

# Fall 2016 FIRESCOPE Predictive Services Group Meeting

McClellan Park, CA

## DAY 1 – Wednesday November 2, 2016

**Attendees:** **In person** – Chairman Tom Rolinski, SOPS Predictive Services; Jana Luis, CalFire Sacramento; Dan Dennet, CalFire North Ops; Stephen Leach, NOPS Pred. Services; Jeff Shelton, Orange Co. FD; Jeff Tonkin, NWS Eureka; Joe Labak, BLM; Dar Mimms, CARB; Philip Selegue, CalFire N Ops PS Intel; Dan Keaton, NWS STO; DeAndre ?, Santa Barbara Co FD; Elizabeth Barerra, Firescope Task Force Group, FireScope; Tim Brown, DRI/CANSAC; Dan McEvoy, DRI; Kristen ?, DRI;

**Remote** - Claudia Bell, NWS WRH; Craig Clements, SJ St U Met – Fire Weather, and for a presentation; Cathy Johnson, N Ops PS Intel; Ryan Walbrun, NWS MTR; Steve Vanderburg, SDG&E, and for a presentation; Russ Gripp, N Ops USFS PS; Marvin Percha, NWS PHX;

**Updates and Outlooks - Predictive Services** (Tom R and Steve L) – both gave a summary of the previous fire season.

South Ops – It was a busy year. Convective activity was light, which led to drier conditions in areas used to getting monsoon moisture. The persistent drought led to the more active fire season. There were 2 stretches of PL4 and several heat waves. Tree mortality continues to be a growing problem. The central coast was particularly a big problem area, as were the southern and central Sierra. Tom produced a Santa Ana study identifying trends and frequencies, and issued an outlook. So far it has worked out well. A detailed 2-day fire potential product began in June.

North Ops – the heat waves were mostly south of the region, but there were still a few. There was less lightning than normal, and a lot less than in 2015. A normal to above normal rainy season in 2015-2016 led to higher fuel and soil moisture and eased drought conditions. It did, however, lead to a robust fine fuel crop at mid and lower elevations, and these were considered to be the areas with the greatest fire potential. Overall, though, it was a quiet year. The office is at half of the staffing it was at in 2015, but a met will be hired in the offseason, and a fire analyst, Billy Gardunio, is already in place. Summer student hires produced research and helped a lot with routine duties.

**NWS Update – Dan K** – The new NWS spot page is operational. NWS staffing in CA is fairly stable. Retirements are expected, however. A large-scale reorganization is in the works for the agency. It will affect all offices, staffing, and even products and duties and it will take place over the next 2-4 years.

### Fire Agency Reports (various reps to the FS Group)

**CalFire North Ops – Dan D** – It was a relatively quiet year. Dry, but little lightning.

**Santa Barbara Co** – It was an active year, and a dangerous situation due to the very dry conditions. They were in drawdown at times. They sent out a lot of help and also received a lot of help. Looking to improve the process of saving RAWS data.

**Orange County FD Update – Jeff S** – There were lots of small to mid-range sized fires. It was very dry. There is a warning system called “Streamtiming?”. Pete Curran is now a meteorologist and is helping Orange Co. The Laguna/Aliso RAWS is in place and doing great, and it supports a new weather zone. Jeff gave thanks to Steve V and SDG&E. Now Orange Co is looking at a camera system to monitor and detect fires. Fuels are more damp due to recent light rain, but the season ender has not occurred yet.

**BLM – Joe Labak** – The new FMO of the Ca Desert District is Paul Gibbs. Jim Tomaselli is the new Assistant FMO. Seasonal employees have been let go.

**S Ops – Tom R** – Working with the Riverside Fire Lab on the decision support/influence study. Will be at the Smoke Symposium in Long Beach in mid-November. Attending the AMS meeting in Seattle in January. The SAWTI will be featured in an article in the Journal of the AMS.

**DRI –**

**Tim B** – NIDAS is a national multi-agency drought information system. The DRI is contributing as a drought and fire nexus.

**Dan M** – Drought Early Warning System. Different regions of the country are broken down. Developing a wildfire component for the NIDIS California Drought Early Warning System. [drought.gov](http://drought.gov). The aim is to deliver a daily product for drought planning and the development of a drought related decision support information service.

SARP (NOAA) – coping with drought, a social science approach. Looks at what kind of info is most useful to stakeholders, time scales, relating drought indices to fire danger indices, and uses U of ID gridMet data. It takes a look at 4 drought indices and ERC, 1000-hr FM, and 100-hr FM, as well as the growing season index.

Evaporation Demand Drought Index measures the amount of evapotranspiration given an unlimited water supply (Potential Evaporation). A sample map is produced each day and can be seen at the WRCC. It is called the EDDI – Evaporative Demand Drought Index. The next steps are to complete a drought index analysis, develop real-time EDDI and integrate into DEWS, a project evaluation, and subject it to social science analysis.

