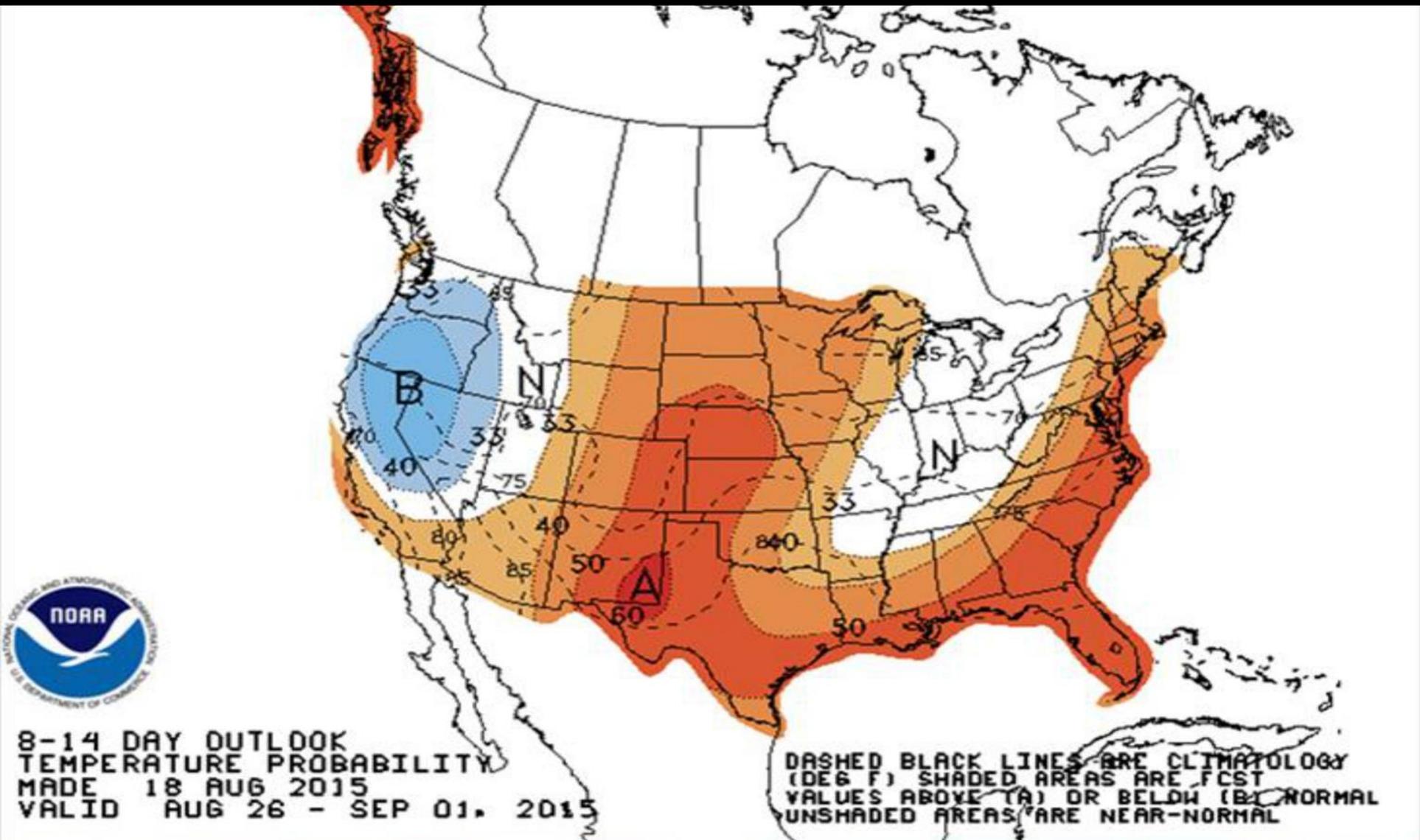
24-Hour Period Ending the Morning of 8/18/2015



- > 10.0
- 8.0 to 10.0
- 6.0 to 8.0
- 5.0 to 6.0
- 4.0 to 5.0
- 3.0 to 4.0
- 2.5 to 3.0
- 2.0 to 2.5
- 1.5 to 2.0
- 1.0 to 1.5
- 0.75 to 1.00
- 0.50 to 0.75
- 0.25 to 0.50
- 0.10 to 0.25
- 0.01 to 0.10
- < 0.01 (Not Shown)
- Missing Data



8-14 Day Temperature Outlook



Early Season Feedback

▣ Fire Weather Users

- Favor the one stop location for the large amount of pertinent fire weather data
- Like the graphical representation of the fire weather information

▣ Forecasters

- Simplifies the weekly fire weather briefing process before spring green-up
- Provides forecaster to forecaster briefing continuity
 - ▣ Briefings are similar and hopefully easier to follow as users

Future Work

- ▣ Modify the briefing for other forecast areas
 - Winter Weather
 - Severe Weather
- ▣ Possibly use a slightly altered version to decrease the amount of time to create recorded multimedia weather briefings
 - These generally take a couple hours to complete at this time

Questions/Comments

A large-scale forest fire is shown, with bright orange and yellow flames consuming a dense forest. Thick, dark grey smoke billows upwards, filling much of the sky. The foreground shows a lush green forest of evergreen trees, some of which are partially obscured by the smoke and fire. The overall scene is dramatic and intense.

Contact: keith.cooley@noaa.gov