

Federal Fire Working Group Meeting

Federal Emergency Management Agency/U.S. Fire Administration
16825 South Seton Avenue, Emmitsburg, Maryland 21727

June 20, 2013 Time: 9:30 a.m. – 11:30 a.m.

Call in#: 1-800-320-4330, PIN#: 348651

ATTENDEES

Carl Glover
Vivian Green
Ross Mowery
Kevin King

ORGANIZATIONS

NAVY
FAA
EPA
MARINES

PRESENTERS

Nelson Bryner, NIST
Gordon Sachs, U.S. Forest Service
Everett Hinkley, USDA, Forest Service
Shivani Mehta, CPSC

USFA ATTENDEES

Ernest Mitchell
Glenn Gaines
Alex Furr

Administrator, U.S. Fire Administration
Deputy Administrator, U. S. Fire Administration
Director, National Fire Programs Division
(NFP), USFA
Fire Program Specialist, P&I/NFP

Rebecca Ryan

Ernest Mitchell, Administrator, U. S. Fire Administration, welcomed all to the meeting and expressed his interest and appreciation for being part of this working group and how he appreciated what the group was doing. He looked forward to hearing from the various presenters.

Roll Call was taken followed by the first of several presentations.

The following presentations were provided:

Nelson Bryner, Group Leader
Wildland Urban Interface Fire Group
Fire Research Division,
Engineering Laboratory, NIST

Presentation: *Top Five Research Needs for Wildland-Urban Interface Fire: Workshop Summary*

Mr. Bryner provided an overview and background on wildland-urban interface (WUI) fires stating that approximately 100,000 wildland fires occur each year with approximately 7 million acres burned. In addition, about 3,000 homes are lost in an “average” year, noting that 3,600 homes were lost in Southern California in 2003 and 600 homes were lost in Colorado in 2012. The total cost to fight these fires was \$14 billion in 2009. So far this year in Colorado alone over 400 homes have been lost in the Black Forest fire. Mr. Bryner said it is not the single home ignition that is the problem but multiple ignition of homes simultaneously that is the issue.

Mr. Bryner stated to prevent the ignition of homes in WUI communities three things should be done: characterize the exposure; develop standard testing methods representative of exposure conditions; and incorporate exposure into building and fire codes. Wildland urban interface fires present unique challenges including wind and humidity, vegetation types and terrain. Also, there are no proven WUI firefighting methods and no national best practices for WUI fires; there are wildland or structural firefighters, but no wildland-urban firefighters.

Nelson also highlighted the Top Five WUI Research Needs; they are:

- harden building structures;
- specify representative performance standards/needs;
- understand ignition phenomena;
- education; fuels management; and improved tools for post-fire evaluation (all tied for 4th); and
- attack of fires—improved effectiveness, resources, technology, develop standards for unified command.

The Summary report, *Wildland-Urban Interface Fire Research Needs*, is available on line at: <http://dx.doi.org/10.6028/NIST.SP.1150>

**Gordon Sachs, Acting Chief
Disaster & Emergency Operations Branch
U.S. Forest Service
Fire & Aviation Management**

Presentation: *2012 Fire Season Summary and 2013 Fire Season Outlook*

Mr. Sachs provided a detailed and informative overview of the 2012 fire season noting that in 2012 the number of fires (67,774) was slightly below the normal 10-year average of 74,918, while the number of acres burned was 9.326 million...the most since 2007. The southeastern quarter of the country had 46% of the fires in 2012 and the northeastern quarter of the country had 16% of the fires, while combined those two areas had only 10% of the total acres burned. Almost two-thirds of the acres burned in 2012 occurred in the northwest quarter of the continental United States, while only 20% of all fires occurred there. There were 1,270 large or significant wildfires reported in 2012, over half of which occurred in the northwest quarter of the country. Fifty-one fires exceeded 40,000 acres burned.

Gordon stated that wildland and structural firefighting resources can be mobilized through the national firefighting mobilization system to/from anywhere in the county between 24-48 hours. For Hurricane Sandy, 15 incident management teams and 43 hand crews from 17 states were deployed.

Currently, the 2013 fire season has seen just under 20,000 fires which is lower than this time last year, and less than one-half the number of acres have burned compared to this time last year. The potential for significant fires is above normal in California, New Mexico, Arizona, Nevada, Utah, and Colorado as these areas remain extremely dry. The potential for significant fires remains somewhat below normal in the southeast. The outlook for July and August indicate a

continuation of these conditions, with an increased potential for significant fires spreading northward into Oregon, Idaho, and Montana, but diminishing in Utah and Colorado.

