

Joint Meeting Minutes
NWCG Fire Danger Working Team and Fire Weather Working Team
November 21, 2003

Attendees:

Rick Ochoa, Tom Wordell, John Swanson, Mike Hilbruner, Tim Brown, Clint Cross, Larry Bradshaw, Pete Guilbert, Pat Andrews, Paul Schlobohm, Wayne Mitchell, Deborah Holle, Miles Knight, Phil Sielaff, Mark Barbo, Rusty Billingsley, Al Borup, Gary Curcio, Kolleen Shelley, Dick Bahr, Tim Sexton, Karl Zeller, John Snook, Greg Gollberg, Matt Jolly, Jen Demilo, Francis Fujioka, Jeff Barnes, Charles Kazimir, Sue Ferguson

1. Introductions/ Paul S., Wayne M. 0800
What's next for the 2 teams

Discussion:

The proposed merger of these two working teams has been dropped. The chairs propose the two teams continue to meet jointly for at least one more meeting. The objective is to better understand the similarities and differences between the two teams. Joe Kennedy (FDWT) will be lining up the meeting in New York. The meeting is planned for May 25-27, 2004. The future use of gridded data by the NWS will drive a significant portion of the workload for both teams.

Pete Guilbert is retiring and will be leaving both teams in March. Miles Knight will be making a decision on whether to stay on the team in the next few months. Dick Bahr's status is unknown.

2. Fire Weather/Danger Op Plan Wayne M. 0825
modifications

Discussion:

Point 1: After a year under the new National Agreement, there is nothing in the language of the National Agreement highlighting how conflict resolution is to be handled. Rick Ochoa said that the NMAC sent out a letter to the agency Coordinating Groups outlining conflict resolution procedures. This letter was distributed and discussed.

Point 2: Two related questions were asked and discussed: First, whether NWS annual operating plans could be developed using the fire danger operating plan model ,and second, could annual operating plans and fire danger operating plans be merged into one development process and final product?

Annual Operating plans should be built jointly by both agency representatives and the National Weather Service (NWS). This should especially be true given the changing nature of NWS forecast products and FCAMMS innovations. FCAMMS will be placed into GIS in the near future as well. Implementation is still in question on how to do this, but Blue Sky predictions will be converted into GIS forms.

Rick O. talked about the scale issues of operating plans. In the west the AOP's are done geographically, but in the east the AOP's are done on a local basis. The area

involved must be considered, making it sometimes difficult to totally link Operating plans. Gary C. brought up the idea that language must be very specific in operating plans.

Wayne M. commented that a smaller task force may be assembled to look at the AOP/fire danger operating plan scale issue. The scope of the fire weather operating plans in some areas is much larger than the scope of the danger plans. Clint C. commented that maybe the biggest issue could be the technical ability to actually write the document. Only a few areas have the expertise to write a technical document such as the AOP or the fire danger operating plan. Also, getting cooperation between those entities writing the fire weather and danger operating plans is essential. Paul S. suggested scoping this idea in-house first rather than actually forming a task group to formulate a plan in a Geographic Area.

Dick B. brought up a point that attaching additional guidance to the National Agreement through a memorandum not signed by all entities is not a good idea.

Item	Date Due	Completed
Rusty and Rick need to write a mutually agreeable statement on NWS-Agency communication and conflict resolution. The statement will be an appendix to the National Agreement and serve as language to be included in AOP's.	12/17/2004	
Paul Schlobohm, Rusty Billingsley, Pete Guilbert and Rick Ochoa will look at the issue of how a plan to merge fire danger and fire weather operating plans might work. The meeting will be in Boise and will consider FPA issues as well. A white paper will be delivered at the next meeting.	5/2004	

3. Predictive Services

Rick O., Tom W.

0850

Discussion:

The 2003 seasonal assessment workshop was held in February. Rick O. presented a depiction of large fires overlaid with the outlook graphics. Rick also noticed improvement in the weekly Predictive Services outlooks this year. The Rocky Mountain Area contained 85% of their fires in the high fire danger area outlines. There will be a meeting in Whitefish between the Coordinators and Predictive Services where a proposal will be given to outline the process of validation/verification of the monthly and seasonal assessments. Tom Wordell and Tim Brown will give the presentation.

