

Fire Weather

Measurement & Control Systems



Campbell Scientific's RAWS-F Fire Weather Quick Deployment Station provides accurate measurements in harsh environments. These stations can be set up in less than 10 minutes—without tools.

Campbell Scientific has manufactured thousands of automated weather stations. Our stations are known for their versatility and reliability, even in harsh environments—two features that make them ideal for fire weather monitoring. Several configurations are available, but all our fire weather stations monitor, record, and transmit meteorological data relevant to fire danger prediction.

Our fire weather stations are equipped with a suite of high quality meteorological sensors for monitoring wind speed and direction, precipitation, air temperature, and relative humidity. Sensors such as fuel moisture, fuel temperature, soil water content, soil temperature, solar radiation, and many others can also be measured.

Data can be transmitted over a variety of telemetry options including satellite transmitters, telephone, cellular phone, and radio. In the United States, GOES¹ satellite telemetered data can be collected via NIFC² and stored to WIMS³ or collected directly from NESDIS⁴ using Remsoft's WeatherPro and NESDIS module. NFDRS⁵ indices are calculated using WIMS or WeatherPro.

Because our equipment can interface to many different sensor types and can measure large numbers of sensors, it can serve more than one purpose. For example, some of our equipment has monitored conditions near fire lines and been used for fire research during prescribed burns. Also, a suitably sited fire weather station could be used for avalanche forecasting in the winter. With the addition of a water depth sensor, a fire weather station could serve as a year-round hydrological monitoring station. Other combinations are possible.

System Benefits

Sensors such as wind speed, wind direction, air temperature, relative humidity, solar radiation, and fuel temperature and moisture, are often used in our systems.

Data transfer options include GOES satellite telemetry and the VSP3 Voice Radio Interface. The VSP3 allows you to call the station via a handheld radio and receive a verbal report. Phones, cellular phones, and RF may also be used.

Stations have proven reliability in harsh environments worldwide. Long-term operation is provided by batteries; solar panels can be used in many applications.

Fire weather stations can do double duty—ET calculation, hydrologic monitoring, avalanche forecasting, and more.

Stations provide on-board mathematical and statistical processing.

Stations are compatible with Remsoft's WeatherPro software. Powerful software supports programming, data retrieval, and data display.

Maintenance contracts are available.



The versatility of our stations stems from the capabilities of our measurement system.



Our CS506 and CS205/107 provide automated fuel moisture and temperature measurements of a 10-hour fuel dowel.

1-Geostationary Operational Environmental Satellite

2-National Interagency Fire Center

3-Weather Information Management System (database)

4-National Environmental Satellite, Data, and Information Service

5-National Fire Danger Rating System

Quick Deployment Station

Our RAWS-F Fire Weather Quick Deployment Station is ideal for prescribed burns or other temporary installations. Customers can setup the station in as little as 10 minutes—without tools. Each RAWS-F station is pre-programmed to monitor wind speed and direction, air temperature and relative humidity, precipitation, barometric pressure, and solar radiation sensors. This program complies with the National Fire Danger Rating System (NFDRS) weather station standards.

A RAWS-F station consists of an aluminum environmental enclosure mounted to a 6 ft tripod. The enclosure houses and protects a CR1000 datalogger and a 12 V battery that is recharged via a solar panel or an AC transformer. To facilitate sensor connection, the outside of the enclosure has color-coded, keyed connectors. A wiring panel is also provided allowing the RAWS-F to measure additional sensors.

Communication options include our GOES satellite transmitter and the VSP3 Vosponder Voice Radio Interface. The Vosponder allows customers to call a RAWS-F station via a hand-held radio and receive verbal reports of real-time conditions. Our RAWS-F station is compatible with other communication equipment such as telephones, digital cellular transceivers, and RF.

Our RAWS-P Quick Deployment Station has connectors that are color-coded, keyed, and labeled—simplifying the attachment of sensors.



