

National Wildfire Coordinating Group
Fire Environment Working Team
Meeting Notes

Boise Interagency Dispatch Center Conference Room
March 6-8, 2007

Day One – Tuesday, March 6, 2007

Welcome & Introductions

- Introductions: The group went around the table and introduced themselves; new members include Ray Dampier, the new representative for the Western States and Robyn Heffernan, the new Chair for the Fire Weather Committee, Larry VanBussum, representing the Fire Behavior Committee and the National Weather Service. Eric Christensen is the new representative from the Fuels Committee.

Attendees: Paul Schlobohm, Tom Wordell, Joe Kennedy, Pete Lahm, Larry Bradshaw, Wayne Mitchell, Dennis Dupuis, Robin Heffernan, Ray Dampier, Larry VanBussum and Lani Williams.

Guests: Herb Arnold, Mary Tabor, Mike Barrowcliff, Kelly Redmond, Greg Jensen, John Noneman, Eric Christensen, Howard Roose, Jamie Fojtik, John Szymoniak

- Logistics information shared
- Agenda discussed and expectations established. The Agenda was again organized around the Strategic Plan. Time has been set aside in the Agenda for Breakout sessions to work on pending tasks.

Approval of Meeting Notes

The notes from the Athens Meeting as well as the November and January Conference Calls were approved.

Action Item Review

The Action Item Tracking Table was reviewed and updated.

- Task 48 - in progress; expect that it will function in the background server this summer. Models are still being validated.
- Task 49 - Tasked to the Fire Behavior Committee for endorsement and to develop an implementation plan.
- Tasks 56, 58 and 72 - The letter will be finalized at the 2nd Fire Behavior and Fuels Conference in Destin, Florida to present at the NFAEB April Meeting.
- Tasks 98, 99 and 102 - Letter to FCAMMS will be finalized at the 2nd Fire Behavior and Fuels Conference in Destin, Florida.

Strategic Plan Task Review

Actions related to the strategies were reviewed:

Priority 1 – G1S1: Identify and Prioritize existing and emerging technologies

This topic will be covered after lunch with a presentation by Mary Tabor.

Priority 2 – G3S1: Utilize an iterative process to assess user needs, evaluate products, and monitor

This tasks associated with this goal are related to the work that is being accomplished with OFCM

Paul shared some of the preliminary responses from the OFCM Survey results that are currently being analyzed. Those results need to be summarized and returned to OFCM by March 16.

This strategy will also tie into other available surveys. The NPSG Survey is still undergoing the review process and is currently not available.

Priority 3 – G2S1: Establish partnership with research and development

- Action Item: Paul will contact Eli regarding UCARS and the meeting in Norman, OK.

Priority 4 – G3S2: Promote spatial database system that can produce a variety of decision products from core underlying environmental data (fuels, weather, topography) (FENWT Priority Strategy 4)

Proactively engage in the Enterprise Architecture efforts to ensure that FENWT requirements and recommendations for decision support are addressed.

Paul shared the document and flowchart related to the Core Blueprint and Enterprise Architecture. This identifies the framework for interagency wildland fire business with the intent of creating a virtual single agency for wildland fire.

Priority 5 – G1S2: Develop a plan to integrate science into application

Paul has had conversations with Tim Swedberg and John Cissel at Joint Fire Science Program; this message is consistent with what they are hearing from other groups as well.

This strategy may need reworded.

Priority 1 – G1S1: Identify and Prioritize existing and emerging technologies

Task 1a was tasked to Dennis Dupris, which he tasked to Mary Tabor. She compiled a Fire Environment Software Application Inventory. In order to accomplish this she made several assumptions including defining Fire Environment and Software Application. With this she identified 38 programs. She then developed a spreadsheet to compare them by type, spatial scale, supporting training, system requirements, level required to analyze data as well as a brief description of the application. As was stated before, there are other groups asking for the same information. The Pacific Northwest Fire Science Lap produced a General Technical Report (GTR) which identified programs as well and the JFSP has awarded a contract to Carnegie-Melon to address this topic. Any findings in this area are too dynamic to remain in the printed form; value to develop a data based that can be queried similar to available web searches.

- Action
 - Mary will send the document out electronically for review. Reply back in two weeks.
 - Mary will contact David Peterson concerning the future plans for the GTR – if it is to be made available electronically.
 - Read the GTR from the Pacific Northwest to discuss on the April Conference Call; including the potential for the information to be available electronically using a Travelocity/Google mechanism.

