

## **Predictive Services:**

Predictive Service Units (PSU's) in Redding and Riverside provide fire weather and fire potential predictions and assessments to fire managers through the Predictive Services Program. PSU meteorologists are also liaisons with the California Air Resources Board (CARB) and other regional air quality district officials.

More information on Predictive Services is available at:

[http://www.predictiveservices.nifc.gov/NPSG/npsg\\_pdf/PSHandbook\\_2009Update.pdf](http://www.predictiveservices.nifc.gov/NPSG/npsg_pdf/PSHandbook_2009Update.pdf)

Northern California Weather web site: <http://gacc.nifc.gov/oncc/predictive/weather/index.htm>

Southern California Weather web site: <http://gacc.nifc.gov/oscc/predictive/weather/index.htm>.

## **PSU Meteorologists Proficiency and Currency**

### *1. Proficiency*

- a) Completion of S-190, S-290, and S-390
- b) Work no less than five (5) shifts handling all operational products
- c) Conduct at least 2 each, and 10 total, of the following:
  - Daily coordination calls with other GACC office (Redding or Riverside)
  - 0830 PDT (South Ops) or 0845 PDT (North Ops) conference call with the NWS
  - 1030 PDT Briefing for Ops/ECC personnel
  - 1300 PDT Smoke coordination conference calls
  - Special briefings and conference calls for CALFIRE and Federal agencies
- d) Work with Intel to produce all Predictive Services products

Included in this are the:

- Monthly Outlooks (for upcoming month)
  - Seasonal Outlooks (Months 2 and Months 3 & 4)
- e) The PSU Program Manager will sign-off on proficiency

### *2. Currency*

- a) The forecaster has prepared and issued at least 12 operational products during the past three months.
- b) Must maintain proficiency in accordance with NWCG Technical Specialist standards.

## **Technology Transfer**

Predictive Services will continuously integrate advancing technology and prediction systems into fire management planning and operations. Some efforts include:

- Incorporation of CANSAC data into predictive products.
- Use of FireFamily-Plus to advise fire Managers/ECCs on fuels conditions and fire danger.
- Proper use of RAWs and NFDRS, and assistance with WIMS, FS PAL, and Pocket Cards.
- Research and development to advance both fire meteorology and climate anomaly forecasting.

### *1. Nelson Dead Fuel Moisture Model Implementation in WIMS:*

In late 2010, the Nelson model and the automated state-of-the-weather (SOW) were implemented in WIMS as version 2.0.0. System fixes and enhancements related to the automated SOW and Nelson model has brought the versioning of WIMS to 2.0.5.

Some recent highlights related to the integration of the Nelson Model in NFDRS can be found here:

[http:// Link to Russ's write-up](#)

## **Fire Weather Observations**

### *1. RAWs and NFDRS Observations:*

Fire weather observations for stations that desire next- day forecasts should be entered into WIMS no later than 1340 PST (1440 PDT). Local quality control is a critical element in the data entry process.

Observations from Remote Automated Weather Stations (RAWS) sites will be the observation that is closest to 1300 LST/1400 LDT. In WIMS this can be either a 12xx or 13xx RAWS observation. Both RAWS and manual stations utilized for NFDRS are expected to be sited and maintained according to the standards and guidelines published in NWCG PMS 426-3 “National Fire Danger Rating System Weather Station Standards and Guidelines”. The website to view this document, and recent updates is: <http://www.nwcg.gov/pms/pubs/pubs.htm>

Proper siting of weather stations has always been a high priority in California. The GACC meteorologists are available to assist land or fire managers in selecting proper sites. Annual RAWS maintenance requirements will be strictly adhered to.

## *2. Fireline Observations and Spot Forecast Feedback:*

### *Fireline Observations:*

Representative observations are required when requesting a spot forecast, whether for a wildfire, prescribed burn, or other need. Distance is not the only factor in determining whether an observation site is considered representative. Fire agency personnel will take standard fireline observations of temperature, relative humidity, wind direction and speed, and weather/sky condition consistent with guidance provided in NFES 2140 “*Weather Station Handbook – An Interagency Guide for Wildland Managers.*”

Fire agency personnel are encouraged to provide any useful feedback related to the fire or burn with the meteorologist preparing the spot forecast. This can alert the forecaster to details which would otherwise not be apparent, such as variations in humidity across a large and/or complex site, the time at which winds switched from upslope to downslope, etc.

### *Spot Forecast Feedback and Validation:*

When providing manual observations (i.e. from a belt weather kit or Kestrel) for use in spot forecasts, prescribed burners should proactively provide feedback to their forecast providers, whether PSU or NWS. This feedback should be made available as soon as possible. Be sure to include the following:

- Sky cover and/or precipitation verification
- Relative humidity
- Wind speed and direction
- Temperature