performance and data availability remain excellent, typically over 99%. The RS92 radiosondes with GPS windfinding are compliant with the proposed ETSI standard for digital radiosondes (ETSI EN 302 054-1).

High performance based on proven PTU sensors

The performance of the new RS92 radiosonde pressure, temperature and humidity (PTU) measurement is based on the well-proven RS90 sensor technology which is traceable to international standards. The heated-HUMICAP®, F-THERMOCAP® and Silicon BAROCAP® sensors offer a top-rate PTU measurement capability – with a fast response, excellent repeatability and a high level of accuracy. In addition to the proven measurement quality an additional enhancement to the humidity sensing is introduced in the RS92 construction. A humidity sensor preheating functionality is now available for the RS92 radiosondes to remove possible contaminants from the sensor and recover original sensor calibration.

Conclusions

With the introduction of the RS92 radiosonde, Vaisala brings a powerful new platform for upper air measurements to the market. The proven PTU measurement capability of the Vaisala RS90 radiosonde together with the code correlating GPS windfinding technology, specially developed for the radiosonde application, opens up higher performance standards for the most demanding radiosonde data users.

Vaisala will provide its customers with further information and support to start operational use of the RS92 radiosonde. Vaisala seeks to assist users in a smooth transition from RS80 and RS90 radiosondes to the RS92, offering improved reliability and measurement performance. ●

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Modernizing the observation network

Bureau of Meteorology's DigiCORA III Contract

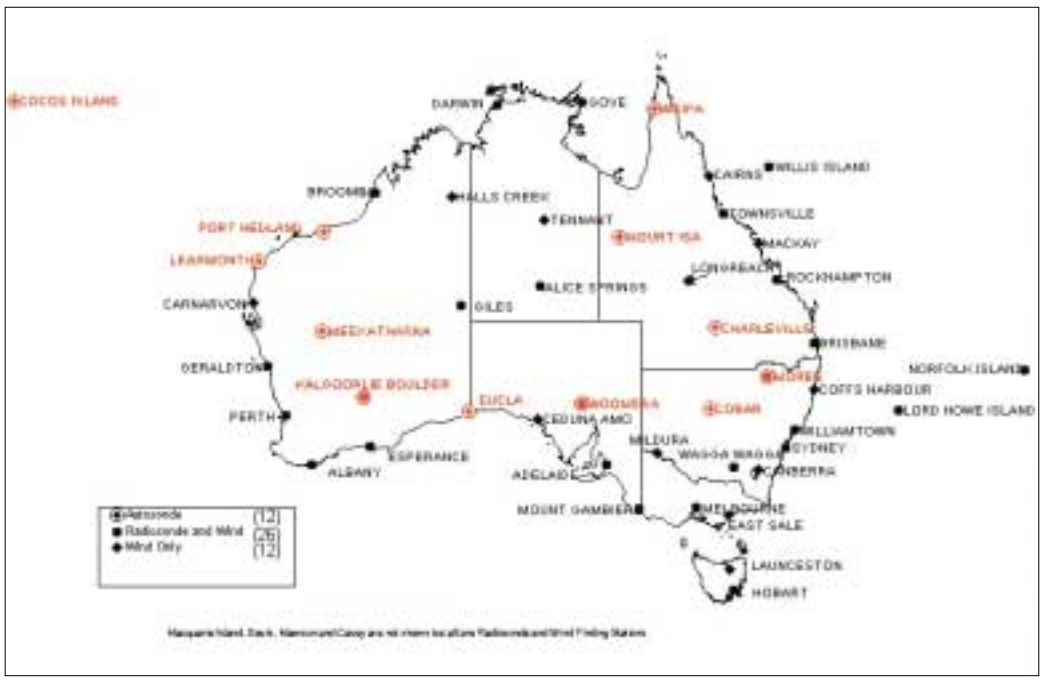
The Australian Bureau of Meteorology signed a contract with Vaisala Pty Ltd in July 2002 for the supply of 53 Vaisala DigiCORA III Sounding Systems and accessories. The sounding systems will replace PCCORA and DigiCORA systems in the Bureau network of upper air sounding stations throughout mainland Australia, the Australian Island territories and Antarctica.

