National Wildfire Coordinating Group (NWCG)
Smoke Committee (SmoC)
Monthly Activity Update – January 2012

SmoC NEWS:

Communication and Messaging
Interagency talking points are being developed for 2012 wildfire season and the goal is to finalize them in March. SmoC is discussing providing one or two talking points regarding air quality/smoke to the messaging. The 2011 talking points had a message about clean air and how Rx fire/fuels treatments help manage smoke in regards to wildfire. Messages are tied to the Cohesive Strategy.

Basic Smoke Management Practices (http://www.airquality.nrcs.usda.gov select from "Highlights") Stu Hoyt, Pete Lahm and Susan O'Neill will be refining a Basic Smoke Management Practices (BSMP) presentation to partner with the FS/NRCS BSMP Technical Note for RX-410 coordinators, burn boss refresher courses, and other trainings/presentations.

Ozone Non-Attainment Area Designations – Map Available
Pete Lahm worked with EPA and FS GIS specialists creating a map of federal lands overlaid with the new and existing ozone nonattainment areas (NAAs). Of the approximately 145 million acres within the new NAAs, 99 million acres are non-federal and BLM has the most Federal lands at 20 million acres, followed by the FS with 15 million acres. A new policy relevant background of 50 ppb is being discussed and final designations are slated for Spring 2012. SmoC will be working on a briefing paper on this topic later this Spring. The map is available on myfirecommunity at:
http://www.myfirecommunity.net/NeighborhoodLibrary.aspx?ID=279 (in the Public Files->Briefing Papers folder).

Linking Visual Range with PM2.5 Concentrations and Air Quality Index – Whitepaper
Mike Broughton raised an issue to the group that the National Weather Service (NWS) in South Carolina is investigating applying a method that links visual range with PM2.5 concentrations and thus the Air Quality Index (AQI) to assist in messaging to the public about wildfire smoke impacts. SmoC is very concerned about this because South Carolina can be a very humid area and the methodology should not be applied in environments with greater than 65% humidity. A whitepaper is being developed and experts in the field of smoke and visibility are being consulted.

HYPSLIT Trajectories upon Request in National Weather Service Spot Weather Forecasts
Work continues with the SmoC-initiated interagency Working Group to support the National Weather Service (NWS) trial capability of providing HYSPLIT Trajectories with Spot Weather Forecasts. The NWS officially extended the trial period for another year (until 12/31/2013) and a one-pager is being drafted that can be provided with the forecasts explaining the information that the trajectories provide. Approximately 15 people across the US have been identified as subject matter experts (SMEs) who will be go-to people to help answer user questions. Training needs are being determined and a training webinar is being discussed.

International Smoke Symposium 2013 – Successful JFSP Funding
SmoC and the International Association of Wildland Fire (IAWF) were awarded $15K from the Joint Fire Sciences Program (JFSP) as seed money for an International Smoke Symposium. This was in response to a proposal submitted as part of the Fall 2011 JFSP request for applications. SmoC will be working closely with Al Riebau and Doug Fox - JFSP consultants on smoke issues. More funding commitments will be needed. A subcommittee or task team will be formed that will work on getting other partners involved and in creating the Symposium agenda. Potential partners are EPA, National Association of State

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Foresters (NASF), National Weather Service, NASA and National Association of Clean Air Agencies (NACAA). This can also be an opportunity to capitalize on the State Department black carbon initiative and may open the door for international partners including Agricultural Research Service (ARS), Foreign Agriculture Service, Arctic Council, etc. Given travel and budget restrictions, innovative methods of electronic participation will be actively investigated. Send ideas, thoughts, and expressions of interest to Pete Lahm (contact info below).

Online Wildfire, Air Quality and Decision-Making Course – Funding Awarded by NWCG
SmoC received $60K from NWCG to develop a 4-hr online wildfire, air quality, and decision making course and is discussing options on how to develop this course.

Fire Fighter Smoke Exposure
The NWCG Risk Management Committee (RMC) was tasked by NWCG to investigate fire fighter smoke exposure. SmoC has a great interest in this topic and Joe Domitrovich of MTDC (FS) briefed SmoC last Fall where additional thoughts and comments not covered in the draft report were expressed. The report and recommendations were presented and accepted by the NWCG Executive Board in late October. SmoC is still concerned that the report focuses only on carbon monoxide (CO) exposure, and does not address silica, particulate matter or other pollutants, compounding effects of multi-pollutant impacts, long-term exposure, monitoring in base camps, conflicting exposure studies, and the many CO exposure limits set by OSHA, NIOSH, ACGIH, and the NAAQS. Gary Curcio has shown interest in working with Pete Lahm and Susan O'Neill to develop a briefing paper.

SmoC Subcommittees:

Technical Smoke Topics Subcommittee

- *Smoke Management Guide*: The Smoke Management Guide Steering Committee will have a face-to-face meeting in March in Seattle. Many chapters are nearing completion.
- *Retrospective Emission Inventory Task Team*: The Task Team had a call before the Holidays to discuss last minute improvements to the EPA 2008 National Emission Inventory (NEI) for fire. The FS AirFire Team and Sonoma Technology Inc (STI) worked over the holidays to successfully provide these improvements to EPA by the 1/3/2012 deadline. Improvements included classification of all fires (previously approximately 65% of the fires were unclassified) and fixing duff/organic fuel consumption which had been resulting in emissions of many orders of magnitude too high. This work was funded by the Forest Service.

