

2022 / Case Study

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# AV-HMALS<sup>®</sup>: The Royal Saudi Air Force's Expeditionary Airfield Lighting System of Choice



*"We Believe Technology Improves Navigation."*

## Product Overview



### Application:

Royal Saudi Air Force

**Date:** 2021

### Products:

- AV-AF-HMALS-MIL Trailers
- AV-WRL Wired Runway Lighting
- AV-PAPI Precision Approach Path Indicator
- AV-SSFL Approach Lighting
- AV-SSBL Approach Lighting
- AV-BSBL Approach Lighting
- AV-BBA Battery Boxes
- AV-PCIU Power and Control Interface Units
- AV-SIGN Signage
- Generators
- Multiple Accessories
- Cabling

## Airfield Lighting System of Choice

### Industry

Military

### Location

Undisclosed - Multiple

### Installed In

2021

### Background

The Royal Saudi Air Force (RSAF) is a primarily defensive military force with an advanced offensive capability.

Saudi Arabia has the world's ninth-largest defense budget and maintains the third largest fleet of F-15s after the United States and Japanese Air Forces. Founded 101 years ago in June 1920, the RSAF contains 63,000 personnel and 1,106 aircraft.

Saudi Arabia has a growing army and is a close strategic partner and ally of the United States.

### The Challenge

As the strongest military air force in the Arab region, the RSAF needed an expanded capacity for expeditionary missions.

The RSAF required an advanced, modern system that was configurable. The system was to be wired, safely powered by generators with the ability to rapidly deploy and operate the airfield lighting system.

The system required a complete approach to meet CAT I requirements. Battery backup was desired in case of emergencies.



Saudi Arabia

## Solution

The RSAF chose a customized AV-HMALS system for their expeditionary missions. RSAF specified a wired system due to their ready availability of fuel to power the system.

AV-HMALS offers the choice of two primary runway lighting options: the AV-426 and the AV-WRL.

The AV-WRL used in this system is a wired unit with battery backup. Unlike the AV-426, it is not self-sustaining with solar panels; however, it can be used as part of a more extensive solar system. The AV-WRL is more compact and has a lower profile than the AV-426. The fixture chosen depends on the light's application and the planned military role out.

Avlite has a rigorous track record of lighting expeditionary airfields for militaries, including the U.S. Department of Defense, where we have supplied the IEALS systems from July 2020.

The system contains portable LED airfield lighting for a 10,000ft runway, including CAT I approaches and ground lighting. The system trailers are designed for flexible maneuvering and rapid deployment. The trailers provide for storage with integrated charging of all lighting equipment.

Individual components of the AV-HMALS® includes Avlite's Series 3 Precision Approach Path Indicators (PAPI), edge and threshold lights, medium intensity runway lights (MIRL), taxiway lights and CAT I approach lighting system. This includes our AV-SSFL and AV-SSBL in aluminum chassis configuration with a replaceable backup battery.

Additional components include:

- A short simplified expeditionary approach lighting system (with GPS synchronized flashing).
- Tactical runway signs.
- Battery boxes.
- Power line communication control for five intensity steps in visible and IR modes.



## Outcome

The production and delivery of the AV-HMALS® system for the RSAF were executed in late 2021, with training and initial usage a great success. Our detailed training program was conducted to the relevant military officials and included live demonstrations and setups, including operation, testing and evaluation of the RSAF system.

AV-HMALS® is the leading system for portable aviation and approach lighting system designed by the military. It is scalable, allowing the RSAF to increase the size of their system at any time.

This project continues our expansion into delivering the toughest and most robust portable systems for militaries worldwide. The RSAF will continue to utilize their system and have the understanding and training to make the most of it during expeditionary operations.

# Contact Us!

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Avlite's solutions are easy-to-install and scalable. We have a solution for every budget.



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