

National Wildfire Coordinating Group
Fire Environment Working Team
Final Meeting Notes

University of Georgia
October 31-November 2, 2006

Day One – Tuesday, October 31, 2006

Welcome & Introductions

- Introductions: Gary Achtemeier welcomed the group; Doug Fox was introduced as the facilitator for the FCAMMS discussions.
- Attendees: FCAMMS – Gary Achtemeier, Doug Fox, Scott Goodrick, Tim Brown, Brian Potter, Shawn Urbanski, Francis Fujioka, Warren Heilman, Al Reibeau, Ed Nikolov, and Yong Liu. FENWT – Paul Schlobohm, Tom Wordell, Wayne Cook, Joe Kennedy, Pete Lahm, Larry Bradshaw, Wayne Mitchell, Dennis Dupuis, Eli Jacks, Mike Hilbrunner, Pat Andrews, Dave Andres, Shari Shetler and Lani Williams.
- Logistics information shared
- Agenda discussed and expectations established

Fire Consortia and the Advanced Modeling of Meteorology and Smoke (FCAMMS)

The day was under direction of FCAMMS including presentations and discussions.

Fire Environment Working Team (FENWT) Overview, Paul Schlobohm

Paul shared FENWT organization and current projects, as well as posing questions to FCAMMS. FENWT has been tasked by NWCG to recommend the future direction of the RAWS network and fire weather access/display systems such as ROMAN. In response to this FENWT posed several questions to the FCAMMS.

- What kind of RAWS network do we need?
- How should we access fire weather data?

Additional questions concerned the FCAMMS:

- Where is FCAMMS going?
- Experimental and Operational
- Integration/collaboration with
 - Predictive Services
 - National Weather Service
 - Smoke Management

FCAMMS Overview, Doug Fox

FCAMMS are a research activity of the National Fire Plan; with common and coordinated research objectives to build research capacity and improve cooperation with Universities and others. They also share a common and coordinated research strategy to conduct real-time, high resolution meteorological simulations as the basis for developing new fire and smoke application

tools and the delivery of meteorological simulations to the user community to obtain feedback, evaluate and enhance product development efforts.

The FCAMMS are organized regionally/geographically and each interacts with the local Geographic Area Coordination Centers within their Consortia. As such each specializes in aspects of fire and air quality research and development.

FCAMMS has identified potential areas of FENWT/FCAMMS Cooperation:

- FCAMMS relevance to fire activities;
 - Developing common products and displays.
- FCAMMS and fire training:
 - Needs and opportunities
- Coordination Issues:
 - With other research products (Forest Service and other agencies);
 - With operational fire weather and smoke activities:
 - Predictive Services
 - NOAA/NWS
 - State
- Other Issues

FCAMMS Contributions to Increased Firefighter and Public Safety, Warren Heilman

Small-scale fire-fuel-atmospheric interaction, research, fire behavior:

Components of Core Fire Science Research Agenda:

- Fire Transitions*
- Combustion and Heat Transfer
- Fire Emissions*
- Complex Fuels
- Fire Event dynamics*

*where FCAMMS can contribute

FCAMMS involved in:

- Modeling – The FCAMMS and partners are utilizing a variety of different research models to investigate small-scale fire-atmospheric interactions.
- Observations – The FCAMMS are participating in field experiments to measure small-scale fire-atmosphere interactions and validate models.
- Program Delivery – The FCAMMS are delivering on-line weather information that can be used as input to current fire behavior prediction systems.

FCAMMS contributions to improve Tactical Planning Research and Support, Brian Potter

FCAMMS research and applications designed to assist fire and smoke managers with tactical (less than three days and 1-100 km scales) decisions and planning.

FCAMMS Research and Development related to Predictive Services, Francis Fujioka

Topics of Interest

- Long-range Forecasts
 - 7-Day
 - Monthly
 - Seasonal

- Probability of Fire Potential
- Gridded NFDRS
- Utilization of GIS

Discussion: There is no good connection between FCAMMS and Predictive Services. There is a connection regionally/locally. Additionally, FCAMMS are looking for a process to be able to take their products forward operationally.

FCAMMS – Air Quality Research and Applications, Gary Achtemeier

- Each FCAMMS has a regional flavor
- Each FCAMMS research and applications oriented to needs of users
- Each FCAMMS has a national flavor
- Each FCAMMS shares common models (MM5, BlueSky) and produce common products (fire weather and fire meteorology)

FCAMMS – Planned output of common products and displays, Brian Potter

Common products are a slow work in progress. Currently they are developing a common portal map for ventilation index. Other projects include FCAMMS/BlueSky RAINS interface. FCAMMS are looking for principles and guidance perhaps from FENWT. *FENWT may be able to provide guidance and leadership in product development.*

Using FCAMMS products (science application training opportunity/needs – Pete Lahm

Different users have different skill level and knowledge base. The challenge is to train and educate the use and availability of the products, and to assess the avenues to address this. Opportunities for Continuing Education need to be explored, particularly the use of COMET as a training tool. The National Weather Service has adopted the use of COMET, which has potential for use here and with other Predictive Services products.

