

# FIRESCOPE

## Predictive Services Specialist Group May 14&15 2014 Minutes

### Day 1 Wednesday May 14:

**Attendees:** *At meeting site:* Group Chair Tom Rolinski, SOPS PS /USFS; Jeff Shelton, OCA; John Snook NOPS PS/USFS, Cathy Johnson NOPS PS/ Intel Coordinator; Ken Hood DOI Coordinator NOPS & Fire Scope task force liaison; John Wilson, Cal Fire Northern Region; Russ Gripp, NOPS PS/ NFDRS-RAWS etc. USFS; Shyh Chen, PSW Research Station Riverside; Dr. Tim Brown, CEFA/DRI; Larry Hood, Fire Planner/FB, USFS; Corky Conover, NPS. *Via conference line* (several of these on for only part of the meeting): Scott Carpenter, NWS WR HQ; Claudia Bell, NWS WR HQ; John Lovegrove NWS Medford; Dar Mims, CARB.

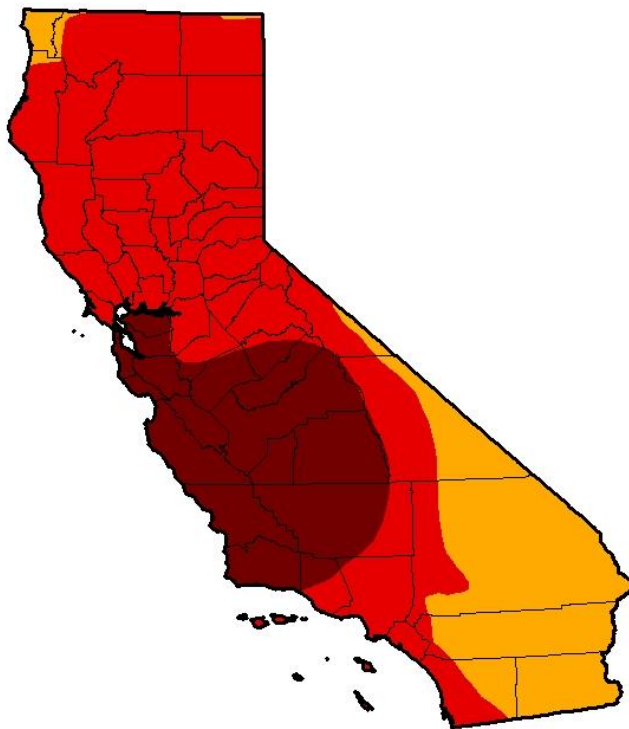
**2014 Fire Season Outlook- Tom R - South Ops**, gave a good overview of the current state wide conditions reviewing ERC's live fuel moistures and drought indicator products. We are going into the fire season with the 3<sup>rd</sup> consecutive years with below normal snow pack. The Drought Monitor product shows much of central CA in the highest drought Category (D-4) from the San Francisco bay area south to LA and east to the eastern slopes of the Sierra's. This is the first time since this product was available (approximately 15 years) that Tom can remember CA having areas in the D-4 category. In summary we are very dry going into the season, and if we get the ignitions we could be in for a very active fire season.

### U.S. Drought Monitor California

**May 13, 2014**

(Released Thursday, May. 15, 2014)

Valid 8 a.m. EDT



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	100.00	100.00	76.68	24.77
<b>Last Week</b> <i>5/6/2014</i>	0.00	100.00	100.00	95.93	76.68	24.77
<b>3 Months Ago</b> <i>2/11/2014</i>	1.43	98.57	94.54	91.59	60.94	9.81
<b>Start of Calendar Year</b> <i>12/31/2013</i>	2.61	97.39	94.25	87.53	27.59	0.00
<b>Start of Water Year</b> <i>10/1/2013</i>	2.63	97.37	95.95	84.12	11.36	0.00
<b>One Year Ago</b> <i>5/14/2013</i>	0.00	100.00	98.16	46.25	0.00	0.00

*Intensity:*

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

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<http://droughtmonitor.unl.edu/>

We looked at live fuel moistures for areas in southern CA, and the thoughts were that due to recent precipitation we would trend between the 2013 numbers and the 20-year historical average for much of the upcoming fire season. The discussion then lead to sea surface temperatures in the Pacific equatorial region and how indicators are leading toward an El Nino. A review of historical data indicates those El Nino years with a wetter than normal rainy season only have a strong correlation if the event is at least moderate or strong in intensity.

