Avlite

CASE STUDY

Complete Solar Airfield Lighting System Enhances Safety At Brazilian Island Airport

Civil Aviation Airport Brazil

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Project Overview

Application
Solar Airfield Lighting at Government Run Civil Aviation Airport

Product
AV-426 Runway Lights, AV-70 Taxiway Lights, PALC (Pilot Activated Lighting Control), Solar Power Supplies

Location
Oceanic islands of eastern Brazil, South America

Date
December 2016

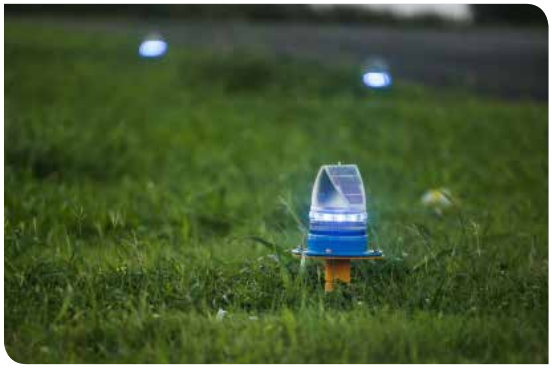
Enhanced Safety for Island Residents, Visitors and Brazilian Air Force on Remote Island With New Solar Airfield System Installation

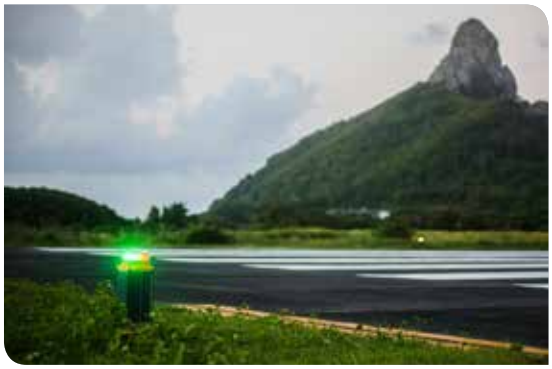
Background

The 7.1 square mile island of Fernando De Noronha lies 220 miles off Brazil's eastern coast. It is the only inhabited island of a volcanic archipelago (of 21 islands and islets), which is an established maritime park. The island is a UNESCO (United Nationals Educational, Scientific and Cultural Organisation) designated World Heritage Site due it its ecological importance and fragile land and sea environment.

The Challenge

Serving as the Eastern most airport of Brazil, the Governor Carlos Wilson Airport had existing airfield lighting that was unreliable, causing safety concerns for tourists and the community. The legacy airfield lighting functionality was compromised due to age and condition, resulting in delays or the complete inability for critical aircraft operations. Of key concern for island residents and tourists alike was the failure to ensure life threatening emergency air evacuations were available when needed. Severe weather often caused power outages rendering the airfield lighting inoperable, creating access problems for the Brazilian Air Force.





