

# Fixed Remote Automated Weather Station (RAWS)



The fixed Remote Automated Weather Station (RAWS) is the standard for remote automated weather stations used in North America for fire weather monitoring. It is designed specifically with the interests of fire and fuels management agencies for use in remote areas, requiring only annual service and maintenance. From the assembly of a new station at a remote location to yearly service and maintenance, the design of the fixed RAWS shows our extensive 40 years of experience in the market.

- Every component meets or exceeds US National Fire Rating System standards.
- Approved, certified and serviced by the Remote Sensing Fire Weather Report Unit.
- (Optional) Pre-configured for fire applications and compliant with the Wild Land Fire Management Information database

## More Than Fire Monitoring

Being both flexible and expandable, the fixed RAWS can be used in a variety of applications, from meteorology to oil and gas to land management and more. A RAWS can also be expanded by adding virtually any analog sensor with the optional SDI-AM module.

### EXAMPLES OF SENSORS THAT CAN BE EASILY ADDED

- Barometric pressure
- Soil moisture
- Ultrasonic wind speed direction
- Snow depth
- Soil temperature
- Visibility
- All-weather precipitation
- Air Quality
- Turbidity
- Pressure transducer
- Bubbler (water level)
- Multisondes



# Fixed Remote Automated Weather Station

## Enclosure and electronics

Made from durable heavy-gauge aluminum, the enclosure houses the Axiom data logger and a 6-cell, 12-volt heavy duty battery.

## Axiom Data Logger

The Axiom data logger is the most rugged and durable, yet very simple to use data logger available. This clever design, born out of our experience meeting the strict reliability demands of the North American fire weather market for over 40 years, provides an extremely low total cost of ownership.



## Tri-leg Tower Mast

The folding mast provides fast, easy access to wind sensors. Masts are available in 20ft, 25ft and 10m heights. A winch kit is available to raise and lower the mast, allowing a single person to service and maintain the site without having to do any climbing.



## Solar Radiation Sensor (Pyronometer)

The SDI-SR-PYR Solar Radiation sensor is a pyranometer that measures the amount of sunlight exposed to fuels. It is a digital sensor with SDI-12 digital interface output, and stores all calibration coefficients within the sensor.

## EON2 CS2 GOES Antenna

The EON2 CS2 requires no assembly, and no aiming in most locations. Rugged by design, it is completely sealed for marine environments and dome-shaped for superior ice/snow shedding. This one antenna replaces separate GOES and GPS antennas.



## Fuel Stick

The optional FS-3 fuel stick measures fuel moisture and temperature.





### Wind Speed and Direction Sensor

The SDI RM Young Wind Monitor is a mechanical dual wind sensor with an SDI output that accurately measures wind speed and direction. The SDI-12 interface avoids the complexity of measuring the AC wind speed signal or the potentiometer output.

### Rain Gauge (Tipping Bucket)

The RG-T rain gauge measures precipitation in increments of .01 inch (0.254mm), each hour.

### Air Temperature and Humidity Sensor

The THS-3 Air Temperature and Humidity Sensor is a high quality, precision temperature and humidity sensor housed in a durable solar radiation shield. An SDI version is also available.

### Solar Panel

Most stations operate on a battery, which is recharged by a solar panel. A 20W solar panel is most common, but 10W and 50W panels are available when needed by site-specific conditions.

### Adjustable Legs

The three legs of the Tri-leg tower are adjustable in length to permit the tower to be installed on uneven ground. The feet can be anchored with metal stakes, or rocks can be piled on top of the feet.

### Tri-leg Tower

The Tri-leg tower provides a solid frame to mount sensors and other equipment. Anchored to the ground, it is able to withstand sustained 125 mph (201 km/h) winds without requiring setting in a concrete base.

# Features and benefits

## ZERO CIVIL WORKS COST REQUIRED

No cement or special engineering required. The tower provides exceptional strength and stability as a free-standing structure assembled with only a few hand tools. No need to pour a cement pad in your remote location!

## TECHNICIAN SAFETY

Doesn't require climbing to service wind sensors. The mast can be lowered and raised by only one person, making it easy to access the wind sensor.

## EASY TO TRANSPORT

The entire structure can be shipped on a single 7' x 4' pallet. With or without the pallet, it can also fit in a pickup truck.

## QUICK AND EASY TO SET UP

Assembled and anchored in one hour by two people, with a minimum of tools. Adjustable legs permit installation on uneven terrain. Full setup instructions on only two laminated "Quick Start" sheets.

## SMART DESIGN ENSURES DATA INTEGRITY

By aligning one side of the triangular tower to true east/west, all of the station components requiring alignment will automatically be aligned when installed. This ensures sensors are optimally positioned, even by novice technicians.

## ENVIRONMENTALLY-FRIENDLY

Set-up and takedown is generally unobtrusive resulting in limited environmental damage.

# The FTS Axiom Data Logger

## No laptop, no programming required.

The Axiom is the first and only fire RAWS data logger to offer a waterproof, industrial-grade, daylight-readable, color integrated touch screen. We integrated the computer and software right into the data logger, eliminating the need for field laptops and cables.

- No more wind and rain damage, low battery or “where do I put the laptop?” hassles.
- No complex software to install, maintain or learn.
- Graph sensor data, view current readings, profile battery performance, change annual rain count, and more, in any weather condition.



## Rapid site visits

By embedding the software and user interface right into our sixth-generation data logger, we were able to meet our customers' predominant desire: less time spent doing site visit tasks.

- Download years worth of data within seconds via any standard USB flash memory stick. Review on your PC later.
- Electronic site visit reports eliminate manual report writing. All activity during the site visit is recorded (included sensor serial number changes), and a full set of quality control documentation is completely automated. The file can be easily sent to WFMI/CMMS.

## Extreme Ruggedness

Because reliability is paramount and any downtime means lost data and increased liability, the Axiom is engineered for long-term durability in the harshest environments with these included features.

- Three levels of lightning protection.
- The entire unit — the cast aluminum alloy, O-ring sealed case, touchscreen and all ports — is completely impervious to the elements.
- Positive-locking, waterproof, color-coded, plated, corrosion resistant, military-style bayonet connectors.

