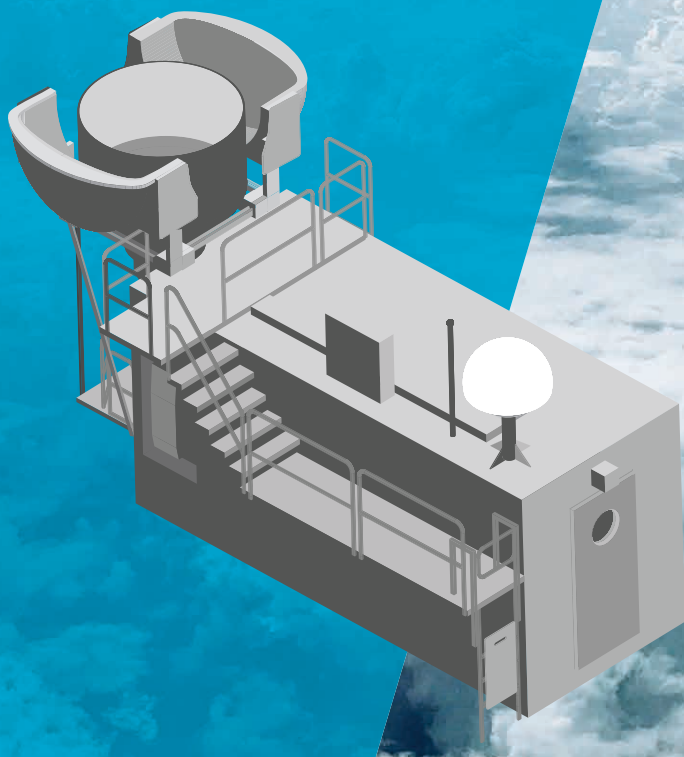


# VAISALA

## The Vaisala AUTOSONDE® AS41

OPERATIONAL EFFICIENCY  
AND RELIABILITY TO A  
TOTALLY NEW LEVEL.



# Weather Data – Benefit For Society

## The four most important things about weather prediction are quality, reliability, accuracy and availability.

In today's world better weather prediction has far-reaching socio-economic consequences. High quality atmospheric observations provide the data necessary for accurate forecasting that helps to anticipate and prepare for the impacts that weather can have. Meteorological institutes need to optimize their observation systems and networks in order to maximize their benefit to society. Automatic sounding station is an important tool in the drive for meteorological data availability. With the Vaisala AUTOSONDE® national weather services can extend the coverage

of their upper-air networks to geographically remote and hard-to-reach locations and thus develop a more comprehensive synoptic upper-air program.

## Introducing the new Vaisala AUTOSONDE® AS41.

The Vaisala AUTOSONDE® AS41 is designed to work reliably even in the harshest of conditions in the remotest of locations at the highest level of operational efficiency and reliability. Thanks to the fully automated sounding operations there is no need to send human experts to collect data anymore. The Vaisala AUTOSONDE® saves money and time – more than 1800 person-hours each year compared to a manually operated sounding station.

## Reasons to automate sounding operations:

1. The labor and facility costs are high in industrialized countries
2. Station infrastructure is often missing and there is a need for new stations to be installed or re-located.
3. There is a challenge in filling ongoing vacancies due to remote geographical locations and when operators are retiring.
4. The turnover of employees is high due to challenging conditions.

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Renewal of AUTOSONDE® network is a noteworthy investment. It is advisable to look into the total cost of ownership and optimize costs of installation, maintenance and operations. By automating observation systems and networks, the total cost of ownership is cost efficient.

