TechNews - *sharing information regarding FPA software version releases*

February 9, 2009

Purpose: Highlight software changes for Fire Program Analysis (FPA) Version 2.05.

The FPA Project released Version 2.05 on February 4, 2009. The following list highlights the new functionality and fixes that are contained in this release:

- Manage Analysis States – When analyses are in the running state users cannot edit or re-rerun them; they must copy the analysis first, before making changes or re-submitting.
- FPU Input Report – This is a very useful report that summarizes fire planner inputs. It is an excellent tool for review and acts as a quality check to help the fire planner ensure all data fields are complete and contain the information intended for the analysis. This report contains:

Fire Resources	Preparedness Option by Agency
FWA Data	Preparedness Option Resources Assigned
FWA Fire Dispatch Levels	Fuels Option
Dispatch Location	Fuels Option by Agency
FWA Dispatch Location Association	Treatments Per Fuels Option
Preparedness Option	

- Paginate for User Interface Lists – FPA now displays long lists using a page format, (loading one page at a time) rather than the entire list at once. This speeds up display time and allows complete display of very long lists.
- Contract Costs – The attribute "Contract Cost" is no longer on the Preparedness Option By Agency input field on the Preparedness Options screen.

Pump and Roll Production Rates – The new FWA Attribute enables an FPU to identify the percent of fires where FPA should apply the Pump and Roll Engine production rates. FPA does not apply these production rates to the "percent Walk-in fires."
(http://www.fpa.nifc.gov/Implementation/TechInfo/Docs/Fireline_Production_2009_01_13.xls)

- Work Shift Length Start – Work Shift Length begins at the time of first deployment on the Day of Year. Work Shift Length is currently a system-defined length of 18 hours that begins after FPA applies the user-specified Callback delay. This improvement results in the model identifying fires as "Outrun" only when the rate of spread exceeds available production capacity.

- Discontinuous FWA Travel Time Point (TTP) – FPA now calculates TTP for discontinuous FWAs using these rules :
    - TTP is located in the portion or polygon with the largest number of historical fires.
    - If the numbers of historical fires are the same number in more than one portion of the FWA, then the TTP is in the portion or polygon that is largest.
- Containment Algorithm –The containment algorithm calculates data so that fires with a significant change in production rate in one-minute duration are no longer identified as "Outrun." Before this fix, when an airtanker arrived, or several engines ran out of water at the same time, FPA identified these fires as "Outrun."
- Excluded Fire Resources – The following Producer Types are excluded from simulation when the Daily Staffing is less than two: CRW, EN12, EN34, EN56, EN70, FRBT, HELI, and SMJR.
- Rate Of Spread (ROS) – Rate of Spread at fire discovery now displays on the Fire Activity Log and is the ROS based upon user defined Diurnal Coefficients. Crown fires now have Diurnal Coefficient applied only once, during the Containment process.
- Preparedness Option Leadership and Prevention Program Cost – The number of characters now increases from six to nine characters (in whole dollars).
- Diurnal Coefficients on Day of Year, Sunset prior to Sunrise – Diurnal Coefficients now correctly calculate for Days of Year when Sunset occurs prior to Sunrise (e.g. daylight in extreme northern latitudes).