Emphasis this year will be an increase in standardization of the fire danger component of Predictive Services products. The analogy will be in the Northwest where fire danger numbers and lightning probabilities are validated. The Northwest has validated these numbers over the last two years. The goal is more accurate predictions of number of fires over a geographic area.

There will also be an emphasis on training Predictive Services personnel in longer-range forecast applications.

Rick then talked about the National Predictive Services Advisory Group. A survey was taken, focusing the group on the main efforts of developing a national strategy, standardized products, user communications and organization linkage to the GACC's, NWCG, etc....

There was discussion on monthly products and the process of how the standard format was adopted. The proposed formats should be distributed to the working teams for distribution to the states.

Tom Wordell also made a presentation – Tom put up National Predictive Services Group (NPSG) funding and project status. His first highlighted project was the 2003 National Seasonal Assessment Workshop. The Center Managers were very happy with the product and its early issuance. Additional funding went to an analysis program for fire occurrence called Cheetah. Cheetah gathers fire data on a Geographic scale and examines resource use and demand in what are called episodes. Resource demand scenarios can be generated. The database now pulls only Federal data, but the new version that was funded will allow state data entry. Users will be able to go out to famweb, select data and then read it into the database. The resource information comes from a database generated from previous situation reports. So, there is an assumption that the fire database is accurate. But, there is no tracking mechanism of daily resources. Some additional funding went to the 15 day NFDRS Forecast Model. Funding will go towards validating the 15-day forecasts.

The 2004 funding proposals were presented. Money will go towards Cheetah 2, the 15-day NFDRS Forecast Model and the 2004 Seasonal Outlook Workshops. There is a website that you can go to view the NFDRS forecasts:

<http://www.cefa.dri.edu/NatIERC/NatIERCHome.html>

ROMAN is being funded by BLM in the Eastern Great Basin.

Item	Date Due	Completed
Rick will distribute proposed product formats to the FW and FD working teams for distribution to the states.	When National Mobe Guide draft is produced	

Discussion:

Rusty Billingsley presented 2003 NWS Fire Weather services and performance slides. The forecasts have been standardized across the Country. The spot forecasts also have been standardized. By the early part of 2004, there will be Red Flag Verification numbers. Daily, there are about 150,000 weather elements per day that are forecast. There are also 11,000 spots last year nearly doubling the numbers from five years ago. IMET services were above average this year, with nearly 140 dispatches (not including recent California fires). The majority of the IMET dispatches are wildfires and not all-risk dispatches. This was the third highest dispatch year by number. The average time from order received to on-site arrival for IMETs was about 14 hours. This is also the first year for new equipment for 63 IMETs.

Red Flag verification stats for the Rocky Mountain/Great Basin Areas show, over 311 RFW's, a Possibility Of Detection score (POD)=.9 and a False Alarm Ratio (FAR)=.33 with a lead time of 8.9 hours.

Agency issues with the NWS in 2003:

- 1) Coordination of products across forecast boundaries
- 2) Internal consistency
- 3) Content of forecasts
- 4) Basic quality control
- 5) Implementation of a "computer driven automated system".
- 6) NWS was not quick in responding,.

NWS issues with the Agencies in 2003:

- 1) Conflicting interpretation of the mission of Predictive Services.
- 2) Competing needs of multiple users (local vs. geographic needs)
- 3) Ineffective conflict resolution process.
- 4) NWS's partnership with the wildland fire agencies.
- 5) Increasing workload without increasing resources.

NWS workload issues: Some of the offices are running at 100% capacity. Ever-increasing requirements are in addition to this process.

- Doubling of spot forecast requests
- Doubling of IMET requests
- Smaller (more) zones
- Additional products (more NFDRS sites, RFWs for some offices)
- Requests for additional forecast parameters (smoke mgmt.)
- Increased coordination requirements
- Increase in training requests

All this has been done without additional funding or resources.

The NWS has begun serious internal discussions on these types of issues and will soon be requesting high-level discussions with the agencies.

