

Automation for modernization

VAISALA

Case Study



The client:

TELEDIFE for the Italian Air Force Meteorological Service

Vaisala solution:

6 AUTOSONDE® MAS15 automatic sounding systems, RS41 Radiosondes, DigiCORA Sounding System MW41, Observation Network Manager NM10

THE CHALLENGE:

Modernize the nationwide network

The Italian Air Force Meteorological Service has built an extensive observation network covering the entire country. Upper air observations play a key role in providing accurate weather data across the network: The Meteorological Service carries out soundings for synoptic use twice per day in six regions across Italy. These soundings are essential for numerical weather prediction and meteorological diagnostics.

Although their sounding stations were established and functional, the Meteorological Service was manually conducting soundings. The organization sought to modernize the weather network with an automated sounding solution that would optimize staff resources, freeing them to focus on other tasks. At the same time, the solution needed to be safe for operators.

THE APPROACH:

Automation plus remote operation

Working with Eurelettronica ICAS, Vaisala delivered six AUTOSONDE® MAS15 automatic sounding systems to TELEDIFE for the Italian Air Force Meteorological Service. The solution modernizes the country's upper air sounding system by fully automating the process of radiosonde preparation and balloon filling and release.

The Meteorological Service selected the AUTOSONDE system based on its reputation for exceptional accuracy and reliability in all weather conditions. The AUTOSONDE is also designed specifically for operator safety: Gas lines are never fed inside the container, ensuring that the operator does not come in contact with the gas.

The AUTOSONDE systems use world-class RS41 radiosondes to deliver accurate, high quality data, while the DigiCORA Sounding System MW41 processes, analyses, archives, and relays sounding data. The Meteorological Service uses Observation Network Manager NM10 to remotely monitor and control the AUTOSONDE along with the sounding schedule, initiate on-demand sounding, and perform remote diagnostics.

THE RESULTS:

Efficiency with exceptional accuracy

With the AUTOSONDE system, RS41 radiosondes and NM10 software in place, the Italian Air Force Meteorological Service has a modern upper air sounding network that provides the most accurate, reliable and dependable weather data available with no downtime.

The staff take full advantage of the automation features of the AUTOSONDE and only need to reload the sounding station every two weeks – saving time and boosting efficiency.

Not only is the department able to focus on other critical activities, they have peace of mind knowing that AUTOSONDE operators are safe from any gas since they never come in contact with the substance. The Meteorological Service also enjoys the remote control features which enable them to easily monitor and manage the solution.

Why Vaisala?

With over 85 years of experience in weather and environmental technology, Vaisala is the world's most trusted provider of weather observation systems for tactical operations.

Committed to excellence, we take every measure to ensure our systems are not only comprehensive in their observations but also meet the most stringent performance requirements in any situation.

We provide 24/7 global support, extensive project capabilities and thorough training throughout the entire lifespan of your system to help you make weather your ally when it matters most.

