

Wildland Fire Climate Needs Roundtable

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In March 2011, Dr. Jack Hayes, NOAA Assistant Administrator for Weather Services and Director of the NWS, met with senior level representatives of the National Wildfire Coordinating Group to discuss NWCG requirements for weather and climate information that would improve firefighting operations and planning. The number one requirement brought up by the NWCG was climate information that could help them arrange resources and allocate funding effectively around the country in preparation for major wildfires. This presentation brings up the overall need for climate information for firefighting and the specific NWCG needs.

The overall need for information on projected long-term weather patterns is addressed in many high level documents, to include the 2008 NOAA Science Advisory Board "Fire Weather Research: A Burning Agenda for NOAA" report and the 2007 Office of the Federal Coordinator for Meteorology "National Wildland Fire Weather Needs Assessment". The requirements brought forth by the NWCG in 2011 validate and specify the needs from these documents.

The NWCG uses mid-range fore weather information for pre-positioning of initial attack resources (2-3 days in advance of an event) and movement of resources (typically 1-2 days to mobilize). They use long-range fire climate information to determine the start date of seasonal crews (which can only be used for 90 days), determine start date of air resources under contract, and to ascertain budget planning for fuel treatments. The NWCG specifically brought up needs for seasonal prediction of: (1) mean upper level flow patterns (500 mb level), (2) frequency of precipitation, (3) wind events, (4) relative humidity trends, and (5) predictions out to 120 days (at weekly or biweekly time-steps to show trends that could impact planning and operations). The NWCG also brought up need for climate information out to 2-3 years to help determine basis for fuel treatment and land management objectives, since planning that is impacted by climate change ties directly to fiscal year budget planning, and ensure firefighters know how climate variability and complexity interacts with fires; future potential impacts of climate on a decadal scale are also desired.

After the presentation the conference attendees discussed climate products and information that could address firefighting needs, especially those that could increase the ability of firefighting agencies and groups, like the NWCG, to assess the range of outcomes and narrow down range of plans.