

# FIRE BEHAVIOR FORECAST

<b>FORECAST NUMBER:</b> 083	<b>TYPE OF FIRE:</b> Initial Attack
<b>FIRE NAME:</b> MNICS Statewide Forecast	<b>OPERATIONAL PERIOD:</b> 9/19/2017 – 9/22/2017
<b>DATE ISSUED:</b> 9/19/2017	<b>TIME ISSUED:</b> 9:32 AM Updated
<b>UNIT:</b> MN-MFC	<b>SIGNED:</b> <i>William J. Glesener</i>
	<b>Typed/printed:</b> William J. Glesener, LTAN

## INPUTS

**WEATHER SUMMARY: \*\*BREEZY AHEAD OF FRONTAL BOUNDARY\*\***

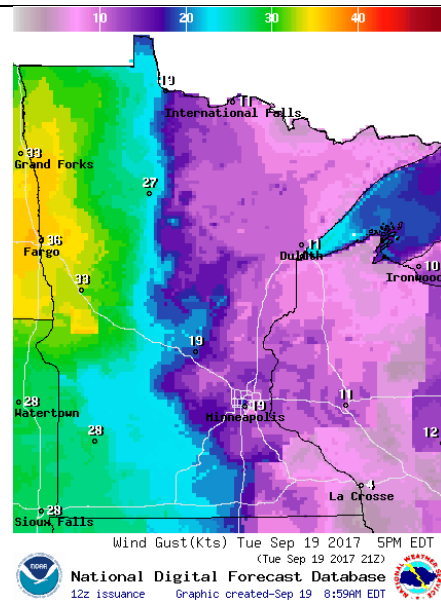
**NORTHWEST:** Tuesday will start out cloudy and foggy, but it will become windy by mid to late morning through the afternoon. Some sun is expected to break out by afternoon, especially from southeast North Dakota up toward the Grand Forks area. Meanwhile, a frontal boundary will push into the Devils Lake to Jamestown corridor by 3 to 4 pm. This boundary will help set off thunderstorms, some of which may be severe. Thunderstorms that form in the Devils Lake to Jamestown corridor will continue to push eastward tonight. The severe weather threat should end around or just after midnight.

**NORTHEAST:** A piece of high pressure will be over the region today. Plenty of clouds are expected until afternoon when some sun may break through the clouds. Meanwhile, a cold front will begin to move through the Dakotas. This cold front will work in concert with a pair of upper level disturbances to bring showers and thunderstorms into the region. A line of strong storms will begin from International Falls to the Brainerd Lakes late this evening, then progress across the rest of northeast Minnesota overnight. Some of the storms will be strong to severe with large hail and damaging winds possible in northeast Minnesota. The storms will continue to march east Wednesday morning as the upper disturbances lift into Canada. A few strong storms are still possible in the morning, but a weakening trend is expected as the storms finally depart in the late afternoon. High pressure follows behind the cold front.

**CENTRAL & SOUTH:** Today will be dry, but showers and thunderstorms will push across Minnesota tonight, possibly reaching Wisconsin by Wednesday morning. Dry and warm weather will persist Thursday and especially Friday, when highs in the upper 80s to lower 90s return.

**Haines Index:** 5 (Moderate)

**LAL:** 4 (Scattered T-storms)



## OUTPUTS

### FIRE BEHAVIOR GENERAL:

Above normal single event rainfall seems to be the trend over the past few days. Expect a bit more overnight with amounts in the ½ to ¾ inch range. This is keeping most of the state in low fire danger; however, the NW still needs over 7 inches in the next 3 months to break the drought. High winds today could overcome the higher humidities if ignitions occur in heavier fuels. Late in the week, fuels will begin to dry out again issuing in the next dry period especially in the south.

