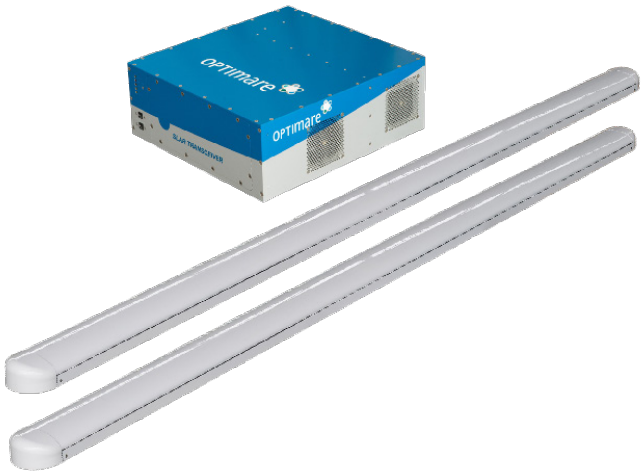
Product

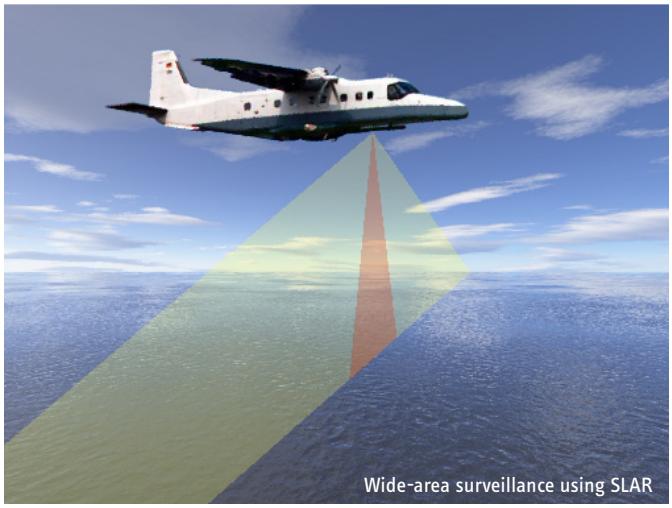
OPTIMARE SLAR
Side-Looking Airborne Radar

OPTIMARE
A Member of Aerodata Group

APPLICATION

- Long-range detection of oil spills
- Detection of maritime targets
- Surveillance of fishing activities
- Detection & mapping of speed boat wakes



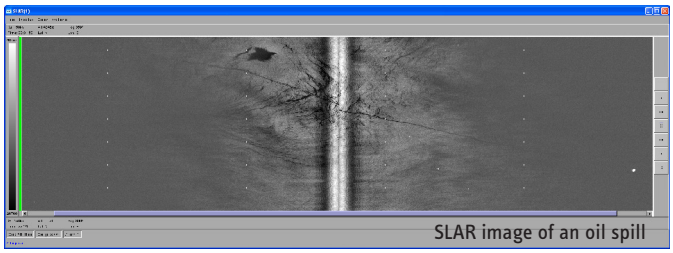

Wide-area surveillance using SLAR

Wide-swath radar imaging for airborne maritime observation

The OPTIMARE SLAR is a cloud-penetrating imaging X-band radar for day & night airborne maritime observation. Assuming sufficient aircraft altitude the OPTIMARE SLAR can have a swath width of more than 120 kilometers. The sensor is used for mapping the sea surface with regard to oil spills, vessels, wakes and many more.

Its well-proven imaging capabilities are ideally suited to support situational awareness and is often used to complement the discrete target information provided by search radars, automatic identification systems and direction finders. Moreover, SLAR has been the standard and prime technique for airborne oil spill surveillance since several decades.

The **lightweight** OPTIMARE SLAR with its outstanding performance and its **unique ultra-thin antenna design** maintains a superior position and is the SLAR solution of choice for a modern airborne maritime surveillance system. The OPTIMARE SLAR is available both as stand-alone instrument and as integral part of the AERODATA/OPTIMARE OctoPod.


SLAR image of an oil spill

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SPECIFICATION	
Mechanical properties	
Dimensions	Antenna: L: 3314 mm x W: 74 mm x H: 150 mm
	Transceiver: L: 405 mm x W: 379 mm x H: 146 mm
Mass	Antenna: 16 kg (2 antennas required per system)
	Transceiver: 13 kg
Electrical properties	
Current consumption @ 28 VDC	Max. 7A
Voltage	28 VDC (nominal); 20 VDC - 31.5 VDC
Operation	
Altitude of operation	Typically 1,000 ft ... 6,000 ft
Radiative / imaging properties	
Frequency	9.38 GHz ... 9.44 GHz (X-band)
Half Power Beam Width - azimuth	0.75°
Half Power Beam Width - elevation	15.0°
Radiation pattern	Asymmetric pattern optimized for maritime surveillance
Scanning method	Across-track scanning
Antenna gain	> 32 dBi
Communication / Interface	Ethernet (copper / fiber-optic)
Qualification	Qualified according to requirements of RTCA/DO-160G

Subject to technical changes and misprints
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