

## Appendix E: The CFFDRS\* for Dummies

\*Canadian Forest Fire Danger Rating System

The Alaskans use the Canadian fire danger rating system rather than the National Fire Danger Rating System used to in the lower 48. Key indices include:

- FFMC – Fine Fuel Moisture Code; moisture content of litter and fine dead fuels; the approximate equivalent of 1-hour timelag fuel moisture; however the values do not represent percent fuel moisture.
- DMC – Duff Moisture Code: moisture content of the upper duff; the approximate equivalent of 10- and 100-hour timelag fuels combined and an indicator of resistance to control. The values do not represent percent fuel moisture.
- DC – Drought Code: moisture of the duff 4-8 inches down; the approximate equivalent of 1000-hour timelag fuel moisture and a measure of mop-up difficulty; however the values do not represent percent fuel moisture.
- ISI – Initial Spread Index: a rating of fire spread immediately after ignition; the rough equivalent of Spread Index.
- BUI – Build Up Index: a representation of fuel available for consumption; the rough equivalent of Energy Release Component.

Key Breakpoints to keep in mind for each index include:

	FFMC	DMC	DC	ISI	BUI
<b>Low</b>	0-80	0-70	<150	0-2	30-70
<b>Moderate</b>	81-86	70-80	150-350	2-5	70-80
<b>High</b>	87-90	80-90	350-400	5-10	80-90
<b>Extreme</b>	90+	90+	400+	10+	90+

### Drought Code Interpretations:

<300: Mop-up relatively straight-forward

300-500: Mop-up difficult and extensive mop-up of edges required.

>500: Dry mop-up not possible; wet mop-up difficult. Extensive patrolling necessary.

*Hint: Stick your hand in the duff. If it's dry all the way down, mop-up will be difficult.*

### Critical Relative Humidities:

>40% - burnout operations difficult, results in dirty burn

35-25% - good consumption of surface fuels with few control problems

<25% - control of burn difficult and escaped fires likely

### Feathermoss and Lichens:

These are 20-minute timelag fuels. With sun, they can recover from even a heavy rain and carry fire in only 20 minutes.