

## Vaisala Radiosonde RS92 Participated the Tough WMO Intercomparison Test

*The performance of Vaisala Radiosonde RS92-SGP was further consolidated in the WMO Intercomparison test in Yangjiang, China, 2010.*

### High Quality

Based on the WMO test results, the Vaisala Radiosonde RS92-SGP is high quality for in-situ monitoring of upper air conditions, such as for stations belonging to the Global Observing System (GOS) and the GCOS Upper Air Network (GUAN).

### Relax, Release and Rely

In the final WMO test report, the Vaisala RS92-SGP and Vaisala DigiCORA® Sounding System MW31 scored very good in all measurement parameters. Meeting and exceeding all various application requirements.

The data benefits multiple applications, enabling meteorologists to rely on it regardless of which upper air station produces the observation data.

In addition, Vaisala supports the users by data continuation pages and uncertainty analysis.

### How we measured up

	Vaisala	LMS	Graw	Modem	Meisei	Internet
Temperature, Night, Height < 16 km	5	5	4.5	5	5	4.5
Temperature, Night, Height > 16 km	5	5	4.5	5	5	3.25
Temperature, Day, Height < 16 km	5	5	4.5	5	4	4.75
Temperature, Day, Height > 16 km	5	5	4.25	5	4.25	3.25
Protection for Evap. cooling errors	Yes	No	No	No	No	No
Humidity, T > -40 °C, Night	5	5	5	3	4.75	4.5
Humidity, T > -40 °C, Day	5	5	4.75	4.25	5	4.25
Humidity, T < -40 °C, Night	5	4.75	4.5	4.25	4	4.5
Humidity, T < -40 °C, Day	4.5	4.5	4.25	3	3	2.5
Height, P < 100hPa	5	5	5	5	4	5
Height, P > 100hPa	5	5	5	5	5	5
Pressure, P < 100hPa	5	5	4.5	5	4.5	4
Pressure, P > 100hPa	5	5	4.5	4.75	4.25	4.75
Wind, troposphere	5	5	5	5	5	5
Wind, stratosphere	5	5	5	5	5	5
2 years in operation	Yes	Yes	New	Yes	New	Yes

Source: WMO Final Report

## Technology for Scientific Success

It's now quite clear why the global meteorological and climatological communities prefer the Vaisala Radiosonde RS92-SGP:

### Benefits

- Unique measurement accuracy in all conditions
- Consistency and proven data continuity
- Accurate humidity measurement
- Suitability for all applications and future use
- Global operational experience from tropics to arctics

What matters are the proven results and credibility: consistent scientific quality, operational reliability and efficiency.

### Proven Reliability

We meteorologists and climatologists are in a serious business. We cover the life – from forecasting the holiday weather to actually saving lives, from helping agriculture and trade to enhancing safety and security and on to researching the secrets of the planet's present and future.

To better understand and predict these natural phenomena affecting us all, there is no such thing as “too good”.

Although the radiosonde is used once, the real product is the data that lives forever. What you buy with Vaisala, is credibility and future.

### Quality has its Price – but Consistency is Priceless

Weather observation requires long-term commitments. At Vaisala, we have stood for quality, innovation



and reliable service for over 70 years. Becoming the industry benchmark and global provider of hundreds of thousands of radiosondes annually, takes more than just great products. It's about trust.

As for meteorologists, who would want to find their years of diligent observation work and research or organization put in doubt because of questionable data quality? How expensive would that be?

### Accurate Data for Multiple Applications and The Future

What you get is accurate and reliable data produced by your sounding station, immediately at 100hPa and at balloon burst, for numerical weather prediction purposes. Vaisala Radiosonde RS92-SGP meets the needs of various applications and also increases the usefulness of the created data. It means cost-efficiency and synergy between operational meteorology and current and future climatological needs. Available today, off-the-shelf.

### Water – Measuring the Familiar Unknown

Water is one of the least understood atmospheric constituent and difficult to measure correctly. A vapor, liquid or solid, and in a continuous process changing between the

phases. Interestingly, for example in convective situations, the up-down motion inside a cumulonimbus cloud can form hail from humidity lifted from lower levels, and cause severe hail storms. With the correct data by Vaisala Radiosonde RS92-SGP, you can forecast the initiation of convection.

Other phenomena that can be forecast using the Vaisala RS92 measurement profiles include:

### Meteorological Phenomena

- Formation and dissipation of fog and clouds
- Turbulence associated with temperature inversion layers
- Vertical wind shear
- Depth of convection

### Always Something More

We are the only radiosonde manufacturer that carries in-house designed and manufactured temperature and humidity sensors specifically optimized for radiosonde use and individually calibrated with a system that is SI traceable.

The Vaisala RS92-SGP meets the standards set by ourselves, delivering consistent data, one by one, every time, everywhere, year after year.

# VAISALA

For more information, visit [www.vaisala.com](http://www.vaisala.com) or contact us at [sales@vaisala.com](mailto:sales@vaisala.com)

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