**Kristen** – Collect data from end users to make findings usable. Will talk to users before, during, and after the fire season. Questions for us to all answer – 1 w can drought information be useful? 2 Are there other groups that could use this information? Email answers to [Daniel.mcevoy@dri.edu](mailto:Daniel.mcevoy@dri.edu)

**Tim B** – The DRI is looking at other projects: How does smoke affect inversions? Studying the Trinity Complex of 2015. A proposal has been sent to NOAA to study the Red Flag Warning program, mainly for CA and NV. The project on hourly fire danger percentiles is ongoing.

**San Jose St – Craig Clements** – The Fire Weather Research Lab – gave a program description and update on the Rapid Mobile vehicle. (FireWeather.org). They take a look at micro- and mesoscale meteorology, plume dynamics, WRF simulation on Diablo winds, nocturnal drying events in the coastal range. They monitor fuels, run local observation network, teach fire weather to 10<sup>th</sup> grade science students. The goal on plume dynamics project is to get more local observations near active fires to increase the data set. The mobile unit can be ordered in ROSS. Team members have red cards. They will provide weather information, launch balloons, Lidar, etc. They are collecting lots of data on updrafts and downdrafts, smoke concentrations and smoke movement.

**CARB – Dar** – Wants to bring prescribed fire back to CA. The tree mortality issue (was 66 million trees) has led the gov't to declare that more burn days are needed. Increasingly larger wildfires will burn that material if not done by prescribed. Prior to 1850 500,000 acres would burn in some years. Dar has collected lots of data, and sees lots of good burn days from Oct-early June. Working with the San Joaquin AD to allow more burning. Two Rx410 classes are set for 2017, one in the S. CARB is trying to find more money to fund CANSAC. CARB wants to elevate prescribed fire to the level of importance of a wildfire in terms of budgets, staffing and support.

## **DAY 2 - Thursday November 3<sup>rd</sup>**

### **Plan of Work Review**

1. Review and update charter – ok
2. Provide Roster – completed
3. Provide Plan of Work – completed
4. Review MACS 410-03 – completed

- 5 and 6. Hourly Fire Danger Phase 2 – Ongoing. There are no new updates. **Maybe apply data to better maps, like Google Earth. (March 1). Jeff S would like new OC zone and RAWS added. Jana says CalFire has 3-4 new RAWS to add. Russ – new stations should be added to both old and new systems.**
6. See above.
7. Provide Ops Application Group (OAG) feedback regarding CANSAC products – Pass ideas through Rob Krohn at South Ops. Ongoing.
8. Assess the Predictive Services' Smoke Management Program – Ongoing. Rolinski is getting more involved with ARA program. Lots of ARA-worthy fires in S Ops in 2016. Attended Smoke Symposium in Long Beach in mid Nov.
9. Prescribed Fire Reporting System (PFIRS) – Ongoing.
10. NWS Spot Weather page – Page is now active. Ryan W is working on SCOUT project. Was going to learn more on upcoming conference call. Incorporating into SCOUT may be as simple as adding a link to the Spot page.
11. Incorporate Weather Section in the FOG – Ongoing. Rolinski will spend time on this in Nov. Jeff T will be the liaison and will bring in Trent Proctor and include the ARA-ordering process.
12. Develop SME Group for NFDRS 2016 – Ongoing. Rollout delayed until spring 2017.
13. SME requirements/qualifications – Ongoing. See above.
14. Hourly RAWS data clean-up – Ongoing. There has been a problem with getting money to DRI. “We’ve gone this long. Lets see if we can bundle this project with another, given that funding will likely continue to be difficult” – Tim Brown. **TR to check with Jana and Tim Brown on the progress of this (Feb 1)**
15. Hourly Fire Danger Percentiles – Ongoing. TR has a file on percentages. Can pull data into a spreadsheet. **TR will work with Tim Brown to get data into an easier to use format (Jan 1)**
16. Update links on GACC and other web pages – completed.
17. IMET deployment procedures – JT compared state vs federal when it comes to IMET duties/procedures. More dialog and familiarization is needed ahead of time, in both directions. Training at the IMET workshop may be the best approach. **JT to look into implementing this.**
18. Change RAWS rain data year to start on Oct 1 – CalFire in the process of switching over. Other agencies also gradually switching over. **TR will check on FS stations.**
19. Hourly Fire Danger alert – ongoing. First, decide on the criteria – perhaps missing data for 12 consecutive hours. **Everyone needs to send their email address to TB to get on the notification list.**

**FIRESCOPE Task Force Group – Elizabeth Barrera** – FOG will be out by February or March. The Past, Present, and Future PowerPoint is almost finished. Firescope website has been updated, as well as ICS forms. Another meeting was scheduled for Nov 16-16 in Buelton.