Everett Hinkley, Program Manager
National Remote Sensing Program
USDA Forest Service

Presentation: *National Remote Sensing Program*

Mr. Hinkley explained that the USDA Forest Service has its national headquarters in Washington, DC but they also have 9 regional offices throughout the country. The Forest Service owns and operates 24 aircraft and helicopters and they have contracts with over 800 aircraft and helicopters annually. Some of their mission areas include: fire surveillance, air attack, delivery of smoke jumpers, aerial delivery of retardant and water, and natural resource management.

The Automated Modular Sensor (AMS) is a \$2 million dollar sensor gifted to the Forest Service from NASA: first test flight data for AMS on Citation aircraft was in March 2013. A NASA-USFS AMS workshop was held in April at NASA AMS Research Center. The primary mission of the Cessna Citation Bravo is infrared fire mapping which takes place during the fire season, which normally runs from April-October.

The output data products that are part of the AMS product suite include: daytime fire with hotspot detection; night time hotspot detection; Burned Area Emergency Rehabilitation (BAER); Fire Radioactive Power (FRP); color infrared (CIR); and customized products.

Everett mentioned that some future possibilities for this national remote sensing program include: the use of AMS on 144Z in off-season; surge aircraft (TBD) to cover scheduled and non-scheduled maintenance for NIROPS; support incidents in times of very heavy activity; support non-fire imagery missions, reimbursable projects with AMS or other available sensors and new sensor testing. However, these possibilities are a bit constrained with 2 dedicated aircraft.

Shivani Mehta, P.E., Project Manager
Directorate for Engineering Sciences
Consumer Product Safety Commission (CPSC)

Presentation: *Reduced Ignition Propensity (RIP) Cigarettes*

Ms. Mehta explained that the CPSC does not have statutory authority to regulate cigarettes, but it can regulate residential soft furnishings and other consumer products that may be involved in cigarette-ignited fires. From 2004 to 2011, all states passed similar laws to require cigarettes to be of “lower” ignition strength, also known as “fire safe cigarettes” or reduced ignition propensity (RIP) cigarettes.

A RIP cigarette is one that is expected to self-extinguish when left alone. Typically, the paper along the RIP cigarette's tobacco column has two or three thin bands of less porous paper. Samples of RIP/non-RIP cigarettes were collected from 13 cigarette packagings for evaluation. Evaluations indicated that RIP and non-RIP cigarettes of each packaging were not significantly different except for the banding.

Ms. Mehta advised that CPSC contracted testing of the 13 packagings to the requirements of the states' legislation. The test results indicated the RIP cigarettes were significantly less likely to burn their full lengths when tested on a filter paper substrate according to the test method set forth in ASTM E2187-04, "Standard Test Method for Measuring the Ignition Strength of Cigarettes." Having learned that the RIP cigarettes in the sample set of 13 packagings performed as expected on filter paper, the next phase of the project was to evaluate the smoldering behavior of these non-RIP and RIP cigarettes on soft furnishing substrates. Mattress and mattress pad substrates were chosen because the CPSC currently regulates these products for cigarette ignition resistance. Four different mattress and mattress pad substrates and four different pairs of RIP/non-RIP cigarette packagings were selected from the original 13 tested per ASTM E2187-04. A statistical analysis of the data, designed to determine whether mattresses and mattress pads smoldered in the presence of a cigarette, found that the cigarette packaging, the cigarette's location on a substrate, and the substrate itself, are all factors in whether or not the mattress or mattress pad substrate smoldered.

Further analysis indicates that differences between the ignition propensity of RIP and non-RIP cigarettes, when measured on filter paper substrates per ASTM E2187-04, do not predict similar differences between the ignition propensity of the same packagings of RIP and non-RIP cigarettes when measured on the mattress and mattress pad substrates included in this study. Whether a cigarette – RIP or non-RIP – burned its full length or extinguished before burning its full length was not predictive of smoldering behavior on the substrates. In addition, RIP cigarettes of different packagings did not exhibit the same results on each of the mattress and mattress pad substrates brands.

Results of this study suggest that it is premature to conclude that use of the RIP cigarette alone will greatly reduce the threat of unintentional fires ignited by cigarettes involving mattresses or soft furnishings, including mattresses and mattress pads that meet the current CPSC mattress flammability regulation.

**The next FFWG meeting is tentatively scheduled for the November/early December timeframe. We would welcome a ½ day off-site meeting [if travel/sequestration is not an issue] in the Washington metro area for ease of commuting and are looking for volunteers to host the gathering. Please notify Ms. Ryan if you are willing to host this meeting.