## How we can help:

### High Quality data Sounding data

- Performance fully comparable with Vaisala manual sounding
- Automatic ground check procedure eliminates human error and results in consistent data
- Proven 4th generation Vaisala RS41 Radiosonde and MW41 Sounding system

### Cost efficiency Reduced working hours

- 1 to 2 months of automation capacity with 60 radiosonde trays
- 4 months of controlled storage capacity for unloaded consumables which can be delivered directly to site
- Highly automated and remote control saves 1 800 working hours yearly
- Easy maintenance with no special tools needed
- Committed global support when needed for at least 15 years

### Reliability Continuous 24/7 function

- Maximizes data availability by remote monitoring and advanced self-diagnostics
- Easy to train with clear visual instructions and user centric Interface design

### Safety Employee welfare

- The design of the AUTOSONDE® AS41 fulfills the common European directions (ATEX, Machinery) for creating a safe working environment
- Hydrogen safety is ensured by placing gas lines outside the AUTOSONDE® AS41 container
- User friendly working environment with good ergonomics and workflow

## The Vaisala sounding experience:

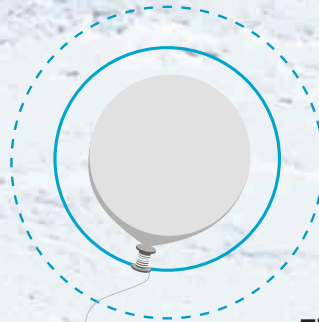
The Vaisala AUTOSONDE® has proved itself over the years in a wide range of climates. It is an integral part of many national upper-air networks.

- 700 000 automated soundings since 1994
- Over 80 delivered AUTOSONDE®s globally

# The Vaisala AUTOSONDE® AS41 Solution

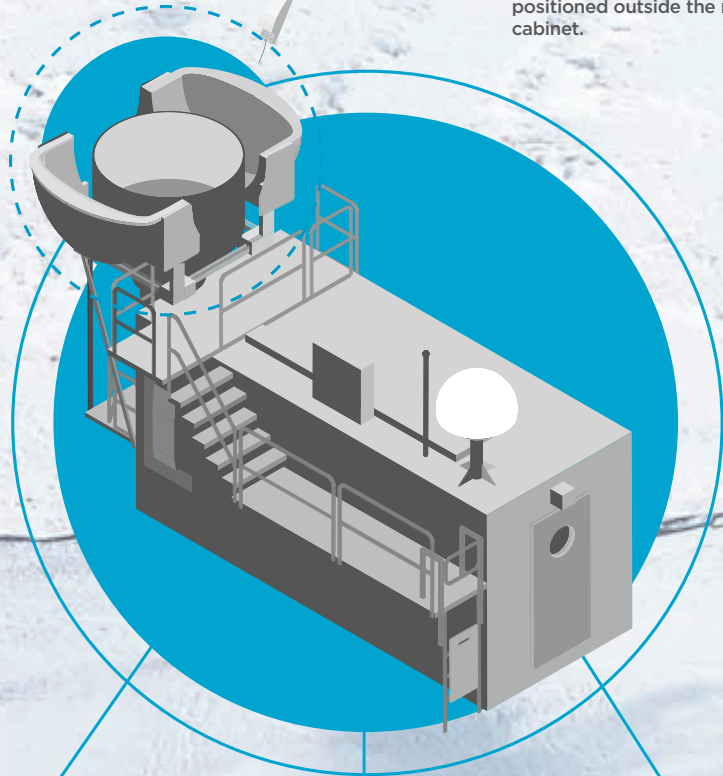
## Launch

AUTOSONDE® AS41 automatically fetches the balloon, and radiosonde, performs an automatic ground check, launches the balloon, collects and processes the data, and uploads it to your weather prediction model.



## Filling

The balloon filling component and launch vessel are positioned outside the main cabinet.



## Safety

Machine, falling, hydrogen and electric safety has been taken into account in the AS41 design. In the AS41 the gas lines are placed outside the container and the balloon filling in separated launcher.

## Installation

The station is easy to install, and safe to use even with hydrogen.

## Data

You can access the data and control Vaisala AUTOSONDE® remotely using a standard web browser or Vaisala observation network manager (NM10 software).



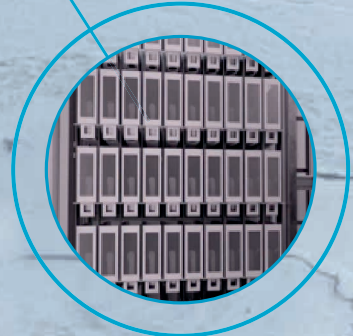
## Loading

With the ability to load up to 60 radiosondes at a time the equipment only needs to be loaded once a month. There is also space for 4 months' worth of supplies.