Training Subcommittee

- *Membership:* Two new members have joined the SmoC Training Subcommittee; Kipp Morrill (FWS, CA), and Trent Proctor (FS, CA). Appreciation expressed to Josh Hyde for all his timely and hard work for this Subcommittee.
- *NWCG Smoke Training Assessment:* The latest version of *Fire personnel positions with smoke management training within the Incident Qualification and Certification System (IQCS) report (the "*IQCS Report") has gone to the Training Subcommittee for comment. This report will be shared with the other NWCG Committee Chairs at the February All-Chairs meeting. This IQCS Report complements the already completed report *An Assessment of NWCG Wildland Fire Training and Position Requirements for Smoke and Air Quality*. A third document on wildfire and smoke management training and awareness needs and recommendations will be brainstormed next by the Training Subcommittee as the final piece of this project. This sets the stage for a

cultural change on how the fire programs address smoke training and smoke duties in wildland fire personnel positions.

- *Smokepedia:* Smokepedia terms/definitions update is being finalized.

Smoke Managers Subcommittee

The Smoke Managers Subcommittee had a conference call 1/31/2012. Topics were Communication and coordination between fire and air agencies and a national listing of smoke managers organized by state.

- Communication Plans from California and Montana/Idaho served as the basis for the communication and coordination discussion. Warm winter and drought conditions coupled with a low water table have created a situation in North Carolina and across the south that will result in ignition of organic matter in soils. The National Fire Danger Rating System is surface-oriented and does not address organic soils resulting in inaccurate (lower) fire danger levels in drought maps. Snow deficiency will impact these conditions and impact fire and air quality this year. A repeat of 2011 should be expected in 2012. Additionally, there is not much snow in the western US creating a situation for potentially a larger fire/smoke year in that region as well. In order to be prepared, smoke protocols and communication plans need to be in place.
- Claudia Standish organized the Smoke Management contact spreadsheet by state and is moving forward on the verification of the contact info. The feedback is positive on this effort and there is interest in making it a comprehensive contact list that is available on a broader scale. The contact list could be useful for longer duration fires and possibly utilized within the wildfire fire decision support system (WFDSS).

Round Robin:

- Issues regarding the FWS inventory for greenhouse gases: The final product likely under-estimates peat fires. Several recommendations were given on who Mike Broughton could contact.
- Lake Michigan Air Directors Consortium (LADCO): Sim Larkin (FS Airfire Team) and Sean Rafuse (STI) gave a presentation to LADCO on SMARTFIRE2. LADCO is interested in inputs and choices with in SMARTFIRE 2 in order to get better numbers in the fire sector for modeling Canadian emissions.
- NRCS: NRCS is working with EPA on an *Agricultural Air Quality Conservation Measures: Reference Guide* for states. A chapter on wildfire prevention and smoke management will provide conservation practices to help prevent wildfire and manage smoke.
- WESTAR: Dan Johnson recommended to the WESTAR Directors that a session should be added to the agenda to present information about fires and the air quality their meeting on April 16, 17 or 18. Pete Lahm would be giving the presentation. Following the WESTAR meeting, the Western Regional Air Partnership meeting is scheduled for April 18.
- Pete Lahm met with Fire Chiefs, Managers, and Supervisors (CMS) at the NASF Meeting. Thirty to forty states were in attendance as well as FS, Interior, and other agencies.
- Diana Hinson (OK) is wrapping up the voluntary smoke management plan for the state and is working with ODAFF. She is interested in finding other parties of interest to share information. The list so far includes: NRCS, NWS, ODOT, Oklahoma Prescribed Fire council, OK Fish & Wildlife, Forestry, Parks, Department of Health, OSU Extension Service, Volunteer Fire Departments, OK Fire Department, Adjacent States, and the TNC Osage Prairie Preserve.

SmoC Accomplishments

2011 Phase I of the Smoke Management Guide Revision – Funding received

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2011 Smokepedia and online course updates – Funding received
2011 Report – An Assessment of NWCG Wildland Fire Training and Position Requirements for Smoke and Air Quality
02/2012 Report – Fire personnel positions with smoke management training within the Incident Qualification and Certification System (IQCS)
12/2011 HYSPLIT Trajectories in Spot Weather Forecasts – Extension of deadline
01/2012 Retrospective Emission Inventory Task Team – SMARTFIRE2 improvements to the 2008 EPA NEI
01/2012 International Smoke Symposium in 2013 – Funding received from JFSP
01/2012 Online Wildfire Course – Funding received from NWCG

SmoC Completed Briefing Papers – See myfirecommunity Neighborhood Library (url below)
Posted 5/11/2011 - EPA GHG EI BP
Posted 5/20/2011 - SmoC March Seattle Meeting Summary
Posted 5/26/2011 - Consideration of Smoke in Wildland Fire Decision-making and Operations BP
Posted 6/06/2011 - Smoke Monitoring Kits
Posted 8/18/2011 - Wildland Fire Smoke Messaging and Perception Webinar
Posted 8/18/2011 - NWCG Smoke Assessment
Posted 9/02/2011 - 2005 National Air Toxics Assessment (NATA) Briefing Paper

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
  Materials posted at: http://ams.confex.com/ams/9FIRE/webprogram/9FIRE.html
- Wildland Fire PM Emission Factor Workshop, Feb 7, 2012, Atlanta, GA
- NWCG All-Chairs and Executive Board Meeting, Feb 14-15, Boise, ID
- Southwest Fire Ecology Conference, Feb 27 - Mar 1, 2012, Santa Fe, NM http://humboldt.edu/swfire/abstract.html
- WESTAR Spring Business Meeting, April 16-17, 2012, Seattle, WA
- 3rd Human Dimensions of Wildland Fire Conference, April 17-19, 2012, Seattle, WA www.iawfonline.org
- EPA International Emissions Inventory Conference, August 13 - 16, 2012, Hyatt Regency in Tampa, Florida

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