- Think about the JFSP Task and respond back to Paul in two weeks. Paul will coordinate with Tim Swedberg.

Priority 3 – G3S4: Provide business oversight and technical expertise for Fire Environment-related NWCG training development and deliver
Funding for training/development needs to for through the Training Working Team; funding was received for workshops

Meeting Cycles and future dates

The driving factor to realign meeting dates is the suggestion from NWCG that the Working Groups schedule their meetings at the end of January to coincide with the NWCG Meeting. This would then impact the Committee Meetings. Paul also expressed the possibility of virtual meetings and/or transitioning to a different schedule, expanding the Conference Call holding shorter meetings more frequently with the use of virtual meetings.

Decision: Keep current meeting schedule and explore opportunities for virtual meetings. One meeting a year will remain in Boise. Consider Asheville, North Carolina as a possible sight for a future meeting.

Spring Meeting:

June 12-14

Norman, Oklahoma

Agenda - schedule presentations for the morning - three a day

Tour of the Oklahoma Climate Prediction Center - Larry Bradshaw will make the contacts.

Oklahoma Mesonet

Storm Prediction Center

Winter Meeting

December 4-6, 2007

Reno, Nevada

2007 Budget

Paul reviewed the 2007 budget. When requesting funding it is important to keep in mind what the money is going to be used for and who will be spending it. Committees need to come forward with projects to submit for funding.

Round Robin:

Eastern States - Joe Kennedy

There was a workshop in Ohio to introduce the crosswalk for the 13 to 40 Fuel Types, which was well received

Fire Danger Committee - Larry Bradshaw

The Fire Danger Committee met two weeks ago in Salt Lake City.

FAMWEB will be moving to the new server the first part of April. All applications that run under FAMWEB will be moved under a new architecture, which will improve the capabilities of the data warehouse.

WFIS has a new Lifecycle Plan and the new Project Manager is Matt Jolley.

NFDRS alternate portal is moving ahead, the Fire Danger Committee still needs to set up a gate keeping process. This will allow weather information to be imported from alternate RAWS stations. Florida and Oklahoma sites will be considered.

Live Fire Moisture Database was demonstrated at the meeting. The database is modeled after the existing Great Basin system. This project is funded by NPSG and is being developed by Chuck Bucher. The host site is not finalized, but options include the Fire Lab and the Remote Sensing Application Center (RSAC).

Training - Revisiting the need for a basic NFDRS Course, to provide that basic level of knowledge in an automated CD or webbased.

Fire/Air Issues Coordinating Group - Pete Lahm

Strategy for Engaging Fire in the Smoke Regulatory Process

There is a tightening of standards under the Clean Air Act.

A priority matrix is being developed to help engage the fire program in the smoke regulatory process through the utilization of a cadre of specialists.

A briefing paper will be developed for management to disseminate.

Day Two – Wednesday, March 7, 2007

Interagency RAWS Network - Herb Arnold

There are 2400 stations in ASCADS, of which approximately 2000 are active. There are approximately 1600 stations that maintain NFDRS Standards; which implies an active maintenance program, not just having the equipment to measure the required parameters. In addition there are the Portable/Fire RAWS which use radio alerts to pass information to the Incident Management Teams. In the future this information will pass digitally.

NIFC provides:

- 95% Depot Service
- 25% Field Service - BLM and some BIA
- Dispatch Fire RAWS and Project RAWS
- BLM-IRM - 98% Telecom Support/ASCADS
- Interagency RAWS Partners Group - Policy and Planning

RAWS data directly supports:

- Wildland Fire
- RX
- Fire Use
- NFDRS...

Future Development

Beginning April 1 the RSFWSU will function under a MEU as part of the reorganization process. This transition should be transparent to the data user.

Additional data quality/quantity requirements as a result of the OFCM Fire Weather Survey
New Technology Influences

The question of how many RAWS are needed was generated by budget/funding concerns. There was a perception that the RAWS Network growth was perceived as uncontrolled. There was no real study to determine fire weather needs.

RAWS network growth is a mix of local control using local funding in the acquisition of RAWS to meet local needs and central funding for RAWS maintenance.

Costs:

- 2200 stations x 12,000/station = \$24.6M
- Yearly (depot maintenance costs)
 - 2200 stations x 1100/year = \$2.42M/year
 - With field maintenance of \$5-6 M /year

Fire RAWS

NIFC dispatches Fire RAWS to fire and all risk incidents. There are 42 kits currently available with plans to increase that to 50. The standards are being developed by the Fire Weather Committee.