The Solution

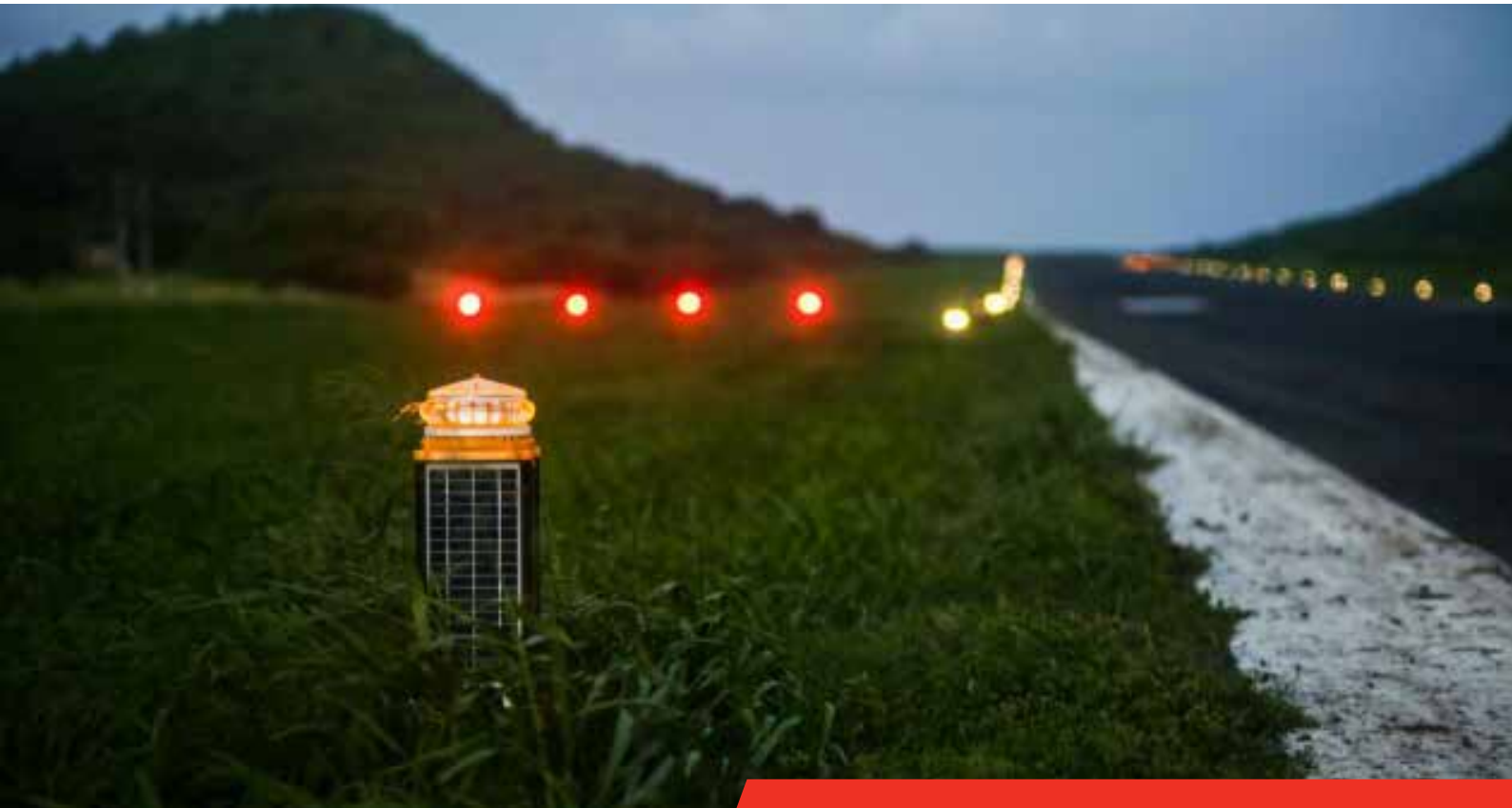
Avlite's solar airfield lighting system provided a unified solution for the remote location, which included Avlite's AV-426 Runway Lights, AV-70 Taxiway Lights, and Pilot Activated Lighting Control system (PALC), all with wireless RF radio control.

Both the AV-426 LED Runway Lights and the LED AV-70 Taxiway Lights are self-contained and solar in design, eliminating the need for mains power and simplifying installation by removing the need for trenching and cabling. Designed to offer high autonomy, ease of installation and years of maintenance-free service, the airfield lighting system remains fully operational should there be any loss of power at the airport.

A PALC (pilot activated lighting control) was specified as part of the lighting system for the Governor Carlos Wilson Airport. The PALC allows approaching aircraft to activate the airfields' lighting system via a standard on-board aircraft radio. Overnight staffing and night time illumination requirements have been eliminated therefore resulting in cost savings for the airport.

Outcome

The installation of Avlite's solar airfield lighting system for the Governor Carlos Wilson Airport, is the first solar civil aviation lighting project in Brazil. As a result, the Airport eliminated its dependence on electrical utilities, whilst increasing both operating and financial efficiencies. The new solar airfield lighting system gives the Brazilian Air Force the ability to reliably perform night operations. Most importantly, the airport can now support vital emergency medical flights for residents and visitors, both day and night.



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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