

TacMet[®] Tactical Meteorological Observation System MAWS201M for defense applications

Product Spotlight

Making weather your ally

Portable, rapid-deploy weather intelligence for mission critical operations.

When weather intelligence is vital to mission success, the Vaisala TacMet[®] MAWS201M delivers high-performance, real-time meteorological data wherever and whenever you need it.

Designed for defense operations such as small landing strips, drop zones, test ranges, UAV systems, and uncategorized airports, TacMet MAWS201M provides complete situational awareness in a compact, lightweight, and robust package. Gain a strategic edge with reliable, aviation-grade weather support in any environment.



Key benefits

Rapid deployment: Set up the basic system in under 15 minutes for immediate weather monitoring. Lightweight, portable cases and quick-release connectors ensure fast, efficient field operation.

Comprehensive aviation support: Measure wind speed and direction, temperature, humidity, pressure, and precipitation. Enhance the system with cloud height, coverage, visibility, and freezing rain detection for full aviation-grade situational awareness.

Mission-ready durability: Engineered for harsh environments, TacMet MAWS201M operates from -50 to +60 °C (-58 to +140 °F), with IP66-rated protection and robust mechanical design for reliable performance in the field.

Versatile power options: Operate on AC power, integrated solar panel, or internal battery providing up to 7 days of autonomous operation. Simultaneous solar and AC inputs ensure continuous uptime.

Secure, actionable data: Preconfigured digital displays deliver automatic METAR and SPECI reports, customizable alerts, and secure data distribution to command centers. Built-in diagnostics and quality control ensure data integrity.

Reliable weather monitoring for defense missions

The Vaisala TacMet® MAWS201M is a compact, portable, and rugged automatic weather station designed for rapid deployment in mission-critical defense scenarios. Its modular design allows for tailored configurations, from basic weather monitoring to enhanced aviation support with cloud, visibility, and freezing rain sensors. The system's robust construction and IP66 rating ensure reliable operation in the harshest environments, while intuitive setup and operation minimize training requirements. TacMet provides accurate, real-time data to support confident decision-making and reduce mission risk.

Its advanced quality control, statistical calculations, and automatic reporting capabilities ensure your teams receive actionable weather intelligence at every stage of the operation.

With standard wireless (UHF/VHF) and landline communication options, TacMet MAWS201M integrates easily into existing command and control systems. Optional AviMet® software enables automatic data archiving, transmission, and customizable reporting for mission-specific needs.

High performance, operational flexibility and interoperability

TacMet MAWS201M's modular sensor options and flexible power configurations allow you to adapt the system to any mission profile. Its built-in diagnostics and rapid field-replaceable sensors ensure maximum uptime and minimal maintenance. The system's lightweight design - starting at just 44 kg for the basic configuration - makes it easy to transport and deploy, even in remote or austere environments. TacMet MAWS201M supports standard aviation weather messages (METAR, SPECI) and complies with international safety and EMC standards, ensuring reliable, interoperable operation across diverse defense platforms.

Why Vaisala?

With nearly 90 years of experience in weather and environmental technology, Vaisala is the world's most trusted provider of weather observation systems for tactical operations.

Vaisala's ISO 27001 certification demonstrates we take every measure to ensure information security, giving you confidence that your operational data is protected at every stage.

We provide 24/7 global support, extensive project capabilities, and thorough training throughout the entire lifespan of your system to help you make weather your ally when it matters most

