SIGMA S6 – TECHNICAL SPECIFICATIONS

System Configuration

- Marine certified 19" 3U rack / bulkhead mount computer 4 x RS-422, 2 x RS-232, 4 x USB, 1 x LAN, 60 GB HD, 115-230 VAC, 50-60Hz
- Marine certified 19" or 23" TFT display, keyboard / trackball
- Sigma RSi Interface Card
- Sigma S6 SeaScan Radar Server Processing Module
- Sigma S6 SeaTrack Target Tracker
- Sigma S6 SeaView Radar Display and Remote Display Client

Recommended Source Radar Requirements for optimum performance against small targets:

- X-Band, 25 kW with 3000 Hz Pulse Repetition Frequency
- 1° Antenna Beam Width, >40 RPM Antenna Rotation Speed

Radar Interface

- Raw Video
- Trigger
- Heading (ARP)
- Antenna Rotation (ACP)
- CVD interface can be supplied for composite radar video and other unique radar types

Data Input Interfaces (NMEA RS-422)

- GPS for Position and Time
- Gyro Compass w/10 Hz update rate
- AIS
- Anemometer
- Depth Sounder

Data Output Interface (NMEA RS-422)

- TTM (Tracked Target Message), or
- RSD (Radar System Data / cursor), as selected by operator

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RUTTER

SMALL TARGET DETECTION

Sigma S6 Technology

- Proven Sigma radar detection and tracking technology
- Tailor-made solutions for ships and offshore platforms
- Multiple site remote monitoring and control capability
- Integrates task-related multi-sensor information
- Full compliance with port facility ISPS codes

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Sigma S6 image of a small craft being tracked by shore based Small Target Detection system. The same craft is otherwise barely visible amongst other surface features.

Sigma S6 Small Target Detection

Increased concerns about safety, security and the environment are the motivator for heightened coastal surveillance and port security regulations worldwide. Rutter believes that an effective surveillance system is grounded in the primary detection ability of the radar, with further enhancement by information from other sensors. Rutter leverages its proven radar processing and tracking technology to deliver highly effective surveillance solutions which provide exceptional value.

Rutter's Small Target Detection System can capture and display information from multiple sensors and can easily be integrated with existing coastal radar surveillance installations. Rutter brings its experience and technology to customers interested in having the capability of larger surveillance systems, but in a smaller and more cost-effective package. Rutter is not simply an integrator of third party sensors, but is a technological leader in radar processing and tracking systems.

With over 20 years of experience, Rutter is recognized worldwide for superior radar processing and tracking systems that detect and track small targets in high clutter. This technology is incorporated in the Small Target Detection System. Rutter continues to evolve new technologies that provide enhanced detection of difficult targets in all sea, weather and light conditions.

- Detects smaller objects at longer ranges
- Simultaneously tracks fast and slow targets
- Integrates multiple sensors including radar, AIS and cameras

SIGMA S6 SMALL TARGET DETECTION

MODULAR DESIGN: THE RUTTER COASTAL SURVEILLANCE SYSTEM

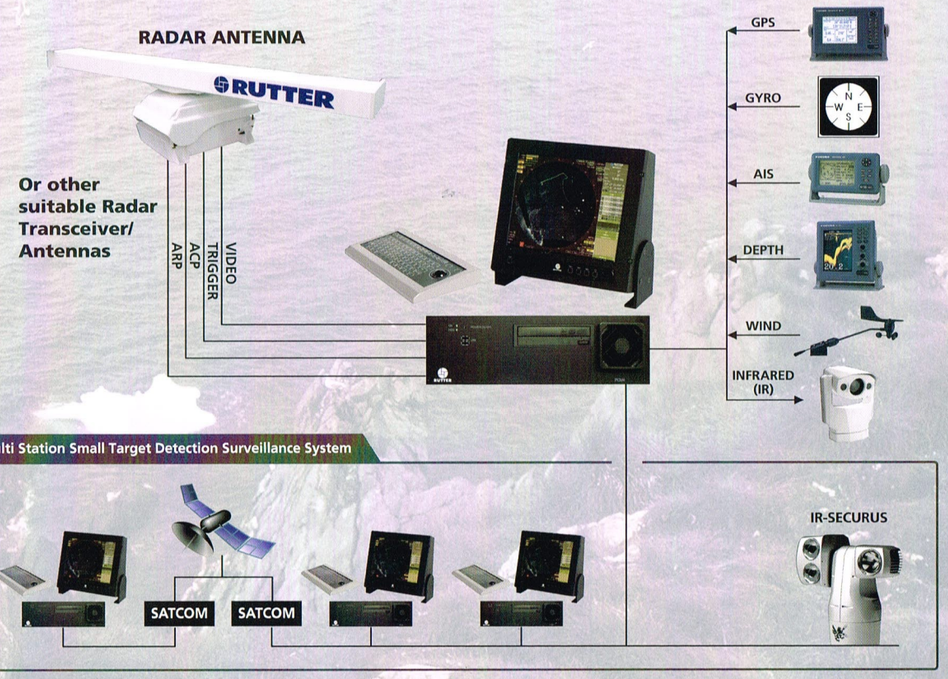
Start with the most simplistic approach and grow into a sophisticated system, or customize a complete solution from the entire range of fully-integrated surveillance options. Rutter's Sigma S6 Small Target Detection System is scalable to any surveillance need, and designed for monitoring centres and vessel traffic.

The AIS interface of the Small Target Detection System gives you the ability to view and track all vessels, display vessel information, and send and receive safety-related messages.

SIGMA S6 RADAR TECHNOLOGY

Key differentiators:

- Maintenance of full dynamic range in processing
- Pulse-to-pulse averaging
- Scan-to-scan averaging
- Ordered Statistic Constant False Alarm Rate processing
- Dynamic image thresholding
- Simultaneous high speed and low speed target tracking
- Network connectivity and control
- Target association
- Target correlation
- Connectivity to virtually any surveillance radar



Rutter's Sigma S6 Small Target Detection Radar System can be integrated with its Sigma S6 Oil Spill Detection (OSD) and Ice Navigator Systems to provide a complete solution to meet demanding operational requirements.

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