COMPLETE HELIPORT SOLUTIONS

A New Approach to Safety

ICAO Recommendations

Avlite®
www.avlite.com

Avlite Systems is an international designer & manufacturer of complete aviation lighting systems; airfield, heli & obstruction

We believe technology improves navigation™

We believe technology improves navigation™

A LITTLE BIT ABOUT US

"Avlite Systems is a world-class aviation lighting systems manufacturer providing turnkey solutions for defence, government, civil and humanitarian aid applications in the most remote, toughest environments."

COMPANY OVERVIEW

Avlite Systems has a renowned international status for producing the most reliable, innovative solar and hard-wired aviation lighting systems in the world, earning it the preferred choice and industry's only program of record system approval for US ARMY and US DOD combat solar airfield lighting systems. The Avlite solar aviation lighting systems are currently operating throughout the Middle East, Continental US Air Force, US ARMY, US Marines and US Navy bases along with various international and domestic airports around the globe.

With more than 30 years of proven experience and strategic partnerships, Avlite, is the fastest growing aviation lighting manufacturer in the industry and has established itself as the technology leader in the design and development of complete aviation lighting solutions.

THE AVLITE ADVANTAGE

- Cost effective, energy efficient aviation lighting solutions
- Self-contained solar powered units for ease of installation
- Solar powered options incur no additional fuel costs
- Optional monitoring & control systems available

ECO-FRIENDLY: Zero CO_2 Emissions

Avlite's solar powered lighting uses clean, pollution-free energy from the sun to power the lights offering an eco-friendly and cost effective lighting solution.

When Avlite Systems' airfield lights are run using solar power there are zero carbon emissions!

The Earth's climate has changed dramatically since the beginning of time, there's no denying it, but evidence now shows that human activity is creating a severe increase in the amount of greenhouse gases in the atmosphere. That is why Avlite Systems, is designing and manufacturing products that use clean green renewable energy sources such as solar to provide a power source for its products.

We're committed to sustainable and renewable energy sources to help protect the planet for future generations.

COMPLETE HELIPORT SOLUTIONS

Avlite Systems works with strategic partners to consult and provide complete heliport or helipad solutions from initial design through to commissioning of the heliport for commercial applications, private or residential buildings, government installations and hospitals/healthcare industry. These heliports or helipads are designed to the latest standards of the Civil Aviation Code of the country of installation. However, for countries which are signatory to the International Civil Aviation Organization ('ICAO'), the ICAO Standards and Recommended Practices (SARPs) are usually followed.

Determination of Heliport Size

Heliport size is determined in accordance with the current ICAO SARPs and is based on a number of factors, notably the helicopter's greatest overall dimension (D) and the Performance Classification of the helicopter operations.

For conventional helicopters with a single main rotor, D is the overall length with the main and tail rotors turning. The ICAO SARPs assume that for elevated heliports, the FATO and TLOF are coincidental.

Need assistance? Just ask our team of aviation and heliport advisors. We have many years of experience in providing turnkey solutions.

Helideck and Support Structures

The helideck is made using a modular construction for faster fabrication utilising aluminium which is lower in cost compared to steel, the top is serrated and cross-milled to provide permanent non-slip surface. The support frame is also made from aluminium and the assembly only requires fasteners reducing installation time and doesn't require blasting and painting unlike steel supports.

Fire Fighting Equipment

Avlite can provide full helideck fire fighting and safety equipment in accordance with Civil Aviation and related Codes including foam monitors, complementary media and rescue equipment. Fire fighting equipment is available in water spray or foam options.

Heliport Lighting Systems

Avlite Systems can provide complete heliport lighting solutions that enhance aviation and heliport safety. We offer a comprehensive range of ICAO heliport lighting products and accessories to assist pilots with visual guidance and safe navigation of obstacles.

> **The most critical moments of helicopter operation are during landing and takeoff. That's why Avlite Systems is working with owners and operators to enhance the safety of their operations.**

Standards and Regulations

Our complete heliports can be designed in accordance with various international and national rules and standards. We have a dedicated team of aviation and heliport advisors available for consultation.

Need assistance? Just ask we'll help you find the best solution for your project requirements.

- International Civil Aviation Authority (ICAO)
- Federal Aviation Administration (FAA)
- Clients Company Standards or Minimum Operating Procedures
- UKCAA (CAP437) Helicopter Landing Areas – Guidance on Standards
- Best in class industry guidelines and practice
- Nominated Helicopter Landing Site Officer (HLSO) Manual

Our Clients

Avlite's clientele is varied and includes companies and organisations from many different industries and sectors such as:

- Resource and Mining
- Defence and Military
- Oil, Gas and Energy
- Utilities
- Government
- International and Domestic Airports
- Private Business and Individuals

Many of our clients operate globally, which contributes to Avlite's broad knowledge and experience to provide us with a greater understanding of requirements in various industry sectors on a global scale.

ENHANCING HELIPORT SAFETY & NIGHT FLIGHT OPERATIONS

Flying at night for helicopter pilots can be a dangerous and challenging environment to navigate. The procedures used when flying at night depend on many factors along with weather conditions. Flying on a bright, still, moonlit evening with perfect visibility is similar to flying during daylight hours. However, flying during a cloudy night over a dense populated area, with little or no outside ground lights is extremely different.

Visibility when flying at night is restricted, so pilots need to be more diligent when navigating obstructions and low-level clouds. Night medevac's or HEMS operations (helicopter emergency medical service) are also treacherous for helicopter pilots in emergency situations, as it is difficult to select a safe landing zone while having experienced ground crew with knowledge of helicopter operations, who can remain in constant contact with the pilot. At night helicopter pilots, rely more intensely on the aircraft systems, such as lights, flight instruments, and navigation equipment.

As a precaution, if visibility is limited or outside references are inadequate, pilots should strongly consider delaying the flight until conditions improve, unless proper instrument flight training has been received and the pilots and the helicopter has the appropriate onboard special instrumentation and equipment such as radar altimeter and NVG technology (night vision googles).

Just like commercial aircraft, helicopters are adversely affected by varying environmental conditions. Weather, both good and bad, has specific effects on the helicopter which can threaten its safety.

All helicopter pilots need to take weather conditions into consideration, pilots should take special precautions to deal with extreme and hazardous weather conditions such as heavy fog, thunderstorms, winds, frosts, and blizzards.

