COASTLINE SECURITY

As a coastline security radar, Blighter provides the ability to detect small and slow moving targets both on land and over the water. This allows it to operate in littoral or coastal regions where the radar is searching for targets such as walking persons, canoeists, RIBs and jet-skis either over the land, open water or in tidal areas. In addition to detecting small and slow targets the Blighter radar can also detect fast moving boats and/or large ships. The Blighter radar's flexibility allows it to be used for inland water surveillance such as lakes and reservoirs, on the land/sea margin including shoreline and harbour surveillance, and out to open sea for long range surveillance of covert targets.

Blighter radars operate in all weather conditions and continuously 24 hours a day making them particularly useful for security applications at night and in foggy conditions. The Blighter radar is typically used with long-range surveillance cameras and thermal imagers, enabling security staff to detect and then identify the intruders or their boat.

Harbour, Seaport and Naval Base Protection

The Blighter coastline security radar uses high-resolution Doppler processing technology to enable it to discriminate very fine movement and reject the radar reflections from static objects, allowing Blighter to detect small boats moving alongside moored ships, jetties and other static structures. This makes the Blighter radar well suited for use in harbours, seaports and naval bases where there is a threat from small boats approaching larger high value boats and ships.

As the Blighter radar is designed to operate over land as well as sea, it can also detect movement on the land surrounding the port area. This is of particular use at night when intruders on land can also be detected as they move around the boats.

The Blighter radar can be integrated with a long-range camera and thermal imager (electro-optic) systems to allow security staff to identify and track the intruders remotely on the electro-optic system, once cued by the Blighter radar.

Coastal Surveillance / Coastline Security

Blighter coastline security radars provide a significant advantage over traditional coastal surveillance radars for security applications due to Blighter's state-of-the-art design features: The electronic-scanning (e-scan) technology has no moving parts and uses a completely solid-state transmitter so reliability is exceptionally high. Traditional coastal surveillance radars are limited in range by nature of their mounting height above water and the radar frequency band in use. The Blighter radar's use of the international Ku radar band allows it to be mounted lower for

a given detection range, thereby reducing mast infrastructure costs. Also the Blighter radar uses Doppler processing technology to discriminate and measure the characteristics of the targets it detects. This allows it to discriminate the movement of boats from the motion of waves.

Offshore Platform Security

As well as providing a surveillance platform with exceptional reliability, the Blighter radar's e-scan antenna technology and FMCW design allows it to be mounted high on offshore platforms and still see small boats very close to the platform as well as those in the distance. With options for 10° or 20° elevation beamwidths, the Blighter radar can see intruders typically as close as a few tens of metres from the radar and out as far as 32km.

An offshore platform will typically be fitted with a myriad of cameras and thermal imagers. To simplify system, use and reduce operator fatigue, it is possible to use the target information from the Blighter radar to automatically select the appropriate camera system to look at the intruder.

Lake and Inland Waterway Monitoring

The Blighter coastline security radar is effective at detecting small targets that may be using lakes, reservoirs or other inland waterways for leisure, business or other purposes. Blighter's ability to detect people walking around the land surrounding the water as well as small water targets such as kayaks and jet-skis allows it to provide a complete picture of activity.

Where there is particular value associated with the water, such as; fishing, drinking water, or physical protection of key assets then the Blighter radar can provide intensive surveillance of the entire area. This is particularly effective in areas that are normally unused and at night or in foggy conditions.

As lakes and inland waterways are often close to inhabited areas, the Blighter radar's low-power FMCW transmission minimises the possibility of interference with commercial communications services, unlike traditional coastal surveillance radars.

It is often inconvenient to route power and communications to some inland surveillance areas. The Blighter radar uses very little power and with its embedded signal processing has a very small communications bandwidth requirement. This provides the opportunity to operate the radar from renewable power, such as solar or wind power and use narrow-band communications infrastructure including SatCom (Satellite communication), GSM, 3G (CDMA), 4G, 5G or conventional point-to-point wireless links.