



MWS™

Micro Weather Sensor™

ISI's **Micro Weather Sensor (MWS)™** is a low-cost, lightweight, ruggedized, highly integrated unattended ground sensor (UGS) capable of being deployed globally in remote or denied locations for meteorological monitoring to improve situational awareness. The MWS™ can be hand- or air-emplaced and supports continuous, real-time weather reporting for ground and air operations, including incident meteorology for wildfire and disaster support.

The MWS™ condenses all weather observation capabilities into a single, compact package weighing 3.5 pounds, including unique integrated features such as a micro LIDAR for cloud height measurement, 360° panoramic imaging for “eyes on the ground” observations, self-locating GPS and compass, and a host of state-of-the-art sensors to give a complete, current, and accurate weather picture. Internal rechargeable batteries for sustained operations as well as global satellite command/control connectivity allow for fully remote, autonomous operation of the system. With its unique mix of capabilities, the MWS™ provides an enhanced and unparalleled military system capability at a significantly reduced cost compared to current tactical meteorological systems.



Measured/Calculated Parameters

- » Temperature
- » Pressure
- » Humidity
- » Cloud Ceiling
- » Wind Speed
- » Wind Direction
- » Angular Tilt
- » Visibility
- » Dust Accumulation
- » Lightning
- » Global Position
- » Visual Imagery
- » Compass Reading
- » Precipitation Amount
- » Present Weather



Future Developments

- » Deployable Weather Observation System
- » Fixed-base Weather System
- » Chemical Detection
- » Biological Detection
- » Radiological Detection
- » Acoustic Sensing
- » Air Emplacement Kit
- » Maritime and Shipboard METOC Sensing
- » Fire Weather Deployment



Unique Features

Solar Cell Array and Onboard Nickel-Cadmium Batteries

Continuous operation and the ability to endure extended periods of harsh environmental conditions and rugged deployments

Onboard GPS

Ability to time-synchronize and provide global location throughout deployment

Low-Cost, Lightweight, and Rugged

Easy transport and 60-second installation

Onboard Imaging Capability

Provides enhanced situational awareness of current weather conditions to enable critical low cloud and restricted visibility validation

Integrated Iridium Satellite Transmitter and Receiver

Transmits data to command and control elements via satellite and is capable of receiving change commands for observing or image requests

Onboard Sensors

Builds complete meteorological airfield observation to provide remote data collection

Expansion Port

Allows new capabilities to be added and easy integration of other fielded sensors, including laptop connectivity, external power, CBRNE, surveillance, solar radiation, fuel moisture, and other remote battlefield sensors



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