Clear visibility is essential for safe flying. For this reason, heavy fog, rain, and snow can be very hazardous. Simply put, a pilot's best option is to avoid flying in inclement weather conditions altogether but for medevacs or HEMS operations this is not the case and requires flight risk assessment.

Helicopter pilots need to maintain adequate vision references for helicopters under Visual Flight Rules (VFR) in order to maintain proper control, whereas helicopters under Instrument Flight Rules (IFR) are certified to be flown by instrument-related pilots without any visual references. Weather conditions for take-off and landing of this type of flight varies depending on the location, equipment, and facilities available.

Note, this is a general information article and not to be taken as advice for pilots of aircraft.

Distracting City Lights and Limited Visual Cues

Extreme weather conditions

A new approach to safety

Heliports and landing zones can be located within the vicinity of an airport where air traffic control (ATC) and supplementary services are available to provide navigational and ground support. In most cases helicopter pilots find themselves landing at unfamiliar heliports or locations where there are limited visual cues and many obstacles the pilot must carefully navigate on the approach to the FATO area.

To enhance aviation safety, owners and operators of heliports must ensure their heliports are in line with the up-to-date ICAO Annex Volume 2 Heliports Fourth Edition July 2013 requirements and be equipped with the latest heliport lighting products and safety equipment. Remote or isolated heliports or landing zones without lighting should consider the addition of lighting for emergency situations to enhance night flight operations and protect the lives of all onboard. Even as a minimum requirement, these remote or isolated locations should have temporary EMS kits available, to be deployed in infrequent but critical medical situations when lives depend upon rapid but safe medical evacuation where every second counts.

Poor visibility

We believe technology improves navigation™

PROJECT OVERVIEW

Helipad Lighting Solution, East Midlands UK

The East Midlands Police Force Air Support Unit required a radio-controlled helipad lighting system suitable for both day and night operations to enhance operational effectiveness and importantly, to increase flight safety.

The client specifically required an illuminated helipad for day and night operations in both visible and infrared/NVG configurations that clearly identified the helipad on approach or from above during hovering or in low visibility weather. The heliport lighting system can be controlled from the ground, air traffic control tower, or aircraft cockpit, through the use of the handheld controller or pilot activated lighting control (PALC).

Tactical Heliport lighting Solutions Undisclosed Military Base, Afghanistan

Avlite Systems supplied tactical runway and heliport lighting systems to the United State Army at forward operating bases (FOB) in Afghanistan during times of conflict.

The client required lighting products with both visible and infrared/NVG configurations for covert and NVD (Night Vision Device) operations.

Helipad Lighting Solution, Frankston Hospital, Melbourne Australia

The speed in which paramedics or medical teams can reach patients is in life-threatening situations is vital to saving life's. Air Ambulances can reach patients between three-to-five times faster then emergency road vehicles.

Frankston Hospital located on the Mornington Peninsula in Victoria, Australia, underwent a major redevelopment with the addition of a multi story car park and rooftop heliport. The client required a lighting system to enhance the safety of night flight operations, for the secure and efficient transfer of critically ill or injured patients via Air Ambulance.

Avlite Systems worked with an aeronautical consultant for the installation and commissioning of the hospital heliport. The client required the lighting system to be operated by either the helicopter pilot using Pilot Activated Lighting Control (PALC) or by the onsite hospital staff via a relay switch.

SURFACE LEVEL HELIPORTS

ICAO Guidelines for night lighting

A surface level heliport is one that is located on the ground. Surface level heliports are typically located in an area near an airport and consist of several helipads.

ICAO lighting recommendations for surface level heliports consist of:

- **Final Approach and Take Off (FATO) lights**
- **Touchdown and Lift-off area (TLOF) lights**
- **Approach lights** to indicate the preferred approach direction
- **Flight path alignment guidance lights** to indicate available approach and/or departure path direction
- An **illuminated wind direction indicator** to give indication of wind direction and speed
- **Aiming point lighting** if the pilot is required to approach a particular point above the FATO before proceeding to the TLOF
- **Heliport beacon** for identification of the heliport if required
- **Floodlights** around the TLOF if required
- **Obstruction lights** for marking obstacles. If it is not possible to display obstacle lights on an object then they may be lit by floodlighting
- **Taxiway lighting** where applicable

Standards and Regulations:

Heliport lighting standards and regulations vary depending on your location. Here are some examples:

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CAA (Civil Aviation Authority) is responsible for safety and economic regulation of British aviation as well as consumer protection in commercial aviation.

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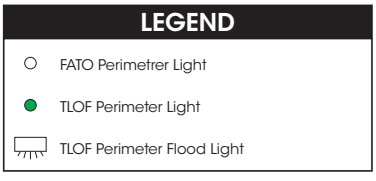

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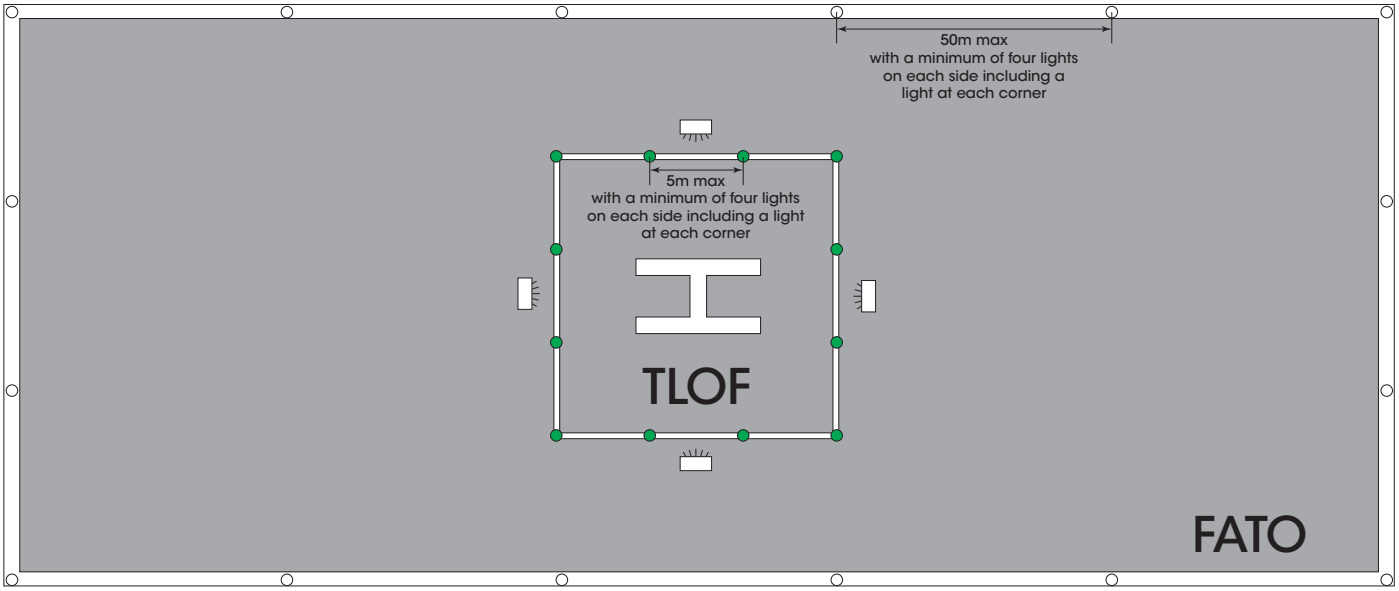


