

TACTICAL APPROACH LIGHTING SYSTEM (TALS) DESCRIPTION.

The Tactical Approach Lighting System (TALS) is a field deployable, man portable, solid state, battery powered lighting system which can provide both infra-red (IR) and visible light sources. Light Units can be fully configured and operated via a UHF radio Remote Control Unit up to a typical range of 5km, or configured and operated manually. Illumination is provided over a hemispherical area by LED light sources. In Infra-Red mode the Light Units are NVG compatible.

The primary purpose of the system is to indicate Landing and, Drop zones, Forward Arming Refuelling Points and can be used for covert and overt operations. The system is fully NATO codified and is in active service throughout the world.

A system consists of the following and is contained and transported in a Backpack.:

- One Remote Control Unit
- Six Light Units
- Six Ground Spikes (for deploying Light Units)
- One Universal input Battery Charger
- One Backpack which houses all the system units

The above system provide sufficient Lights for a Minimum Operating Strip (MOS) for fixed wing aircraft or marking out a NATO 'T' formation, typically used for rotary wing aircraft.

If a larger or more complex layout is required then any number of packs can be combined, and can be controlled from single or multiple controllers either from on the ground or from in the air.

The Remote Control Unit is powered by rechargeable Lithium Ion batteries. Two displays and a simple interface allow the user to remotely operate Light Units on up to 30 channels with unlimited number of Lights per channel. The Remote Control Unit transmits on the 458.6 MHz UHF unlicensed band (alternative frequencies maybe available) with a maximum RF power of 500mW, giving a range of over 5Km line of sight, the signal is BYTE coded for security.

The Remote Control Unit can turn the Lights On/Off, switch between the various Light colour options, vary brightness and dimming, switch between the various flash or constant light outputs, Switch between Omni directional or restricted approach options.

The Light Units are powered by rechargeable Lithium Ion batteries and contain UHF radio receivers for communication with the Remote Control Unit. Each Light Unit has four LED light sources: Infra-red, White, Green and Red (other colours available on request). The brightness of each source is adjustable and each can be configured for constant or flashing emission. Any one light source can be selected at any one time. Each light source can be configured to illuminate omni-directionally or over a nominal 90° sector for restricted approach. The light sources are visible up to 3.7Km in white with the naked eye and over 5Km in IR using NVG's

The Battery Charger has seven independent outputs, which can simultaneously charge a system of six Light Units and one Remote Control Unit. Charging is automatically controlled and the charger connects directly to the system units, so it is not necessary to remove battery packs when charging. Each charger channel will charge a fully discharged battery in 8 to 10 hours. Charging status is conveyed by an LED indicator. The Battery Charger can be powered from AC (85/230V 50/60Hz) or DC (9.5V – 36V).

The Backpack is a cordura, Bergen-style pack, which can hold and transport all system units. The system has been designed so that charging can take place with the units in the pack, however, if required the Charger can easily be removed from the pack