

Job Aid 8 Term Files

Introduction

A term file is one way to assess the probability of long-term fire growth. It uses historical dates to calculate a probability of distribution for season-slowng or season-ending events. This information can be used in concert with current season forecasts to answer the question, "When will this season end?"

Identifying Season-Slowng or Season-Ending Events

A term file in FireFamilyPlus identifies dates that meet the conditions you determine. The following steps are used to create a Term File.

1. Determine if you are creating a term file for a season-slowng or season-ending event.
 2. Identify the conditions that led to this event.
 3. Set your Working Set.
 4. Determine potential dates that meet the criteria by using the Event Locator.
 - ◇ If conditions are multiple day events, ensure that you set the Period Length correctly.
 - ◇ If you have multiple criteria, use the **Operator** to include them. This is especially important if *all* of the criteria must occur (Operator = **And**).
 5. Examine outputs from the Event Locator and identify a date or dates for each year on which the conditions were met.
 - ◇ Use dates that are appropriate for the question you are trying to answer (e.g., season-slowng or season-ending events).
 - ◇ If there are multiple possible dates, include all of them for further analysis.
 - ◇ Document why you selected the dates that you selected; you will need this information later.
 6. Use a Stats Graph with a year overlay to further refine dates or to identify dates during years when the criteria identified in Step 2 did not occur.
 - ◇ Double-check the Data Years in the Working Set.
 - ◇ Ensure the Period Length is correct in the Working Set.
 - ◇ **Create** a Stats Graph for the variable.
 - ◇ **Add** overlays for a year of interest (**Graph > Overlays...**). Set the **Color**, **Width**, and **Line Style** as desired.
 - ◇ **Add** fires to the graph as follows.
 - Open the **Graph Display Options** window (**Options > Graph Options...**).
 - Click on **Fires** and check the boxes next to **Fire Days**, **Large Fire Days**, and **Multi Fire Days**.
 - Enter the values associated with a **Large Fire Day** (acres) and **Multiple Fire Day** (number of fires/day).
 - Click **Apply**.
 - Do **not** close the **Graph Display Options** window yet.
 - ◇ It may be helpful to **Remove** the min/max lines, particularly if you are looking at a graph of precipitation.
 - Click on the tab for **Line at Average** and uncheck the boxes next to **Mins** and **Maxs**.
 - Click **Apply**.
- Tip: If there is more than one Stats Graph open and you want to apply this change to all open graphs, select **Apply to All**.*

- Close the **Graph Display Options** box.
- ◇ Use the information from the graph in combination with the fire data to select a single event for each year.
Tip: If there are no dates that match your criteria in a given year, you may need to select the date of the last fire or the last large fire, depending on local fire history.
- ◇ Document why you selected the dates that you selected; you will need this information later.

Creating a Term File in FireFamilyPlus

7. Create a **new** term file for your station/SIG of interest by going to **Weather > Term > Working Set**.
*Tip: If you are opening or importing an existing term file, go to **Weather > Term > General**.*
8. Select **New, Edit, Delete, Import, Copy, or Export** depending on your task.
 - ◇ In S491, you will **Import** a term file that has already been started for you.

SIG/Station	Name	Start	Comment

9. The **Edit Term Data** window contains a lot of information.

Name: KEY_Libby, 2003-2017 Start Day: 08/15 Key Probabilities

Comment:

Criteria are ERC <= 60th percentile and does not rebound. In case the ERC never gets below the 60th percentile by the end of October, the date of the last fire is used.

