



# HENSOLDT TRS-3D naval radar

## 3D multi-mode surveillance and target acquisition radar

**TRS-3D is a modular, countermeasure-resistant, medium-range air and surface surveillance system. With its great tracking accuracy, it is designed for extended missions on both single-radar ships and large, multi-radar ships.**

Even under severe clutter conditions encountered in the littoral, it can detect and track particularly small, fast and low-flying aircraft and missiles as well as hovering helicopters and asymmetrical threats.

TRS-3D is the best system for long-range detection performance, short reaction times and the accuracy required for cueing weapons systems and dedicated fire control sensors, allowing you to maximise operational effectiveness.

The combat-proven naval radar system is being continuously improved to meet all current and future mission requirements while retaining its advantages in modularity, easy integrability and solidity.

# Naval 3D multi-mode surveillance and target acquisition radar

## Over 90

systems delivered to leading navies around the world

### Surveillance

- Specially designed for littoral operations avoiding blind sectors over land
- Reliable automatic track initiation and operation independent of clutter situation for surface and air targets
- Full MTD operation for complete instrumented range in all modes
- Use of digital geographical charts and adaptive clutter maps to optimise situational awareness

### Functional capabilities

- 3D air volume surveillance with fast target alert
- High-resolution surface surveillance
- Small-target detection capability
- Target designation to CMS for AAW and ASuW

### Self-defence

- Rapid reaction time (fast alert)
- Low operator workloads
- Fully automatic detection, track initiation and tracking of sea and air targets, as well as jammer avoidance/cancellation
- Target classification of sea and air targets as well as highly threatening objects such as sea skimmer missiles and high divers

### Gunfire support

- Use of medium-calibre guns thanks to dual target gunfire support mode
- Fast 1s-update rate for the detection of highly-explosive projectile splashes with tailored waveforms
- Adapted signal and data processing to detect sea targets and shell splashes

- Surface gunfire support with splash detection
- Support of ship-controlled helicopter approach (SCA)
- High-performance ECCM
- High resistance to EMI

- Suppression of environmental clutter
- Target classification support
- IFF interrogation support
- Supports various combat management systems

### Performance data

Maximum instrumented range	108 NM	<b>Track range performance</b>	
Minimum range	< 0.1 NM	- Low-altitude target	10 NM
Elevation coverage	up to 55°	<b>Air target tracking accuracy</b>	
Azimuth coverage	360°	- Azimuth	≤ 0.24°
3D tracking capacity	> 750 targets	- Elevation	≤ 1.3°
Gunfire support	2 windows	- Range	≤ 25 m

### Antenna

Planar phased array, electronically stabilised	Integrated SLB/CSLC antenna	
Electronic scan in elevation	Weight (including pedestal)	≤ 575 kg
Integrated IFF antenna (Mode S, Mode 5)		

### Transmitter

C-band (Nato G-band)	Graceful degradation
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### Processing

Flexible waveforms for 3D scanning	Coherent Doppler processing
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### Low life-cycle costs

High LRU reliability and operational system availability	MTTR / MTBCF	≤ 0.5 h / > 2000 h
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### Interfaces

Output to CMS	Ethernet	according to MIL-STD's, STANAG and German national standards
Supply Voltage	440 V, 3 Ph, 60 Hz and 115 V, 2 Ph, 60 Hz	