

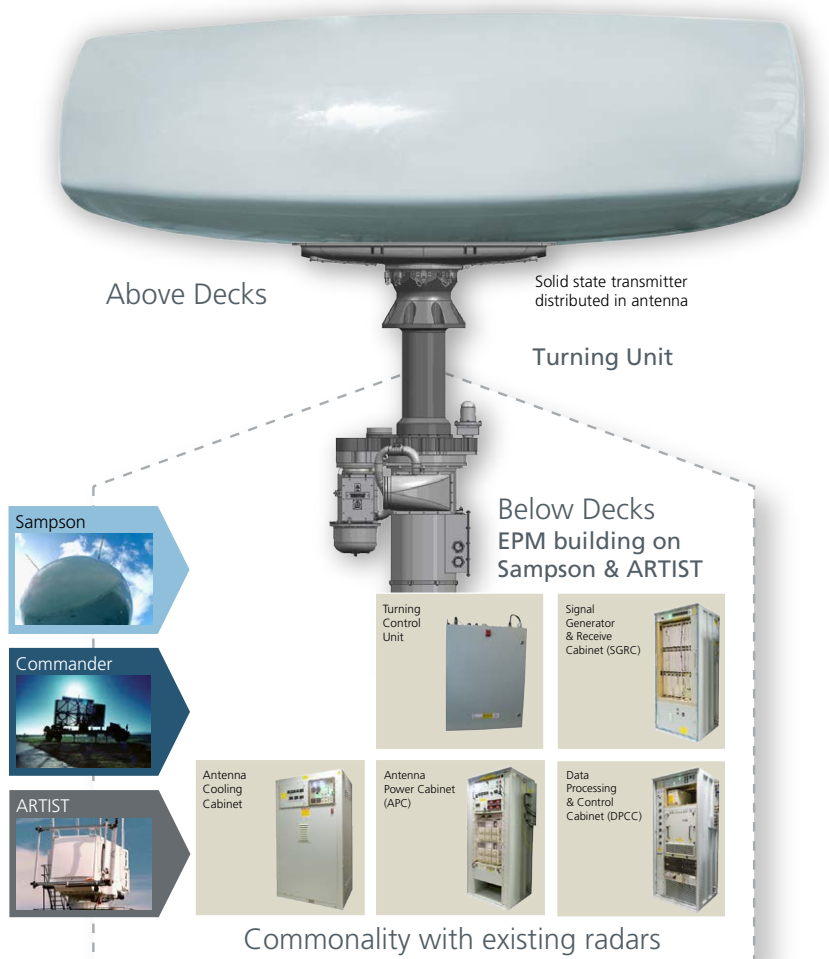


# Artisan Naval Radar

Maritime Services' sensor systems deliver superior situational awareness and targeting solutions.

Artisan is in service as the Royal Navy's new 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.



## 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.

## Antenna

Low weight design	< 900 kg
Horizontal beamwidth	< 2.0 degrees
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 utilising 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 degrees
Minimum range	< 200 metres
3D tracking capacity (air & surface)	> 800 targets
Elevation accuracy	0.6 degree
Track declaration range	
- Maritime aircraft	> 185 km
- Missile	> 50 km

## Processing

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

## Technical data

System:

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

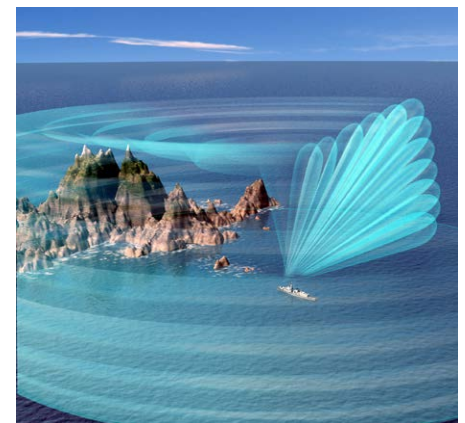
## Transmitter

Frequency band: E/F band

Type: Solid state transmit modules

Transmitter modes: minimum navigation mode or full power

Frequency agility



## Installation

The equipment footprint and ships services required

Equipment	Height	Width	Depth	Ships chilled water	Ships 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

## For more information contact:

BAE Systems Maritime Services  
Newport Road, Cowes  
Isle of Wight, PO31 8PF, United Kingdom  
T: +44 (0) 1983 294141  
F: +44 (0) 1983 202326  
E: radaruk@baesystems.com  
W: www.baesystems.com/radaruk

## Disclaimer and restrictions on use

This publication is issued to provide outline information only. No advice given or statements or recommendations made shall in any circumstances constitute or be deemed to constitute a warranty or representation by BAE Systems as to the accuracy or completeness of such advice, statements or recommendations. BAE Systems shall not be liable for any loss, expense, damage or claim howsoever arising out of the advice given or not given or statements made or omitted to be made in connection with this document. No part of this document may be copied, reproduced, adapted or redistributed in any form or by any means without the express prior written consent of BAE Systems. BAE SYSTEMS is a registered trademark of BAE Systems plc