



Colorado Fire Prediction System (CO-FPS) Version 2.0

System Status: Updated August 8, 2017

CO-FPS is operating normally.

Changelog:

- V 2.0
 - The year two performance period of CO-FPS development has concluded.
 - Fuel model upgraded from Anderson to Scott & Burgan, enabling greater granularity of fuels data and dynamic fuels.
 - Level set boundary method enhanced for more accurate modelling of the fire boundary.
- V 1.0
 - The year one performance period of CO-FPS development has concluded, at this point CO-FPS jumps to version 1.0. It is anticipated that at the end of each subsequent year of development CO-FPS will receive an increasing integer release.
 - Aviation hazard products are now available under the “weather” tab in the simulations tool. These products include turbulence, horizontal wind shear, and updrafts/downdrafts at various flight levels.
 - A higher resolution terrain dataset was implemented as the topography input for the CAWFE model.
- V 0.2
 - The fire is now driven by the wind at a level closer to the surface (1 meter instead of 3 meters). This should cause the spread to be slower and more realistic, as the fire model utilizes this dataset as the “mid-flame wind” input.
 - If the burn area reaches any part of the domain boundary, the simulation will stop (note that the simulation will be labeled 'completed' although it will not have all the products for the full run).
 - A bug related to the fire propagation direction under certain wind directions has been fixed.
- V 0.1

- CO-FPS has reached an initial operating capability and is available for experimental use within the “Fire Prediction” workspace of the Colorado Wildfire Information Management System (CO-WIMS).
- Predictive products generated by CO-FPS currently include:
 - Fire extent
 - Rate of spread
 - Heat release
 - Flame length
 - Smoke concentration at ground level
- Predictive weather products generated by the High Resolution Rapid Refresh (HRRR) weather model currently include:
 - Temperature
 - Humidity
 - Wind speed and direction
 - Wind gusts
- Predictions up to 18 hours are supported
- Two simultaneous simulations are possible in the system at this time. Each simulation uses half of the available computing power, regardless of whether one or two simulations are running.