Closing Issues/Remarks, Doug Fox

Questions for discussion (FlipChart)

1. RAWs-can FCAMMS model based NFDRS results inform network questions.
2. Lack of national consistency and outputs cause problems for users.
3. Who are the users? Who can represent them? What is the process?
4. Relationship with Predictive Services/GACCs
 - National
 - Regional
5. NWS Science Office Interactions
6. AMR Spectrum for fire and smoke considerations

RAWs

FCAMMS can help in addressing the efficiency of RAWs.

- **Action:** FENWT will frame the question concerning RAWs efficiency, tools and capabilities. FCAMMS will develop a White Paper to address the question.

Data Standards – Lack of Consistency

There is a lack of data standards and consistency among the FCAMMS products. It was suggested that the FCAMMS look at the NWCG standards, FENWT can assist.

- **Action:** Provide access to NWCG Data Standards to FCAMMS

Communication

FENWT views FCAMMS as a strategic partner.

- **Action:** NPSG will invite local FCAMMS to their meetings. Al Riebau will be the FCAMMS contact and Pete Lahm will be the FENWT contact.

Long Term vision for FCAMMS

FCAMMS fits under two strategic areas: Fire Strategic Program Area and Water and Air Strategic Program Area. FCAMMS stability under Fire Plan is like any other program. FCAMMS is one of the first areas of high performance computing within the Forest Service. Further discussion is needed concerning the organization and national potential of FCAMMS. Other challenges that face FCAMMS is the ability to work more effectively with the NWS and other entities including research and universities.

AMR (Appropriate Management Response)

The criteria for AMR Fires have not yet been determined. The group needs to be aware of the potential for decision making tools/products that may be necessary; keeping in mind that decisions may not affect just one FCAMMS.

Day 2 – Wednesday, November 1, 2006

User Needs Assessment Survey OFCM/JAG, Paul Schlobohm and Dave Andrus

The current copy of the survey and cover letters is posted at: www.ofcm.gov/ofcm.

Western Governors urged NOAA to complete a National Needs Assessment Report, by NOAA's Office of the Federal Coordinator for Meteorology, of federal, state and local fire managers need for weather information in their wildfire and prescribed fire decision making processes and a framework to meet those needs by the National Weather Service and Predictive Services.

JAG Established Goals

- Comprehensive assessment of weather and climate needs of providers and users in their wildland fire and fuels management activities.
- Assessment of provider agency capability to deliver weather and climate information to fire managers and other users
- Raise the critical nature of fire weather to a new level of community awareness.

The survey will be distributed at the 3rd International Fire Ecology and Management Congress as well as through the email list that has been provided. In addition, it is encouraged that the survey be forwarded out. Surveys are due by November 30th.

Timeline:

- November 8th – Survey will be emailed out
- November 14th – Surveys will be distributed at the 3rd International Fire Ecology and Management Congress and addressed at the Panel Discussion
- November 30th – Survey closes
- December 1st – Analysis begins
- December 7th-8th – JAG meeting on Assessment plans
- January – JAG Draft Assessment Report
- February 1st – Draft Assessment due to the editor
- March-April – Assessment revised for printing
- April 18th – JAG Meeting Update
- June 10th-12th – Results to Western Governor's

Discussion: Assistance will be needed in compiling and analyzing the survey. The surveys will be scanned and information will need to be entered into a spreadsheet format. It was suggested to consider compressing the later portion of the schedule to spend more time compiling and analyzing the results. It was also suggested that the respondents be asked to categorize themselves into a limited number of defined user groups, rather than leaving the option open ended and categorized by the reviewers. Inputs for the report will not be limited to the survey but may also come from the panel discussion as well as other organizations or groups providing issues and challenges.

- **Action:** FENWT will provide Dave with recommendations. By end of today, Tom and Wayne will frame recommendation to Dave. To be reviewed by the group.
- **Action:** Prepare specific comments for discussion after lunch. Also, commit to assisting with the compilation of survey results.

FCAMMS, Paul Schlobohm

Reflection on yesterday:

- Time spent was a valuable experience.
- One issue that remains is a process for products to be sanctioned at the national level.

