



World class solutions for Aviation Lighting

## Expeditionary Airfield and Airfield Damage Recovery (ADR) Solutions

Avlite Systems is a technology leader in the design and production of aviation lighting equipment.

[avlite.com](http://avlite.com)



# Challenges in Auster Environments

- ❖ Types of deployment
  - ❖ Varying Stages

Expeditionary → Enduring → Permanent



- ❖ Location
- ❖ Power Availability
  - ❖ Generators
  - ❖ Fuel
- ❖ Security
  - ❖ Availability of airstrip under stress
  - ❖ Host Nation
- ❖ Energy Mandates
  - ❖ Overall force reduction consumption

# Operating Locations – Expeditionary Airfields

- ✦ Iraq
  - ✦ Al Asad
  - ✦ Erbil
  - ✦ Camp Taji
- ✦ Afghanistan
  - ✦ Bagram
  - ✦ Herat
  - ✦ Jalabad
- ✦ Qatar
  - ✦ Al Udeid
- ✦ Kuwait
  - ✦ Ali Al Salem
- ✦ Niger
  - ✦ AB201



PALS arriving at Camp Taji, Iraq

## **AV Solar PALS** Solar Portable Airfield Lighting System

The AV Solar PALS is a convenient, fully transportable, autonomous lighting system for easy rapid deployment supporting long-term maintenance-free operations for defence airfields. A 5,000ft / 1500m runway can be set-up and operational within minutes in visible or NGV compatible infrared LED lighting modes, for both fixed wing and rotary aircraft operations.

- ✦ Consists of AV70/72 and AV-425 solar aviation lights, RF radio controller and a custom trailer
- ✦ Modular solar power, battery back-up, charge port and trailer
- ✦ Rapid deployment, self-contained military design – install and operate within minutes
- ✦ Easy transport – trailer mounted, road worthy, DC
- ✦ charging port for long-term storage
- ✦ 2.4 GHz or 900 MHz RF control – global encrypted AvMesh™ network radio control, practically unlimited range from ground, tower or aircraft



## AV426-RF-IR Solar LED Light

**Application:** Solar Runway Edge, Threshold, REIL (Strobe and Fixed)

### Compliance:

ICAO Annex 14 Volume 1, July 2013. Runway Edge -para 5.3.9. Threshold or End Light - para. 5.3.10, 5.3.11, Approach para. 5.3.4.1A&B, 5.3.4.8 Simple Approach Lighting System. FAA AC/150-5345-46D L-861T and L-861 Medium Intensity Non-Precision Approach.

### Features & Benefits

- ❖ Over 80hrs of continuous operation at FAA non precision MIRLs per AC/150-5345-46D L861 without solar or auxiliary charge
- ❖ Integrated and replaceable Solar Panels - Enables continuous operation
- ❖ Worldwide 2.4 GHz or 900 MHz Encrypted RF Radio Control – Secure, encrypted control of all operational modes from anywhere on the airfield. Worldwide ISM use frequency
- ❖ AvMesh™ integrated Mesh Network - Each light is a receiver/transmitter to expand communication range
- ❖ Modes of Operation - Programmable lighting groups, dusk-till-dawn operation, adjustable intensity, encryption



# Operating Locations – Expeditionary Airfields

Installation of lights at Camp Taji – 3 Hours to set up 5K+ runway and taxiway lights!



# Edge Lights



Deploying Lights



Daytime Operation



Nighttime Visible  
Mode



Covert Mode  
w/NVG



## **AV- ELS** - Portable Airfield Lighting System

The trailer is a multi-faceted component of the PALS system. It holds all of the necessary equipment for lighting a 10,000 ft runway and is designed for rapid deployment, recovery, storage, and off-line recharging of all the system components. The portable LED PAPI box slides into the main housing at the rear with folding legs collapsed, 112 Edge Lights and 32 Threshold Lights stack along the sides, and the batteries attach to the bottom of the trailer. Located at the front of the trailer, 2 tactical generators sit between two chord reels, and each 10,000 ft charging cord winds round a sliding reel. The trailer is wired so that all component batteries can be charged while stored on the trailer with universal AC (85 to 240 VAC) or 24-28 VDC. The radio control transponder and other accessories fit neatly within the trailer.



# Complete Airfield Solutions

- ✦ Approach Lighting
  - ✦ PAPI, MALSR, REIL
- ✦ Informational
  - ✦ Wind Cone
- ✦ Ancillary
  - ✦ ERGLs, Signs



# Helipad Lighting - Portable

- ✦ Approved by US Army PM-ATC
- ✦ RF Controlled
- ✦ Visible & Covert Mode
- ✦ Charging station to maintain light batteries while in storage
- ✦ 3 different kit sizes
  - ✦ 10mX10m
  - ✦ 20mX20m
  - ✦ 30mX30m

