



**National Wildfire Coordinating Group (NWCG)
Smoke Committee (SmoC)
Monthly Activity Update – November 2011**



SmoC NEWS:

Membership:

- **New member – Diana Hinson (Oklahoma, NACAA).** Diana is joining SmoC via NACAA and brings a south-central US perspective (Oklahoma). She works in the Rules and Planning section of Oklahoma DEQ and has been developing the Smoke Management Plan for OK, expecting to finalize by Spring 2012.
- **Departing Member – Tom Vorac (DoD)** has retired.

HYSPLIT Trajectories as part of NWS Spot Weather Forecasts

The SmoC Committee continued to coordinate with the National Weather Service (NWS) as NWS rolls out HYSPLIT, an experimental smoke trajectory forecast product available in conjunction with spot weather forecasts. Robyn Heffernan of the NWS is the point person for SmoC in this effort. There is widespread interest in HYSPLIT in the air quality and fire management communities and SmoC has identified and initiated several actions to build understanding of what HYSPLIT is, how it can be used and provide valuable information for air and fire professionals. After the NWS has reviewed comments, HYSPLIT will most likely become a regular feature offered with spot weather forecasts and SmoC's actions are focused on preparing for that scenario.

Coordination with NWS:

- SmoC and NWS, along with Predictive Services, FS Smoke FARM Team and FS Research have discussed HYSPLIT on calls in October and November. These calls have been extremely valuable for SmoC to develop a better understanding of HYSPLIT and NWS goals for the tool.
- The SmoC Committee feels that it would be beneficial to maintain HYSPLIT in test phase for an extended period- up to 12 additional months. Mark Fitch is the lead author on a SmoC letter requesting this extension.

Communication :

- After additional discussions with NWS, it was agreed to develop a HYSPLIT whitepaper. Thomas Dzomba will be the lead author working with a subgroup of SmoC (Jennifer Ridgeway, Shawn Ferreria, Susan O'Neill, Mark Fitch, and Mike Broughton). There is a definite need for guidance on how to use HYSPLIT and what the outputs mean. For instance, the paper will include a discussion of trajectories, both scale and distance and how trajectory can cover extensive distances nationally/internationally, and that trajectories are not intended for local impacts
- A one page briefing paper was also developed by the subgroup. This one pager describes the use of HYSPLIT, and where to find more in-depth knowledge.

Training:

- SmoC is in the process of identifying long and short term training needs and developing a cadre of experienced users to do a webinar describing the interpretation of outputs from HYSPLIT.
- Establish a cohort of experienced HYSPLIT users to evaluate current HYSPLIT instructional material and recommend improvements for future instruction and training.
- Demand for HYSPLIT is potentially very high. NWS has had over 90 requests during a time when prescribed fire season is winding down. Interestingly, over 50% of the requests were from SW Oregon.



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SmoC/IAWF Proposal for International Smoke Fire Summit

There are meetings for air quality professionals where wildland fire smoke is a topic, and likewise fire conferences address smoke as a subset of fire management. However, rarely, if ever has there been a national/international conference primarily focused on smoke from wildland fire. In recognition of the need for a professional meeting of this sort SmoC has teamed with the International Association of Wildland Fire (IAWF) in submission of a proposal to the Joint Fire Science Program 2012 funding cycle. The idea has been very well received by IAWF, NACAA, Prescribed Fire Councils and State agencies and the supported proposal came together under a tight timeline. The proposal deadline was November 18.

IAWF and SmoC propose an International Smoke Summit, targeted for the fall of 2013. This summit will be broad scale, ranging from social science to smoke chemistry to smoke weather. Some specific tracks may include emissions inventories, modeling, climate change and population and smoke management. There have been discussions regarding the inclusion of agricultural burning, and it remains a possibility. Led by Pete Lahm on the SmoC side, there was a flurry of activity in October and November to pull the proposal together. Key factors regarding the summit proposal include:

- Letters of recommendation from EPA (Rick Gillam), Coalition of Prescribed Fire Councils, Westar, FS Research (Sara McCaffrey) and NACAA.
- The NWS is very interested in the Summit, collaboration in its implementation has great potential (for example, HYSPLIT).
- While SmoC and IAWF are proposal leads, there is interest from NACAA, TNC & States as well.
- The proposal is consistent with the JFSP Smoke Science Plan, science delivery. If funded, SmoC will coordinate with the JFSP Smoke Plan Implementation contractors.
- JFSP is now reviewing proposals, funding decisions will be finalized in March 2012. A total of 235 proposals were submitted to JFSP for FY12 funding.