Tom also gave a quick update from the **SOPS GACC**. The Santa Ana Threat Index was continuing to perform well with the last couple of events. The GACC was looking at producing a potential fire activity product similar to the day 1 – day 2 weather products that they currently produce during the fire season. The group then continued on with GACC and agency updates.

**John Snook – NOPS** – the GACC has a very low snow pack with none occurring below 6,000 feet in elevation. The meteorological section has had a heavy training season, teaching S290 & S390 and participating in smoke management classes. The Spot Weather Forecast load has been relatively light *lately*, the *staff crew* has been working to upgrade some GIS related products, and the dispatch operations have hired several new dispatchers.

**John Lovegrove – NWS Medford** – gave an overview of the proposed changes to the Red Flag Criteria for some of the areas that Medford covers in northern CA. A review of the old criteria proved that the 8 hour wind event duration was too restrictive, and the new criteria propose that the duration be changed to 3 hours. A vote was taken by the voting members of the group with no one objecting to the new criteria and the recommended change. The updates will be reflected in the CA Annual Operating Plan (AOP) when it is finalized. John also noted that additional information will be given out when forecasting the Chance of Wetting Rain (CWR), with both 1/10" and 1/4 " CWR being forecast. Many offices have provided forecasts for CWR in the past, but depending on the office the forecast criteria could have been for 1/10" or ¼". Future CWR forecasts will provide probabilities for both criteria.

**John Wilson CALFIRE Northern Region** - Last year the state had more fires than the average but these fires accounted for fewer acres. With the fire activity Cal Fire has had staffing at NOPS through the entire winter season. John provided some estimated numbers of resources for the upcoming fire season: 195 Engines with one-third of the engines staffing with 4 personnel, 32 dozers, 102 crews, 6 helicopters and 10 air tankers.

**Jeff Shelton, OCFA** - Orange County has been manually updating its dispatch levels, since they have been having some difficulty with the 10 hour fuel moisture outputs from the Nelson model. Jeff said that they hoped to be able to use the updated 1 hour fuel moisture product to help derive automated dispatch levels in the future. Jeff mentioned that fellow Orange County Fire employee Don Boursier was involved with the revisions of the entire fire behavior curriculum (S-190 through S-490) and would take any input that folks had about improvement to the current course materials. OCFA is also working on their Fire Danger Operating Plans using CALFIRE guidelines.

**Cathy Johnson, NOPS Intel** – Had a big year for number of fires (5302) but not for acres in 2013, compared to 771.5K in 2012, and to 945,740 in the mega year of 2008. Notably-sized 'off-season' fires included: Campbell, 865 ac Jan. 10, and Willow Creek, 300 ac Jan. 9. A frequent winter workload addition was working with the Met shop to provide drought/ dry fuels/ fire information to higher levels of fire

management at the RO and WO. There has been a lot of effort in training folks on the new NIMS 209 Form with the all Hazard emphasis. Cathy has a new assistant coming May 19<sup>th</sup>, Brendan Neylon.

**Corky Conover, NPS** - The budget decline of the last few years seems to have stabilized, with similar funding forecasted for next year. Jason Loomis of NWCC predictive services in Portland will be taking over for Corky as the NPS representative after his retirement this fall. Jason is a BLM employee whose salary is paid for by the NPS.

