Vaisala MARWIN® Sounding System

for military operations.

Features & benefits

- Guarantees more precise and efficient military operations
- Rugged design, no moving parts
- Extremely simple to operate
- Resistance to shock and vibration
- Over 30 options of meteorological parameters including STANAG 6022 METGM message and BUFR

The new Vaisala MARWIN® Sounding System MW32 for military use will be launched in spring 2009. It complements well the Vaisala offering of weather measurement systems for military use. Vaisala is the world's most trusted supplier of meteorological measurement solutions providing accurate, reliable and field-proven weather observation systems. The MW32 is no exception. It is backed by our 70 years of experience in the weather instrumentation industry and our world-wide sales and support network.

The new Vaisala MARWIN® Sounding System MW32 is a military meteorological system for upper air observations that are essential for meteorological support to field artillery, Multiple Launch Rocket Systems (MLRS) and UAVs. By the help of accurate weather information you will be able to carry out your operations more precisely and more efficiently.

Compact system design

The MW32 system consists of a ground-based receiver/processor system with antennas and a free-flying balloon coupled with a radiosonde. The display unit of the new sounding system consists of an 8.4 inch daylight viewable display and control panel. The unit has five software controlled keys and five dedicated keys for operator control. It also has an alphanumeric keyboard for data input. The display unit and connector panel have been designed using MIL-STD-1472F as a guideline.

The system can be operated, assembled and disassembled with gloves or arctic mittens on.

Connector spacing ensures trouble-free connection and disconnection in all environmental conditions, and the connector panel at the side has military grade connectors for all cables needed.

Vaisala MARWIN® Sounding System, designed for special military requirements

Easy operation

Operating the Vaisala MARWIN® Sounding System is straightforward and user-friendly with a self-guiding menu. The operating steps are kept at minimum and require only

1) powering up the system
2) connecting a radiosonde to the system using a cable
3) the MW32 system automatically sets up the radiosonde and itself for launch

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VAISALA

All you need to measure the upper air atmospheric profile.

Rugged design for tough military use

The new MW32 sounding system has been designed from the beginning with tough military use in mind. It benefits from Vaisala's experience in the meteorological field and over 30 years of military radiosonde system design and leadership. Although the MW32 has no cooling fans it is designed to use conductive cooling specially for demanding military use. This enables effective cooling and closed case without fans and related openings for cooling air.

Versatile connectivity to various external systems

The Vaisala MARWIN® Sounding System MW32 design and construction allow easy connectivity to various external systems and devices. It has one integral LAN line, two USB lines and four serial lines. The sounding system supports also the PCSERV protocol of legacy Vaisala MARWIN® Sounding System MW12 systems so the MW32 can act as a drop-in replacement for the MW12.

NATO compatible messages and meteorological data

The Vaisala MARWIN® Sounding System MW32 includes as standard all the NATO specified STANAG meteorological messages including the latest STANAG 6022 METGM message. The messages include also computer met message, ballistic met message and met messages for fallout, target acquisition and sound ranging. World Meteorological Organization (WMO) TEMP, PILOT and BUFR messages are also available as standard.

Vaisala MARWIN® Sounding System MW32 display and console keyboard

The MW32 can calculate, store and output over 30 meteorological and related parameters in user-defined data sets. This allows users to tailor the data output for any special requirements needed. The Vaisala sounding system complies with the NATO Working Group's (BMWG) latest recommendations for data format.

GPS Wind Finding

Vaisala MARWIN® Sounding System can use either standard Vaisala Radiosonde RS92-SGPs or Vaisala Radiosondes RS92-AMs for military use. For full capability of the RS92-AM with the MW32 a Precise Positioning Service (PPS) receiver, such as the Rockwell-Collins DAGR, is needed.

Resistance to shock and vibration

The MW32 is well protected against shock and vibration encountered in military operations in both mounted mobile use and when used as a portable system. Sounding system design and construction comply with MIL-STD-810F specifications for transportation vibration, functional shock and transit drop.

Antennas

The Vaisala MARWIN® Sounding System MW32 has several antenna options available for different applications. The Vaisala portable antenna set CG31 consists of a UHF antenna for radiosonde reception and a GPS antenna for GPS satellite signal reception. These are readily mounted on a tripod and the antenna can be folded open for use in a minute.

Transportation cases

Vaisala MARWIN® Sounding System and its accessories use similar robust transportation cases as Vaisala TacMet® Tactical Weather Observation System. The transportation cases are made of cellular polypropylene (EPP) providing excellent cushioning during transport.

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