I-Master
Pioneering Airborne Surveillance Radar
Go anywhere. See everything.

I-Master is the world’s highest performing surveillance radar in its class, deployed globally on a wide range of platforms, for a number of applications. Designed and developed by expert Thales radar engineers, I-Master delivers world class intelligence, surveillance and reconnaissance performance, in a compact package.

Mission Commanders are provided with outstanding high-fidelity classification and positioning imagery, with the ability to detect ships from up to 100km, vehicles from up to 35km and infantry movement from up to 15km - in all weather conditions and with ground-breaking precision and targeting functionality.

I-Master has four different modes that operators can choose between, depending on their mission requirements. These include:

**Ground Moving Target Indicator**

GMTI reveals moving objects in the radar’s field of view, from low speed foot patrols, to fast moving targets like speeding vehicles. Tracks are displayed instantly on the operator’s workstation and can be overlaid on a Digital Map, Satellite or SAR Imagery. GMTI can also support weapons systems and cue EO/IR sensors for detailed observation.

**I-Master’s 360° scan mode minimises the need to reposition the aircraft during surveillance and ensures continuous contact with the target.**

**Synthetic Aperture Radar**

I-Master provides real-time, high resolution, wide area geo-located ground mapping. It can survey in excess of 800km² per hour - even in conditions of cloud, rain, fog, smoke and sand storms that defeat camera-based systems.

Ground maps produced by I-Master show new features such as temporary bridges, barriers, flooding or to establish the movement of vehicles to support further analysis and planning.

**Coherent Change Detection**

Unique Thales CCD algorithms enable historic tracks or imprints to be displayed on the image that are not visible to the eye or alternative sensors such as an EO/IR.

By comparing SAR images of the same area taken at different times (whether hours or days apart), it is possible to automatically highlight any changes that have taken place, such as new encampments.

**Maritime Moving Target Indication**

MMTI allows users to detect and track targets in the maritime domain, ranging from small, fast moving crafts such as jet-skis, to larger, slower vessels such as ships and tankers.

Detection ranges up to 56 nautical miles are possible, subject to sea-state conditions. The algorithms designed specifically by Thales can detect unusual vessel movements; perform “pattern of life” analysis; and persistently track targeted vessels.

**Perfect balance of performance and form factor**

Weighing only 30kg, I-Master has been designed for easy installation on manned and unmanned aircrafts. I-Master’s ‘plug & play’ integration capability has the same footprint as a standard 1.5 EO/IR sensor turret. It can easily replace, or on a multi-sensor platform, complement your sensor suite.

*Fixed wing aircraft*  
*Rotary wing*  
*Unmanned aerial vehicle*