PORTABLE LANDING AND DROP ZONE LIGHTS





Easy-to-use, mobile system for deployments in areas lacking infrastructure for parachuting or aircraft landing.

Dubbed 'Candle', the system can be rapidly set up to mark a drop zone or lay a landing strip with either visible light or infrared lights – not visible to the naked eye – in case of covert landing. Importantly, the lights are remote-controlled and can be switched on and off by operators on the ground or the pilot from as far away as 10 km.

The system consists of 12 lights, each fitted with a transmitter/receiver with a remote control effective up to 600 m and 200 m between lights. With six lights on either side, a landing strip of 1 000 m and longer can be marked out. This means that a plane of the size of a Hercules transport aircraft can be guided with this system. Plus, the system is lightweight and can be carried as part of a paratrooper's kit.

When the aircraft approaches, the lights are switched on and then switched off immediately once it has landed safely. Furthermore, the dual lighting means that the craft can also take off and return via the same created runway, immediately.

Fast facts

- Full system comprises 12 lights and a remote control;
- Uses high-power light-emitting diodes, commonly known as LEDs;
- Red, green and infrared lighting (only detected by night vision equipment);
- Visibility from 10 km at 1 000 ft (up to 18 km in open terrain);
- Battery life of six hours (six AA batteries);
- Transmitter and receiver fitted to each light;
- Anchored via sandbags or pegs;
- Weight: 750 g (light), 350 g (stand) = 1 100 combined;
- Ruggedised injection moulded casing and rubber footing;
- Folds into small package to combine with kit or a separate pack is provided;
- Dual lighting allows landing and immediate return departure;
- Demonstrated with light aircraft (up to C130/C160); and
- System is qualified for operational conditions and evaluated and used by the South African National Defence Force.

The system has also found civilian application among mining companies in South Africa and in other African countries. At the time of invention, Candle was awarded the coveted International Soldier Technology Award, selected from several soldier modernisation programmes from around the world. The CSIR is currently pursuing the identification of a licensing partner from commercial industry.

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