Decision: Consider FCAMMS a Strategic Partner, Pete will be the liaison.

- **Action:** Wayne M and Paul will draft a response to FCAMMS requesting which products they feel are ready for operational use and what will happen at boundary domain. Possible opportunity for Predictive Services or the Weather Service to take an operational role. This will be shared at the November Conference Call.

Decision Support, Pat Andrews

A Temporal and Spatial Framework for Development and Application of Wildland Fire Decision Support Systems

Pat has developed a Framework as a means of organizing information on wildland fire management activities and the information and decision support systems that support the actions. This is a working tool that addresses fire management decision-making, not fire physical processes.

Use of the framework

- Identify fire management actions and decisions
- State the kind of information that is needed or desired to support a decision
- Assess the data that are available
- Determine the source of the needed information

FENWT Strategic Plan

Create a technology assessment matrix based on current and emerging systems and technologies for fuel description, weather observation and modeling and topographic data.

Table set to edit with DreamWeaver (html program)

Definitions included in table – open window links

Pat has made the first attempt which needs to be evaluated.

Pat will be presenting a paper at a March Conference examining fire behavior and fire danger systems in context of this framework.

- **Action:** FENWT will work with Pat to develop the matrix. Pat will continue to work on display options, and will hand off when appropriate.

2nd Fire Behavior and Fuels Conference, Wayne Cook

Wayne provided an update for the conference scheduled for March 26-30, 2007 in Destin, Florida. The Conference is focusing on Fire Environment and FENWT is considered as a Host/Sponsor. There is still a need for people to step forward and commit to assisting the Conference including:

Posters Coordinator – logistical aspect, tie into select, set-up

Panels – three skills

- Organize special session, a panel to address topic that needs addressed, moderate
- Moderators for other topics
- Volunteers – Door, miscellaneous tasks

Keynote Speakers

- Fire Danger Committee - Larry
 - An email has been sent out to his Committee. He is planning to host a Fire Danger Session/Track if there is enough interested. His Committee is also providing a poster and he is working on the FENWT poster. There are members of the Committee attending that are available as Volunteers
- Smoke – Pete
 - Pete is organizing a Track including smoke management issues. He has three volunteers to moderate and review papers. He is working to bring in state regulatory individuals.
- Fuels Group – Dennis
 - The Fuels Group is requesting a half day special session by invitation, a task oriented side meeting. The Group would like to present the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide at the General Session. Dennis will work with Wayne to schedule; Dave Mueller will

submit the paper. There is limited funding available and Dennis will investigate next week.

- States –
 - Wayne – He will continue to support through contact list and encourage individuals to attend. There is another Conference in Reno during March that will conflict with some of the target audience. Wayne is on that Conference Committee.
 - Joe – He is trying to obtain money through Compacts; he is requesting poster submissions as well. He has also asked the Compacts to provide funding for travel, that decision will be made in January

- Research – Mike
 - He will be attending and will talk with Wayne concerning funding. Mike will provide Wayne with speaker possibilities.

- National Weather Service – Eli
 - Larry VanBussum will be attending. Larry and Eli will coordinate NWS involvement, including discussion topics possibilities of NDFD and Spot Weather Forecasts.

- National Predictive Services Group – Tom
 - There may not be enough for a session, the Group will discuss at the November Predictive Services Meeting. Possible topics include: product marketing, 7-Day Product, Forecast NFDRS, National Seasonal Assessment Workshop, and North American Assessment. NPSG has contributed \$5000.

- FENWT – Paul
 - Paul is available to fill in where needed. He will assist on the poster development. FENWT may be able to use this opportunity to validate the results of the survey and gather additional information; particularly concerning RAWS. The Group may also hold a special meeting.

Decision: Wayne will contact Roberta D’Amico, Karen Gleason, Randy Eardley, Rose Davis (NIFC External Affairs) regarding their availability to be the Poster Committee.

Strategic Plan, Shari Shetler

The Group worked with Shari to update and finalize the Action Plans. The Tasks were reviewed and revised to support the Goals. The Table was amended to include a start date and appropriate leads were defined. A column for person days was also added to comply with NWCG requests. NWCG has completed all of their Action Plans and will be looking for the Working Teams to complete theirs. These Action Plans will be utilized in future budget processes.

- **Action:** Shari will work on writing the Strategic Plan into the established template

OFCM/JAG Survey Recommendations

- Letter:
 - The addition of smoke management in the second paragraph under Background
 - Include NWCG and FENWT as entities for potential utilization
 - The first paragraph should stress the critical needs of the survey

- Survey:
 - A matrix was proposed to identify respondent's positions with respect to fire.
 - Bring table back up to front. Paul will look at question ordering.
 - List as portable weather monitoring systems, example Portable RAWS.

