



## NWCG Smoke Committee April 2013 Activity Update



### 2013 International Smoke Symposium

- Discussed potential vendor display and potential vendors.
- Steering committee — Call last week of April.
  - Symposium Chair – Pete Lahm, FS with members from: DOD, NASA, EPA, NPS (Mark Fitch), FS (Susan O’Neil), IAWF, JFSP- Smoke Science.
- Program committee — Call last week of April.
  - Chair - Tom Zimmerman, with members from EPA (Rick Gillam), NIST, FS, Academia and Gary Curcio.
- Funding
  - National Institute Food & Agriculture (NIFA) \$50K grant proposal submitted by IAWF.
    - Proposal tied to climate change, adaption, respiration, resiliency and tools.
  - NASA proposal for \$50k submitted by IAWF.
- Workshop Day on the Monday October 20, 2013
- Coalition of Rx Fire Councils have committed to a concurrent Board meeting Monday & Tuesday.
- Brian Finneran (OR DEQ) requested info on ARA’s & is interested in collaborating on the state level at the Symposium.
- Requesting promoting the ISS with other agencies and groups e.g. National Association of Clean Air Agencies (NACAA) and WESTAR — confirm NACAA distributed to Criteria Pollutant and Agriculture committee members.
- Emphasis is bringing together technical, management, and policy aspects of smoke.
- Vendor and display effort chairs are Brett Anderson/FS and Chuck Bushy/IAWF.
  - Call last week discussed recruiting vendors. IAWF happy with number of vendors signed up for the ISS.
- Call for papers out and effort to secure funding for internet capability planned.

### Upcoming Call Presentation Ideas

- Option for a Black Carbon Update Call
  - Sim Larkin and Bob Yokelson have been tracking this topic along with Wei Min Hoa, and it would be great to engage these three on a webinar on Black C and fire.
- Lessons Learned Center Webinar on AirNOW Nowcast
  - Invite Air Resource personnel from federal agencies.

### NWCG Business

- NWCG portal development site will be suspended. Elaine will pass Activity Updates and other documents to Tammy who manages the NWCG.gov website.
- FY2013--\$85K post Sequestration funding levels.
- \$21K for Phase 2 Wildfire and Air Quality Decision-making –decision and training effort for transportation safety, monitoring, and personnel exposure.
- FY2014 Projects and funding requests:
  - May 30<sup>th</sup> deadline for proposals.
  - Proposal for assessment of basic smoke mgmt course RX-410
  - Proposal for assessment of state/local/private Rx fire and smoke management training.
  - Seeking assistance in drafting or whether subcommittee can develop these ideas.
  - Proposal for 2014 ARA training workshop.
  - Need to brainstorm additional proposals—increasing fire and drought conditions, global weather changes, fire/wind/drought seasons expanding.
  - Smoke Managers—proposed “Go-to-Meeting” capability—ability for presentations.



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- NWCG Executive Board Meeting with SmoC Presentation on April 18<sup>th</sup>
  - Presentation 1 'Wildland Fire Air Quality Response 2012 and Beyond' – Pete Lahm
    - ARA position includes: monitoring, messaging, stakeholder involvement, & public info.
    - Question regarding AQ regulators:
      - Pete – Some states have more regulatory involvement than others (CA). This position (ARA) shows the importance in addressing smoke impacts.
      - Mike – Being a conduit of info from ARA to regulatory personnel is a great benefit.
  - Presentation 2 'NWCG Smoke Committee Subcommittees' – Pete Lahm
    - Discussion:
      - SmoC's training efforts includes safety, public, and first responders.
      - Training doesn't address all the needs and direct guidance needed.
      - Interaction with some committees challenging and Board direction needed.
      - Those maintaining guidance documents have pressure to include many aspects.
      - A checklist in the document which includes smoke is worth discussion.
      - Pete – SmoC could benefit from input from the Executive Board on developing clear messaging as part of the wildland fire management effort.
      - Present smoke guidance from a safety aspect to on-the-ground crews similar to sport guidance resulting from NFL concussion studies.

### **Wildfire Air Quality Response Program and Air Resource Advisor Efforts**—Pete presented at the Area Commander's and Incident Command annual meeting.