WIMS, Data Warehouse, WFAS - Mike Barrowcliff and Larry Bradshaw

WIMS is currently being evaluated for a reengineering; budget requests are proposed for 2009. This corresponds with the refresh/reengineer proposal study for ASCADS. There is potential for the two systems to be evaluated together.

A Task Group is being formed to look at all applications that are managed under the Fire Danger Committee. Russ Gripp is the Chair and he is still looking for participants.

WIMS is one of eight applications that is currently hosted on FAMWEB via a webportal.

Improved infrastructure for all systems that are hosted at Kansas City will allow the hardware platform to logically partition itself. An alternate "hotsite" will be located in Beltsville, Maryland to allow for more robust disaster recovery. The Data Warehouse will also be incorporated into this system and will share COGNOS with other systems at Kansas City.

FireFamilyPlus - Larry Bradshaw

Version 4 is still being tested. Larry will have a beta version available at the 2nd Fire Behavior and Fuels Conference in Destin, Florida.

ASCADS

The purpose of ASCADS is to download near realtime weather observations from RAWS. It provides data. It is functional but is becoming obsolete and there are plans to review the system and funding for a refresh/reengineer. Some functionality will be taken over by CMMS.

WFMI - Greg Jensen

WFMI is a suite of applications originally designed for dispatchers and is hosted on a BLM Sponsored website which includes the following program areas:

- Weather
 - Display of where the stations are located
 - Metadata is available

- Capable of grouping stations
- Lighting
- Fire Reporting
- Aviation

The site is password protection because of lightning data.

There is a Change Management Board that manages the applications based on user requests.

Round Robin continued

Fire Occurrence Reporting System - Tom Wordell

The report was presented at the NFAEB Meeting with the understanding that it will take time to process. The study revalidated the need based on user requirements; it was not a design or system proposal. The preliminary recommendation identified 38 critical elements. The report has not been released and guidance will come from NFAEB regarding the release.

National Predictive Service Group - Tom Wordell

There are a few changes in the composition of the group:

Susie Stingley-Russell is the new Center Manager Representative - vice Gerry Day

John Barborinas is the new Field Level Representative - vice Chip Collins

Paul Witsamen is the National Weather Service Representative vice Roger Lamoni

Tom Rolinski is the Geographic Area Meteorologist Representative vice Chuck Maxwell

Sheldon Wimmer is the Geographic Operations Group Liaison

- Predictive Services Handbook - The group is continuing to work on the Handbook which will include the protocols and standards between GACCs for staffing, funding and national level products.
- Funding - NFAEB is considering national level funding for the program.
- Monthly and Seasonal Outlook - The prototype will be available this month. The new format includes input from climate forecasters. NICC assumes the bulk of the responsibility in assembling the product. A monthly assessment will be issued along with a forecast for the next three months. The prototype will run in parallel for the next few months.
- NMAC After Action Review - The Team met with Aaron Gelobter and Rex Mann from NIMO to address issues that were revealed during the After Action Review. NICC is working with NMAC to identify and fulfill the requirements. There may be an impact at the GACC level depending on the information requested and the timeframes
- COMET - Tim Spangler addressed the group at the last meeting. Although NPSG does not have the funds to contract with COMET, there may be segments available that could be incorporated.

Fire Weather Committee - Robyn Heffernan

The group is just getting started and she is still filling positions. There are currently two openings at the operation level, which would ideally be filled with individuals for the Bureau of

Indian Affairs of the Fish and Wildlife Service. Their first conference call will be next month and the first meeting is scheduled for the third of fourth week of May.

The Committee has responsibility for:

- RAWS
 - Portable RAWS Stations Standards
 - NFDRS Weather Standards - coordinate with RAWS partners, filling that role in the meantime
- Advisory Group for a task the BLM funds through the climate center to archive RAWS data to be accessible and available - useful for the field, convert into data that can be queried - climate product.
- Curriculum Matrix

Poster for the Fire Behavior and Fuels Conference was presented. Suggestions and corrections need to be given to Larry Bradshaw. He will make changes and send out another draft next week.

The remainder of the day was devoted to working on Action Items or analyzing and compiling results from the OFCM Survey.