**Dar Mims, CARB** - Dar gave an overview of the recent Interagency Air & Smoke Committee (IASC)/(CARPA) California Air & Resource Planning Alliance meeting. We discussed the Air Resource Advisor (ARA) position and its use on incidents the last few years. The position tries to facilitate smoke management tech transfer of the monitoring data between the team and air regulators, as well as getting consistent and useful information to the decision makers who are trying to manage the fire and the public health impacts. There was good discussion on how to improve the dissemination of information to the public in today's instantaneous news society we live in. There has been continued work related to PFIRS and the connection with the Blue Sky folks (SDI) and the Desert Research Institute (DRI). There has been an effort at improving the outreach of PFIRS training to the agencies with a particular concern of getting Cal Fire and their burners involved. With tight budgets there has been a fair amount of time spent on justifying CANSAC contribution to upper management.

**FIRESCOPE Organization and Charter Review** - Tom provided group members a FIRESCOPE Organization chart, and we reviewed the structure and roles of the various levels. The group then discussed our Charter, and voting membership and the need to update or confirm several agency representatives.

**Chris Waters** from Cal Fire moved to a new position and **Jana Luis** has moved into the position, so she should take over as the main Cal Fire Rep, with the SOPS (**Michael Doi**) and NOPS (**John Wilson**) RAWS coordinators being the alternate, depending on the location of the meeting. Ken Hood was going to check with his boss on **Les Matarazzi** continuing on as the main BLM rep. It was also noted that the USFS could use a new Alternate voter.

Tom R. then asked the group to review the Charter and the MACS 410-3 document and get comments/edits back to him. Tom said that he would send out an email with the MACS 410-3 document with the new Red Flag Criteria included, along with a deadline on when he needed comments back to him.

The group ended the day with a presentation by **Shyh Chen** (USFS PSW Research in Riverside) on 5-km and 1-km scale weather forecast and validation efforts with the "Fire Buster" program. A few details Shyh shared re the program: It uses the MSM (meso-scale spectral model) which is initialized from the GFS (Global Forecast System). 5-km resolution model runs are done at 00Z and 12Z daily (4pm and 4am PST). The displayed output includes Near-surface temperature, Relative Humidity, Precipitation, Wind direction and speed, FWI (Fire Weather Index), and a RAWS validation component.

## **Day 2 Thursday May 15:**

**NFDRS/WIMS/RAWS/PAL/Pocket Cards programs update** (Russ Gripp): There has been continued slow movement on the 'next generation NFDRS program'. Russ said this represents a 'cultural change' and that at the Fire Environment Committee meeting in June they will discuss how to go about training folks on the new system in the future. The new **WIMS** online training received a "Beta Test" here at a class in

CA with about 30 users working concurrently on the same data. The current **RAWS** maintenance class has about 27 students; there were about 37 students this year in both the WIMS and NFDRS classes. There are waiting lists for a future WIMS class, so it has decided that there will be NFDRS (S491), WIMS and RAWS maintenance classes next year, with the dates to be determined. Russ reminded the group that the deadlines for RAWS Depot support of Vaisala stations were: December 2015 for the DCP (brains) and December 2018 for parts. Russ shared that for the USFS, about half the RAWS stations in CA are Vaisala and the other half FTS. The **Project Activity Level (PAL)** program is getting more acceptance over time. It was created for timber activity on USFS lands has also been adopted by a large private timber company (SPI) for its use related to fire restrictions and timber stand work. Russ said that his work on an **expanded station catalog checklist** was about 90% complete, and he thought **he could have it completed and make it available to the group by midsummer.**

**RAWS station roundtable information sharing:** The Plumas NF has installed a new station in the Denton Creek area, and the Tahoe NF will be replacing its temporary station with a permanent RAWS in Rice Canyon. Russ then gave a quick overview of some work that he has done with the CA Desert District of BLM, to inventory and evaluate the station locations and the rationale for the current locations. Future movement and locations of stations will be focused around the Predictive Service Areas (PSA's) since many of the stations were around before Fire Danger Rating Areas were established. Russ visited about 28 stations in an 8 day period in the desert district area.

