

EXECUTIVE SUMMARY

FIRE DANGER WORKING TEAM

Minneapolis St. Paul, Minnesota – June 2000 meeting

The third meeting of the FDWT was held in Minneapolis St. Paul, Minnesota. Presented below are fire danger developments discussed at the meeting. More detailed information is available concerning these and other points. Please refer to the Team's home page for a copy of the meeting's minutes. The Team's web site (URL address) is <http://www.nwcg.gov>. Select Working Teams and then Fire Danger.

➤ **NWCG Fire Danger Working Team Vision Statement**

“ The National Fire Danger Rating System (NFDRS) is a trusted decision tool for fire and resource managers. The NFDRS is based upon the integration of the latest fire and atmospheric sciences, climatology, remote sensing, and GIS technology. It is supported by processors and data management systems, which are robust and flexible enough to remain state of the art. The NFDRS is easy to use - requiring limited human intervention, minimal in cost, and can be applied through space (locally, regionally, and nationally) and time (today, tomorrow, and seasonally) across the United States. System access is web-based and outputs are displayed with tabular, graphical, and GIS formats. Fire danger is a description of factors - fuels, weather, topography - which affect the initiation, spread, and difficulty of control of wildfires on an area.” - June 8th, 2000.

➤ **NWCG Fire Danger Working Team Charter & Operating Plan**

Work on the Team's initial Charter was completed. The Team will submit the final charter to NWCG FDWT Liaison Dave Cleaves for NWCG Chair Don Artley's approval and signature. With the Team's first charter, it was discussed and determined that FDWT needed to develop a working Operating Plan for business guidance and procedural protocols.

➤ **The Re-engineering of the Weather Information Management System (WIMS)**

WIMS is the primary interagency processor (calculator) for fire danger rating nationally. With the advances in technology, WIMS is in need of an update. Re-engineering of the current structure is long overdue. An interagency FDWT Task Group will provide user oversight and guidance to the re-engineering effort over the next two years.

➤ **S-491 Intermediate National Fire Danger Rating System Course Development**

A 400 level course is currently being developed. The test course is on schedule and the first session is to be conducted in the Southeast, the week of January 8th, 2000. The second test session will be held in the West, Great Basin Area in May of 2000.

➤ **NFDRS Weather Standards for Accuracy of Resolution for NFDRS Point and Trend Forecast**

The FDWT endorsed the standards prepared by the National Weather Service Fire Weather Task Group with the exception of relative humidity. The standard of +/- 5% accuracy was discussed and recommended by the FDWT as the standard. This recommended change was accepted by the NWS.

➤ **FDWT web site (URL <http://fire.blm.gov/nfdrs/>) for the Firefighter's Fire Danger Rating Pocket Card**

The web site has been successful as the national depository for these cards. New cards continue to be developed by agencies across the country. The Team needs to survey the GACC's to make sure that the cards are making their way to the national site. The use of the cards is a positive step as it indicates that more suppression personnel are being exposed to fire danger rating concepts and hopefully, a greater understanding of the seriousness of burning conditions.

➤ **Wildland Fire Assessment System Expansion & Evaluation**

Pat Andrews, principal researcher (Missoula Fire Lab) is leading this effort and has submitted a funding request to the Joint Fire Science Program. This project is concerned with new remote sensing products, incorporating additional weather data sources and using better fuel moisture models in order to provide better support for fuel and fire management decisions at National, Regional and Local levels. Large scale, 1km-resolution products, will be refined and developed for national and regional application while small scale, 100m resolution, will be added for local applications. The new WFAS through data sets will develop along the concept product drilling. This will provide information for the management decision making process at various levels of wildfire suppression organization. This project is fully endorsed by the FDWT.

➤ **Timelag Dead Fuel Moisture Model for 10, 100, & 1000 Hr.**

The new, solar radiation based algorithm for the 10-hr. fuel moisture has been successfully tested. Data from 120 BLM RAWS were utilized to evaluate the algorithm. A system test is now planned in order to monitor data processing impacts. Positive results will permit operational implementation in WIMS. Research work is currently in progress on the 100-hr. and 1000-hr. algorithms.

➤ **Monitoring Live Vegetative Status and Fire Potential Using Advanced Very High Resolution Radiometer Data**

Roberts Bartlette, principal researcher (Missoula Fire Lab) has submitted to the Joint Fire Sciences Program a proposal to examine live fuel moisture estimates from satellite data. This effort is fully endorsed by the FDWT. Fire danger rating is in need of a better means to quantify live fuel moisture levels. This is an important factor in the determination of fire danger rating indexes and components. Participation by agencies with data collection of live fuel moisture sampling is welcomed.

➤ **Fire Family Plus Software**

A new version of Fire Family Plus (2.0) and its users guide are now available at <http://www.fs.fed.us/fire/planning/nist>. This version will produce data sets for direct input to FARSITE and includes FIRES application in determining fire business breakpoints.

➤ **Haines Index - Refinement for Local Use**

Funding has been acquired for refinement of the Haines Index. Work has been initiated on the national database. A mini-conference (2-3 days) on the Haines Index is planned. It is being verified to see if this mini-conference can be a sub-meeting at the Fire Ecology conference. This meeting is November, 2000, and is to be held in San Diego. At this meeting technical experts and researchers would be in attendance that can provide feedback to the project.