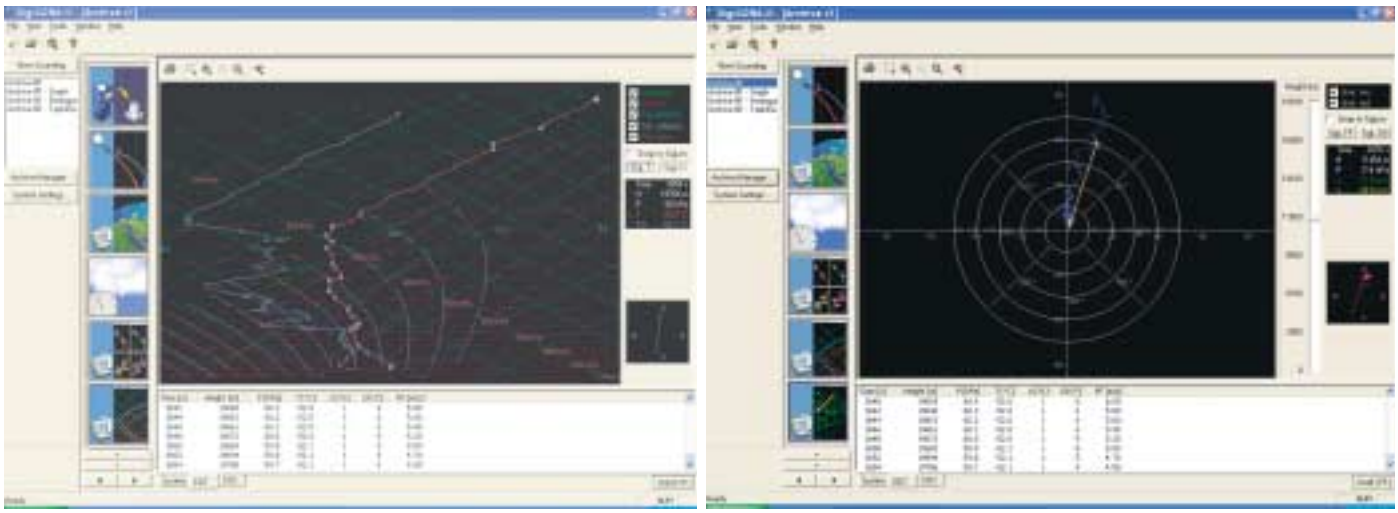
Valued at 6.8 MAUD (3.7 MEUR), the contract covers a total of 53 DigiCORA Sounding Systems, of which 46 will be supporting Radar windfinding and 7 will support GPS windfinding. Windfinding radars are used extensively at Australian mainland sounding stations both to perform wind-only flights and provide wind data for non-GPS radiosonde flights. To ensure that the DigiCORA III System can integrate seamlessly into the Bureau of Meteorology's existing sounding network, existing PCCORA software modules RWIND, SLEVEL, ANTDISP and BOMNAME will be incorporated into the new platform. RWIND will enable the DigiCORA III to automatically collect wind data from windfinding radars. SLEVEL is a standard pressure level program that is used to create an atmospheric pressure profile for radar wind only flights. ANTDISP is a PC graphical display of the RB21 Omnidirectional Antenna. BOMNAME software will generate standardized Bureau file names for all flights.

A long cooperation

The Bureau of Meteorology has been an excellent customer for Vaisala for a long period of time.

The network of stations that Bureau of Meteorology operates for upper air observations covers the entire continent and islands.





The DigiCORA III offers a simplified user interface and a suite of high quality data visualization tools, such as Metgraph, Tepigram and Hodograph.

In the mid-eighties the Bureau started using PP11 Sounding Systems in association with the RS80 family of radiosondes. In 1992 the Bureau moved to a newer sounding system, the PC-CORA, which has been the standard equipment at all mainland stations since. In 1989, four DigiCORA I sounding systems were installed at Australian Antarctic stations. In 1996 the Bureau took delivery of the first of 14 AUTOSONDE Systems for use at remote mainland and island sites. The excellent performance and reliability of past systems have no doubt contributed to the selection of the DigiCORA III as the new sounding platform.

Over the past few years, Vaisala Melbourne has striven to build up a close working relationship with the Bureau of Meteorology. This has proved beneficial to both parties. The location of a Vaisala office in the same city as this major customer is very important when it comes to negotiations and potential problem resolution. In Australia/New Zealand the difference in time zones can often prove to be a major obstacle when doing business with European and American countries.

Modern flexible sounding platform

The Vaisala DigiCORA III will provide the Bureau of Meteorology with state-of-the-art sounding equipment. This is a modern, flexible sounding system that offers a wide range of connectivity options. The system utilizes the Microsoft®, Windows® 2000 Operating System and takes advantage of many of its standard features. A simplified user interface is a key component as well as a suite of high quality data visualization tools such as Metgraph, Tepigram and Hodograph. A significant level of system configurability is included to allow the system to meet the unique requirements of different users. All in all, the DigiCORA III is an ideal platform for the Bureau of Meteorology's future Radiosonde Ground Processing System requirements.

Deliveries of the DigiCORA III Systems will commence in the second quarter of 2003. The Bureau will then carry out extensive testing of the system and software modules. Remaining systems will be delivered over the following three-year period. ●

The Bureau of Meteorology uses AUTOSONDE Systems for operations at remote locations, such as Meekatharra in Western Australia.