

Sperry Marine

Product Group: Radar
For Further Info: John Robinson
Tel: +44 (0)20 8329 2395

MIB No. 063
29th July 2004

Marketing Information Bulletin

NEW BRIDGEMASTER E DUAL CHANNEL NAVIGATION RADAR FOR MARINE APPLICATIONS

Sperry Marine is pleased to introduce an innovative new multi-mode navigation radar system for commercial ships and platforms, designed to enhance a radar operator's situational awareness.

The new Sperry Marine dual channel BridgeMaster E radar system incorporates a unique design that permits radar video from two different transceivers to be mixed and displayed simultaneously, presenting a seamless single integrated picture to the radar operator.

The arrangement has two principal areas of benefit:

- Elimination of blind arcs and sectors
- Combining the best qualities of S & X Band on the same radar picture

Like all BridgeMaster E systems, the new dual channel navigation radar system offers the world's most sophisticated automatic clutter suppression technology and a comprehensive array of capabilities for both shipboard and static platform applications.



Sperry Marine

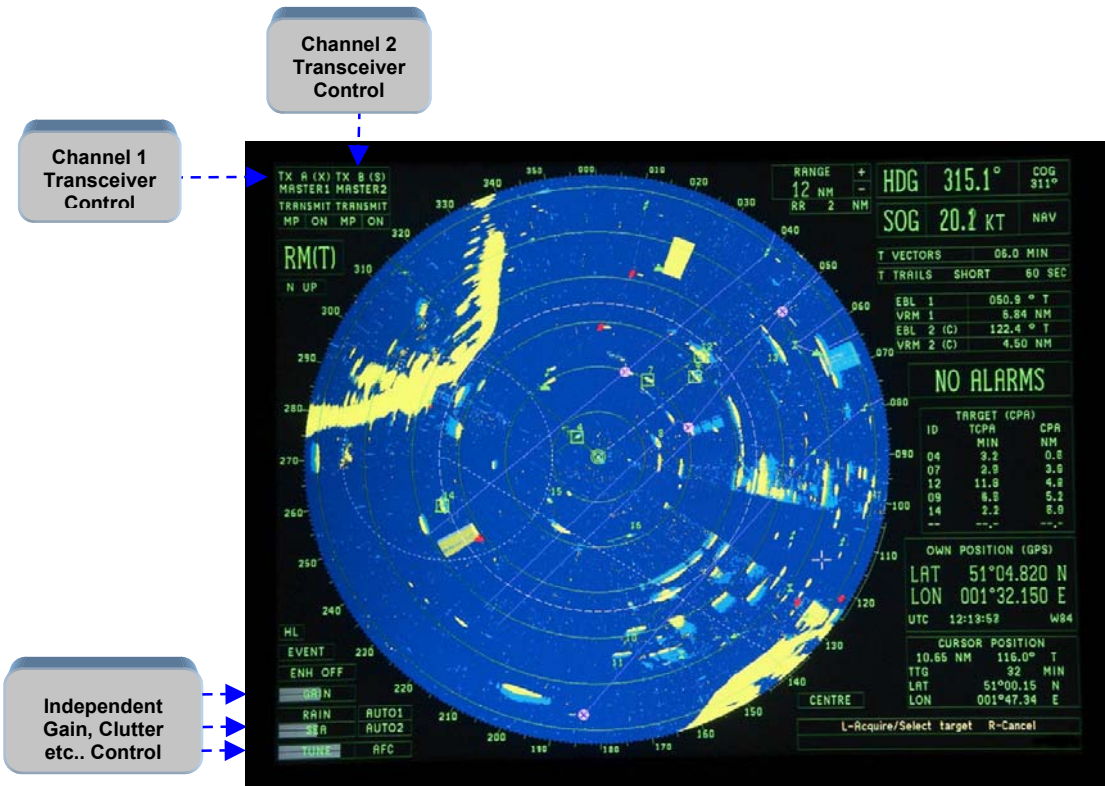
Product Group: Radar
For Further Info: John Robinson
Tel: +44 (0)20 8329 2395

MIB No. 063
29th July 2004

Features & Benefits

- By combining inputs from two separate radar transceiver, the BridgeMaster E Dual Channel system can eliminate the effects blind arcs caused by blockages from the ship's or platform's superstructure, and provides 360-degree visibility of the surrounding area.
- The system could similarly be used to combine the picture from a docking radar to watch for small fast vessels approaching from astern.

Screen Shot of BridgeMaster E Dual Channel Radar Display



Sperry Marine

Product Group: Radar
For Further Info: John Robinson
Tel: +44 (0)20 8329 2395

MIB No. 063
29th July 2004

- With the BridgeMaster E Dual Channel radar system, the operator is able to combine the best qualities of X-band and S-band performance on a single display. The BridgeMaster E Dual Channel radar still allows the operator to view each video input separately and has the additional benefit of being able to switch between X-band and S-band on the display without loss of important video trail history.
- The two radar antennas can be located several hundred meters apart
- The antenna can have totally asynchronous rotation speeds
- The frequency band can be any combination of S and X Band.
- Control of both transceivers can be performed from a single display.
- Via an interswitch can view any 2 of 6 transceivers

Availability:

BridgeMaster E Dual Channel radar systems are generally available within two weeks from receipt of order.

