

NATIONAL WILDFIRE COORDINATING GROUP
Fire Weather Working Team Meeting
Shepardstown, WV
November 07-09, 2000 Minutes

Team Members

Wayne Mitchell, Chief, Fire Protection Planning California Dept. of Forestry & Fire Protection	Deborah Holle, Balcones Canyonlands NWR, USDI Fish & Wildlife Service
Larry S. Bradshaw, Meteorologist USDA Forest Service, Intermountain Fire Science Lab	J. Miles Knight, Chief, Fire Management South Carolina Forestry Commission
Mike W. Wallace, Assistant Director, Operations USDI Bureau of Indian Affairs	Chris Fontana, Fire Weather Meteorologist USDA Forest Service
Richard Bahr, Fire Use Specialist USDI National Park Service	Ed Wehking, State Fire Management Officer, CA US Bureau of Land Management
Pete Guilbert, Division Chief, Weather & Statistics California Dept. of Forestry & Fire Protection	Phillip F. Sielaff, Leader, Remote Sensing Support Unit USDI Bureau of Land Management
Paul Stokols, Fire Weather Program Manager National Weather Service	Cynthia Nelson, Office of the Federal Coordinator for Meteorology
Rich Douglas, Western Region, National Weather Service	Rich Fisher, Watershed and Air, USDA Forest Service
Mark Barbo, USDI Bureau of Land Management	Marlena Hovorka, NPS – Big Cypress

Tom McClellan (absent due to illness) is replacing Bonnie Mason on this working team.

2000 Fire Season Issues

The team discussed the 2000 fire season and the use of the Incident meteorologists. Fire Season 2000 was a record setting year for the number of IMET dispatches and duration of use. The NWS did seem to meet most of the requests for IMETS last summer. However, concern surfaced about the ability of the NWS to maintain a sufficiently large pool of available staff to fill IMET assignments. The IMET training and certification process includes field assignments to maintain currency. The western fire season can be quite variable from year to year with several years between “hot” seasons. The “cool” seasons may not provide sufficient opportunity for IMET training assignments. Fire Managers are encouraged to use IMET trainees when possible, within operational limits.

The team listened to a presentation on the use of USAF weather forecasting assets deployed to support incidents. This assignment was an interesting challenge for both the Air Force and the user agencies. Several issues surfaced during the operation including MOB Guide procedures, training for Air Force personnel in IMET procedures to IMET standards, implications of using military forecasting models and sharing information.

Action Item # 1: By the next working team meeting, Rich Fisher, Rich Douglas, Ed Wehking,

and Chris Fontana will prepare advisory letter from the FWWT to NWCG summarizing the use of military resources for fire weather.

NWS Policy And Procedures:

The National Weather Service is revising their internal fire weather program policies and procedures. The last revision was 10 years ago and much has changed since that time. The NWS is forming a team to review and will be looking at forecast formats, new software, and other recent advances. They will be developing standardized products by June, 2001 and plan to standardize both text and tabular products.

The team discussed the national Memorandum of Understanding between the wildland fire agencies and the National Weather Service. The NWS policy and procedure handbook includes a discussion of the MOU and Annual Operating Plans. Questions then came up concerning the status of similar policies on the part of the wildland fire agencies. Further questions arose as to the general field knowledge of the AOPs and the services described in those plans.

Action Item # 2: Pete Guilbert, Phil Sielaff, and Paul Stokols will collect Annual Operating Plans from the various regions around the country and bring to the next meeting. This team will draft an example template, business practice and general timeline that can be adapted to fire agency use and bring to the next meeting.

NFDRS Weather Station Standards

NWCG has approved the NFDRS Weather Station Standards, however, the signed letter has been misplaced. Mitchell will follow up on finding out where the document ended up.

Office of the Federal Coordinator for Meteorological Services and Supporting Research

Cynthia Nelson gave a briefing on the office of the Federal Coordinator for Meteorological Services and Supporting Research. Fifteen federal departments and agencies are currently engaged in meteorological activities and participate in the OFCM's coordination and cooperation infrastructure. The OFCM carries out its tasks through an interagency staff working with representatives from the federal agencies who serve on program councils, committees, working groups, and joint action groups. This infrastructure supports all of the federal agencies that are engaged in meteorological activities or have a need for meteorological services. The OFCM also prepares operations plans, conducts studies, and responds to special inquiries and investigations. The services and resources of the OFCM can be made available to the fire weather working team. The team compared and contrasted the role of the FWWT for coordinating the fire weather program as compared to the role of the OFCM for coordinating meteorological services.

