

Cirrus® Sounding System MW51 for defense applications

Product Spotlight

Making weather your ally

Portable, secure multisoundings for mission-critical weather forecasts

When weather forecasts are critical to the mission, upper-air soundings can make the difference in complete situational awareness. Vaisala radiosondes provide world-class data: Now you can release multiple radiosondes, receive all data simultaneously, and monitor fast-changing weather conditions in real time to gain a strategic edge in atmospheric measurements and forecasting.



Reliable monitoring with robust security

Vaisala Cirrus® Sounding System MW51 is a compact, secure, and portable solution for mission-critical weather forecasting, built for harsh conditions. With multisounding, release multiple radiosondes and receive all data simultaneously, for real-time monitoring of rapidly changing weather. Increase data frequency and coverage with a streamlined process managed by just one operator.

Data encryption and buffering prevent loss or tampering, while secure login and user management ensure industry-leading security. Intuitive software and customization options simplify setup and use.

Secure weather intelligence

Use real-time data from MW51 to generate mission-specific weather forecasts for scenarios like space launches, field artillery, test ranges, and naval operations. Enhance situational awareness, reduce uncertainty, and improve decision-making to minimize the risks of mission failure. The advanced MW51 is specifically designed for defense applications. It prioritizes robust cyber security through a transparent security architecture and regular updates. Complying with the latest industry standards and best practices, MW51 ensures secure and reliable operations.

High performance and seamless integration

Built on state-of-the-art software and hardware, including the Vaisala DigiCORA sounding software and Vaisala SPS511 Processing Subsystem, MW51 delivers top performance and accuracy. Its software diagnostics quickly and precisely identify error sources for efficient troubleshooting and maintenance.

With a long telemetry range and high resistance to near-band interference, MW51 ensures reliable and uninterrupted data transmission in challenging environments.

MW51 leverages NATO-standardized STANAG weather messages to ensure seamless interoperability in defense operations. This enables consistent meteorological data exchange across diverse platforms, allowing direct connection with fire control and command systems.

Key benefits

Multisounding capability: Release multiple radiosondes and receive all data at once for real-time insights – ideal for monitoring fast-changing weather conditions.

Iron-clad data security: Ensure data integrity and security for threat protection and operational confidence. MW51 offers encryption, buffering, secure login, and regular updates.

Intuitive software: Speed up deployment with plug-and-play software, an intuitive interface, built-in quality control checks and customizable settings to meet your specific operational needs.

Mission-specific forecasts: Generate mission-specific forecasts using up-to-date data from the MW51 system for confident decision-making and reduced risk of mission failure.

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.