Type Approval:

The BridgeMaster E Dual Channel radar is type approved and wheel-marked and fully complies with both high speed and standard speed crafts regulations.

Configurations List Price:

The dual channel display arrangement is available as a factory fitted option in the following display configurations:

- 340 Flat Panel Deckstand Radar
- 340 & 250 Flat Panel Kit Format Radar

The displays can be configured with any combination of S and X Band transceiver arrangements.

When ordering, simply quote the following factory fitted option:

Part No.	Description	Pricing
FF71	Dual Channel Radar Option	GBP4000

Installation and Configuration Drawings

Outline & installation drawings in pdf and AutoCAD format are available from our Application Engineering team. Please contact mick.williams@sperry.ngc.com.

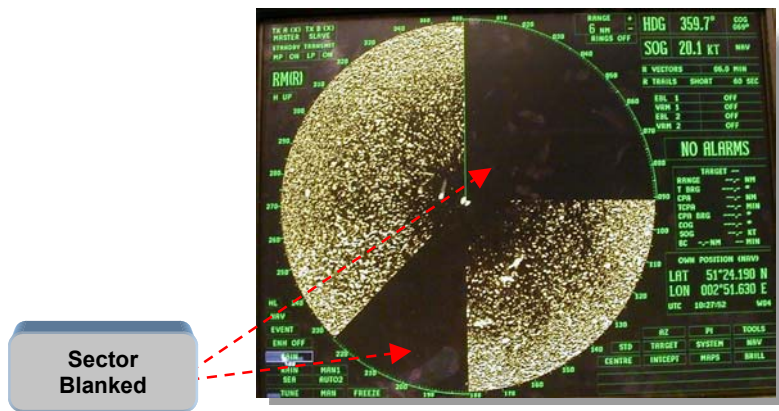
Sperry Marine

Product Group: Radar
For Further Info: John Robinson
Tel: +44 (0)20 8329 2395

MIB No. 063
29th July 2004

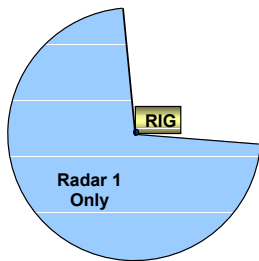
The Problem:

Blind Areas, Arcs and & Blanked Sectors
= Poor Situation Awareness
= **Vessel Vulnerability!!**

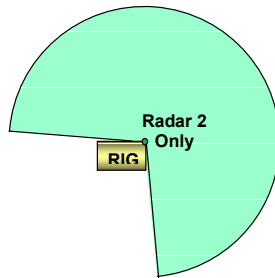


Screen Shot of a
BridgeMaster E standard
Display *

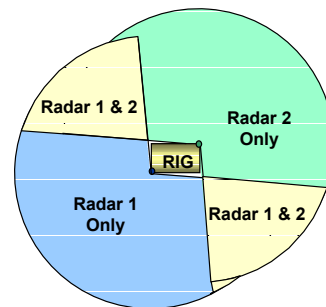
Note: The clutter has been enhanced to make it easier to see the sector blanked areas



Radar 1 Coverage Diagram



Radar 2 Coverage Diagram



Dual Channel Radar
Coverage
No Blind Arcs

The Solution:

Two independent asynchronous radars displayed & controlled on a single screen.

= **Improved Situation Awareness (No Blind Arcs)**

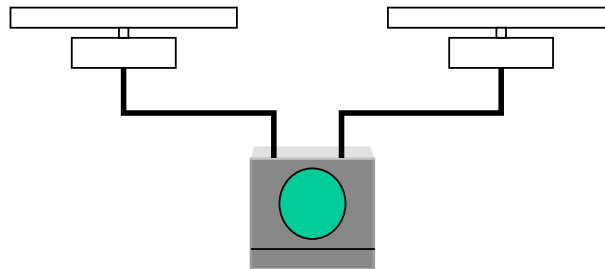
= **Reduced Vessel Vulnerability**

Sperry Marine

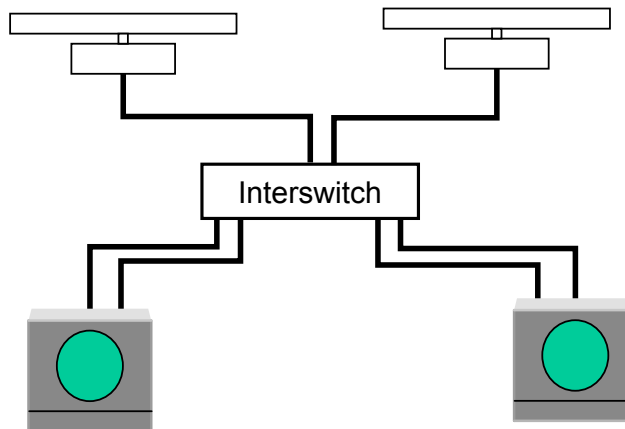
Product Group: Radar
For Further Info: John Robinson
Tel: +44 (0)20 8329 2395

