

# Avlite Solar Portable Airfield Lighting System

AV-SOLAR-PALS

## Features

- Modular solar power, battery backup, trailer & optional charge port
- Rapid deployment  
- self-contained, install & operate within minutes
- Easy transport - trailer mounted, road worthy, DC charging port for long term storage
- 2.4GHz RF control - global encrypted radio control

## Typical Applications

- Portable emergency airfield lighting
- Permanent or sustained operations
- Helipad lighting
- Humanitarian aid
- Resource industry
- Medevac
- Temporary airfield lighting  
- Runways, Threshold, Approach, Taxiway & Obstruction

## Compliance

Can be supplied to meet:

- International Civil Aviation Organisation (ICAO) Annex 14 emergency lighting photometrics

or

- FAA VFR & IFR Non Precision Medium Intensity Runway & Taxiway Lighting (MIRLs) photometrics



**Avlite Systems' Solar Portable Airfield Lighting System (Solar PALS) is a convenient, fully transportable, autonomous lighting system for easy, rapid deployment supporting long term, maintenance-free operations for both civil and defence airfields. A 5,000ft/1500m runway can be set up and operational within minutes in visible or NVG compatible infrared LED lighting modes for both fixed wing and rotary aircraft operations. When set up as a complete airfield, the Avlite Solar PALS can be controlled via the 2.4GHz encrypted mesh network, an intelligent system capable of being operated from the tower, ground or approaching aircraft through a VHF signal using the pilot control option. There is no requirement for any cables, generators or electrical infrastructure of any sort.**

Avlite's Solar PALS is designed for a variety of applications including emergency airfield lighting, secondary or emergency landing areas, sustaining runway and helipad operations and tactical lighting under both visible and infrared modes for defence and humanitarian aid operations. The Avlite Solar PALS can be used as a supplement to the main lighting system for use in the event of failure, temporary runway setup during construction or resurfacing, or for use at airfields where the hard-wired infrastructure of a conventional airfield is unavailable or prone to failure.

The Avlite Solar PALS eliminates the costly need for charging infrastructure, special equipment or electrical expertise associated with standard battery or electrical airfield lighting systems. Lower costs associated with up front investment, daily operating and maintenance costs result in greater economical savings and a higher degree of safety for the airport and end customer.

The Avlite Solar PALS consists of radio controlled AV-72-RF and AV-425-RF solar aviation lights, RF radio controller and a custom-built trailer to transport, charge and store the system. The modular nature of this system allows for additional airfield lighting accessories, all powered by solar including: airfield signs, wind cones and approach lights.



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In addition to the basic system, Avlite can tailor a solution to suit customer requirements including additional lights, Pilot Activated Controller (PALC), infrared output, and mounting solutions.

## AV-SOLAR-PALS

Civil 5000ft/1500m portable system:

- 20 x AV-72-RF solar aviation lights with RF operational control for taxiway, helipad and obstruction lighting
- 48 x AV-425-RF solar aviation runway lights with RF operational control
- 16 x AV-425-RF solar aviation threshold lights with RF operational control
- Option for approach lights
- 1 x Wireless RF Radio Controller to suit RF-controlled runway lights
- Custom-built trailer
- Optional Charging system

## AV-72-RF

The Solar PALS contains AV-72-RF solar airfield lights capable of taxiway, helipad, obstruction or apron edge lighting via a multi LED optical array design. The AV-72-RF is a compact, lightweight, easily deployable light with a DC charge port for charging during storage and NiMH replaceable battery. The solar panels are angled to track the sun and charge the battery during daylight hours. RF diagnostics allow the operator to determine the battery status, change light characteristics, intensity, LED outputs to visible or infrared and flash codes as well as turn the unit on and off. The AV-72-RF will operate for over 150 hours without any need for recharge from the sun. When connected to the charging ports, the AV-72-RF will charge in approximately 4 hours.

## AV-425-RF

The Solar PALS contains AV-425-RF solar airfield lights capable of runway, approach, threshold and obstruction lighting via a multi LED optical array design. The white lights are used to mark the runway edge and approach lighting, the red/green threshold lights illuminate the end of the runway and the obstruction lights mark obstacles within the airfield. RF diagnostics allow the operator to determine the battery status, turn the lights on and off as well as changing light characteristics such as intensity, flash codes and changing LED outputs to visible or infrared. The AV-425-RF will operate for over 120 hours in low intensity mode and 40 hours in high intensity L861 mode without any need for recharge from the sun. When connected to the charging ports the AV-425-RF will charge in approximately 4 hours.

## Custom Built Trailer

A custom built trailer is used to transport, charge and store the Avlite Solar PALS when not fielded. The lights are held securely in place to protect them during transport. The trailer can be fitted with low voltage charging ports to keep the lights fully charged whilst in storage.

## RF Radio Control

Users are able to directly control the operation of a singular or groups of airfield lights via a 2.4GHz handheld transceiver or PC interface.

## Optional Pilot Activated Lighting Controller (PALC)

The Avlite Solar PALS is available with a PALC that allows the lights to be activated by the pilot.



**Savings** - eliminates electricity, nightly battery recharging & battery replacement

**Reliable** - triple redundant operating capability, daily sun or DC direct charge

**Smart** - RF diagnostics for LED, battery & real time analysis

**Complete** - Only solar airfield lighting system with supporting airfield accessories

**Autonomy** - 120 hours of operations for ICAO VFR, 40 hours for FAA IFR intensities

**Versatile** - day/night operation, NVG compatible, multi-color LEDs, handheld controller