## Communication

AUTOSONDE® AS41 uses the best radiosondes in the world to deliver the most accurate measurement (Radiosonde RS41). Radiosonde is powered up wirelessly.





# Comprehensive Services To Support Your Operations

Choosing The Vaisala AUTOSONDE® AS41 gives you the best quality data and the best data availability in the most cost-effective way. As your trusted weather partner we support you throughout the process from installation to training and maintenance.

Vaisala is your life cycle partner for the environmental observations from the start of the investment planning to the end of the equipment cycle. Every customer is different, so is our approach. We provide many services individually through predefined service activities or modular service agreements. With the reliable support of our professional services it is easier for you to increase the efficiency of daily operations and concentrate on core activities.

## We help manage ambitious programs

Our project services include project management, installation, training, acceptance testing, engineering and consulting.

## All-around operation support services

We build a service level that meets your requirements perfectly.

We maximize the lifetime value of your equipment with maintenance contracts that are tailor-made to the Vaisala equipment you own. We perform and keep track of scheduled maintenance, send spare parts, take care of software upgrades and always offer priority care to ensure that the highest-quality data is available when you need it. Our technical support is available around the clock 365 days a year to assure a rapid response time to your requests. We want to make sure you are able to get accurate and on-time information on environmental conditions that are critical to the safety and success of your operations. With approximately 250 employed service professionals in various locations around the world our staff ensures that you can make most out of your equipment with the least possible effort. Our field service staff is dedicated to on-site support varying from installations to preventive and corrective maintenance.

## Carefully tested in harshest conditions

The new Vaisala AUTOSONDE® AS41 has been successfully tested with over 1000 test soundings in the toughest conditions in the world to work at the highest level of continuous operational efficiency and reliability without downtimes. The test sites include Vestkapp in Norway and Porkkala in the Gulf of Finland.



# Vaisala: A Sound Decision

**We push the boundaries of what is possible resulting in better weather prediction. Day after day.**

Thanks to our history and experience Vaisala has a sound reputation of being accurate and reliable. That is the basis of our actions. Whether our clients are meteorological organizations, defense forces or any of the specialty users, who rely on Vaisala equipment, we always do our absolute best to provide them the best possible tools. But we don't do it alone. Weather observations and forecasting is a collaborative effort that spans across the globe. This effort is guided by the World Meteorological Organization (WMO) in co-operation with the International Telecommunications Union (ITU). It is our honor and duty to collaborate closely with meteorological institutes and research organizations all around the world to be able to better respond to customer needs.

## Revolutionizing the global upper air measurement for over 80 years

Atmospheric sounding technology has been at the heart of Vaisala since our story began more than 80 years ago, when Professor Vilho Väisälä put the finishing touches on his first commercial radiosonde in 1936. Today, atmospheric soundings with Vaisala equipment make a major impact in forecasts, all over the world.

### Value for money

Vaisala's Radiosonde systems are accurate and durable. They provide excellent observation quality and a high rate of data availability. Should new regulations or guidelines suggest changes to operational practices Vaisala will ensure that systems are kept up and running. Purchasing a Vaisala product is an investment in reliable future.



### Meeting pertinent standards

As a global leader in the field of radiosonde systems Vaisala pays special attention to meeting standards and complying with associated regulations. The sensors used in Vaisala radiosondes are calibrated against internationally traceable reference standards. In addition all Vaisala products meet ISO 14001 and ISO 9001 standards. Vaisala's radio soundings expertise makes life more predictable. And that makes the world a better place to live in. For us all.



## The value we create:

- **Sound data quality through proven design**
- **Vaisala offerings for combined observations**
- **Global and committed support organization**
- **Highest autonomous operation time**

*“Through the high-quality data on competitive costs, Vaisala delivers reliable sounding observations in all ambient conditions.”*



[www.vaisala.com](http://www.vaisala.com)

Please contact us at  
[www.vaisala.com/contactus](http://www.vaisala.com/contactus)

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