Day Three – Thursday, March 8,

FPA - Fire Program Analysis Project Overview - Howard Roose

FPA is an interagency tool for program, planning and budgeting; it provides information to be used to help make decisions using simulations not optimizations.

A single system that will replace ones used by the five federal wildland fire agencies

A tool to evaluate the effectiveness of different fire management programs

A tool to provide greater accountability to the public

The greatest challenge is to find reliable data that all parties agree upon and weather is a great part of it.

Design and build prototype model - by June 2007

System build and testing - June 2008

The analysis is based on Fire Planning Units (FPU); each FPU requires a defined weather station that is representative of the unit. Those stations were identified to the Western Regional Climate Center. The weather data is then corrected. The Forest Service is developing a plan to have the corrected data reloaded into the corporate system. Additional data requirements and corrections are still being discussed including corrections to the BLM 1202 system. Target resolution is at 30 meters.

The Historic Weather has undergone a quality control process by the Western Regional Climate Center.

- Action Item: The fate of that data set has not been determined and should be something that FENWT considers.

www.wrc.dri.edu/fpa

Western Regional Climate Center - Kelly Redmond

RAWS are deployed more often to meet locally defined needs rather than from centrally perceived and defined needs. The incremental value of a station to a system is hard to quantify. The biggest issue is how to appropriate the costs when benefits are distributed. There may also be value in including RAWS as a contributor to a network of networks (ASOS, AWOS and SNOTEL). The totality of the issue needs to be addressed. The Oklahoma Mesonet is an excellent example of a fine scale network.

NOAA has determined that it is more economical to produce high quality data at the start, rather than to correct the data at later.

What is the possibility of the Climate Center performing the functionality of ROMAN?

There does not seem to be a prohibition to this.

ROMAN caters to weather and the Climate Center caters to climate. If all the data was at one place, both those purposes could be provided at one place.

The needs to have the data accessed 24/7 would not to be addressed; would just need to know what the requirements are.

Risk Informed Decisions - John Szymoniak

- Weather/Climate data is major component
- FSPro - Fire Spread Probability
- Rapid Response Decision Support
- A webbased system that provides the probability of spread over a 14 day period graphically.
- Utilizes ERC from RAWS (and there are never enough) and wind
- The process also functions as a way to validate what is on 209's
- The program does not currently address public health, but it is planned
- This will be part of the required process depending on cost estimates determined in the WFSA

Round Robin Continued

Fire/Air Issues Coordinating Group - Pete Lahm (continued)

Exceptional Event Rule

There are six key components for public health that are monitored as required by the Clean Air Act, including ozone, carbon monoxide and PM25. Congress has introduced the Exceptional Event Rule, which is expected to be released soon. Under this rule, Wildland Fire Use as well as wildland fires is considered a natural exceptional event. Under this rule that data can be flagged as fire being a contributor and the measurement will be waived in the determination of

nonattainment. How this rule will affect Prescribed Fire is yet to be determined. It appears that the need to have a Certified Smoke Management Program has been relaxed to Basic Smoke Practices. This rule may also precipitate the need for additional data elements and smoke monitoring capabilities.

Fire Behavior Committee - Larry VanBussum

IRPG - The IRPG updates were posted to MyFireCommunity for comments. The Committee needs to know how to submit for publication.

- **Action:** Paul will provide template to Zeke

Maintenance Plan For Training - This spreadsheet that lists courses that are maintained outside of the Training Working Team is somewhat confusing in that it does not list all the courses that the Fire Behavior Committee has a role in. This is probably not an issue and discussions are progressing with the Training Working Team and a liaison from their team should be identified soon.

National Weather Service - Larry VanBussum

The National Weather Service has contracted with COMET to produce Advanced Fire Weather Initiative S-591. This project is expected to last through the first half of 2008. They are proposing that COMET convert S-290, Intermediate Fire Danger into a distance learning proposal. Preliminary discussions have taken place with Deb Epps and Wendell Welch in Training. The Weather Service views this as an opportunity to provide training to all their fire meteorologists and as an opportunity to expose the fire management agencies to the potential and opportunities of using COMET courses.

- Action: Paul will visit with Deb Epps and Wendell Welch to determine the appropriate steps.

Request for Standards

NWCG, IOS and PMS have all requested FENWT identify the standards and documents that they are responsible for.

- Action Item: Paul will respond to the three requests.

Conference Calls

- April
 - Jim O'Sullivan - NOAA MADIS and NERON
- May or June
 - Ed Delgado - ROMAN