Illustrations are for informational purposes only and are not to scale

FINAL APPROACH AND TAKE-OFF (FATO)

FATO area lights shall be fixed omnidirectional white lights placed along the edges of the final approach and take-off area. The FATO lights should not exceed a height of 25cm. If a light protruding above the surface could endanger helicopter operations then the lights should be inset.

The lights shall be uniformly spaced as follows:

Square or rectangle:
Placed at intervals of not more than 50m with a minimum of four lights on each side including a light in each corner.

Other shapes including a circle:
Placed at intervals of not more than 5m with a minimum of ten lights.

TOUCHDOWN AND LIFT-OFF AREA LIGHTING SYSTEM (TLOF)

The touchdown and lift-off area lighting system for a ground level heliport shall consist of one or more of the following:

a) Perimeter lights; or

b) Floodlighting; or

c) Arrays of segmented point source lighting (ASPSL) or luminescent panel (LP) lighting to identify the touchdown and lift-off area when a) and b) are not practicable and FATO area lights are available.

Perimeter Lights:
Fixed omnidirectional green lights. TLOF perimeter lights should be placed along the edge of the designated touchdown and lift-off area or within a distance of 1.5m from the edge. These shall be uniformly spaced at intervals of not more than 5m for ground level heliports (not more than 3m for elevated heliports and helidecks) with a minimum of four lights on each side of a square TLOF including a light in each corner. For a circular TLOF there shall be a minimum of 14 lights.

The perimeter lights should not exceed a height of 25cm. If a light protruding above the surface could endanger helicopter operations then the lights should be inset.

Floodlighting:
If required, floodlights should be located on ground level and installed around the TLOF.

Heliport light examples

FATO & TLOF Lights	Heliport Beacon	Approach Lights	Floodlights	Taxiway Lights	Obstruction Lights
					

Note: Avlite has an extensive range of heliport lighting, contact your Avlite representative for additional models suitable for your application

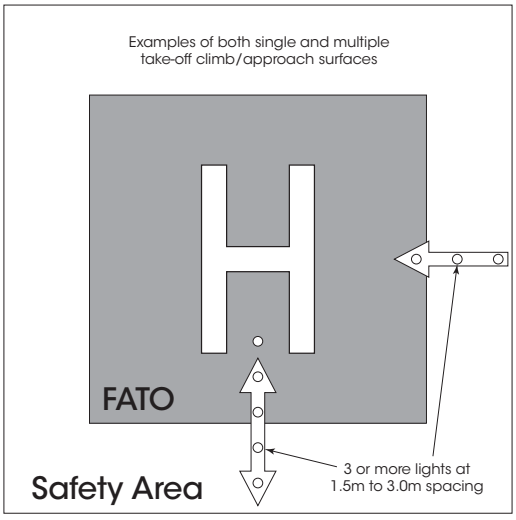
FLIGHT PATH ALIGNMENT GUIDANCE

At a heliport where it is desirable and practicable to indicate available approach and/or departure path directions(s) flight path guidance marking(s) should be provided.

Located on one or more of the TLOF, FATO, safety area or any suitable surface area in the immediate vicinity of the FATO or safety area this marking shall be a straight line along the direction of approach and/or departure path.

Flight path alignment guidance marking shall consist of one or more arrows and should be in a colour that provides good contrast against the background colour of the surface of the helipad.

Three or more steady omnidirectional white lights should be located inside the arrow markings. Lights should be spaced uniformly at a total minimum distance of 6m. Intervals between the lights should not be less than 1.5m and should not exceed 3m. If space permits there should be 5 lights.

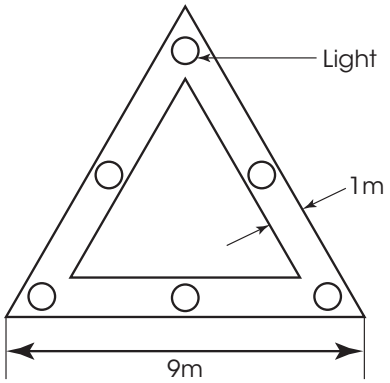


AIMING POINT MARKING

At a heliport where it is necessary for a pilot to make an approach to a particular point above a FATO before proceeding to a TLOF an aiming point marking should be provided.

The aiming point marking is an equilateral triangle with the bisector of one of the angles aligned with the preferred approach direction and shall be located at the centre of the FATO.

The aiming point shall consist of continuous white lines and should be lit with at least six inset omnidirectional white lights as shown.



