

MWS™ MICRO WEATHER SENSOR™

/// OVERVIEW

POC'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 either hand- or air-emplaced and supports continuous, near-real-time weather reporting for ground and air operations, including incident meteorology for wildfire or disaster support.

The MWS condenses all weather observation capabilities into a single, compact package weighing less than four pounds, including

unique integrated features such as a micro LIDAR for cloud height measurement, panoramic imaging for "eyes on the ground" observations, self-locating GPS, and a host of state of the art sensors to give a complete, current, and accurate weather picture. Internal, replaceable batteries for sustained operation of 90 days or more 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 currently-employed tactical meteorological systems.



/// FEATURES

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| SOLAR CELL ARRAY & ON-BOARD NICKEL-CADMIUM BATTERIES | Minimum 90-day operational life, including overnight operation, and the ability to endure long periods of overcast or other low-light conditions |
| ON-BOARD GPS | Ability to time-synchronize and globally locate itself once deployed |
| BUILT-IN IRIDIUM SATCOM TRANSMITTER | Transmits data to command and control elements via satellite |
| LOW COST, LIGHTWEIGHT AND RUGGED | Enables easy transport and placement |
| IMAGING SENSORS ON BOARD | Provides situational awareness and visual validation of weather conditions to enable boundary forecasting/microscale modeling |
| ON-BOARD SENSORS | Builds complete local weather picture |
| EXPANSION PORT | Allows new and/or additional capabilities to easily be added to the sensor suite (Laptop connectivity; external power; CBRNE, surveillance, and other remote battlefield sensors) |



/// SPECIFICATIONS

KEY ADVANTAGES

- Designed to MIL-STD-810G environmental requirements and AFMAN 15-111
- Measured/Calculated Parameters

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

/// FUTURE DEVELOPMENTS

- Fixed-Based Weather System
- Chemical, Biological and Radiological Detection
- Acoustic Sensing
- Air Emplacement Kit