

FIRE BEHAVIOR FORECAST

FORECAST NUMBER: 57	TYPE OF FIRE: Initial Attack
FIRE NAME: MNICS Statewide Forecast	OPERATIONAL PERIOD: 5/25/2017
DATE ISSUED 5/25/2017	TIME ISSUED: 9:18 AM
UNIT: MN-MFC	SIGNED: Tom Fasteland Typed/printed: Tom Fasteland

INPUTS

WEATHER SUMMARY:

Northwest: Warmer temperatures ahead of a cold front moving in from the Dakotas. Expect some isolated showers this afternoon. Precipitation amounts should be light. Temperatures will range from 66-71 degrees, relative humidity 45 – 50% and winds south at 20 – 25 mph. Tonight - a chance of showers in the evening, temperatures 48 - 53 degrees, humidity 95 – 100% and winds decreasing to 10 – 15 mph with gusts to 25. Friday, mostly sunny with slightly lower humidity.

Northeast: High pressure persists over the area through this morning. Chances of rain will increase from east to west ahead of a trough of low pressure. Rainfall amounts should be light. Temperatures 62 – 67 degrees, RH 33 - 56%, winds SE at 8 – 11mph with gusts to 19 mph in the afternoon. There is a slight chance of thunderstorms Friday afternoon.

Central and South: Warmer air ahead of a cold front will bring a chance of showers and possibly a thunderstorm. Precipitation levels will be light. Temperatures 65 – 70 degrees, RH 47 -52%, and winds 5 -9 mph from the NW.

Haines Index: 3 (low)

LAL: 1

OUTPUTS

FIRE BEHAVIOR

GENERAL: The strong sustained winds will be the key element in fire behavior today in the NW. Head fire spread rates in grass fuels could be up to ½ mph. The approaching cold front will cause a slight change in wind direction late tonight. Canadian indices indicate very high fire danger today with FWI at 25 in Roseau. BUI levels remain high and 1000 hr fuels remain low which indicate that heavier fuels continue to burn, despite the rain that was received last weekend. Be prepared for torching or continuous crown fire in young pine plantations. Greenup is progressing in the NW. Fire danger remains low in the rest of the State.

Fine Dead Fuel Moisture: 7% unshaded, 10% shaded

Prob. of Ignition: 46% unshaded, 30% shaded

SPECIFIC: FFMC 86.2 DMC 40.8 DC 185.9 ISI 13.7 BUI

Roseau: Temp:65 RH:50% WS: SE 20mph with gusts to 26	Flame Length (feet)			Rate of Spread (ft/min ≈ ch/hr)			Fire Type
	Head	Flank	Back	Head	Flank	Back	
Grass (70% cured)	11	4	1	48	11	1	Surface
Young Jack Pine	16	6	2	16	7	1	Continuous Crown
Pine Plntn. & Mat. JP	9	4	.2	22	3	0	Surface
Mixdwood (25% Fir) & Red & White Pine Timber	8	3	1	15	2	.1	Surface

Outlook: Sunny with warmer temperatures and isolated rain showers throughout the weekend

AIR OPERATIONS: Heavy turbulence from the strong winds this afternoon in the NW corner of the State.

Sunset times for: Ely – 8:52, Hibbing – 8:54, Brainerd – 8:55, Bemidji – 9:02, Warroad – 9:10

SAFETY

EXTREME FIRE BEHAVIOR 1

Weather / Fire Behavior Category

Mild, moderate and EXTREME fire behavior has always been present in cases of shelter deployment. It is critical for firefighters to maintain situational awareness of live and dead fuel moisture conditions as well as predicted and current weather conditions. As fire behavior changes, it is critical to act decisively to the changing situation.

Discuss the following indicators of extreme fire behavior:

Relative humidity less than 15%

1-hour fuel moisture less than 5%

Transition from surface to crown fire

Smoldering fires that exist in the early part of the day are beginning to burn very actively as the day progresses.

Approaching thunderheads with dark clouds beneath

Presence of dust devils indicating an unstable atmosphere

Increased spotting

Sudden high clouds moving fast in direction different from surface wind

Predicted Haines Index of 5 and 6 in those areas where this level is a good indicator of atmospheric instability

Fire whirls