



Our sensor systems deliver superior situational awareness and targeting solutions.

Artisan

Naval radar

Artisan is in service as the Royal Navy's medium-range surveillance, target designation and air traffic management radar for surface ships.

Artisan optimises medium to long-range air and surface surveillance plus weapon systems target designation. Developed from proven technology, its architecture is future-proofed.

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Key performance benefits:

- Realises full potential of modern anti-aircraft warfare (AAW) missile systems and is adaptable for future ship defence weapon systems
- Provides unrivalled performance in the littoral, particularly fast inshore attack craft and small airborne targets detection in clutter
- Makes significant contribution to tactical situational awareness in primary sensor role
- Electronic protection measures maintain detection ranges even when attacked by complex jammers
- Delivers track quality required for air traffic management
- Electronic stabilisation gives a smaller, lighter masthead envelope and higher reliability
- Fulfils secondary navigation role
- A software-centric radar, enabling ease of capability upgrade.

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Antenna

Low weight design	< 900 kg
Horizontal beamwidth	< 20°
Antenna rotation rate	30 rpm
Stabilisation	Electronic
Low sidelobes	
Built-in sidelobe blanking	
Air-cooled	

Functional aspects

- 3D air surveillance with fast target alerts
- Secondary navigation surface surveillance
- Jammer suppression and surveillance
- Identification friend or foe (IFF) interrogation support
- Weapons system support.

Low through-life costs

- Designed using commercial components to provide high operational availability and reliability
- Support model options benefiting from availability contracting approach
- MTTR < 30 minutes
- MTBCF > 5000 hours.

Performance data

Maximum instrumented range	> 200 km
Maximum elevation coverage	> 70°
Minimum range	< 200 metres
3D tracking capacity (air and surface)	> 800 targets

Processing

- Digital adaptive beam-forming
- Digital pulse compression
- Doppler processing using adaptive MTD filters
- Advanced track extraction
- Sophisticated classification support
- Optimised for weapon system performance.

Technical data

- Four operating modes all at 30 rpm
- Fully automatic detection and tracking
- Unique-to-class digital adaptive beam-forming provides immunity to jamming and interference.

Transmitter

Frequency band: E/F band

Type: solid state transmit modules

Transmitter modes: minimum navigation mode or full power

Frequency agility

Installation

Equipment footprint and ship services required:

Equipment	Height	Width	Depth	Ship's chilled water	Ship's power
Antenna	1.35m	4.1m	1.6m	None – air cooled	None
Signal generation and receive cabinet	1.56m	0.69m	0.68m	4 l/min	2 KVA
Data processing cabinet	1.56m	0.69m	0.68m	6 l/min	3 KVA
Antenna power cabinet	1.56m	0.75m	0.68m	5 l/min	15 KVA
Antenna cooling cabinet	1.56m	0.9m	0.68m	49 l/min	18 KVA
Turning control unit	0.8m	0.6m	0.25m	None	2 KVA



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