Three airports, one upgraded aviation weather platform: BULATSA adopts Vaisala AviMet 10

VAISALA

Case Study

The client:
Bulgarian Air Traffic Services Authority (BULATSA)

Sites:
Sofia Airport, Plovdiv, Gorna (Bulgaria)

Vaisala solution:
Vaisala AviMet 10
Vaisala AviMet AWOS

THE CHALLENGE:

Modernizing weather systems across multiple airports

The Bulgarian Air Traffic Services Authority (BULATSA) is responsible for safe and efficient air navigation across Bulgaria's busy, weather-sensitive airspace. At Sofia Airport and the regional airports of Plovdiv and Gorna, accurate and timely weather information is essential to air traffic control and flight operations in all conditions. To meet evolving operational and regulatory demands, BULATSA needed to modernize both its observation infrastructure and the systems that process and present weather data.

The challenge spanned multiple sites with different requirements. Sofia Airport needed a full renewal of observation infrastructure alongside a system upgrade. Plovdiv and Gorna needed targeted sensor updates and system modernization. Across all sites, BULATSA had to maintain service continuity, meet aviation regulations, and give controllers a more flexible interface for viewing and using real-time weather data.

THE APPROACH:

An integrated solution built around AviMet 10

Vaisala delivered an integrated solution that pairs renewed observation infrastructure with a modern platform for processing and presenting weather data. At its core is AviMet 10, Vaisala's latest aviation weather platform, deployed operationally for the first time at Sofia Airport. Its modern architecture is built for safety-critical environments, improving performance while giving BULATSA greater flexibility in how weather information is presented and used.

At Sofia Airport, the project renewed observation infrastructure across wind, visibility, cloud, and pressure measurements to sustain reliability and performance. At Plovdiv and Gorna, the work focused on selected measurement points, including wind observation. All three sites were brought together under a single, unified platform.

AviMet 10 provides a highly configurable, widget-based interface. Controllers can set custom layouts and data views, adjust colors and visual elements, and arrange components to match their workflows. This let BULATSA keep familiar operational views for controllers while gaining far greater control over how weather information is displayed.

Vaisala supported the project end to end, from system design through installation and commissioning at all three sites. A structured delivery model, including factory and site acceptance testing, confirmed that every component met requirements before going live. Training and documentation prepared BULATSA's teams to operate the system day to day, and the upgraded platform supports compliance with international and European aviation requirements.

THE RESULTS:

Stronger performance with a foundation for the future

By deploying AviMet 10 across Sofia, Plovdiv, and Gorna, BULATSA has gained measurable operational benefits while strengthening the reliability of its weather observations across the airport network:

- Reliable, high-quality weather observations across all sites, supported by renewed sensors at Sofia Airport and targeted upgrades at Plovdiv and Gorna
- A flexible, widget-based interface that lets controllers tailor layouts, data views, colors, and visual elements to their operational workflows
- Consistent, real-time access to weather data and dependable system performance across the airport network, with all sites unified on a single platform
- A modern, maintainable platform that supports compliance with international and European aviation requirements and provides a foundation for future development

As the first operational deployment of AviMet 10, the project shows how next-generation aviation weather software can be introduced in a complex, highly regulated environment. It relied on close cooperation between the two organizations, combining Vaisala's expertise in innovative weather technology with BULATSA's operational knowledge. The result is an adaptable solution that supports safe, efficient operations today and continued development tomorrow.

Why Vaisala?

For 50 years, Vaisala has been a pioneer in aviation weather technology, ensuring that every measure is taken for unparalleled safety, efficiency, and sustainability. Our gold standard suite of solutions is trusted in more than 170 countries and over 2000 airports globally. In fact, every commercial flight around the world will use weather observations produced by Vaisala equipment or forecasts driven by our sensor measurements at some point in their journey. With a commitment to constantly evolving our portfolio, Vaisala remains at the forefront of the industry, continuously exploring new horizons.

Ref. B213103EN-A
©Vaisala 2026