Start Year: 2003 End Year: 2017 Apply

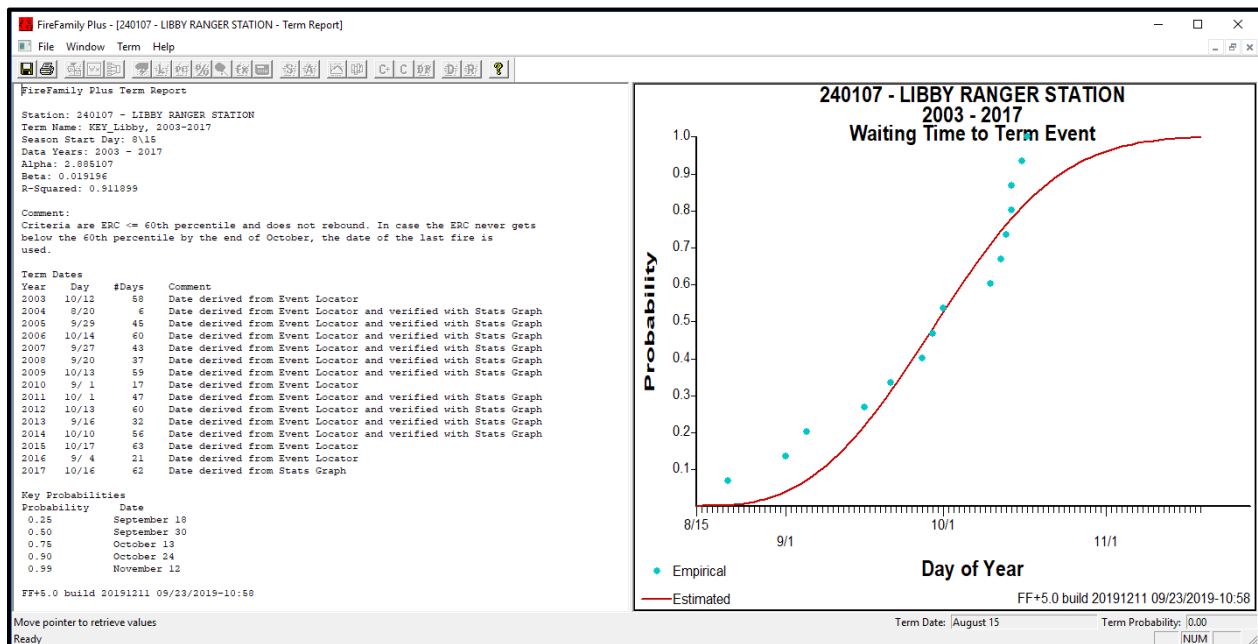
Year	Day	Comment
2003	10/12	Date derived from Event Locator
2004	08/20	Date derived from Event Locator and verified with Stats Graph
2005	09/29	Date derived from Event Locator and verified with Stats Graph
2006	10/14	Date derived from Event Locator and verified with Stats Graph
2007	09/27	Date derived from Event Locator and verified with Stats Graph
2008	09/20	Date derived from Event Locator and verified with Stats Graph
2009	10/13	Date derived from Event Locator and verified with Stats Graph
2010	09/01	Date derived from Event Locator
2011	10/01	Date derived from Event Locator and verified with Stats Graph
2012	10/13	Date derived from Event Locator and verified with Stats Graph
2013	09/16	Date derived from Event Locator and verified with Stats Graph
2014	10/10	Date derived from Event Locator and verified with Stats Graph
2015	10/17	Date derived from Event Locator
2016	09/04	Date derived from Event Locator
2017	10/16	Date derived from Stats Graph

Save Save & Run Close

- ◇ **Name:** Give the term file a meaningful name. Be specific as it can get confusing when there are multiple term files for a given SIG/Station.
- ◇ **Start Day:** The Start Day must be *before* the first season-slowing or season-ending date in the data file. It should be *fairly close* to the first date to improve statistical fit.
- ◇ **Comment:** Provide general comments about the Term Conditions used to create this file. This allows others to recreate your analysis.
- ◇ **Start and End Year:** Ensure the Start and End Year match the data you want to use.
 - Enter a **Start and End Year** and click **Apply** to create a table with a row for each year in your list.
- ◇ **Day:** Enter the season-slowing or season-ending date, as appropriate here. You can type in the date directly (MM/DD/YYYY) or use the drop-down calendar.
- ◇ **Comment:** In the comment cell for each year, add the *specific* criteria used to identify the date you selected.
- ◇ **Save:** Click **Save** to save the information with your database.
- ◇ **Save and Run:** When all fields are completed, select **Save & Run** to generate a report.
- ◇ **Close:** When you close the file, no report is generated. Any changes made since the last “Save” are lost.

Interpreting Term File Reports

The Term Report consists of a table (left) and a graph (right). The table shows information about the Working Set, the values entered into the Weibull distribution equation, the criteria you entered, and the Key Probabilities. The graph shows how well the probability curve (red line) matches the dates you entered (teal dots). Remember, the Key Probabilities are just that – probabilities. They are good for general planning. You do not always want to use the 99th percentile probability, particularly if it is cooler and wetter than average. Use this information in combination with outlooks for this season to determine when the season is likely to end.



Note: The term file is not the only way to estimate season-slowing or season-ending events. You may find other methods work better in your area. If so, document them so that others know what you have discovered.