- Instructors for Area Command aware of air issues.
- Air quality and feedback regarding public health, transportation safety dialogue items indicating should be included in the training.
- Role of area command regarded as very important part of fire management.

### **Interaction/Liaison to the JFSP Regional Knowledge Consortia**

- Per Pete & Mark's discussion with Tim Swedberg & John Cissel on ISS support—contact Tim.
- A guest speaker from SmoC should speak with Knowledge Consortia about ISS since each consortia has their own webpage & university relationships to help spread ISS info.
- Claudia is on the NAU committee for Knowledge Consortium.
- Ed to communicate w/consortia to facilitate communications with SmoC.

### **Monitor Cache Update**

- Need to transport monitors to MetOne at the end of season for calibration.
- There are 17 monitors—MTDC is making new units available.
- New procedure is to have units calibrated after every deployment!

### **ARA Update**

- Mark and Pete had positive discussion with manager of IMET program.
- Plan to approach NMAC to set up an 800 number for requesting an ARA.
- Would like to collect information on contacts and resources from past ARAs for new ARAs.

### **NEI Status**

- Draft NEI released Apr. 8—May 8<sup>th</sup> is the final comment date.
  - Tesh Rao not anticipating a lot of changes.
  - GA may do a revision.



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- TX is 2<sup>nd</sup> highest wildfire emitting state—using measurements from SMARTFIRE2.
- Tesh worked w/state AQ, not sure what the level of engagement was w/state foresters.
- Provide a link for state forestry to get information (Pete sent message to Dan Smith-NASF).
  - Future NEI
  - Relationship w/State Foresters is becoming more established—next iteration of the NEI should have better communications.
  - Susan to draft an outreach one pager regarding 2011 NEI targeted at state forestry.
  - Include organic soils/ground fuels smoldering.
    - Currently not reported.
    - Provide useful emissions data.
    - Include in the comments section, urging foresters to report when info is available.

### AirNow Presentation 4/11/2013 – Phil Dickerson

- AIRNow update
  - Status
    - Year round 24/7 coverage real-time data (ozone/PM)—50 states, 6 Canadian Provinces, & 24 US National Parks.
    - State-of-Science information about air pollution health effects for public, media, and stakeholders.
    - Now includes a smoke section
    - Successful iPhone/Android apps
    - Public/private ownerships: The Weather Channel, USA Today, CNN, weather service providers, NOAA, National Weather Service.
    - System
      - Receive data from States, Locals, Tribes, NPS, and USFS.
      - Process the data via AirNow. Distribute the results to S/L/Tribes, internal (EPA), researchers, universities, modelers, app developers, emergency response, other federal agencies, and media.
      - Outputs: Website (4.8 mil hits/yr), Apps (100 installed/week), EnviroFlash, AQI forecast, television media, emergency response, epi studies, researchers, federal agencies.
- NOAA's Air Quality Forecast (AQF) products potentially going away due to sequestration.
- Future Directions
  - Citizen air monitoring.
  - NASA Research Opportunities in Space and Earth Sciences (ROSES) improving unmonitored areas.
- AIRNow Project Objectives—Improve current operational air quality maps/make available 24/7. Provide satellite data products—initially PM2.5, but plan to expand. Improve tools for air quality forecasting.
- Project to update “NowCast”—An approach to offer short-term information for pollutants w/no shorter-term standard. Used to calculate “real time” AQI for public reporting that gets replaced by actual NAAQS averaging period the next day.
- NowCast Timeline—internally evaluating several methods all of which focus on better capture of short-term spikes balanced w/use of 24-hour averages under stable conditions. Hope to have new NowCast algorithm in AirNow by June 30<sup>th</sup>.



