

CARMANAH SOLUTIONS FOR DEFENSE

Tactical Lighting Applications

Over 40,000 Carmanah solar airfield lights have been installed at bases around the world

Assault Strips: Domestic and in theater tactical airfield lighting operations and training for US ARMY ATSCOM, USAF CENTCOM and USMC EAF

Base Operations: More than 40 USAF, US ARMY, USMC & Guard bases currently operate Carmanah solar airfield lighting

In Theatre: with an up front cost savings of 5:1, Carmanah solar lighting is now replacing cable and battery systems at multiple FOB's in theatre.

Helipads: Turkish Police Force and South African Police Force depend upon Carmanah lighting for critical helipad operations

Additional applications include: FARPS, LZ/DZ/PZ, AMP-2

Carmanah Defense Customers

- MacKall Army Airfield
- Salerno AFB
- Yuma Army Proving Grounds
- Dover AFB
- Pope AFB
- McGuire AFB
- ATSCOM, Fort Rucker
- Barking Sands Airfield
- Ascension Island
- Al Taqaddum
- Camp Taji
- Al Asad
- Camp Ramadi
- Camp Victory
- Camp Bastion
- Solerno FOB
- Shank FOB
- Qalat AFB
- Gila Bend Airfield
- Kaneohe Air Base
- Seymour Johnson Airfield
- Camp Speicher
- Camp Aberdeen
- Smokey Hill Bombing Range
- Kandahar Air Base
- Camp Pendleton
- Canadian Air Force
- Royal Singapore Air Force
- Royal Australian Air Force
- South African Air Force
- Turkish Police Force
- South African Police Force
- Kirkuk AFB
- Mosul AFB
- Balad AFB
- Tallil AFB

Deployment Options

Operations supported:

- Fixed Base
- Forward Operating Base
- Tactical
- Runway
- Helipad
- Taxiway
- Obstruction
- NVG



Deployment Options:

- Portable
- Semi-permanent
- Permanent
- Emergency

Why Use Carmanah's Tactical Airfield Lighting?

- **Quick deployment:** Portable, self-contained and lightweight
- **Easy install** - no trenching or digging, two person crew can deploy 5000' runway in 60 minutes or less. Permanent installations complete in 1-2 days.
- **No cabling or connections to generators:** eliminate infrastructure requirements and fuel needs
- **NVG compatible in both IR & visible:** remotely switch between both IR & visible modes
- **Field-proven to operate in extreme environments:** operating in theatre and training operations around the world

Radio Control

- **4 km range**
- Control lights individually, in groups or the entire airfield
- Switch between **visible and infrared** LED light output
- Advanced functions:
 - Diagnostics & battery check
 - Emergency flash mode
 - Dusk till dawn mode
 - On-command high intensity mode



Fixed Base Operations

Over 40 USAF, US ARMY, USMC & Guard bases operate on the A704 solar airfield lighting system

US Air Force

"We tested the A704 and I must say it is nice. It was on this morning when I pulled in.

Yesterday we had a midday thunderstorm and it came on due to the overcast. I was surprised at how little darkness it needed to trigger operational mode."

MacKall Army Airfield

"With the A704s the operations team at MacKall were able to use the advanced wireless control and grouping functions during airfield construction to quickly reconfigure the airfield with a 1000' displaced threshold."

US Air National Guard

"We have received great feedback from our range control officers and the aircrews alike. The lights have truly lived up to and far exceeded our expectations. I would not hesitate to recommend them to our fellow ranges."

Forward Operating Base



WGI/ITT Systems Division,
Middle East

"I know that I can rely on [the solar airfield lights] functioning just as expected. I still check them every night but I think it is safe to say that everyone has come to depend on them operating without fail."

Airfield Manager, Salerno Afghanistan

"Everything is working great. The lights are virtually maintenance free. I clean them every so often but that is about it. We haven't had a need to run the generator back up but I still do it about every other month. The lights have been a great product."

Tactical

Supports domestic and in theater tactical airfield lighting operations and training for US ARMY ATSCOM, USAF CENTCOM and USMC EAF

Benefits

- Portable and lightweight
- Easy install - no trenching or digging
- NVG compatible in both IR & visible
- Operate in extreme environments
- Proven, reliable, rugged
- Eliminate infrastructure requirements and fuel needs

A two person crew can deploy a 5000' A704 radio controlled runway edge lighting system in 30 minutes or less.



Tactical Applications

- Runways
- FARPS
- Assault Strips
- LZ/DZ/PZ
- AMP-2

NVG Operations – Customer Feedback

US Army Pilot, MacKall Army Airfield

“This is probably the best IR runway on the eastern seaboard now”

US Army – A704 Test, Undisclosed Airfield

“Everyone has been busy here with the deployment. Crews have said they can see these lights 20 miles out on NVGs.”

US ARMY, Undisclosed Location

“My MEDEVAC Helo guys absolutely love Carmanah's A700 lights. They can see these from very far out and they pop right out in the NVG's against the city lights.”

Helipad Lighting

- Forward Aiming and Refueling Points
- Landing Zone/Drop Zone/Pickup Zone
- Army Camps
- Medevacs



Customer Feedback

Mississippi Army National Guard, Balad, Iraq

"Carmanah airfield lights saved lives in Iraq during OIF2 at Balad Airbase. Your sturdy maintenance-free self-contained lights were deployed in one day, lighting our parking pads, refueling areas, taxiways and four landing pads for our 140 plus helicopters. They instantly made our operations safer...great product..."

USAF, Iraq

"You can add Kirkuk Air Base, Iraq, to your list of bases. I just came from being the squadron commander there....saved our bacon."

USMC

"Thank you for all your help the last 7 months. Out of all the companies I deal with over here, Carmanah staff and yourself are by far the most professional, helpful and always quick to respond to all inquiries. Until next time, thanks again."

Taxiway Lighting

210 radio controlled A704 taxiway lights installed with no need to trench and/or cable this environmentally sensitive location.

Barking Sands Naval Air Base, Hawaii USA