Also, there are some shorter-term fixes such as

- Better defined requirements
- Better guidance on conflict resolution
- Improvements to software to handle more spots

- Investigate better planning tools and forecasts
- Improvements IFPS
- Sometimes we may have to say “no” to additional requirements

IFPS: In short, forecasts produce grids of forecast parameters, and then formatters take care of writing the forecasts. One of the main issues is how well a zone forecast reflects the ground weather in complex terrain. Grids are a way of taking care of this problem. Through grids, you can get a forecast at a spatial scale of 5km. Rusty then presented examples of IFPS and its potential of being used as input for NFDRS and graphical representation of weather elements. IFPS has 740,000 forecast points with some fields being produced hourly. It has virtually limitless capabilities at high resolution. The challenges are that it has never been done before. Verification hasn't been explored yet. The grid formatters have been lacking. There are boundary/coordination issues and poor marketing efforts.

The best thing is that the NWS is committing more resources to the Fire Weather program than at any time prior.

Karl Zeller commented about a disconnect between FCAMMS and NWS in areas outside the Pacific Northwest. John Swanson made positive comments on improvements over the last 3 years, especially concerning IMET service.

5. Forecast Accuracy

Gary C.

1005

Discussion:

Gary stated that accuracy standards have been detailed but not implemented. There has been no official response on whether the NWS would adopt the standards of accuracy. Some offices do not have update criteria.

There was some discussion on the Santa Clara Incident where there were shelter deployments. The spot forecast was not updated and the team did not take local action in taking notice to this. There were other instances of lack of forecast accuracy presented.

Gary suggested operational monitoring of forecasts with periodic published reports on this monitoring process. In North Carolina, one office did take the time to locally verify forecasts and subsequently improved temperature and wind forecasts. Gary also suggested that operational processes be tested before implementation.

Wayne suggested that the first step the agencies must do is document decision-making processes that will highlight how the weather information is used. The agencies should tell the NWS what makes a difference in operational forecast elements

Item	Date Due	Completed
Review the “Fire Weather Program Requirements for Accuracy and Resolution of Fire Weather Forecast Products” white paper. Rick will forward standards list to all the FWWT. Rick will set up a conference call with the FWWT after review of the white paper and standards.	December 2003	

Discussion:

Phil discussed lightning contracts. The current contract is one where land management rides on the coattails of a NWS contract. There is a plan to have a new contract in place by October of 2004. According to the National Fire Plan, any data sets available to Federal community would be available to cooperators. The NWS is reluctant to alter their agreement. So, permission was received to independently discuss access with the vendor. The end result will be that the BLM lightning data page will be available to state and private cooperators. Through the Office of Coordination of Federal Meteorology and the future National Weather Service contract, some funding issues were discussed and the new contract will result in an increase in costs. The new contract costs substantially penalize smaller user groups (the price will double) and benefiting larger groups. Land management is a smaller group. Under the new contract, historical lightning will be available through NCDC. It will be a building archive so older data will still have to be accessed through the vendor.

Phil's observations on fires this year: There were active Type 2 team FBANs with no IMETS and no lightning data. Phil suggested that all FBANs absolutely need lightning data. And, there should be an increase in IMET support for Type 2 incidents. Right now, there is guidance in the National Mobilization Guide that suggests use of IMETs on Type 1 teams. Rick Ochoa suggested educating Type 2 teams that IMETs are available for dispatch. There are alternative ways of finding rough data through other private sources such as weathertap.com. However, the lightning is not geospatially referenced. Clint Cross suggested that FBANs should be responsible for the inventory of data.

Item	Date Due	Completed
State users should provide Phil with numbers of locations that need and could effectively use real-time lightning data.	???	

Discussion:

After ten years, the original ASCADS began to slow significantly. In 1999, the next version of ASCADS was starting to be planned. A field survey was conducted to define needs. A patch was installed and now is four years old. A paper was handed out entitled "The Remote Automatic Weather Station (RAWS) Automated Sorting Conversion and Distribution System (ASCADS)". It outlined the issues and background of the problem. The question is what direction should be outlined by the Working Teams with respect to ASCADS. Phil commented that this re-engineering is getting lost in agency processes. The Danger working team chartered a task group to provide field-level input and information on WIMS and ASCADS re-engineering. Paul asked if this group

has been used in the ASCADS re-engineering process. Phil was not aware of the opportunity.