JFSP Smoke Requests For Applications (RFA) and Regional Knowledge Consortia

On November 22 John Cissel, JFSP Program Manager participated in the SmoC call. John presented a brief overview of JFSP followed by a detailed discussion focused primarily on 1) the RFA process and smoke/air quality related requests, and 2) regional knowledge consortia.

The JFSP is an interagency, interdepartmental program to solicit, fund, and further fire science research. It is a very applied program that's designed to get research to the field. There is a small administrative staff and a 10 member Interagency Governing Board. The JFSP budget was \$14 million in FY11 and will likely be \$13 million in FY12.

There are 2 smoke/air quality task statements in the 2012 RFA; RX PM standards and emission inventory (they received 7 proposals, 2 on Emissions Inventory and 5 on PM). Given the small number of proposals and current travel restrictions JFSP will put together one panel to review these 7 applications. JFSP has a recently completed smoke science plan and these task statements come directly from that plan.

Regional Knowledge Consortia

A 2008 JFSP program review recommended the focus of more resources on social science and delivering scientific information. To implement the second recommendation JFSP has funded 8 different regional consortia and is considering 6 additional proposals for the portion of the country not covered by the first 8. If all these consortia are funded, with the exception of the NE the entire country will be covered. The mission of the Consortia is to develop an understanding of what the regional fire science needs are, and promote the application and understanding of new science to the field. Two way information exchange is key to their success. The Consortia managers emphasis diversity in science application and a key goal is to strengthen relationships among scientists and managers.

Contact: Pete Lahm, SmoC Chair, US Forest Service // 202-205-1084 // plahm@fs.fed.us, pete.lahm@gmail.com
For additional information on SmoC go to: <http://www.myfirecommunity.net/Neighborhood.aspx?ID=279>



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SmoC and John Cissel discussed a variety of ideas on how SmoC can work with the Consortia, including:

- Developing a cohesive strategy for smoke for the Consortia
- Participation in the annual Consortia meeting or bi-monthly conference calls
- Through this interaction SmoC may assist the Consortia in the identification of smoke and air quality related science needs.
- The next JFSP Consortia call is Tuesday 1100MT 12/6. During that call John Cissel will discuss SmoC coordination with the leaders, assess common interests and potential for coordination in the future.
- John Cissel suggested that SmoC coordinate with the Smoke Science Plan Coordinators Al Ribeau and Doug Fox. SmoC members are in regular contact with Al and Doug and this will likely continue in the future.

WESTAR Meeting Report-out

On the November 3 call Dan Johnson reported on the recent Westar meeting. Overall, the meeting was primarily focused on wind/dust Exceptional Events Rule (EER) events with a small portion addressing fire.

It was well attended and included a presentation by Mike Ling of EPA OAQPS. This presentation was timely, and may be useful for states to review as we are currently in the 120 day comment period on the new ozone designations. The presentation contains some good maps and a timeline plan. EPA is currently working on the Ozone Implementation Rule.

The hourly standard for SO₂ is a big concern for states. EPA is relying on modeling data to fill gaps on non-classified areas as the SO₂ monitoring network is very sparse. Many in the states question this approach.

Westar proposes to go back to the Natural Event Policy (if it wasn't broke why fix it) and then modify it to cover other pollutants.

There may be future revisions to the Regional Haze Rule. It is unclear if fire will be part of the revision, if so SmoC members should be aware and prepared to engage in the process. States will also be engaging in the revision process, most likely from Air Quality departments or programs

Communication and Messaging

SmoC will continue to prepare and distribute monthly activity updates through NWCG, agencies, states and regional air quality bodies. We welcome any feedback on how this information can be best distributed, its usefulness and value to the field and leadership.

SmoC websites

The NWCG SmoC web page will be revised and improved. Changes will involve the creation of 3 subcommittee pages for Smoke Managers, Training and Technical Smoke Topics. Now is a good time to prepare the website for future growth, and a contractor is currently available to assist the process. The NIFC files have been moved from NIFC.gov/SmoC to new site and will be available when our site goes live. The site will mimic what is on the NIFC site and it will be possible to see what works and track use.

NWCG Business:

The SmoC Chair, Pete Lahm, will be attending the all chairs NWCG Executive Board meeting in Boise on Feb 13-15th.

The interagency Fuels Committee will be funding the completion of the Smoke Management Guide and will be reviewing the draft guide in 2012. The Fuels Committee and the Fire Use Subcommittee will be briefed by SmoC regarding the Smoke Management Guide process and content

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Funding is difficult to obtain for course development, and one casualty of the reduced 2012 budget is the lack of funds for the 4 hour online wildfire decision making course submitted by SmoC. This loss of funding is reflective of the reduced funding in general for NWCG. SmoC considers this decision making support course very important and is now looking for alternative ways to fund completion.

