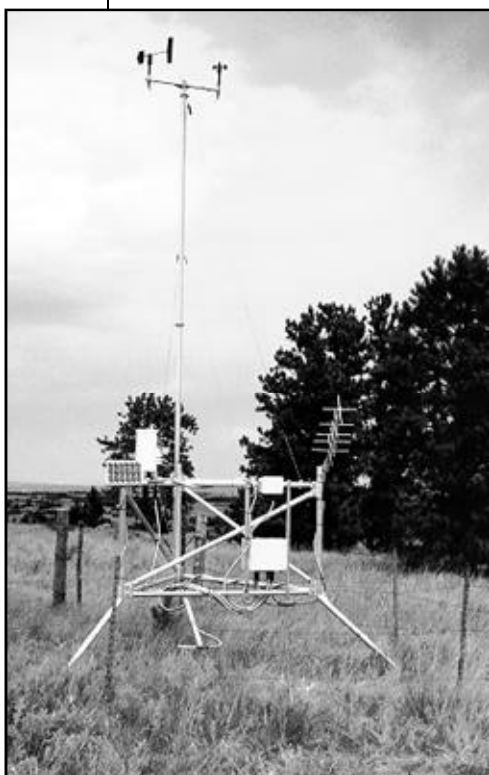


Remote Automatic Weather Stations

Remote Automated Weather Stations (RAWS) are weather stations set up on tripods, and they look like little “Lunar Landers.”

The data collected from these stations are used in numerous applications, including fire weather, climatology, resource management, flood warning, noxious weed control, all-risk management, and air quality management.



RAWS are often in isolated areas that are accessible only by all-terrain vehicles, helicopters, snowmobiles, or by backpacking to them.

These solar-powered units gather important weather information on an hourly basis. RAWS sensors monitor:

- Wind speed and direction
- Wind gusts
- Precipitation
- Air temperature
- Solar radiation
- Relative humidity
- Fuel moisture
- Soil moisture and temperature.

About 1,850 RAWS are strategically positioned throughout the United States.

RAWS units collect, store, and forward data hourly (via satellite 22,300 miles above the equator) to a computer system located at the National Interagency Fire Center, Boise, Idaho.

Weather information travels from the RAWS units to a satellite and then back to earth in one-quarter of a second.

Each RAWS unit operates on eight to 10 watts of power, which is nearly equivalent to the power needed to operate a hand-held radio. The battery lasts about three years.



The hourly weather information collected by the RAWS is transmitted through a satellite, back to NIFC, and then distributed to various locations via the internet.

A standard RAWS unit costs about \$13,000.

Fire RAWS are portable units that can be set up during a wildland fire to provide early warning to fire line personnel as weather conditions change, help specialists determine fire behavior and fire weather.

Additionally, Fire RAWS are installed at locations in response to disasters such as the World Trade Center and the Columbia Shuttle Recovery.

