



Measurement. Solutions. Performance.

/ WEATHER MEASUREMENT SYSTEMS FOR DEFENSE APPLICATIONS



VAISALA

www.vaisala.com

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www.vaisala.com or contact
us at sales@vaisala.com

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VAISALA



Reliable weather information is essential

Weather knowledge – more important than ever

In field operations, a superior knowledge of weather conditions has always been advantageous. The impact of weather on operations is even more important in the age of high technology. While modern numerical weather models enhance weather forecasting capabilities, immediate, local weather observations are essential to create

accurate weather data reports in support of operational safety.

Asserting operational superiority

Weather information is an important element of the recognized environmental picture. Accurate

weather measurements lead to improved operational efficiency, both in terms of troop readiness for adverse weather conditions and in terms of the performance of complex systems. In short, Vaisala's weather observation solutions are a key contributor to your tactical superiority.

Improved safety

Military operations and disaster response missions often take place over complex terrain and in urban areas. Knowing the present weather conditions lowers the risk for both personnel and equipment losses. This has created a need for new, often

mobile, approaches to measuring weather phenomena – a need which Vaisala foresaw and has moved quickly to fulfill.





Solutions for **your full** operational **performance**

Ballistic trajectory corrections

Failing to properly adjust for meteorological conditions accounts for up to two-thirds of long-range fire error. Using updated accurate local weather data, an operator can increase first-round-on-target probability by more precisely compensating for wind and air density.

Situational awareness and resource protection

Vaisala's field-proven instruments and observation systems help safeguard troops and civilians by delivering weather information to all levels of the command chain. In addition, weather data is needed for responses to CBRN threats and as input into the dispersion models of toxic material releases.

Unmanned Aerial Systems (UAS) support

Medium and small sized unmanned aerial vehicles (UAV) fly at low altitudes and are directly affected by weather. Considering the high value of the airframes and payloads, accurate weather information is crucial in mission planning as well as during take-off and landing.

Aviation support

Whether you operate a temporary airstrip or a large air base, Vaisala can provide the optimum, scalable solution for your weather observation needs.

The Vaisala Tactical Meteorological Observation System (TacMet) provides deployable full aviation weather monitoring capability, suitable for temporary airfields, heliports and UAS operations. We also provide fixed base aviation weather solutions – from single site to multi-site – with RVR capability. All Vaisala defense aviation systems fulfill ICAO and FMH-1 requirements, and WMO recommendations.

Naval meteorology and electro-optical sensor performance

Proper weapon systems performance calls for accurate atmospheric information. It is also important for improving passive countermeasures.

Vaisala provides a comprehensive selection of shipboard weather observing instruments and data collection systems to provide your ships with real-time weather data.

Profiling from aircraft

Dropsondes profile winds to enable precision payload drops from high altitudes. In addition, ducts and other strongly refractive layers can be obtained from the temperature and humidity profile. Dropsondes are also used to provide data for numerical weather models for forecasts and atmospheric research.

Vaisala's dropsonde application is designed to acquire data from areas that are otherwise data-sparse or where access is denied or otherwise impractical.

Test range and launch center support

Ensuring a safe launch requires continuously updated weather data from the surface to high altitudes, including warnings of possible hazardous weather conditions. Vaisala offers a full range of meteorological observation systems, including weather radars, wind profilers, surface weather networks and lightning detection systems.





Sharpening your senses

Your trusted ally

Decades of co-operation with defense forces have given Vaisala an understanding of tactical weather requirements. Our wide range of observation systems can provide the solution, whatever your application.

Vaisala's unique ability is to provide complete end-to-end service, including project management, training, installation, maintenance and full logistic support with mid-life upgrades. We are your trusted ally.

Comprehensive training

Vaisala offers a wide variety of training courses, which cover all aspects of systems, operations and

maintenance. Choose training courses at a Vaisala facility, in the field or at your depot. Our highly experienced instructors first provide a solid grounding in theory, and then help course participants hone their skills by applying what they have learned.

Project management

Vaisala's project and program management teams assist you in planning, site surveys, installation and testing. Our AQAP 2110-certified organization has accumulated experience in managing turnkey projects worldwide.

Support & maintenance

Even the most reliable systems need scheduled support and maintenance. Our global presence ensures that you get assistance wherever – and whenever – you need it.

Should you opt for outsourced services, modular Vaisala service contracts and Vaisala Lifeguard maintenance programs can guarantee the availability of critical weather data around the clock. The appropriate service contract will ensure that a support engineer is available to answer your questions on a 24/7 basis through Vaisala Helpdesk.

There when you need us

Vaisala mid-life upgrades provide extended system service life and lower lifetime costs. Our planned upgrade path guarantees the availability of spare and replacement parts throughout your system's life-cycle.

Approved: ISO 9001:2000H and AQAP 2110
Assured quality: product certificates assure performance and quality.
Compliant: meets applicable international standards and recommendations, including ISO, ITU, CE, and ETSI.
Interoperability through standardization: includes STANAG, WMO, ICAO, and de-facto standards.
Approved GSA Supplier

Vaisala – right at the heart of it.

Curiosity, the desire to meet challenges and an extraordinary ability for innovation are at the heart of the company – both past and present. Through the years our expertise has grown to include three business areas:

Weather Critical Operations serving operators and authorities whose primary interest is the safety and effectiveness of operations under all weather conditions.

Meteorology serving national meteorological and hydrological institutes whose primary interests are the safety and well being of people and the safeguarding of property.

Controlled Environments serving industrial customers whose primary interests are in operational quality, productivity and energy savings.

Curious? Learn more about Vaisala at vaisala.com

