



Aviation Weather Solutions



# The Challenge

Aviation is a key medium for travel around the world that allows us to conduct global business, transport goods, and discover more of our amazing planet. As airlines and airports continue to take advantage of technological advancements, air travel is becoming accessible to more people every day. Just as airports are using modern technologies to solve capacity, security, and baggage challenges, they must also consider modern technologies that will address their specific everyday weather needs for safe arrival and departure of aircraft. Each airport has a unique set of weather, capacity, and safety challenges that must be met by a flexible and reliable solution that can grow with the airport for years to come.

# The Experts



### Nick Demetriades

Over a decade developing, designing, and supplying aviation weather solutions for airport operators and airlines across the globe. Experience providing AWOS, wind shear, runway weather information, and lightning detection technology-based solutions.



### lans Vernout

Over 20 years designing, developing, testing, and supplying AWOS and ATIS aviation weather software. Extensive experience installing and performing acceptance tests at airport locations all over the world.



### Foeke Kuik

Nine years as project manager with the Royal Netherlands Meteorological Institute designing and implementing AWOS systems for all Dutch civil and military airports. Over 20 years in the private sector designing and supplying AWOS systems around the world.



## Paul Garner

Over 16 years in aviation weather, including 10 as project manager, with successful AWOS installations across the globe. Partners with AWOS clients to provide the highest quality support for the lifespan of these systems.

## The Solution

Campbell™ Aero Automated Weather Observing System (AWOS) and Runway Visual Range (RVR) solutions are designed to accommodate and adapt to a diverse set of needs. Campbell Aero AWOS and RVR solutions are proven to be rugged and reliable in the harshest of environments.

Our flagship Campbell Aero software and AeroX<sup>TM</sup>Stream hardware provide maximum flexibility to airport managers, air traffic controllers, weather observers, and maintenance personnel to ensure they are in control of their specific AWOS and RVR solutions. Managers can select their preferred sensing technologies and users can customize their display layouts to improve efficiency and reduce near-term, subsequent project costs.

Campbell Aero AWOS and RVR solutions are International Civil Aviation Organization (ICAO) and World Meteorological Organization (WMO) compliant, and built to sustain a low total cost of ownership over time.







# **Comprehensive Services**

Beyond hardware and software solutions, Campbell Scientific is known for providing high-quality services and support throughout the lifetime of our products and systems. We believe in partnering with airports to design solutions and be there every step of the way to support those solutions as they are used for the next decade and beyond. Our comprehensive services include Factory Acceptance Tests (FAT), installation, Site Acceptance Tests (SAT), training, and maintenance. As a global company, we deploy local experts to individually assess airport solution needs. By doing so, we ensure that our customers are able to worry less about system downtime and focus more on the important work of keeping airports, airlines, and passengers safe while maintaining efficient operations.

# Campbell™Aero

Campbell Aero AWOS software has been designed with the modern network airport operator in mind. Air traffic controllers can monitor airport weather conditions remotely, supporting remote tower operations. METAR/SPECI reports can be generated automatically or by weather observers at remote locations. Airport maintenance personnel can access unrivaled levels of sensor and field-ready system diagnostics even in remote, centralized facilities.



## AeroX™Stream 200

Powered by the same technology used on Mount Everest, the AeroX Stream 200 field-ready system is built from a rugged and modular design. It accommodates a variety of sensors, communications peripherals, and power options for reliability in extreme conditions.



## **Case Studies**

Campbell Scientific has been providing measurement solutions since 1974. During that time, our solutions have delivered information that helped ensure safe and efficient aircraft landings and departures at airports across the world; helped scientists gather data to assist in the understanding of climate change and other human-made environmental impacts; and supported countless organizations, institutions, and national agencies to provide more efficient and effective meteorological and hydrological services to their people.

Our sensor and field station hardware is rugged and reliable in the harshest of environmental conditions. Our software provides network management and application-specific insights that support daily decision-making. Our application and project delivery expertise allows us to serve as trusted advisors throughout all phases of a project, including network design, system testing, installation, commissioning, and life cycle maintenance.



## Africa | Safety and Security for Civil Aviation

The Agency for Air Navigation Safety (ASECNA) has the responsibility of 17 African states—managing an airspace 1.5 times the size of Europe. Its mission is to provide efficient and secure air navigation services. To achieve this, meteorological software is necessary to assess the current and future weather. The software, installed throughout the international airports, ensures continual safety within air services.



Campbell Scientific was awarded a bid to supply the Harris County Flood Control District (HCFCD) with ALERT2 systems to upgrade their aging, legacy ALERT flood-warning system (FWS). In August 2017, Hurricane Harvey became the largest, most thorough test of the HCFCD ALERT2 FWS to date. The four-day event generated more than 250,000 data transmissions, with 99.2% of this data being successfully received and 99.4% of the data being validated and deemed accurate by the system.





## Europe | Coastal Hydrological Monitoring

In an effort toward modernization, Campbell Scientific installed hydrological monitoring stations across the coastline with a software solution that provides a multi-use data platform to deliver insights for sea-level data, pollution, and disaster-prevention research and monitoring. These systems are also providing practical information for port operations, fishers, coastal development, and governmental agencies.

## Asia | Early Warning System for Myanmar

Providing warnings of extreme weather events is crucial to reducing impact on food production, safeguarding communities, and reducing Myanmar's reliance on food imports. Campbell Scientific's installation and aggregation of meteorological systems is empowering the in-country Department of Meteorology and Hydrology to install and modernize nationwide monitoring infrastructure with a comprehensive software solution that provides actionable insights to the population at large.







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