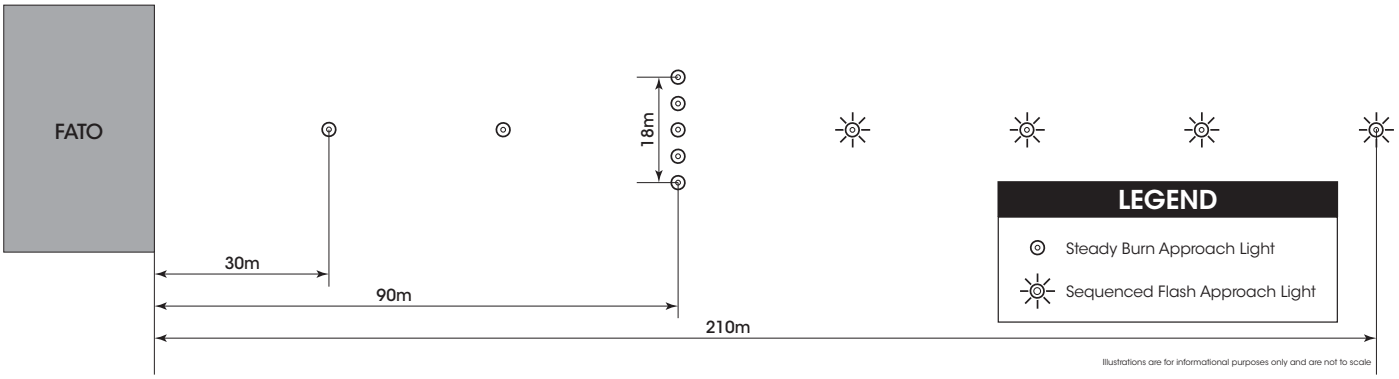
APPROACH LIGHTING SYSTEM

An approach lighting system should be provided at a heliport where it is desirable and practicable to indicate a preferred approach direction.

An approach lighting system should be located in a straight line along the preferred direction of approach and consists of a row of three lights spaced uniformly at 30m intervals and a crossbar 18m in length located at a distance of 90m from the perimeter of the Final Approach and Take-off (FATO). The lights forming the crossbar should be at right angles to, and bisected by the line of the approach lights and spaced at 4.5m intervals. These lights should be steady-on, omnidirectional, white lights.

Where there is need to make the final approach course more conspicuous additional lights spaced uniformly at 30m intervals should be added beyond the crossbar. These lights may be steady-on or sequenced flashing, white omnidirectional lights, depending upon the environment.

Where an approach lighting system is provided for a non-precision final approach and take-off area, the system should not be less than 210m in length.



HELIPORT BEACON

A heliport beacon should be provided at a heliport where:

a) Long range visual guidance is considered necessary and is not provided by other visual means; or

b) Identification of the heliport is difficult due to surrounding lights

The heliport beacon shall be located on or adjacent to the heliport, preferably at an elevated position and so that it does not dazzle the pilot at short range. If the beacon is likely to dazzle the pilot, it may be switched off during the finals stages of approach and landing.

WIND DIRECTION INDICATOR

A heliport needs to be equipped with at least one wind direction indicator positioned in such a way as to be free from the affects of airflow disturbances. The indicator shall give clear indication of the direction of the wind and a general indication of wind speed. If the heliport is intended for use at night the wind direction indicator needs to be illuminated.

TAXIWAY LIGHTS

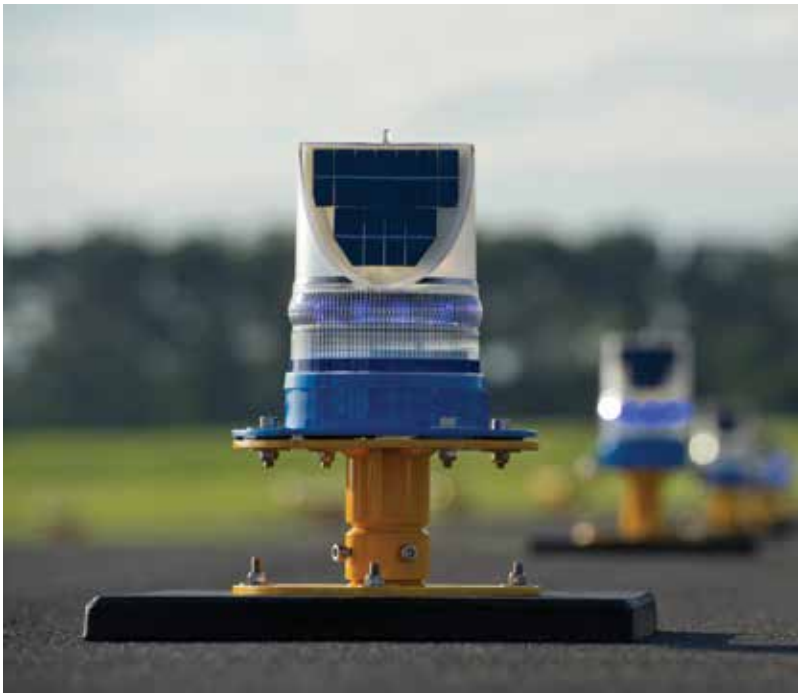
The specifications for taxiway centre line and taxiway edge lights in Annex 14, Volume 1, 5.3.17 and 5.3.18, are equally applicable to taxiways intended for ground taxiing of helicopters.

OBSTRUCTION LIGHTING

The specifications for marking and lighting obstacles included in Annex 14, Volume 1, Chapter 6 are equally applicable to helicopters and winching areas.

If it is not possible to display obstacle lights on an object then they may be lit by floodlighting. The floodlights shall be arranged so they illuminate the entire obstacle as far as practicable and do not dazzle helicopter pilots.

Avlite Systems has an extensive range of LED obstruction lighting to clearly mark structures such as telecommunication towers, wind turbines, buildings and tall structures. Avlite's LED obstruction lights offer an ultra bright, energy efficient, cost effective lighting solution.



ELEVATED HELIPORTS

ICAO Guidelines for night lighting

An elevated heliport is located on a raised structure on land. These are usually located on the top of commercial and residential buildings, and hospitals.

ICAO lighting recommendations for elevated heliports consist of:

- **Touchdown and Lift-off area (TLOF) lights.** The FATO and TLOF on elevated heliports is usually presumed to be coincidental.
- **Final Approach and Take Off (FATO) lights** if required.
- **Approach lights** to indicate the preferred approach direction
- **Flight path alignment guidance lights** to indicate available approach and /or departure path direction
- An **illuminated wind direction indicator** to give indication of wind direction and speed
- **Heliport beacon** for identification of the heliport if required
- **Floodlights** around the TLOF if required
- **Obstruction lights** for marking obstacles. If it is not possible to display obstacle lights on an object then they may be lit by floodlighting

Standards and Regulations:

Heliport lighting standards and regulations vary depending on your location. Here are some examples:

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Heliport light examples

FATO & TLOF Lights 	Heliport Beacon 	Approach Lights 
Floodlights 	Wind Direction Indicator 	Obstruction Lights 

Note: Avlite has an extensive range of heliport lighting, contact your Avlite representative for additional models suitable for your application