**San Diego Gas and Electric – Steve V** – The Aliso/Laguna RAWS is doing well. SDG&E has a helicopter for firefighting during the fire season. It was used quite a bit in 2016. New software with the help of Tecno Silva simulates fire growth and potential ignition along powerline corridors. It has been used experimentally and will be used more in 2017. Rain events in September, both in 2016 and 2015, produced new grass and chemise growth. A 12% increase in live fuel moisture in chemise was noted. The conclusion is that fine fuels and brush are not automatically dormant from summer to spring. “Maybe semi-dormant is a better term” – TR.

#### **RAWS Updates roundtable - (entire Group) –**

**OCFD** (Jeff S): Laguna at Aliso State Park is operating now.

**CALFIRE** (Jana L): Several new RAWS are up and running – Tahoe-Donner, Oak Ridge near the Sonoma coast, Blue Mtn in Calaveras County, and Cambria. Devore is being moved.

**Contract Counties: Santa Barbara Co.** (DeAndre) 2 new RAWS are coming. One is in the Santa Ynez Valley.

**BLM** (Joe): All RAWS are now FTS. Will switch the rain year to Oct 1. Panamint RAWS was moved.

**USFS** (Russ G): New RAWS are Skyland (LTBMU on NV side), Banning, and Kenworthy. The new rain year date of October 1 will be implemented as yearly maintenance is conducted. Five Cent and Mt Shasta RAWS will be moved. El Dorado NF is considering a new high country RAWS. Mormon Rocks experienced a burn-over and will be moved.

**NFDRS/WIMS/PAL/etc. – Russ G** – We need names for SMEs for NFDRS rollout. The SMEs will attend training/workshop at McClellan in March 2017. **Russ will look into how to handle funding for SMEs from outside agencies.** The update on Fire Family Plus will be out in December. Work on the training package will be completed by late winter. Update letter on NFDRS16 was published by NWCG and circulated to the field users via FIRESCOPE mailing lists. All members might consider dialing in and participating in NFDRS16 coordination call on Thursday morning to get the most current information on progress, etc.

Upcoming Training:      WIMS: March 27-31, 2017 @ McClellan  
                                 NFDRS 491: April 17-21, 2017 @ McClellan  
                                 RAWs Maintenance: May 15-21, 2017 @ McClellan

**Cedar Fire – Tree Mortality region – Jeff Shelton** – This fire occurred in the Sequoia NF, right in the tree mortality area. It was hot and dry with poor RH recovery leading up to the fire. Fire activity correlated well with Johnsondale RAWs ERC trends. Fuel conditions were critical. This was a mostly fuels-driven fire due to unusually light winds. In flat areas the fire stayed low, but in sloped areas the fire spread up to crowns. There was very good consumption at the surface due to the critical fuel conditions. The decision support approach was to defend, reinforce, advance, withdraw, delay. The team used FSPro to develop the strategy – “where is the fire going and where should we fight it?” Knowing fuels, terrain, and watching trends produced a guideline that can be used in the future.

**NWS CA Fire Weather Web Page (old ECCDA page) – Members would like to see an NFDRS layer added to get trends. Try full-screen maps like on the Obs page. Add a link to SAWTI. For JT**

**Red Flag Issues – Jeff S** – Jeff is not satisfied because there is a lot of variability, despite the guidelines and set criteria. TR – “it only takes one weather station for a RFW to be verified. But, does it only take one station to have missed an event?” Dan K – “probably.” This affects staffing and false warnings cause the public to not take the RFWs serious. S Ops has sent a letter to the SD NWS office addressing the RFW criteria, as requested by the SD NWS office. TR is waiting to see the response.

Action Items:

1. HFD - **Maybe apply data to better maps, like Google Earth. (March 1). Jeff S would like new OC zone and RAWs added. Jana says CalFire has 3-4 new RAWs to add. Russ – new stations should be added to both old and new systems.**
2. DRI funding - TR to check with Jana and Tim Brown on the progress of this (Feb 1)
3. HFD percentages - TR will work with Tim Brown to get data into an easier to use format (Jan 1)
4. Integrating different IMET procedures among different agencies into IMET Training Workshop - JT to look into implementing this
5. Changing USFS RAWs to Oct 1 start of rain year - TR will check on FS stations.
6. Send Tim Brown you email if you want to be alerted to HFD missing data – Everyone.
7. SME Training/workshop at McClellan in March - Russ will look into how to handle funding for SMEs from outside agencies.
8. New CA Fire Weather Web Page - Members would like to see an NFDRS layer added to get trends. Try full-screen maps like on the Obs page. Add a link to SAWTI. For JT

**Next meeting will be May 3-4, 2017 @ McClellan**