

FIRE FAMILY PLUS (July 2015)

7835

Fire Family Plus (FF+) is comprehensive Windows-based program that analyzes and summarizes an integrated database of fire weather and fire occurrence. Combining the fire occurrence record in the analysis displays the historical relationships between weather conditions and increasing fire occurrence which can be used to set fire business thresholds and track seasonal progression of Fire Danger. FF+ computes fire danger indices based on the United States National Fire Danger Rating System (NFDRS). Historically these weather and fire occurrence data sets had been analyzed separately but can be analyzed together to support fire based management decisions.

CAL FIRE Units shall utilize FF+ as the analysis tool for computing NFDRS indices, components and subsequent decisions that would be incorporated into the Unit Fire Danger Operating Plan (FDOP) and Unit Pocket Cards. The FF+ database utilized for the FDOP shall be updated with quality weather and fire occurrence data on an annual basis. The Unit Fire Environment Point of Contact shall annually validate and submit the Microsoft Access (.mdb) data file to the CAL FIRE Fire Environment Program Manager prior to May 1st.

The latest version of FF+ along with user manual is available from the Missoula Fire Sciences Laboratory at the website: <http://www.firelab.org/>

DATA STORAGE AND RETRIEVAL (July 2015)

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FF+ requires three elements of data to effectively manage an NFDRS program. These three elements are:

- Weather station metadata (station catalogs)
- Historical and current weather observations
- Fire occurrence records

FF+ stores this data in a database file with an .mdb file extension. The FF+ database does not operate as a shared database; any additions, modifications, or deletions remain with the specific .mdb file. Permanent changes to weather station metadata, weather occurrence data, and fire occurrence data shall be submitted to the official archiving data warehouse.

Weather Station Metadata (Station Catalogs)

Station Catalogs in FF+ contain the principal elements associated with a weather station (RAWS) as it represents a geographical area with common identified fire environment factors that represent a Fire Danger Rating Area. Station Catalogs in FF+ may comprise of a single station or a compilation of multiple stations known as a Special Interest Group (SIG).

Historical and Current Weather Observations

Units shall maintain a local Fire Family Plus (FF+) database with a minimum of ten years of validated weather data observations. Weather data will at a minimum include at least the normal Daily Observation for each day. It is recommended that Units collect all available hourly RAWS weather observations to support the Daily Observations. Once weather data has been validated in FF+, permanent changes shall be recorded to the data storage warehouse of record

Fire Occurrence Records

Units shall maintain a local Fire Family Plus (FF+) database with a minimum of ten years of validated fire occurrence data. CAL FIRE fire occurrence data shall be validated annually and submitted for use by the Unit. It is necessary to convert CAL FIRE fire cause data to the federal fire cause format to be used in FF+. The conversion of CAL FIRE fire cause code to the Federal cause code is as follows;

CAL FIRE Cause Code = Federal Cause Code

0 = 9

1 = 9

2 = 1

3 = 4

4 = 3

5 = 5

6 = 7

7 = 2

8 = 8

9 = 9

10 = 2

11 = 6

12 = 2

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