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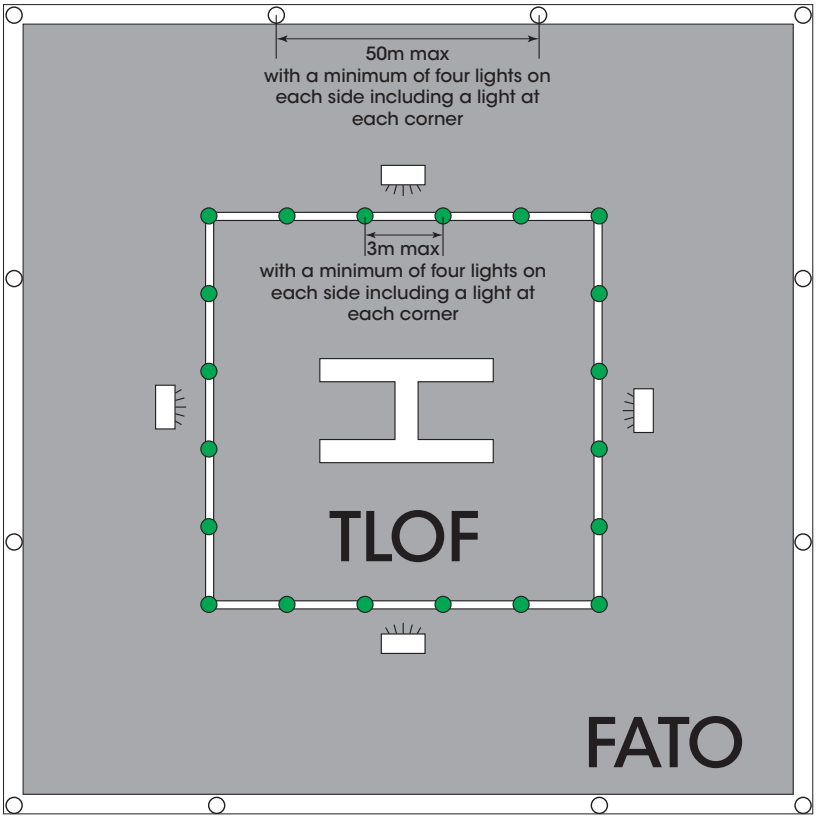

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LEGEND

- FATO Perimetrer Light
- TLOF Perimeter Light
- TLOF Perimeter Flood Light

Note: the illustration depicts both the FATO and TLOF, however on elevated heliports the FATO and TLOF is usually presumed to be coincidental

TOUCHDOWN AND LIFT-OFF AREA LIGHTING SYSTEM (TLOF)

The touchdown and lift-off area lighting system for an elevated heliport or a helideck shall consist of:

a) Perimeter lights; and

b) Floodlighting; or

c) Arrays of segmented point source lighting (ASPSL) and/or luminescent panel (LP) lighting to identify the touchdown marking where it is provided and/or floodlighting to illuminate the TLOF.

Perimeter Lights:
Fixed omnidirectional green lights. TLOF perimeter lights should be placed along the edge of the designated touchdown and lift-off area or within a distance of 1.5m from the edge. These shall be uniformly spaced at intervals of not more than 3m for elevated heliports and helidecks with a minimum of four lights on each side of a square TLOF including a light in each corner. For a circular TLOF there shall be a minimum of 14 lights.

The perimeter lights should not exceed a height of 25cm. If a light protruding above the surface could endanger helicopter operations then the lights should be inset.

The pattern of the TLOF perimeter lights should not be able to be seen by the pilot from below the elevation of the TLOF at an elevated heliport.

Floodlighting:
If required, floodlights should be located on and installed around the TLOF.

FINAL APPROACH AND TAKE-OFF (FATO)

If required, FATO area lights shall be fixed omnidirectional white lights placed along the edges of the final approach and take-off area. The FATO lights should not exceed a height of 25cm. If a light protruding above the surface could endanger helicopter operations then the lights should be inset.

The lights shall be uniformly spaced as follows:

Square or rectangle:
Placed at intervals of not more than 50m with a minimum of four lights on each side including a light in each corner.

Other shapes including a circle:
Placed at intervals of not more than 3m with a minimum of ten lights.

HELIDECKS

ICAO Guidelines for night lighting

A helideck is a heliport located on a fixed or floating offshore structure such as a ship or oil platform.

ICAO lighting recommendations for helidecks consist of:

- **Touchdown and Lift-off area (TLOF) lights.** The FATO and TLOF on elevated helidecks is usually presumed to be coincidental.
- **Final Approach and Take Off (FATO) lights** if required.
- **Approach lights** to indicate the preferred approach direction
- **Flight path alignment guidance lights** to indicate available approach and /or departure path direction
- An **illuminated wind direction indicator** to give indication of wind direction and speed
- **Heliport beacon** for identification of the heliport if required
- **Floodlights** around the TLOF if required
- **Obstruction lights** for marking obstacles. If it is not possible to display obstacle lights on an object then they may be lit by floodlighting

Standards and Regulations:

Heliport lighting standards and regulations vary depending on your location. Here are some examples:

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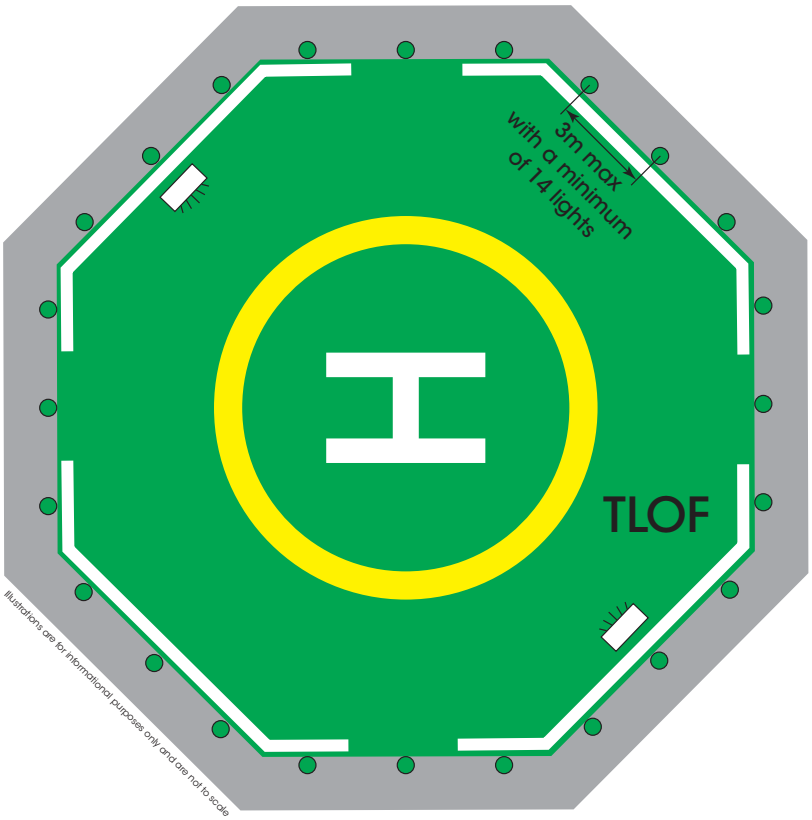


