Energy Release Component (ERC) Graph

Note that fire activity definitely goes up when the ERC value rises, this can be seen on the ERC graph (see below) from the overlay of the ERC line for the 1998 wildfire year. Fire day (represented on the line as a dot) is any day on which there was a fire in DOF Region 3. Multiple fire days (represented by an upside down triangle) are those with 5 fires or more in DOF region 3. Large fire day (represented by a triangle) is any day with a fire 20 acres or larger in DOF Region 3. The percentage lines of 90% and 97% relate to Very High and Extreme ERC values respectively. In this case that would be about an ERC of 35 for Very High and an ERC of 39 for Extreme. It is clear from this that in 1998 fire activity was at its peak when the ERC value in DOF Region 3 went above the grey line (average for the period 1981 to 2007) and approached the maximum values ever seen for the same period of 1981 to 2007 in DOF region 3.

Please note in the lower right hand corner that there is a Fuel Model 7 G. The 7 indicates that this graph was produced using the 1978 NFDRS as opposed to the 1988 version, and the G is the actual model selected. Why fuel model G, after all, short needle pine is more a Western US phenomenon? Although this is true, what we have found is that because NFDRS Fuel Model G contains all of the time lag fuel sizes, it is a much better predictor, in general, of wildland fire danger than the southern rough model. An extensive statistical analysis has shown a better $r^2$ value (statistical correlation) between weather and wildfire activity for Florida than for any other fuel model. The other reason is that this is the model used nationally on the Wildfire Assessment Maps on the WFAS web page at: http://www.wfas.net/.

Figure 1 ERC Graph 1998 and Min/Max for 1981-2007. (7G refers to 78 NFDRS FM-G)