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Vaisala Radiosonde RS80

Three decades of superior performance

Year 2009 marks the end of an era at Vaisala, as the manufacturing of its great global success, the Vaisala Radiosonde RS80, was discontinued in December 2008. The RS80 gives way to the new generation Vaisala Radiosonde RS92.



“We wanted to offer superior performance and usability for the customers”



The need for a new radiosonde generation was recognized at the end of the 70s, as the RS21 radiosonde was unable to make a breakthrough in some major market areas, such as in the USA and UK. The development project's goal was to dramatically improve the observation performance of the Vaisala radiosonde, introduce automation, and eliminate the easily breakable mechanical parts. Another driver was the need to create a product that would be easier to manufacture in large quantities.

Great risk for product development

“It was a huge risk for product development, as we were eager to incorporate a great amount of brand new technology all in one go. These included, for example, the new HUMICAP® humidity sensor, and an electronic switch. We also developed a new kind of unwinder to ease the launch of the radiosonde, and a new battery in-house,” says Veijo Antikainen, former Product Development Manager at Vaisala.

All the interviewed Vaisala sounding stalwarts agree that that the RS80 was a significant technolog-

ical leap forward for Vaisala. Its high quality, repeatability, automation and efficiency all contributed towards a revolutionary product.

Vaisala's then Managing Director Yrjö Toivola often jokingly said that a radiosonde should be so small in size that he could fit it in his breast pocket. He finally got what he wanted when the team presented him with a shirt that had an extraordinarily large, tailor-made breast pocket!

International prestige and recognition

“We wanted to offer superior performance and usability for the customers,” says Jan Hörhammer, Director of Customer Relations. The risk paid off. The Vaisala Radiosonde RS80 provided such advantages that it won over even the most hesitant buyers.

The RS80 gained prestige through international radiosonde comparison tests. The WMO found the instrument so good that it chose it as the reference sonde for comparisons. “One of the first successes was in UK at Bracknell in mid 80s. I'll never forget when Alan Hooper from the UK

Met Office told me ‘now you have a radiosonde’,” Antikainen recalls.

Customers played a significant role in the development of the RS80. For example, the US National Weather Service (NWS) influenced the way the product was tested and verified, therefore also influencing the manufacturing process. Deutscher Wetterdienst (DWD) further contributed to the quality control with their stringent factory acceptance tests, and the Japanese had strict transmitter stability requirements. The Finnish Meteorological Institute, UK Met Office and the Meteorological Services Division of Singapore were also important partners in the early stages.

Moving on

Every product comes to the end of its life span at some stage. After serving well for nearly three decades, the RS80 has now retired. It gives way to the Vaisala Radiosonde RS92, first launched in 2003, which takes up where the RS80 left off - offering many new and improved features as well as cost-efficiency to Vaisala's customers.