



aviationrenewables

PROJECT REPORT

SOLAR SERIES TACTICAL WINDSOCK LIGHTING FOR MIDDLE EAST DEFENSE OPERATIONS



LOCATION United Arab Emirates

DATE 2021

CLIENT Defense Force

EQUIPMENT Solar Series Tactical Wind Cone

APPLICATION Solar Series Portable LED Wind Cone for Remote Operations

SYNOPSIS

Aviation Renewables designed and supplied a solar powered tactical windcone for a military force in the middle east. Through a program of record agreement, multiple batches of these portable, NVG compatible wind direction indicators have been sent in support of mission readiness goals.



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CHALLENGE

Through a capabilities planning exercise, the military force established the need for a portable windsock that meet the following specifications:

- Solar Powered, with no external wiring connections
- Self contained, with an integrated solar power system
- Quickly deployed in 10 minutes or less
- No ground penetrations
- NVG compatible IR LEDs
- Visible LEDs
- Blackout mode (no visible light emissions)
- Under 100kg and under 4 cubic meters when packed for transport
- Compliant to ICAO helipad wind direction indicator specifications
- All aluminum construction for use in a humid marine environment without rusting

SOLUTION

Aviation Renewables was able to design and supply a portable windcone that met all of the design requirements, and was able to deliver on the desired timelines, with multiple shipments over a period of several months.

The Solar Series Tactical Windcone is designed for military clients, with NVG capability using Infrared LED luminaires. The unit uses a three-way switch to manually toggle between visible and infrared (NVG) modes. There is no visible light emitted in NVG mode from either the internally lit windsock or the obstruction light.

The unit is easily transportable and can be set up quickly by 2 persons. The all-aluminum construction is resistant to hot/humid environmental conditions present in the area. The patented, maintenance-free swivel ensures that very little maintenance is required to keep the units serviceable. A simple battery change every 5-7 years and replacement of the fabric windsock every 2 years is all that is required in normal operations, and the windcones have an expected service life of 25 years.