Charles K. had a clarification on RH data standards. The RAWS depot is dealing with RH tolerance and rounding problems. The suggestion is to carry error tolerance out to the hundredths place. Also, there is a request from the SACC GACC Meteorologist to change some wording to the page six of the NFDRS standard document. The group agreed.

Item	Date Due	Completed
Kolleen will post the changes to the standard on the RAWS website.	May 2004	

9. WIMS re-engineering

Jeff B.

1255

Discussion:

Jeff provided an update of WIMS enhancements since the last FDWT meeting. The WIMS/NIFMID database was moved from the mainframe to a server at NITC in June. Immediate effect of this move is that users no longer incur charges for WIMS and KCFAST activity. Another enhancement was the removal of the ops\$. Russ also proposed the Region 5 project activity level (PAL) and it was added onto the application. Paul raised a question on how priorities were being set during the re-engineering process. Jeff suggested that the famweb discussion board could be used for forecast feedback. Paul asked how the re-engineering task groups have been utilized. The response was that they were being underutilized in the past year. Jeff explained that due to USDA system security measures being implemented in July 2004, the Forest Service is considering shutting down the WIMS Hub at the end of September 2004. This would be prior to the 2005 transition date in the 2000 NWCG weather station standards documentation.

Item	Date Due	Completed
Kolleen, Larry and Gary will prepare an outline describing the results and alternatives of shutting down the WIMS hub for Paul. Results should be presented at the next NWCG meeting.	Before NWCG January meeting	

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Discussion:

Spatial fire potential indicators were discussed. A three-year project through JFSP was launched modeling vegetation. It's a weather-driven model for green-up. Pat also briefed the group on her AMS presentation concerning the analysis of drought indexes. She found that ERC and 1000-hour fuel moisture were the best indexes. Also, NFDRS moisture performs well as a drying index. U. of Montana has a system called the Terrestrial Observation and Prediction System (TOPS). It is a NASA funded project integrating a great number of weather observation components. NASA Ames also recently funded a terrestrial ecological forecasting project. Pat suggested for display of data at National level, just provide drying data then as one zooms into smaller areas, provide the Landfire fuels maps at smaller scales. Initial output from the WFAS update products will be mainly informational and not meant to be applied immediately. Having science-based fuel models would be a great step forward for whole fire danger program. In FCAMMS there is a coordination group at the National level, but apparent objectives divergence is driven by regional groups that contribute funds. The Working Teams have a lot of opportunity to make input to the FCAMMS effort. A suggestion was made by Karl Zeller to share FCAMMS information through conference calls and through Patti Hiram.

Item	Date Due	Completed
Agenda items for May meeting: 1. breakout group to discuss Green-up; 2. presentation of Landfire, discuss implications for fire danger rating.	May 2004	

Discussion:

Progress on re-engineering ASCADS, WIMS, and WFAS has begun, but not at the pace anticipated in 2000 when it began. Working teams and user community needs to acknowledge this and determine whether or not the current process of incremental system enhancements is acceptable. Paul suggested that the first step to take is to revisit and ensure consensus for what our needs are for this future "re-engineered" system.

Item	Date Due	Completed
The FDWT will meet for two days to perform a Needs Assessment with a facilitator with respect to WIMS and ASCADS.		

12. Station number assignment (Paul S.)

1445

Discussion:

Where is the appropriate location for the role of managing weather station numbers? This has been a role of NWS. Rusty noted that there is no strong desire on the part of NWS to continue this role as it is not a number they use internally. Is this an appropriate role for the geographic areas? In the southern region, the GACC has already accepted the responsibility of maintaining the WIMS database. Wayne brought up the issue of directly maintaining the WIMS numbers at the WIMS location.

Item	Date Due	Completed
Rick and Rusty will discuss possible transition of responsibility of station numbering assignments to the GACCs or other appropriate alternative locations in coordination with Jeff Barnes.		

13. Severity stations

(Paul S.)