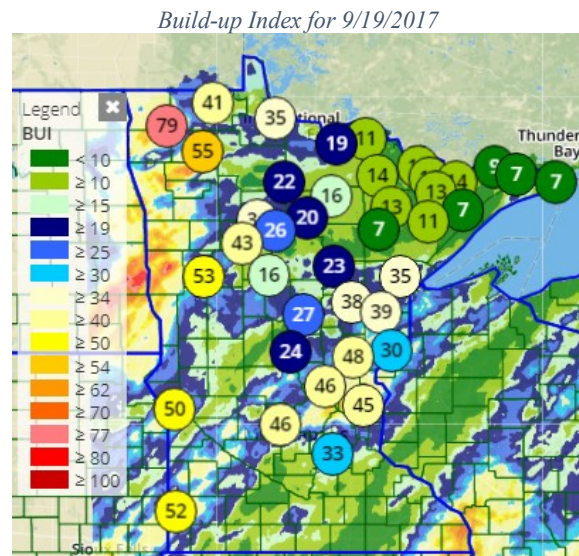
Long term indices have moderated with the 5-day averages for buildup index (BUI) at high and energy release component (ERC) at low due to the recent rain. The 1000-hr fuels are wet to saturated across most of the state except for the NW where they remain dry until the drought breaks.

In droughty areas with the wind, fires in young jackpine will burn on the surface with some torching at the head. Flames could reach 15 feet and travel at ½ mile per hour. Fires in standing grass will have 10 foot flames and the same rate of spread. Timbered areas could see 4-6' flames moving at less than 10' minute. In the wetter and less windy part of the state, expect fires with less than 3' flames on the surface spreading slowly in all fuel types.

**Fine Dead Fuel Moisture:** 9% / 12% (Unshaded / Shaded)

**Prob. of Ignition:** 35% / 20% (Unshaded / Shaded)

**Outlook:** 1 to 1 ½ inches of rain is possible in some of the driest areas of the state by Thursday AM. Elsewhere expect up to a half inch. This will help to mitigate some of the concerns for a few days, but some drying weather will return by the end of the week. In the next two weeks, slight chances remain for below normal temps and above normal rainfall.



Note: This is a general fire behavior forecast for the state of Minnesota. It is designed to provide wildland fire managers with an overall geographic area view of fire behavior potential and to help wildland firefighters with the fire order "initiate all actions based on current and expected fire behavior". Firefighters must use onsite observations and spot weather forecasts to calculate site-specific fire behavior for individual wildland fires. Fire behavior spread rates describe only surface fire conditions and do not factor crowning or spotting.

## AIR OPERATIONS:

Variable turbulence today with moderate in the NW grading to little or no turbulence in the SE. Sunset times are: Ely at 7:13 PM; Hibbing at 7:17 PM; and Warroad at 7:27 PM.

## SAFETY DRIVING SAFETY

*Vehicles/Roads Category*

**Driving is one of the most hazardous things we do because we literally perform the task hundreds of times in the course of our daily lives we tend to take it for granted. Based on recent accident trends, vehicle accidents are the source of more deaths and serious injuries to wildland firefighters than any other single cause.**

- To be a safe driver you have to *want* to be one. Take a good hard look at your driving habits. Are you training yourself to do the right things the right way, like fastening your seat belt, checking your mirrors, and maintaining safe following distances?
- Inattentiveness is a major contributing factor in motor vehicle accidents within the wildland firefighting community. Since the average adult attention span is 15-20 minutes we must develop techniques that allow us to refocus our attention on our driving.
- Many things can lure our attention away from our driving such as: fatigue, eating and drinking, reading directions and maps, writing, cell phone and radio use, conversation within the vehicle and music.

- ✓ Drive only when you are well rested and alert and avoid driving during the hours of 10:00 PM and 6:00 AM. Take a 10 to 15 minute break after every 2 hours.
- ✓ Practice situational awareness; be aware of what is happening in front, behind, and on both sides of your vehicle.
- ✓ Never drive when taking medications that make you drowsy.
- ✓ Delegate navigation and communication to a passenger or pull over.
- ✓ By constantly moving your vision, checking mirrors and distant road conditions, you can avoid highway hypnosis and daydreaming.
- ✓ Avoid eating or drinking while driving.
- ✓ When talking with passengers, keep your eyes on the road and both hands on the steering wheel. Avoid serious or argumentative conversations.
- ✓ Do not be in a hurry, be patient.

- Safe driving starts with a safe vehicle. Something as simple as under-inflated tires can have serious consequences. Before operating any vehicle, do a walk-around to look for potential problems, make sure the lights and blinkers work, and adjust your seat and mirrors. If it is the first time you have driven the vehicle, make yourself aware of where everything is.

Additional Resources: Video: Firefighter Remember This Series - [Firefighter: Remember This - Engine Rollover: Why This Accident Started Months Ago](#)