MM5/Models

Chris Fontana led a discussion of the MM5 model and the utility and acceptance of the model in the fire weather community. Chris reported that fire management officers like the idea of seeing data on the Internet and the visual models were a big hit. Rich Fisher suggested that resources can be pooled and devoted to providing products for fire behavior and smoke management. The USDA Forest Service would like to bring smoke management into the fire behavior community. Cynthia Nelson reported that there are other models that work at various resolutions as well as

dispersion models. She voiced a concern in providing consistency. Larry Bradshaw reported that the Fire Danger Working Team discussed experiments with the MM5 model, mesoscale units, and RAWS on a 4500 acre lot in Hawaii.

Action Item #3: Subgroup lead by Holle will produce a 1-page issue paper relative to future requirements of MM5 modeling amongst the interagency community including background and recommendations.

Monitoring-Feedback-Improvement/Red Flag Watch and Warnings

HO #5 Fire Weather Improvement Program, *Monitoring, Feedback, & Improvement*

The team discussed red flag watches and warnings. Concerns were raised about regional variation in the program, the meaning of the watches and warnings, subsequent management actions, and other similar issues. One primary concern is the large number of watches/warnings in some areas, possibly too many. Watches and warnings are defined in the Annual Operating Plans and the specific criteria do vary from place to place. Each fire agency reacts to the watches and warnings differently, based on their own mission and policies.

Narrative Forecast Accuracy and Resolution Requirements (A & B)

The team discussed the proposed Narrative Forecast Accuracy and Resolution requirements.

Action Item #4: Larry Bradshaw will research the development of a monitoring report on the WIMS system to monitor the fire weather forecasts.

Wildland Fire Agency Meteorologists

The team discussed the newly emerging hiring of agency fire weather meteorologists. Much discussion revolved around the nature of the work and the connection with the FWWT and existing fire weather programs. **HO #13** Team discussed an issue paper on the relationship between the meteorologists and the FWWT. Several suggested changes were made to the issue paper.

Fire RAWS

Phil Sielaff made a Fire RAWS (FRWS) Presentation. Fire RAWS was an interagency funded effort to upgrade micro-REMS to FRWS. BLM manages the program and started the 2000 fire season with 13 FRWS. Halfway through the season BLM and FS decided FRWS would be national resource in the cache system for prescribed burn and wildland fire. The FRAWS hardware can be tailored to accommodate changing needs. Using similar capability of FRWS on BAER projects for example, Cerro Grande used the FRWS as a flood warning system. Main intent behind the FRWS is for direct firefighter safety.

The current configuration includes a tipping bucket rain gauge. Alarms are automatic whether the radio is interrogated or not. All sensors were upgraded with e-sensors, which provide accurate data. The system includes a lightning sensor that will detect all lightning activity within 25-mile radius and give a verbal warning over radio. Typical FRWS will run 30 days before problems occur with the solar powered battery. Price is about \$13,000. Stations can be upgraded by software. Transmitter will transmit data up until fire burns over system.

Efforts are underway to change hourly transmissions to 15 minutes within the next year or so to meet requests for real-time data. Staff is currently working on a Spanish-English toggle switch for data reporting. Data from the Fire RAWS can be distributed via floppy diskettes that are downloaded post fires to anyone who requests. Next year we'll have a graphing package available for IMETs and FBANs on the Internet.

Two years of Proof-of-Concept work is suggesting to us that maintenance standards are needed. We would like to make it an interagency deal. The BLM, with interagency support, may fund some Fire RAWS systems during FY01.

The NIFC Fire - RAWS handout was passed out with more information including ordering procedures **HO #9**.

Action Item # 5: Phil will post Fire-RAWS information on the NIFC Internet site including conversion cost estimates of upgrading micro-REMS to FRWS.

Action Item #6: Mitchell will draft a letter to NWCG supporting the concept of the Fire RAWS development and interagency centralized cache giving them the FWWT support.

Spot Weather Forecast

Chris Fontana reported that the Spot Weather Forecast Form was ready to go to NWCG for review. He indicated that people are already asking questions about it.

The team reviewed 2 documents **HO #11 and #12** concerning spot weather forecasts.

1. Recommendation for a New Spot Weather Forecast Request Form,
2. Spot Weather Forecast Form with Memo for review.

Much discussion then ensued as to field use of the spot forecasts. The biggest issue seems to be the lack of feedback from the field users and therefore the inability of the forecaster to validate the forecast. In cases of large wildfires and complex prescribed fires, specialized IMETs, and FBAN's meet the needs of the fire management community. If automated systems are used on incidents then the information should be available to the forecaster. The team focused discussion on the field level user and possibly a need for more training on spot forecasts. Training should include the importance and responsibility for consistent feedback on the quality of the forecasts. This whole feedback system will not work unless there is a dedicated fire manager ensuring that it gets done.

Action Item #7: Chris Fontana to proceed with field review of the revised spot weather forecast form.

Next Meeting

Will be held the week of June 11, 2001 in Portland, OR/Seattle, WA co-located with NFDRS. (Bradshaw will coordinate logistics).