LEGEND

- TLOF Perimeter Light
- TLOF Perimeter Flood Light

TOUCHDOWN AND LIFT-OFF AREA LIGHTING SYSTEM (TLOF)

The touchdown and lift-off area lighting system for an elevated heliport or a helideck shall consist of:

a) Perimeter lights; and

b) Floodlighting; or

c) Arrays of segmented point source lighting (ASPSL) and/or luminescent panel (LP) lighting to identify the touchdown marking where it is provided and/or floodlighting to illuminate the TLOF.

Perimeter Lights:
Fixed omnidirectional green lights. TLOF perimeter lights should be placed along the edge of the designated touchdown and lift-off area or within a distance of 1.5m from the edge. These shall be uniformly spaced at intervals of not more than 3m for elevated heliports and helidecks with a minimum of four lights on each side of a square TLOF including a light in each corner. For a circular TLOF there shall be a minimum of 14 lights.

The perimeter lights should not exceed a height of 25cm. If a light protruding above the surface could endanger helicopter operations then the lights should be inset.

The pattern of the TLOF perimeter lights should not be able to be seen by the pilot from below the elevation of the TLOF at fixed helideck, if the helideck is floating then the pilot should not be able to see the perimeter lights below the elevation of the TLOF when the helideck is level.

Floodlighting:
If required, floodlights should be located on and installed around the TLOF.

FINAL APPROACH AND TAKE-OFF (FATO)

If required, FATO area lights shall be fixed omnidirectional white lights placed along the edges of the final approach and take-off area. The FATO lights should not exceed a height of 25cm. If a light protruding above the surface could endanger helicopter operations then the lights should be inset.

The lights shall be uniformly spaced as follows:

Square or rectangle:
Placed at intervals of not more than 50m with a minimum of four lights on each side including a light in each corner.

Other shapes including a circle:
Placed at intervals of not more than 3m with a minimum of ten lights.

TEMPORARY & RAPID DEPLOYMENT HELIPADS

Guidelines for night lighting

Temporary and rapid deployment helipads are used in medevac and emergency situations where a temporary landing area is required.

Due to the unpredictable nature of emergency helicopter landing zones these are not officially covered in any aviation standards, however there are best practice guidelines that can be followed.

Location

A Helicopter Landing Site Officer should arrive at the scene to plan and prepare the landing site to prior to the arrival of an air ambulance. The Helicopter Landing Site Officer needs to find the most suitable landing area for the helicopter and ensure that it is as close to the accident site as possible to minimise and prevent unnecessary transport of the patient to the helicopter, and to make sure the area is also free of hazards such as electrical power lines, tree limbs and towers.

The landing zone should be a square area. The dimensions for the landing zone will vary on the visibility and the time of day. At night and in low visibility conditions such as fog, the landing zone will need to be larger than during daylight hours.

Locations such as sports grounds, parking lots, roads and other firm surfaces make ideal emergency landing zones. The areas need to be free of debris. To prevent dust and gravel from rising up when the helicopter lands, the area should be hosed down with water.

Marking and Lighting

During daylight hours the perimeter of the designated landing zone can be marked with small weighted or secured cones, however, at night it should be marked using a minimum of four lights in each corner with a fifth light used to indicate the direction of approach.

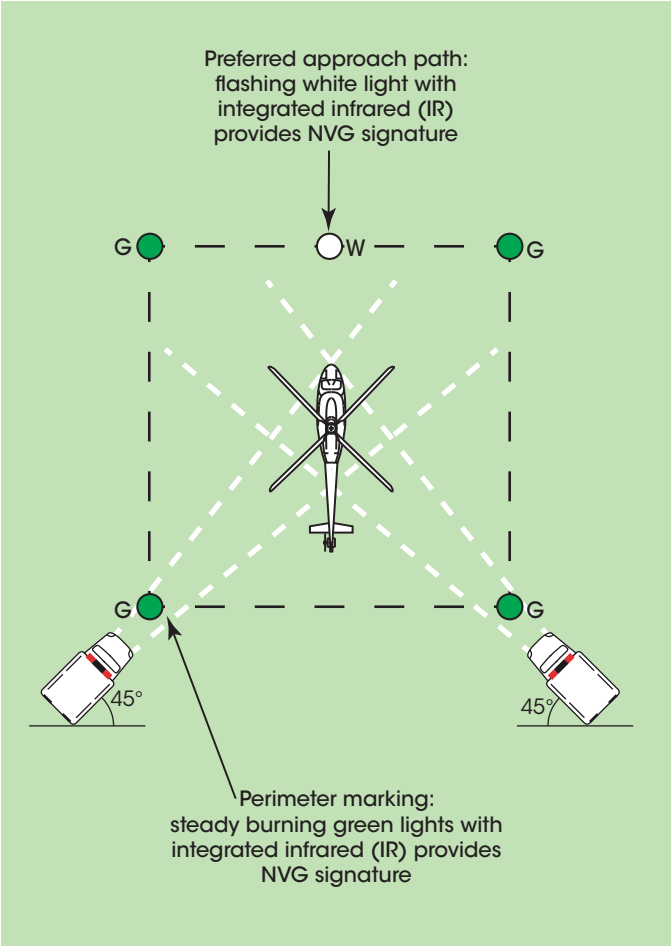
Wind can also be a potential hazard so the pilot needs to be informed as to the direction of the wind in relation to approach and departure paths. In temporary and rapid deployment applications a calibratal handheld annometer can be used by the Helicopter Landing Site Officer to provide wind direction indication.

