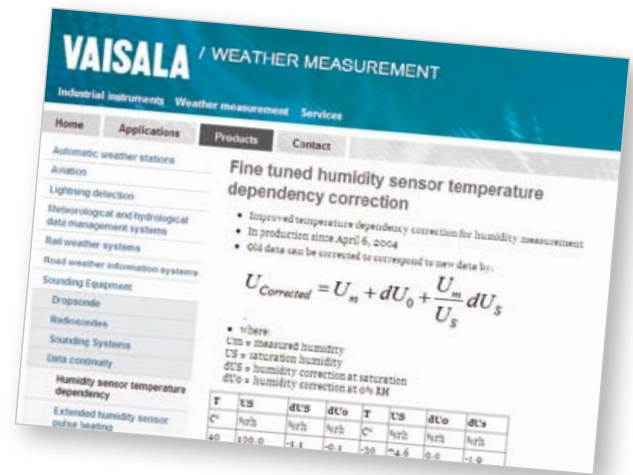


Assured data continuity for radiosounding time series

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In order to guarantee data continuity for sounding observations, Vaisala has established a website providing radiosonde-related information that could have an effect on the interpretation of climatological time series.



Finnish Meteorological Institute's observatory in Sodankylä northern Finland celebrated its 60th anniversary in October. The station has performed soundings with Vaisala's radiosondes for the whole duration of its existence, building up a six decade long time series of continuous observations.

Vaisala's sounding equipment is used by meteorological organizations worldwide to measure weather in the upper atmosphere. Quality, accuracy and reliability have been the key drivers behind efforts relating to both the performance of the sounding products and the services offered in support of them since the very first Vaisala radiosonde in the 1930s.

In addition to day-to-day meteorological activities such as forecasting, sounding observations are a major resource for climatological research. Data continuity within the observations time series is especially important to researchers, who need to be able to adjust and correct any information that could have a misrep-

resentative effect on the long-term trends within the series.

To better respond to the needs of the climatological research community, Vaisala decided on establishing a public website providing information on product modifications and further developments of the Vaisala Radiosonde RS92 product family and the related ground equipment, dating back to their release to the market. The website lists all changes that could affect the climatological time series.

In all the cases, the effect of the changes on measurement outcome

is small, but documenting them in detail ensures that the data remains comparable and representative of actual real-life phenomena. For the same reason, changes that don't appear to have any effect on the time series have also been listed, marked with 'no data continuity effect'.

Similar information will be provided for the climate reference radiosonde that Vaisala is currently developing.

Exact numerical information and conversion formulas provided when available

At the moment, the service describes changes in temperature and humidity sensors, sensor boom, solar radiation correction table and data processing. The information includes identification data, listing of affected parameters and a description of the change in question. When available, exact numerical information and a possible conversion formula are provided.

To be able to use the data continuity documents, the types and serial numbers of the radiosondes and software versions of the ground equipment used within the studied timeframe have to be known.

Further information:
www.vaisala.com/weather/products/datacontinuity.html