Paul, Larry, Eli and Heath will assist in compiling the survey results. Paul, Pete, Wayne C. and Eli all plan on attending the conference.

Decision: Members will send a personally written email to forward to constituents.

- **Action:** Provide specific suggestions to Dave. Dave will update postings on the web. The Survey will go to the printers on Monday.

Day Three – Thursday, November 2, 2006

User Needs Assessment Strategy, Paul Schlobohm

The expectation is that FENWT will not receive all the information they need to make a recommendation on RAWS and ROMAN from the User Needs Assessments (OFCM/JAG, NPSG and NWS). Higher resolution information may be needed and these needs need to be addressed now. It may be necessary/desirable to bring other stakeholders to our meetings to discuss their needs and possibilities. To accommodate this it may be desirable to hold meetings where these stakeholders reside. Each member should be holding discussion amongst their group as well.

Meeting Schedule, Paul Schlobohm

March 6-8, 2007 – Boise, Idaho

June 12-14, 2007 – Norman, Oklahoma, National Weather Center

- **Action:** Paul will engage Roudabaugh regarding feedback from the Western Governors Association Meeting.

Budget, Paul Schlobohm

Paul received the budget from NWCG with less detail than was submitted. Almost every Working Team received a lot less than they requested. The Group reviewed the budget and recommended funding revisions based on current needs.

- **Action:** Paul will post detailed spreadsheet to website.
- **Action:** Finalize budget on the November Conference Call.

Training, Wayne Cook

- Tactics – Update the status of Fire Behavior Curriculum
 - Response to Training Working Team Memo
- Strategy – Determine FENWT’s position and role on Training (include Continuing Education)
 - Charters
 - Strategic Plan

There have been repeated efforts by the Fire Behavior Committee to update the review process for the Fire Behavior Curriculum. The Committee has tried to work through the Training Committee and recently received a response that failed to address the issues. The Fire Behavior Committee Charter states that they have a role in Fire Behavior Curriculum. The Committee would like the lower level courses to have the same review process as S-491, 492, 493. The issue of who is managing the curriculum also extends to Fire Danger and Fuels.

Decision: It is important that the Committees maintain a role in curriculum; providing examples of new opportunities in training and continuing education. The relationship of the Training Working Team and other Working Team interactions needs to be examined.

- **Action:** Paul and Larry will work on response to NWCG.

Wayne announced that he has resigned from Fire Behavior Committee and also as a member of FENWT.

Strategic Plan (continued)

Paul is working on the FENWT Website including the top three to five priority items.

- **Action:** Paul will work on the Strategic Plan narrative, reshaping existing documents; he will contact members as necessary for details.

5th Action Plan

- **Action:** Paul will work with Shari on the completing Action Plan.

6th Action Plan – deals with development and delivery of training.

- **Action:** Wayne will have committee review and report back to by FENWT Conference Call.

Assessment of NIFMID Data Quality, Larry Bradshaw

This report was generated by the NPSG White Paper to FENWT addressing the RAWS Coordinator role at the Geographic Areas. The study found significant improvement in the second five years across all agencies and geographic areas; data quality was defined by two five year periods.

- **Action:** Pete will draft a response to NWCG. He may need interpretation from Larry and assistance from Tom. The response will be completed by November 28th for the FENWT Conference Call.

Committee Reports

Fire Danger Committee, Larry Bradshaw

WIMS Task Order

- January/February – background work will be done in WIMS
- Release date to the field is unknown

The programs will be run side by side for a year with no visible changes to the user. Communication to the field regarding the project has not been satisfactory to date. The Task Group is working on better ways to communicate including a question and answer webpage linked to FAMWEB and a banner on logon and including the Help Desk.

FireFamily Plus

Larry will be presenting a paper at the 2nd Fire Behavior and Fuels Conference, which will discuss the model in the new FireFamily Plus

CIPTS, Pete Lahm

There is a new standard for PM 2.5 and the impacts on human health which is becoming a continuing issue with smoke. May be even lower in the not so distant future.

There is discussion regarding the formation of interagency cadre, state by state to cover the regulatory information. The strategy is in the fledgling stages and may be involved with the Fuels Committee. California already has a cadre in place. FENWT may be a contributor.

Fire Behavior Committee, Wayne Cook

The committee is proud of their work and accomplishments and is very active/engaged/committed to influencing the content of the Incident Response Pocket Guide (IRPG).

FENWT, Paul Schlobohm

Accomplishment Report can be found on MyFireCommunity.

- **Action:** Paul will task committees on the reporting process.