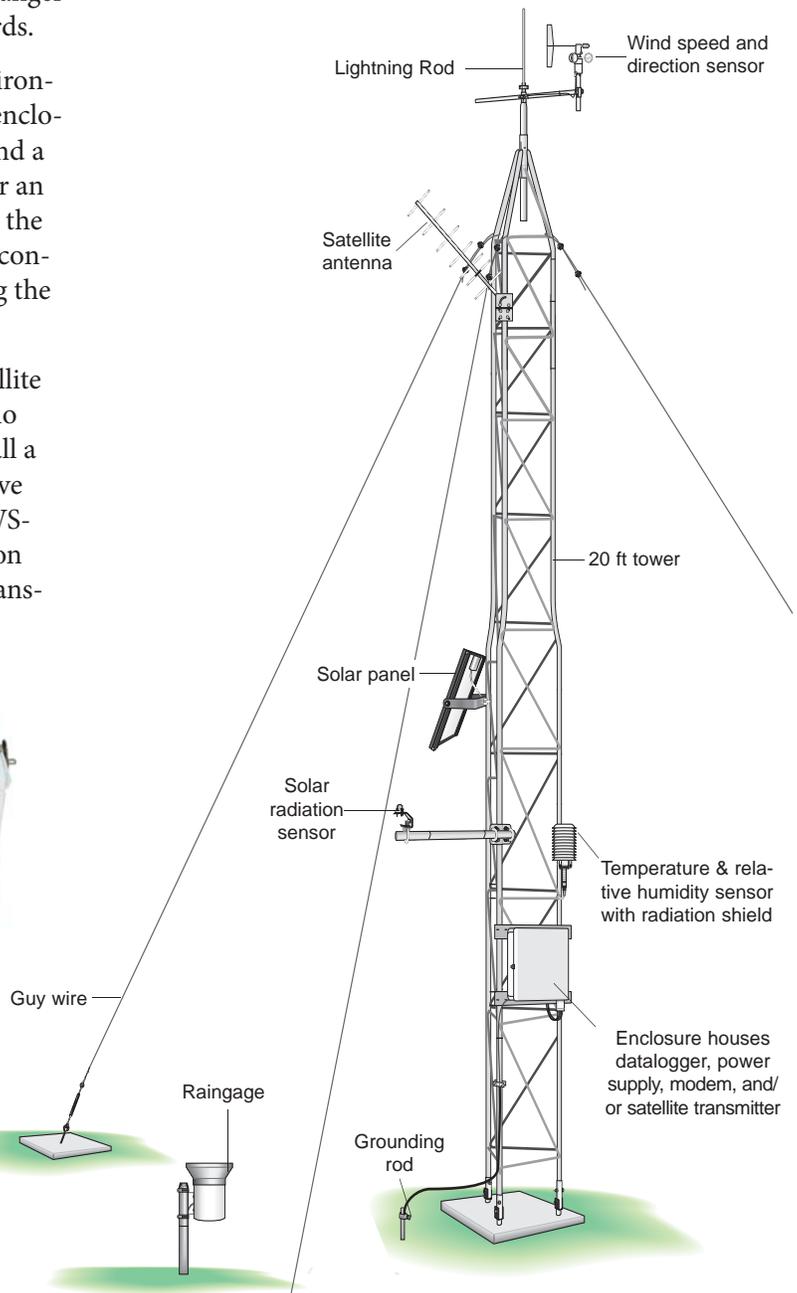
Permanent Stations

Custom Stations

Campbell Scientific provides a wide selection of sensors and data transfer peripherals for configuring a custom station that matches the exact requirements of your application. Permanent fire weather stations typically use 20 ft towers. We also offer 10 ft and 30 ft towers, 6 ft and 10 ft steel tripods, and 10 ft, 15 ft, and 20 ft aluminum tripods.

RAWS-H Data Collection Platform

Our RAWS-H contains a CR1000 datalogger with a Handar sensor connector panel. Customers can replace a Handar Data Collection Platform with our RAWS-H Data Collection Platform and continue to use their existing Handar sensors, enclosure, power supply, and tower.



Permanent stations are configured by choosing from a variety of dataloggers, sensors, mounts, and communications options, ensuring an exact match for your application.

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