Briefing Papers:

- The Current and Upcoming Issues Briefing Paper is a time and issue oriented paper, highlighting issues that are of significant importance now and/or in the near future. This paper, prepared by Kerry Rodgers and Pete Lahm, includes a discussion of General Conformity.
- A Technical Note addressing Basic Smoke Management Practices has been completed by Susan O'Neill and Pete Lahm, see: <http://www.airquality.nrcs.usda.gov>.

Briefing Papers in Process:

- * PM NAAQS Final Policy Assessment BP
- * Carbon Monoxide Exposure Levels and Impacts
- * Fire Fighter Smoke Exposure Briefing Paper
- * Managing Vehicle Traffic in Smoke Briefing Paper
- * Coordination and Communication on Wildfires briefing paper
- * Fire Weather Point Forecast Matrix Briefing Paper
- *(NEW) Wildfire Air Quality Index Levels
- *(NEW) Ozone NAAQS Standard
- *(NEW) HYSPLIT Trajectories as part of NWS Spot Weather Forecasts

SmoC Subcommittees:

Technical Smoke Topics Subcommittee

- There are authors assigned and committed to almost all chapters of the Smoke Management Guide and 3 chapters are ready for review.
- One of the chapters has been tentatively changed from fire use planning to fire planning to go into programmatic issues. This change will be carefully evaluated by the steering committee and subcommittees before Guide finalization.
- Emissions: the Task Team is working with Smartfire v.2 and there is a SE states emissions meeting in February.
- SmoC comments were submitted to the Interagency Prescribed Fire Guide revision group. These comments included a recommendation to include the Basic Smoke Management Practices information into an appendix.

Training Subcommittee

- The Training Subcommittee is reviewing the IQCS report that a contractor has prepared.
- The Smokapedia is very close to completion and will be available through the NWCG smoke portal.
- On a Dec. 5th call the Training Subcommittee will discuss updating Smokepedia, Draft 2 of the IQCS report, and a web page for smoke modeling tool descriptions

Smoke Managers Subcommittee

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- The Smoke Managers Subcommittee conducted one conference call in November, with a topic of communication/coordination between the fire and air personnel. As a result of this call the Subcommittee is compiling a summary of what information currently exists.
- On the November call Rick Gillam (EPA, R4) gave an update on NAAQS and briefly talked about fire policy. Being new information for the state representatives a good discussion followed.
- The Subcommittee has had some discussion regarding regional sub-groups. It may be premature to establish these groups, but a regional contacts list is likely.
- The Subcommittee is developing a pamphlet describing frequently asked questions about smoke; questions that the public would be likely to ask.

Round Robin:

Pete Lahm participated in a RX Fire Council Leadership Meeting in Colorado. RX councils exist in over 50% of the states and the National Council is a 501 (3) non-profit group. Pete and Susan O'Neill are interacting with the group to include smoke and air quality and discussing NRCS involvement. Their website is www.prescribedfire.net. The Cohesive Strategy Phase II signed off by the Wildland Fire Leadership Council was discussed and all three regions in Phase II identified smoke/air quality as an important issue for the future of fire management. Phase 3 of Cohesive Strategy is beginning now.

Gary Curcio attended the Pains Bay Fire Review. The review highlighted what went well regarding smoke management, and there was a lot of good smoke management activity on this extended duration ground fire. In the future there is a need for dedicated smoke management staff on this type fire and we will need monitoring units in the field.

Mark Fitch informed SmoC that \$30K has been released for use on the Smokepedia and website updates.

Upcoming Conferences and Meetings

- AMS 9th Symposium on Fire and Forest Meteorology, October 18-20, 2011, Palm Springs, CA <http://www.ametsoc.org/MEET/fainst/20119fireforest.html> (meeting materials to be posted sometime)
- American Geophysical Union (AGU) Fall Meeting, December 5-9, 2011, San Francisco, CA <http://sites.agu.org/fallmeeting/>
- Wildland Fire PM Emission Factor Workshop, Feb 7, 2012, Atlanta, GA
- Southwest Fire Ecology Conference, Feb 27 - Mar 1, 2012, Santa Fe, NM <http://humboldt.edu/swfire/abstract.html>
- 3rd Human Dimensions of Wildland Fire Conference, April 17-19, 2012, Seattle, WA www.iawfonline.org