

Safety and continuity in the Dominican Republic

VAISALA

Case Study



The client:

Instituto Dominicano de
Aviación Civil

Vaisala solution:

Weather Radar WRM200

Weather Radar WRS300

Providing trusted aviation weather from cloud to ground

The Dominican Republic is rich with history, beauty and natural resources, and is a hot spot for international tourism. IDAC provides air navigation services plus aviation regulation, training and certification for all of the country's airports. The Dominican Republic is also in the path of tropical storms and hurricanes, and IDAC strives to provide the most effective modern technology to enable safe and efficient air travel.

THE CHALLENGE:

Windshear and hurricanes risk safety

Punta Cana International Airport is a busy hub that serves an important coastal tourism area. As is typical throughout the Dominican Republic, the airport sees frequent windshear events which can occur in any weather, and is often in the path of tropical storms and hurricanes.

Accurate real-time weather and windshear data are crucial every day at Punta Cana for ensuring safe and efficient takeoffs and landings. The airport had a CAT II Vaisala AviMet® Automatic Weather Observation System (AWOS) with Runway Visual Range (RVR) as well as a Low Level Windshear Alert System (LLWAS) at two runways. The only gap in their observation network was the old weather radar, which no longer provided enough accurate, real-time data to be effective.

THE APPROACH:

Accurate and reliable remote sensing

IDAC engaged local Vaisala partner Airport Team Solution, who specializes in air traffic systems and navigation services and implements high-profile projects for Dominican Civil Aviation development.

"Radar is very effective for tracking weather systems, and provides accurate windshear detection over a much wider area than LLWAS. This is crucial information for the airports, because we have windshear continually and can't risk passenger safety – especially if a storm is approaching. Vaisala radars are extremely accurate and reliable, and we look forward to utilizing them in more airports across the country."

Airport Team Solution

Working with a local organization was important to IDAC, and Airport Team Solution's in-depth experience in local and national requirements gave them confidence in knowing the airport's current and future needs would be met.

Working with Airport Team Solution, IDAC chose a Vaisala Weather Radar WRM200 for Punta Cana International Airport. The C-band WRM200 features dual-polarization technology which accurately identifies precipitation such as rain and hail, eliminates non-meteorological phenomena from radar data, and performs attenuation correction for even greater accuracy – an important feature in tropical environments where heavy rain is common.

WRM200 is not only highly accurate and reliable for weather observations, the remote sensing technology is also excellent for detecting windshear in cloudy and rainy conditions. The weather radar was easily integrated with the AviMet AWOS, providing critical situational awareness of the weather and windshear across the airport and the surrounding area for safe and efficient takeoffs and landings.

THE RESULTS:

Safety, continuity and peace of mind

IDAC is modernizing the Dominican Republic's airports with advanced remote sensing technology that gives air traffic controllers and pilots what they need most: Realtime, comprehensive weather and windshear information at and surrounding the airport. The airports rely on the accurate information to ensure safe takeoffs and landings as well as business continuity which are crucial to the country.

With the new radars at the Puerto Plata and Punta Cana airports in place, plans are underway to purchase another WRS300 for a third airport, and integrate a full CAT I AviMet AWOS at two additional airports. The future of aviation and tourism in the Dominican Republic never looked brighter or safer.

Why Vaisala?

For over 45 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.

