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Chilean Navy Weather Service Invests in Vaisala Automatic Weather Stations

The Chilean Navy Weather Service has undertaken a 10-year METEO project to improve the reliability and accuracy of coastal weather information and has selected Vaisala Automatic Weather Station MAWS301 to meet their goals. The objective of the project is to improve the safety at sea by spreading more current information to ships along the Chilean coast.

Over the course of 2003 the Chilean Navy Weather Service (CNWS) decided to launch a 10-year project called METEO. An integral part of this project is the installation of Vaisala Automatic Weather Station MAWS301 in 20 existing Coastal Synoptic Stations as well as 20 new observa-

tion stations to be set-up along the coast. The MAWS301 station is equipped with sensors to measure wind velocity and direction (WAS425S), air pressure (PMT16A), and temperature, relative humidity, and precipitation (QMR102). The investment in the top of the line MAWS301 will help improve the reliability

and accuracy of the data being collected from the various weather stations along the Chilean coastline.

Making measurements in remote and difficult to access areas easy

The Vaisala Automatic Weather Station MAWS301 is a new generation automatic weather station especially designed for applications where no commercial power or communication networks are present or are too expensive to be installed. The MAWS301 is a very flexible system which can be used for both hydrological and meteorological applications. Based on the latest technology both in measurements and communication, the MAWS301 can be interfaced with a multitude of telecommunication equipment such as standard PTSN and GSM modems, radio modem and satellite transmitters. The MAWS301 can even be connected directly to a LAN network via TCP/IP using standard COM Server devices.

The Vaisala MAWS301 has been designed for applications where only a few sensors are required. The system can however, easily be upgraded, even in the field, to include a larger set of sensors, including smart sensors such as a ceilometer, visibility and present weather sensors and

water quality probes.

All of these functionalities made the MAWS301 particularly well suited for the Chilean coastal conditions as many of the existing and planned coastal synoptic stations are located in remote and difficult to access areas. Personnel and equipment has to be transported to the stations across fjords, channels, valleys and forests by use of helicopters, navy vessels or small boats.

Accurate and reliable data improves the safety at sea

Safety at sea requires accurate, real-time information. The CNWS is responsible for monitoring weather conditions in the coastal areas of Chile, and for issuing bulletins and warnings about adverse conditions. Lighthouse personnel compile a Maritime Weather Forecast Analysis, which is broadcast through the Coastal Radio Network. The data collected by the new MAWS301 system, combined with existing, conventional equipment will greatly improve the accuracy of these reports, and the safety of vessels operating in Chilean waters.

Vaisala: a complete service provider

Vaisala, through its local representative in Chile, Metcom Limitada is providing the CNWS with technical support, assistance with installation and operation of the MAWS301, as well as operational training to the CNWS personnel. This arrangement of providing support services locally has led to the successful first phase of this 10-year project. ●