MIB No. 063
29th July 2004

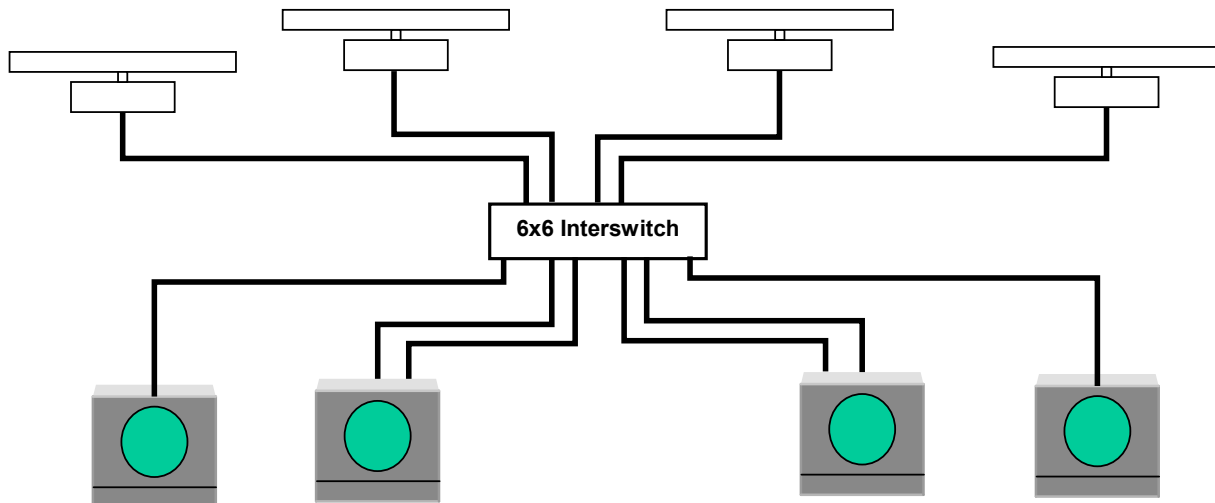
Typical Dual Channel Radar System Configurations



Dual Channel radar system with two Independent Transceiver inputs



2 X Dual Channel radar systems Interswitched with two Independent Transceiver inputs



2 X Dual Channel radar systems plus 2 X standard radar systems Interswitched with four Independent Transceiver inputs

Sperry Marine

Product Group: Radar
For Further Info: John Robinson
Tel: +44 (0)20 8329 2395

MIB No. 063
29th July 2004

Frequently Asked Questions (FAQ)

Q. Is it correct to say that the operator may select displays derived from X band, S band, or a mix of X and S band returns?

A. Yes. The Dual Channel radar can accept inputs from up to two separate radar antennas whether they are both X band, both S band or a mix of the two.

Q. Is the data source always apparent to the operator?

A. Yes. This is very similar to the way that a standard BridgeMaster E display can show the radar from one of the heads in an Interswitched system (see screen shot above). Each transceiver in the system is given a designation letter and its band type (S or X). A transceiver control function, which is constantly displayed on the radar screen, clearly indicates which transceiver or transceivers are providing the radar picture.

Q. Is it possible for the operator using manual anticlutter to deal separately with X and S band derived data when displayed in mixed format?

A. Yes. The anticlutter modes, which are present on the standard single channel BridgeMaster E, are presented as a pair of split controls (see screen shot on previous page). The operator has complete independent control over the clutter processing from each channel.

Q. Does the system work with AIS?

A. Yes. The system comes with AIS on Radar as standard. The system connects directly to the output of any IMO compliant AIS system and the Radar can display the AIS targets and information. No additional interfaces are required.

Q. Is this just another software feature?

A. No. The system combines two completely independent radar processing channels. The hardware configuration is significantly different from the standard single channel BridgeMaster E.

Q. Can I upgrade from standard BME to a Dual Channel.

A. No. There is no straightforward method. The upgrade would require new processors to be fitted and potentially other issues.

Q. Is the Dual Channel radar suitable for high-speed crafts?

A. Yes. As well as being able to take inputs from two independent antennas, the Dual Channel radar system allows for the two radar antenna rotation speeds to be totally different – for example one could be at a nominal 20 rpm and the other at 50 rpm.

Q. Can I use the Dual Channel system with Vision?

A. No. It is not possible to configure the radar for both Dual Channel with the Vision hands free option.