At night all lights except those used to light the designated landing zone should be turned off to allow the pilots to distinguish any landmarks and potential hazards.

The Helicopter Landing Site Officer needs to communicate any potential hazards to the pilot before landing. Power lines are a very dangerous hazard that are hard to spot even in daylight and usually cannot be seen at all at night. Ground crews should mark the location of electrical wires either using flares or red lights secured to the ground and placed between the landing zone and the hazard.

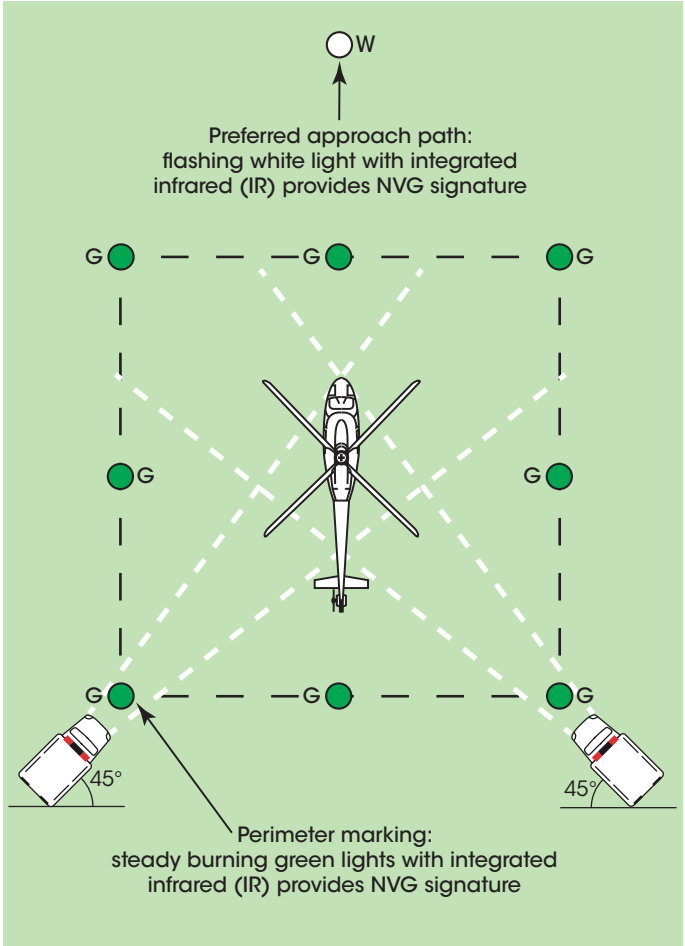
It is the responsibility of the Helicopter Landing Site Officer to communicate with the pilot and inform them of:

- The function of the Helicopter Emergency Medical System (HEMS) crew; transport, search or rescue
- The location of the landing zone in relation to the accident
- The size of the landing zone and how it has been marked/lit
- Location of nearby obstructions and whether or not they have been marked/lit
- Wind speed and direction



Example of 4x perimeter light & 1x approach path light

Illustrations are for informational purposes only and are not to scale



Example of 8x perimeter light & 1x approach path light

Temporary/Rapid Deployment Helipad light examples

EMS Helipad Kit	Hazard light	Cone Markers various colours
		

Note: Avlite has an extensive range of heliport lighting, contact your Avlite representative for additional models suitable for your application

The information in this publication is a guide only.
Please contact your local authority for rules and regulations particular to your region.

PRODUCT OVERVIEW

HELIPAD LIGHTING

TLOF LIGHTING

SOLAR POWERED TOUCHDOWN & LIFT-OFF PERIMETER LIGHT (TLOF)

This self-contained solar powered TLOF light can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

INSET TOUCHDOWN & LIFT-OFF PERIMETER LIGHT (TLOF)

Inset omnidirectional TLOF lights can be controlled by one of Avlite's advanced lighting control systems.

Optional NVG mode available.

AC or DC POWERED TOUCHDOWN & LIFT-OFF PERIMETER LIGHT (TLOF)

This TLOF light can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

SOLAR, AC or DC POWERED TOUCHDOWN & LIFT-OFF FLOOD LIGHT (TLOF)

This TLOF flood light can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

FATO LIGHTING

SOLAR POWERED FINAL APPROACH & TAKE-OFF PERIMETER LIGHT (FATO)

This self-contained solar powered FATO light can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

INSET FINAL APPROACH & TAKE-OFF PERIMETER LIGHT (FATO)

Inset omnidirectional FATO lights can be controlled by one of Avlite's advanced lighting control systems.

Optional NVG mode available.

AC or DC POWERED FINAL APPROACH & TAKE-OFF PERIMETER LIGHT (FATO)

Avlite's AC powered FATO light can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

EMS LIGHTING

EMS HELIPAD KIT

The Avlite EMS Helipad Kit provides temporary lighting at emergency landing zones. All components are neatly housed in a sturdy storage case.

APPROACH LIGHTING, FLIGHT PATH ALIGNMENT, AIMING POINT LIGHTS & ADDITIONAL LIGHTS

APPROACH LIGHTS

SOLAR POWERED APPROACH LIGHT

This self-contained solar powered approach light can be set to either steady-on or flashing and can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

AC or DC POWERED APPROACH LIGHT

This AC powered approach light can be used as either steady-on or flashing light and can be wirelessly controlled using Avlite's handheld controllers.

Optional NVG mode available.

ADDITIONAL LIGHTS

INSET AIMING POINT LIGHT

This is an AC powered inset aiming point light.

Optional NVG mode available.

INSET FLIGHT PATH ALIGNMENT GUIDANCE LIGHT

This inset flight path alignment guidance light used to indicate available approach and/or departure path direction.

Optional NVG mode available.

HELIPORT BEACON

The LED Heliport Beacon can be used where long range visual guidance is necessary.

HELICOPTER APPROACH PATH INDICATOR (HAPI)

The HAPI guides the helicopter pilot in the approach landing with red and green lights.

PRODUCT OVERVIEW

LIGHTING CONTROL

RADIO CONTROL & MONITORING

The handheld controller allows lights to be controlled remotely to easily change characteristics.

- Shut down or turn all light ON remotely within seconds
- 3-step intensity adjustment
- Switch from visual to IR for tactical operations
- 2.4GHz worldwide accepted frequency

OPTIONAL TABLET CONTROL

The AvMesh® USB device provides wireless control of airfield lights using a Tablet PC.