1510

Discussion:

How to characterize stations used specifically for severity. Does either team want to offer a recommendation on this topic? Proposed characteristics offered by Russ Gripp were distributed. Data from these stations are used to support year-round severity requests. We should not conflict with the National Standards documents. It was suggested to include the wording “desired” and not “required” so as to not contradict already adopted standards. There is an analogy with the accurate climate records efforts being done outside the agencies. There should be some effort to coordinate with the NWS and Predictive Services on station quality if the severity station standards are visited. Someone also needs to look at the data to assure the quality of the database. With a definition with what a station should be like comes the assurance of the quality of the archived data. The preparedness red book has a section on developing requests for severity funding.

Item	Date Due	Completed
Russ should draft an amendment to the preparedness red book reflecting his proposal of severity analysis.		
Russ should prepare a document that describe severity weather station standards and recommend those to the working teams for inclusion in PMS-426-3.		

Discussion:

Past question was if NWCG would sponsor the pocket cards. They responded with wanting to develop a standard. The FDWT put together a proposed standard that both teams reviewed prior to the meeting. The draft standard is scheduled for NWCG at their January meeting. The standard focuses on standards for content and implementation, but not on process. The point was made that one of the purposes of the card is to alert people from outside the area to the local area's fire danger. There should be fire danger interpretation in the card. The question was raised if pocket card distribution is required for new personnel arriving on a fire. The crew supervisor is responsible for having the pocket cards. There is operational flexibility during IA not requiring pocket card distribution. But once the incident has progressed, all crew supervisors should have the cards.

The point was brought up about a risk mitigation group. The question was asked if this group was together and trying to find a more holistic approach to giving out fire danger information than the pocket cards. For practical reasons, daily updates of fire danger are not provided on the cards. .

Item	Date Due	Completed
Paul will add back in a section on fire danger interpretation language to the proposed standard, will address edits provided by Kolleen, but otherwise the standard was accepted as is.		
Paul will present proposed standard to NWCG in January.		

Discussion:

First topic was leadership of the FWWT. Wayne's term is up and alternatives outlined in the previous FWWT/FDWT merger white paper were discussed. Rick and Dick suggested holding another joint meeting with a specific agenda item to discuss overlapping issues and the efficiency of merging the team.

Rusty discussed an idea of how to look at fire weather as a whole. The FWWT could take a look at the changing nature of the inter-relationship between the NWS and Predictive Services. There needs to be an effort to develop a national strategy or strategic plan for weather services.

The budget was the next issue. There was a request to have an additional request for meeting room expenses for the team. There is also an 8K request for state employees for a total of 10K for two meetings. Landfire and gridded data set were two of the main issues brought out this week at the AMS conference. The business of forecasting is changing and these changes must be addressed in relation to user needs and geographic boundaries. The boundaries could be drawn based on Fire Protection Areas.

Heath will also serve as FWWT Treasurer.

There was a great deal of discussion about private industry's concerns about fire services.

Given the current charter, Wayne intends that the spring 2004 meeting will be his last as chair as the FWWT. If there is no merger or charter change, then the group needs to think of chair nominations.

Item	Date Due	Completed
Heath should set specific 2 to 3 hours aside at the next joint meeting to discuss merger and composition of team once more.	Next meeting	
Next meeting – May 25-27		

15. Strategic Plan and Budget FDWT breakout 1600
and other team business

Discussion:

The team discussed the leadership situation at length. Our current charter calls for a rotation of leadership among the members. This is a legacy of when the group was an advisory group to the Forest Service. Although it has served the group well its intent of promoting interagency involvement is no longer necessary and the mechanics of rotating is cumbersome at this time. The group agreed to consider revising this part of its charter at the May meeting. Also, the group asked Paul S. to remain as chair for at least the next two meetings. Joe Kennedy will replace Pete Guilbert as the vice-chair.

Paul suggested that the team needs to spend time at the May meeting on plans for new training course development (entry level NFDRS, WIMS, distance learning FF+)

The team discussed the budget of the Strategic Plan for 2005-2007.

Item	Date Due	Completed
Add Charter leadership review to FDWT May agenda items	May meeting	
Add training development to FDWT May agenda items	May meeting	
Paul to share draft of Strategic Plan with FDWT prior to submitting to NWCG	January 2004	