

The National Fire Plan

North Carolina Fire Danger RAWS Towers

North Carolina

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Through a grant from the National Fire Plan, the North Carolina Division of Forest Resources Fire Danger Working Group is building 12 new fire danger RAWS (Remote Automated Weather Station) towers, according to Gary Curcio, the North Carolina Division of Forest Resources Fire Danger Program coordinator and chair of the Division's Fire Danger Working Group. Through another National Fire Plan grant, there are plans too upgrade the six older towers and stations already in service. The new

and old stations will be in compliance with new NWCG (National Wildfire Coordination Group) standards for fire danger RAWS.

Nine of the 12 new towers are already up and the fire danger stations are operational, Curcio said. "We hope to close the gap soon with the remaining three."

The new and upgraded towers will improve North Carolina's density of fire danger rating stations. These weather stations help in fire preparedness efforts by tracking weather variables that go into calculating and assessing the fire danger. The fire danger weather stations, old and new, will be equipped with cell phones or radios so that the information from the towers can be conveyed immediately to people in the field or on the fire line.

The towers have weather sensors located according to the new NWCG fire danger station standards. The DCP, the data collection platform on the station, is the "brain" of the station. A software program in the data collection platform initiates the collection of the measurements and transmits them directly to the Geostationary Operational Environmental Satellite, or GOES, operated by the National Oceanic and Atmospheric Administration, or NOAA. The GOES satellite saves the data from the towers and then retransmits them to a NOAA Command and Data Acquisitions, or CDA, ground station in Wallop Island, Virg.



From the ground station, the data is transmitted to a low orbiting satellite called the GOES DCS, or Data Collection System, DOMSAT, or domestic satellite, which relays the data to the station set up by the Bureau of Land Management in the National Interagency Fire Center, or NIFC, in Boise, Idaho. The BLM receives all the transmitted

weather satellite data for fire danger weather stations nationwide, for both state and federal land management agencies. The BLM's ASCADS, the Automated Sorting Collection and Distribution System, then transfers the weather data to various sites. It is placed on their internet site which is user id and password protected. ASCADS also sends it to WIMS, the Weather Information Management System. This is accessed by fire managers on a USFS user interactive internet site. WIMS contains the fire danger calculator used by fire managers to obtain processed fire danger indices.

Although there are many steps involved to get the data from the actual towers to the website, the transmission process is of very short duration. "All this is happening in seconds," Curcio said. "If I have a transmission time at 11:15, I can get my data in a minute at the BLM site."