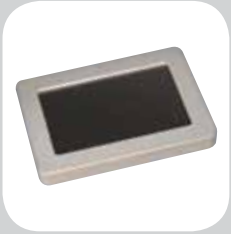
- Intuitive and easy to use platform
- Quickly set advanced features from a single screen
- Access advanced command pages & diagnostics
- Supports multiple languages

PILOT ACTIVATED LIGHTING CONTROL (PALC)

The Avlite Pilot Activated Lighting Control (PALC) has been integrated with the Avlite 2.4 GHz RF wireless network to allow approaching helicopters and aircraft to activate Avlite's solar lighting on heliports and airfields.

LCMS HELIPAD CONTROL SYSTEM

An optional LCMS (Lighting Control & Monitoring System) can be supplied and integrated with the helipad lighting system to provide central control and/or remote operation functionality for a variety of helipad operations.



LCMS HMI

The LCMS HMI can be used in conjunction with the LCMS Helipad Control System to control Avlite's helipad lighting system via an intuitive and user-friendly touch screen interface.

ANCILLARY LIGHTING & ACCESSORIES

SOLAR TAXIWAY LIGHT

Self-contained, easily deployable solar taxiway lights with optional radio control.

Optional NVG mode available.

HAZARD LIGHT

Self-contained, easily deployable hazard lights

SOLAR OBSTRUCTION LIGHTS

Solar powered ICAO certified obstruction lights safely mark obstacles.

Optional NVG mode available.

WIND DIRECTION INDICATOR

Avlite's illuminated, solar-powered wind direction indicator ensures helicopter pilots can easily determine wind speed and direction.

Optional NVG mode available.

AIRFIELD CONE MARKER

Cone markers can be used for daytime recognition of temporary helipads.

SOLAR HAZARD LIGHT

Compact, solar powered, self-contained light used for marking hazards.

AC OR DC OBSTRUCTION LIGHTS

AC powered ICAO certified obstruction lights safely mark obstacles.

Optional NVG mode available.

TACTICAL CAPABILITIES

Helping you achieve mission success

Special operations, tactical or covert ops are highly demanding missions that can range from peacekeeping, humanitarian aid operations, serious, major and organised crime to counter terrorism matters, search and rescue (SAR) and other emergency situations.

These missions are deliberate and planned with extreme precision. They can be incredibly risky when flying at night, as there is limited visibility for pilots. However, with proper equipment, constant training, and a thorough knowledge of techniques, these disadvantages may be overcome with the use of enhanced tactical aviation lighting products that utilise IR supporting covert, non-covert and NVD operations.

NVGs significantly improve night flying operations, especially in areas of limited celestial or surface reference lights. Using NVGs, pilots can now venture out in the darkness almost as safely as during the daytime.

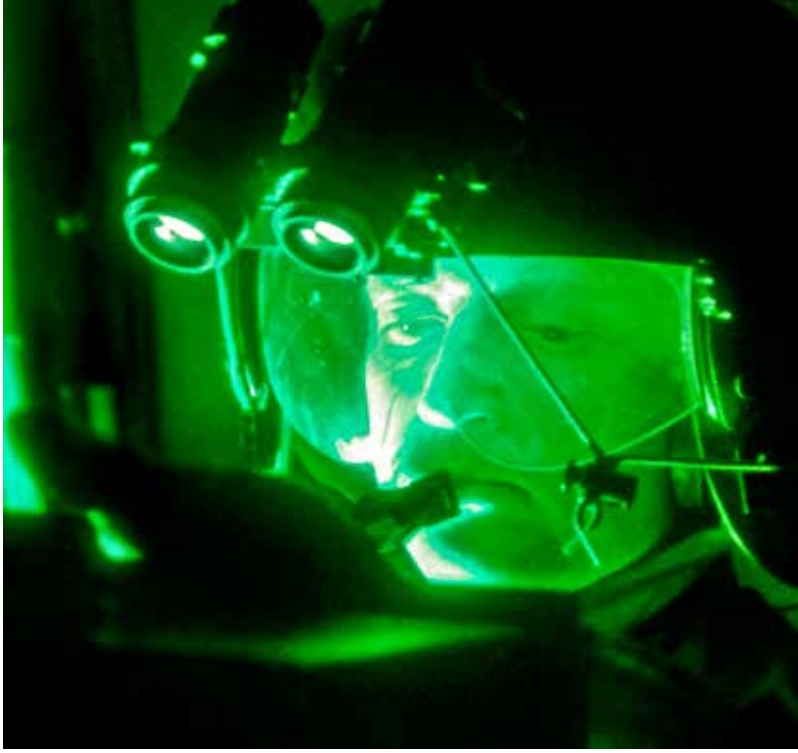
Avlite Systems Tactical and IR lighting products offer the performance, reliability, and visual guidance you need in the air or on the ground.

NVG

Night vision goggles (NVGs) consist of a lightweight binocular that is mounted to a flight helmet and powered by a low voltage battery pack. When used at night, NVGs provide the ability to see much further and with far greater clarity than with the naked eye.

Augmented night vision can be created by the amplification of visible light present, or by increasing the spectrum of light collected to enhance the image. Human eyesight is limited to the visible spectrum, but NVG technology allows infrared light to be used to augment the vision of the wearer.

A refinement of NVG is NVIS (night visual imaging systems). Many of these are no longer goggle-based and incorporate NVS (Night Vision Systems) in a panel or head-up display.



Tactical Kits

Avlite's tactical lighting kits are available in a variety of configurations. The kits can be configured to be versatile and portable or larger and more comprehensive. The kits can be configured with landing light system that allows fixed and rotary wing aircraft to pinpoint landing areas or drop zones at nightfall.

References: ICAO Annex 14, Volume II, Heliports, Fourth Edition, July 2013
Image credits: US Army via Flickr https://www.flickr.com | Image credits: Queensland Health

All Avlite Systems products are manufactured to exacting standards under strict quality control procedures. Avlite's commitment to research and development, investing in modern equipment and advanced manufacturing procedures has made us an industry leader in solar aviation lighting.

By choosing Avlite Systems you can rest assured you have chosen the very best.

Experienced & Trained Personnel

•

Worldwide Distribution Team

•

Agile Manufacturing

•

Product Innovation

•

Precision Construction

•

Total Quality Management

•

ISO9001:2008

•

Rapid Turnaround

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