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- Discussion:
  - EnviroFlash Application—Helpful for ARAs to know if dispatched area has EF—there are pages on the website with the information. Can set an account up in less than an hour. Louisiana used EF after BP spill for public information.
  - Fusing monitoring data w/satellite data—How is the information interpreted? Phil will send out a paper with information.
  - AirNow data should be more current with update from grant. Smoke managers would be interested in EPA following through with the special smoke section.
  - Possible Lessons Learned webinar for new NowCast rollout—Pete would support this.
  - Question regarding a website or resource that would be one place to go to get weather/smoke information. Pete can address this on trip to Boise to Geographic Area Coordination Center when he meets with them.
  - NOAA Air Quality Forecast Products—funding for AQ Forecast Model is in appropriation bill but is half of normal \$. Don't know how the lack of funding is going to affect the model. More than likely be a model, just not sure how it will be affected.
  - Interfaces with AirNow—Send real-time data to NOAA every hour who uses it to check the model since the fastest, most up to date real-time data comes from AirNow. NOAA AQ goes into AirNowTech and is distributed to state and local meteorologists who use the NOAA output to make forecasts, which is on the NOAA forecast page.
  - EPA and NOAA utilized a Memorandum of Agreement when the AQ forecast work began. EPA is responsible for informing the public of AQ and health and NOAA's National Weather Service is responsible for predicting AQ concentrations. Wanted to protect the role state & local forecasters to make the forecast from potentially having the NOAA forecast be the forecast. So, they can log into NOAA's forecast page and make their predictions using NOAA's information as a resource.
  - When NOAA indicated they may need to shut down the forecast page due to funding, they received a lot of comments regarding the need for this resource to remain. Shutting the forecast page down would not only impact AirNow, it would also negatively impact weather forecasting since many states rely on the model and it is more accurate. However, some parts of the country do not rely on it quite as much.
  - Forecasters look at models including NOAA forecast tools and make their own predictions and do much the same with AQ forecasting. ARA's have this same capability and will help to create a handbook or tool for making wildfire impacts and forecasts.
  - Susan—does that include the HYSPLIT forecasting? Phil and Pete believe the AQ forecast model and HYSPLIT and smoke products are separate. Pete will confirm this with NWS.
  - Gary—Considering a 3-hour rolling average for hourly data? Dynamic Weighted Fraction Method. Weighting each hour based on how current the hour is and how quickly the hours before it changed. So where PM is going up or down a small amount it would be even, but where the change is greater over a short time, those hours would be more heavily weighted. Will get a value that tracks the rapid change. This will appear like a 3 hour average in rapidly changing scenarios. NowCast scenario would show different PM amounts for different hours and it will show very quickly.

### **Exceptional Event Documentation Training – EPA sponsored Webinar April 30<sup>th</sup>.**

- The webinar discusses a website to help people prepare their exceptional event documentation, it is being hosted by Capita from Federation of Earth Sciences Partners.

### **Subcommittee Report-outs**



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### Smoke Technical Topics

- Good April call – SC, NC, SD, KS, & CA, Nez Pierce and Red Lakes Nation (MN Cherokee) represented. FL, WA, OR – absent.
- Summary of EPA requirements.
- Follow-up with Gary ARA workshop in Seattle.
- Discussed smoke & transportation hazards, firefighter killed NJ, and night time Rx burning.
- Dialogue on International Smoke Symposium.
- Susan's visual range/particulate exposure paper has been accepted into the Journal of Air and Waste Management.
- Planning short call during May

### Smoke Training

- Mark & Pete would like the subcommittee to organize a package proposing smoke and air quality content to the NWCG guide books currently in circulation and send thru SmoC to Board.
- April call – discussed the transportation safety and personnel exposure videos.

### Round Robin

- Dan – APCA – No acting Executive Director. Battelle no longer associated with the group.
- Gary – Met with Type 2 IC in NC. Reviewing roles and process. Supportive of outreach to Type 1 Teams in NC.
- Pete – Central OR Fire Leadership Team presentation by Ginny Reed and Tim Rogers (ARA trainees).
- The ICS-209 Fire report is going to changing this year, not sure of changes yet.
- Diana-EPA Phil Lorang gave an update on the EPA Fire Policy on NACAA Agriculture Committee
  - The Sequestration is slowing progress.
  - Will impact planned four regional meetings—travel restrictions.
  - On hold until after new fiscal year to see if funding/travel become available.
  - The Exceptional Events Rule Guidance is finished and will come out in the next week or so. They will provide notice on when the guidance is available.