



SEA SOFTWARE &
HI-END SOLUTIONS
SURVEILLANCE

SeaV™ Vessel Traffic Management System

For ports, harbours and coastal areas



The system assures:

- Vessel traffic monitoring
- Safe and efficient navigation
- Vessel collision avoidance
- Communication with vessels entering the port
- Environmental monitoring

SeaV™ Vessel Traffic Management System

SeaV™ Vessel Traffic Management System is a state-of-the-art solution for assuring safe and efficient navigation in the ports, harbors and coastal areas. SeaV™ allows managing vessel traffic flow and provides communication of vessels entering the port and port authorities.

The system uses advanced multi-sensor tracking algorithms and assures 24/7 all-weather monitoring of the surveillance area providing the operators with comprehensive traffic picture superimposed on maritime professional marine vector charts.

SeaV™ utilizes advanced technologies of centralized data processing. This simplifies system maintenance, assures easy updates of the system and increases system reliability.

The software application iSurv Information Surveillance Display has intuitive user interface and is performed as all-in-one application providing the information from all the sensors, including camera and VHF on one operator screen.

SeaV™ is a scalable solution suitable for small ports and large nation-wide coastal monitoring systems.

SeaV™ Vessel Traffic Management System configuration

Anchorage area



Port authority



Radar

Weather station

AIS

VHF

CCTV

Operator workplace

iSurv — Information Surveillance Display



SeaV™ features:

Radar and AIS multi-sensor tracking

Sea Surveillance multi-sensor tracking algorithm allows precise all-weather real-time target detection and tracking. Information received from radar and AIS is merged and presented as one target on Information Surveillance Display.

Navigational and vessel information

The intuitive Information Surveillance Display iSurv provides the operator with real-time comprehensive traffic picture superimposed on professional electronic charts. Full information about any vessel entering the port including vessel name, MMSI, destination, ETA, speed, position, IMO number, navigational status and type of vessel is available. Set of tools allows to see vessels on collision course.

Guard zones with adjustable alarm criteria

SeaV™ supports operator in taking critical decisions in real time. Guard zones with preset alarm criteria allow to monitor if vessel follows port requirements. Operator will be notified should any vessel violate the rules. Alarm criteria are customized according to customer request. The system supports automatic audio and visual alarms.

Weather and MetOcean

The system provides full current weather and wave information including temperature, wind speed and direction, pressure, humidity, wave height.

Record and playback

All system data including traffic situation, weather, camera stream, VHF communications can be recorded and replayed. Playback is performed in a separate window without interfering current situation monitoring. Playback speed is adjustable and playback can be performed for a particular target.

Radio communication

VHF radio system allows radio communication between vessels and port authorities. Multiple radio stations can be controlled from Information Surveillance Display. VHF control panel is integrated into Information Surveillance Display providing operator with a single interface for all the applications.

CCTV with slew-to-cue

CCTV assures visual inspection of current situation in the port area. Camera is remotely controlled from the panel integrated into Information Surveillance Display. Slew-to-cue function assures automatic follow-up of violating target.

Port database

SeaV™ supports data exchange of vessel information and time of arrival / departure with existing port database. If required, port database can be developed according to customer specification.

SeaV™ Vessel Traffic Management System versions

	BASIC	STANDARD	ADVANCED
Radar antenna size, ft	<6	8–12	>12
AIS	receiver	base station	base station
PTZ CCTV camera	1	2	unlimited
Radio system	recording	full VoiP	full VoiP
Weather station	basic	customized	customized
Number of operators	1	1–3	unlimited
Charts	✓	✓	✓
History recording	>10 days	6 months	customized
Remote control of the equipment	✓	✓	✓
Port database	–	–	✓
Redundant server	–	–	✓
Customization	–	–	✓
IALA compliant	–	basic	advanced

Standards:

- IALA Guideline No. 1056, Establishment of VTS Radar Services.
- IALA Recommendation V-125, The Use and Presentation of Symbology at a VTS Center.
- IALA Recommendation V-128, Operational and Technical Performance of VTS Systems (advanced performance functions).