The group then talked about known relocations of stations: The San Bernardino NF will be relocating their station at the Rock Creek Camp. Cal Fire moved their station from the Chico airport to the rolling hills between Oroville and Chico. The Hoopa Tribe has renamed their Yurok station to Notchko Creek. The group discussed the lack of BIA participation in the past and **Ken Hood volunteered to contact the new state FMO for BIA (Josh Simmons) and invite him to a future meeting.** Jeff Shelton (Orange County Fire Authority) said they were working to fine tuning their solar radiation sensors in order to improve their outputs from the Nelson fuel moisture model. **Tim Chavez** of Cal Fire was working on relocating the Beaumont RAWS. Tom R. gave an update from Steve V. of SDG&E for their 150+ station network. They were going to relocate the station near Mountain Springs Blvd. to near Tecolote. SDG&E was also moving forward with the installation of 2 wind profilers, the first one possibly today.

**Santa Ana Wildfire Threat Index - Tom R.** gave an update on the use, progress and future of the SAWT Index. His presentation gave an overview of the weather and fuel moisture components of the index. The group discussed the rationale for the zones, and some issues with trying to go to too fine of a resolution due to the high variability of the winds at the micro scale. There is a target date of going "public" with the index by September 1, 2014.

**Smoke Management Program in CA** - The group then moved on to a discussion of the smoke management program throughout the state. **Tom R. and John S.** gave a quick history of how an update of **Title 17** in about 2000 led to the establishment of meteorologist positions in Riverside and Redding, to facilitate smoke management and fire related training. Tom said they tried to get the smoke forecast product out before the 1300 Smoke Management Conference Call. Tom also voiced a concern of how there is little participation on the call from burners in the southern third of the state. The group then moved on to a discussion of the new **Air Resource Advisor** positions. **Pete Lahm** will be the coordinator for dispatches for the position, similar to the way the Larry Van Bussem is the coordinator of IMET dispatches. There was a class last week in Boise, ID where 18 students attended with the intent of increasing the pool of potential ARA's for future incidents.

**Dr. Tim Brown** of the Desert Research Institute (DRI), gave a presentation of the **Hourly Fire Danger** product where we compared several map outputs of the old NFDRS algorithms with the new Nelson Fuel Moisture model. The two websites needed for comparison are very similar: Past/current version is: <http://www.cefa.dri.edu/HourlyFD/> , while the Nelson version just adds the word Nelson at the end: <http://www.cefa.dri.edu/HourlyFD/Nelson/> . Tim asked for a couple of volunteers to help evaluate the products and **Tom R.** and **Jeff Shelton** stepping up. (John S. later checked with **Russ Gripp**, and he will be part of this team also). Tim hoped to receive their input by mid August so that an updated version could be ready by September. The following are what Tim assessed as remaining/ next steps, and **the Group concurred**: 1. Assess the diurnal cycles 2. Set up animations of the past 24 hours maps 3. Derive climatological percentile values by hour of the day 4. Redefine the categorical thresholds (break-points) based on the new percentiles. 5. Update the website to accommodate these steps.

**Larry Hood, FS RO** – WFDSS handled a lot of requests this year, and it went well. His group provided support on many incidents, and when larger, longer duration incidents evolved, there was usually an onsite analyst assigned.

**Jeff Shelton, OCFA** – The topic of the need for GACC support with fire analyst work was discussed. Jeff provided a draft protocol to the group and there was much discussion about the Geographic Spatial Analyst (GSAN) position. The main emphasis of the discussion was the high amount of variability in the actual on the ground experience of folks with this technical specialist qualification. Credibility and lack of history using this position was discussed and compared with having a LTAN or FBAN perform these analyses. Tom R., said that he had tried to call in some of the folks from SoCal that said they would be interested in coming to the GACC and performing in this role, but both times the analyst were already assigned to another incident.

**Our next meeting date and place- November 12 and 13, 2014, at a location to be determined (TBD), McClellan Training Center, Sacramento or a location in LA County.**