

CASE STUDY

New Obstruction Lighting Helps to Ensure Aircraft and Passenger Safety at International Airport

Veracruz International Airport, Mexico



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Project Overview

(🛪) Application

New Obstruction Lighting Helps Ensure Aircraft and Passenger Safety at International Airport

(🗓 Product

AV-OL-L810, AV-OL-70, AV-OL-75

Obstruction Lighting

) Location Veracruz, Mexico

Date Summer 2018



Background

Mexico is a country with a growing tourism trade. The 32-state nation at the southern tip of North America expects a record 40 million tourists by the end of 2018. The eastern port city of Veracruz has also seen a surge in tourism. The port serves as the economic commercial hub for the city, annually serving 2,000+ vessels, exporting millions of tons of containerized cargo, and employing thousands of local residents.

Water sport enthusiasts, sport fishermen and SCUBA divers also flock to this coastal city to visit the 527,000 km² coral reef system which borders Veracruz. It is the largest such marine ecosystem in the Gulf of Mexico.

Larger aircraft and additional airline routes were necessary to support the increased tourism and active import/export trade. New terminal buildings were constructed to offer visitors a modern, enhanced travel experience for arrivals and departures to Veracruz.

The Challenge

Obstruction lighting installed on the top of the new buildings was problematic. Required to help ensure the safety of passing aircraft, the obstruction lighting was unreliable, operating only intermittently, causing potential risk to people and planes.

The unreliable obstruction lighting was also difficult to repair. Long lengths of cable on the hard-wired lights made problems difficult to locate, diagnose and fix. To ensure critical visibility of the buildings for pilots and help ensure passenger safety, the obstruction lighting required immediate replacement.

There were several key requirements for the new obstruction lighting. A majority of the replacement lights had to be selfcontained for an easy and cost efficient installation, and had to be solar powered to eliminate costly and sometimes unreliable AC power. For any hard-wired replacement lighting that was required, it had to use high intensity yet energy efficient LED technology.





The Solution

The Veracruz International Airport selected Avlite Obstruction Lighting to assist pilots navigating around obstructions near the new terminal and maintenance buildings. Three different lights were used: AV-OL-L810, AV-OL-70 and AV-OL-75.

A low intensity, steady burning single and dual light head fixture, the AV-OL-L810 was used to mark light towers around the perimeter of the airport. The ultra-bright, energy efficient lights use a single LED for minimal power consumption. They can easily be retrofitted existing installations, making the AV-OL-L810 a convenient choice for lighting upgrades. User adjustable operation and intensity settings mean that the AV-OL-L810 can be customized for almost any application under 45 meters in height. Remote and GSM monitoring are available for this ICAO compliant light.

The second type of Avlite LED obstruction lighting selected by Veracruz International Airport were the AV-OL-70, used on building rooftops. The AV-OL-70 offer enormous benefits over traditional battery and hard-wired obstruction lights. With an integrated solar/ battery system, they provide a completely self-contained ICAO compliant lighting solution. Dual, internal high-performance solar modules, angled to maximize the solar collection, eliminate the need for hard wiring to power source. Reliance on costly and unreliable AC power was eliminated.

The Veracruz International Airport maintenance crew installed and programmed the AV-OL-70 Solar Obstruction lights in less than an hour, satisfying the requirement for expedited installation of the important obstruction lighting for the buildings. User-replaceable batteries met Veracruz's requirement for minimal maintenance.

The third type of obstruction lighting used was Avlite's AV-OL-75. Since the light incorporates Bluetooth[™] technology, the airport was able to simplify maintenance efforts, save time and increase worker safety by remotely programming and monitoring light function from a compatible mobile device. The tough, UV stabilized polycarbonate lens and base make the AV-OL-75 the smallest and lightest selfcontained ICAO compliant Type A obstruction light available today for any structure up to 45 metres.







"Avlite's Obstruction Lights were the right solution for Veracruz International Airport. Our maintenance staff installed them without an electrician in under an hour! And programming them for operation was even easier."

Maintenance Manager Veracruz International Airport



All Avlite Systems products are manufactured to exacting standards under strict quality control procedures. Avlite's commitment to research and development, investing in modern equipment and advanced manufacturing procedures has made us an industry leader in solar aviation lighting. By choosing Avlite Systems you can rest assured you have chosen the very best.



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