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For small airport use

PA50 Aviation Barometer System

Vaisala's new PA50 Aviation Barometer is a small dedicated system for providing barometric data for pilots and air traffic controllers. Designed for flexibility and reliability, the system is ideal for use in small airports.

The basic PA50 Aviation Barometer System comprises a DD50 Digital Display, a PTB220 Digital Barometer, a ZZ45141 RS-232-cable between display and barometer, and a 19512 power supply for the display.

PTB220 Digital Barometer

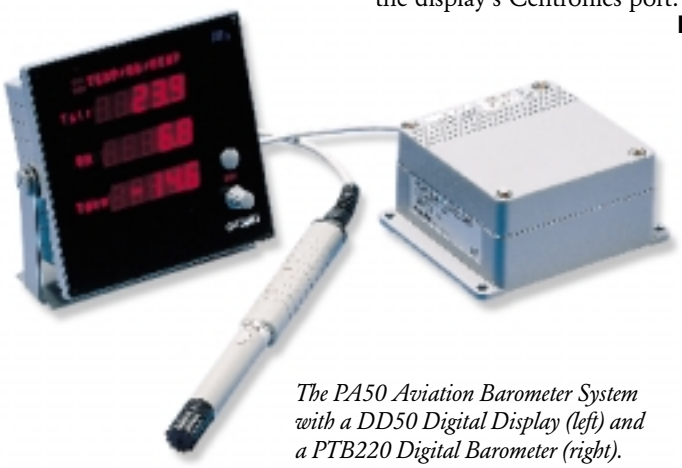
The PTB220 Digital Barometer is available with one, two or three pressure transducers with different accuracy classifications and RS232 or RS485 communication interfaces. Two or three transducers will provide redundancy to improve measurement reliability in airport applications.

DD50 Digital Display

The DD50 Digital Display running the PA50 application can measure pressure, temperature and humidity values. On the basis of the data, it calculates QNH, QFE, QFF as well as Transition Levels, with user-definable pressure criteria. The dewpoint is also calculated from the temperature and humidity data.

The DD50 Digital Display's intelligent software allows the data presentation to be tailored to different purposes. Sixteen display pages, each of three data rows, are supported. Each page can be selected with the rotating switch and individually configured to show any calculated parameter on any row. The displays can be chained to present data in different locations.

Pressure, temperature, humidity and dewpoint data can be plotted out by connecting a commercial matrix printer to the display's Centronics port. ■



The PA50 Aviation Barometer System with a DD50 Digital Display (left) and a PTB220 Digital Barometer (right).

MAWS Optimizes Farming Productivity

In everyday activities, information on weather conditions can improve safety, productivity and competitiveness. Vaisala's low-cost MAWS Automatic Weather Station is ideal for agricultural applications. This easy-to-install mobile unit provides a user-friendly solution for accurate weather monitoring in olive farming.

Robert Ireland
Systems Engineer
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Australia

Bundarbo Cattle Station is 90 km west of Canberra, Australia, on the banks of the Murrumbidgee River. The station covers about 6000 acres (2428.2 hectares) and has 9000 sheep and 600 head of cattle, with some arable crops for on-farm use. The property, which had been owned by the same family for nearly 100 years, was purchased four years ago by Mr. Sam Chisholm, former chief executive of BskyB, the British television network.

Long-term weather data needed

The present owner has made extensive improvements to the property and has considered diversifying into olive production. The viability of olives as a crop depends greatly on the minimum temperatures experienced. Though rainfall records for the property had been kept for years, no other meteorological data was available. Data from surrounding Bureau of Meteorology stations was felt to be of little benefit, as the stations were too far away. Taken overall, the information available at the time was an inadequate base for such a large investment.

Mr. Chisholm best expressed the importance of meteorological information to an agricultural enterprise, "There is a total lack of any long-term weather data in this area. In this day and age, you absolutely must have accurate data, to be able to consider crops and all the other income-producing activities needed by a modern farm."

On the recommendation of well-known weather presenter Alan Wilke, Mr. Chisholm directly approached Vaisala's Melbourne Office to arrange the

installation of a MAWS Automatic Weather Station. Vaisala's user-friendly MAWS is a cost-effective solution for farming applications.

Ideal for farming applications

The MAWS supplied for this application was an off-the-shelf system with no external hardware or software. The parameters measured are wind speed and direction, temperature, relative humidity, rainfall and barometric pressure. Dewpoint, average, maximum and minimum values are calculated by the station. MAWS stores daily information at hourly intervals in a non-volatile memory, and has a logging capacity of about one year. The station is powered by a 2.2-Watt solar panel, with backup from a 6 volt 1.3 Ah battery for operation for five days without sunlight.

With the assistance of Dave Polsen the property manager, the MAWS was installed in a matter of hours (between rain showers). Ironically, this was the first decent rain for quite some time, making it highly welcome!

Data from the station is downloaded at regular intervals to a laptop computer. As MAWS data is Microsoft Excel-compatible, it can be easily manipulated and transferred to other programs. Dave Polsen analyzes and archives the data to create an easily accessible history of weather information for the property.

Over time, the MAWS will provide Bundarbo Station with an accurate and reliable record of meteorological data, on which to base informed farm management decisions. ■

The MAWS Automatic Weather Station is a cost-effective solution for farming applications.

Bundarbo Cattle Station is 90 km west of Canberra, Australia, on the banks of the Murrumbidgee River.