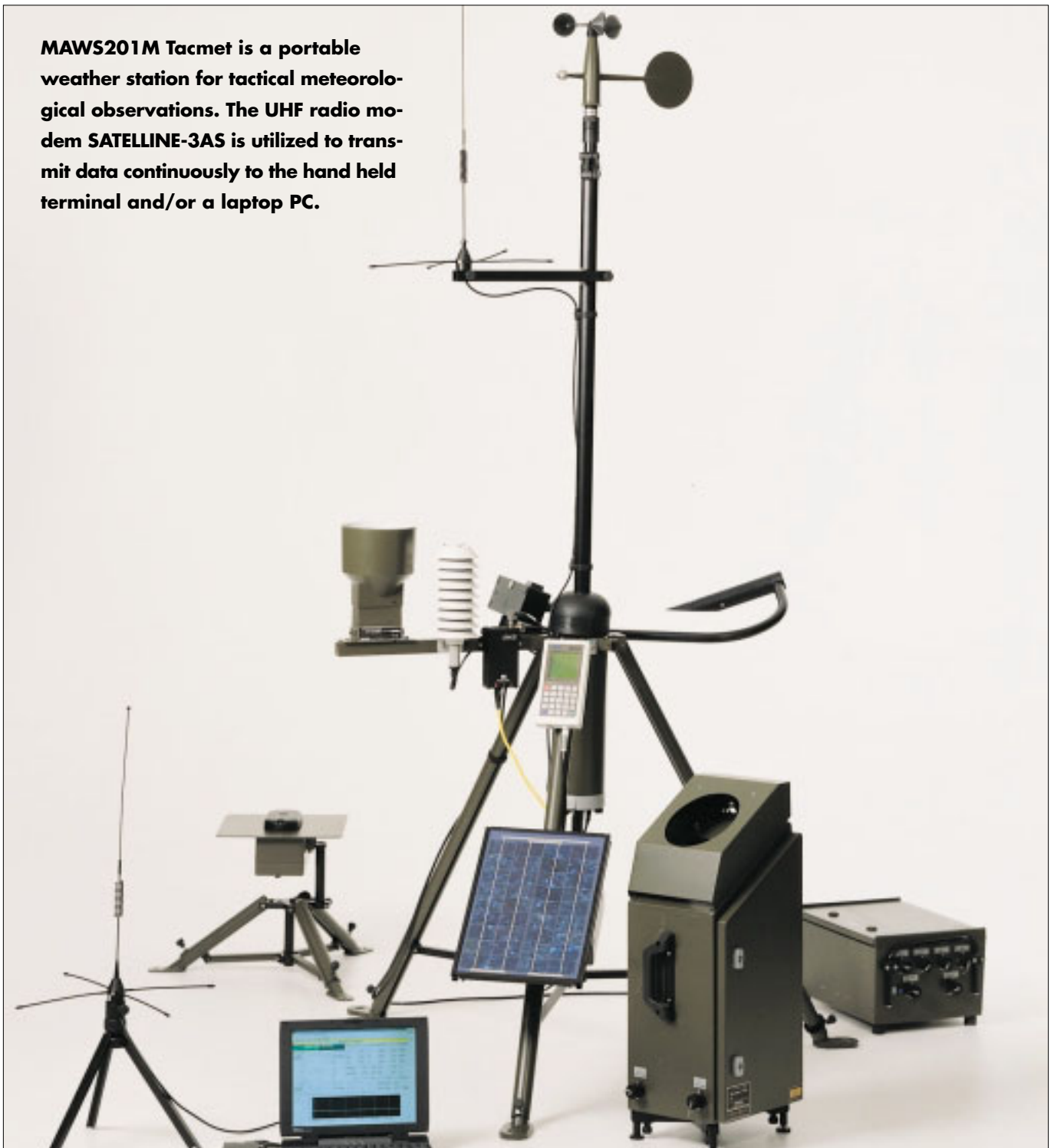




APPLICATION NOTES FOR SATEL RADIO MODEMS

SATELLINE-3AS radio modem with Vaisala Automatic Weather Station

MAWS201M Tacmet is a portable weather station for tactical meteorological observations. The UHF radio modem SATELLINE-3AS is utilized to transmit data continuously to the hand held terminal and/or a laptop PC.



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There are numerous applications in our everyday life where knowing the weather conditions would improve the quality or safety of life, productive or the competitive edge. However, often the meteorological measurements are seen time consuming, expensive and requiring too much expertise in order to being a common practice. Telecommunication, getting the data from remote places, is also frequently considered expensive and difficult to arrange.

Vaisala Automatic Weather Stations (AWS) have been designed to overcome these obstacles. The MAWS301 Automatic Weather Station is a new generation weather station especially design for applications where no commercial power or communication networks are present or economically installed. MAWS301 is a compact, scalable, environmentally robust and a low power system to provide reliable and continuous data of a broad range of meteorological and hydrological parameters. It is based on the latest technology both in measurements and communication. MAWS301 interfaces with various telecommunication equipment such a PSTN and GSM modems and UHF radio modems as well as satellite transmitters. Imbedded with sophisticated, yet easy to use, technology MAWS is the ideal choice for a wide range of meteorological applications where reliability and accuracy are required in meteorological measurements and at low cost-of-ownership.

For weather forecasting or for early warning of bad weather, the data is also required from very remote places, where no commercial telecommunication services exist. Also, the locations may often be beyond cellular coverage or in valleys shadowed by mountains. There are also applications where the reliability of the communication is a major issue under emergency situations such as severe flooding or bush fire. In these applications the UHF radio communication has proved to be most economical and reliable way of transmitting valuable meteorological data.

Vaisala is successfully incorporating the Satel's SATELLINE-3AS radio modems in the MAWS systems. For portable research and tactical meteorological systems Vaisala and Satel together developed a special lightweight but robust weather enclosure for SATELLINE-3AS. This will allow a quick, easy and cost effective equipment deployment even under difficult weather and operating conditions.

When using UHF radio modems in the weather stations networks the data can be transmitted practically at no cost even to several different users of the data. One single weather station can serve as a repeater



for several other stations thus extending the communication path to tens of kilometers. The modern radio modems such as SATELLINE-3AS are well suited for applications where a solar panel is used for powering the entire weather stations.

SATELLINE-3AS installed in a special weatherproof enclosure in the MAWS201 system.

Vaisala is the leading supplier of the meteorological and environmental measuring systems and equipment in the world. Their equipment are marketed globally for meteorology, environmental sciences, traffic safety and industry. The main customer groups include meteorological services, research institutes, air and road traffic authorities, defence forces and industry.

More information on Vaisala at www.vaisala.com



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