



AUTOMATIC®
SEA VISION

➤ Add visual dimension to your safety



Product Overview - May 2008

Visual watch, key of safety and security at sea



Each year, in spite of existing detection equipments,

- Continuing collision risks
- Increasing of piracy and terrorism risks
- Thousands of search and rescue operations fruitless

A risk growing by 10% yearly with maritime traffic

major factor (for 80%),
VISUAL WATCH ERROR

Optical watch is essential to ensure safety and security

Radar :

- Small boats (fishing boats, RIBs) are not always detected by radar
- ARPA does not operate at close distance (< 2NM) on small targets due to sea clutter



AIS :

- AIS cannot prevent aggressions and pirate attacks
- AIS data reliability is limited



In any condition, a visual watch has to be performed by the crew in order to get the “full picture”

Visual watch is limited by human factor

Visual watch is the most demanding task on the bridge

- > Permanency, panoramic search, concentration on visible ships, bearing measurements, radar check, etc

Environmental conditions reduce the efficiency of visual watch

- > Visibility, night, sunlight dazzle, rain, platform motion, wind, sea spray, etc

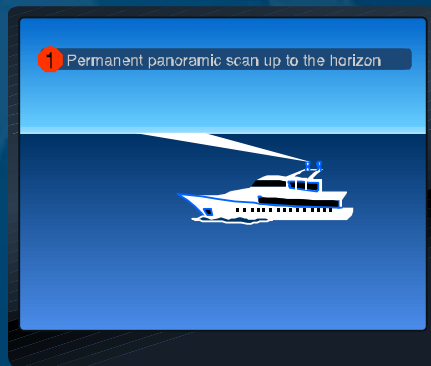
Economical constraints often alter the performance of watch crew

- > Workload, fatigue, stress, lack of personnel, insufficient training, etc

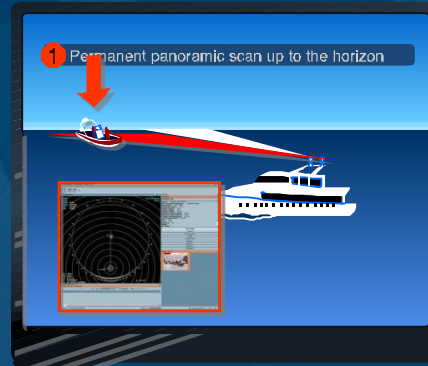
AUTOMATIC SEA VISION, the first system to help visual watch

Integrating visible and infrared wavelength cameras the system performs a permanent automatic watch without operator :

- Automatic detection of any boat and/or floating object up to 10000 meters
- Panoramic or sectoral surveillance zone
- Automatic display of any optical target on radar screen, ecdis or specific interface
- Automatic alarm of risk collision and/or intrusion



1 Permanent panoramic scan up to the horizon



2 Automatic detection of any boat whatever its size and nature



3 Simultaneous display of position and image on map or radar screen and viewer



4 Automatic alarm on collision risk and any dangerous approach

Solutions covering all the needs for automatic visual watch at sea:

ASV IDS

Security against attacks



ASV ISPS

Security at anchor



ASV OPS

Offshore platform security



ASV VTS

Coastal surveillance



ASV SAR

Man search



ASV CAS

Collision avoidance



ASV HSC

Safety at high speed



Main functionalities

For collision avoidance:

- Panoramic thermal infrared coverage.
- Automatic analysis of every visible or unlighted object (position and trajectory).
- Radar or ECDIS interface available.
- ASV, ARPA and AIS data fusion
- Collision risks alert parameters can be specified (speed, bearing, time to “contact” ...).

For intrusion detection:

- Full 360° coverage of a “security perimeter” with automatic detection within specified limits and areas.
- Automatic detection of any non visible boat even not detected by radar.
- Intrusion alert parameters can be specified (speed, bearing, time to “contact” ...).
- Specific intrusion detection Man Machine Interface.
- ASV, ARPA and AIS data fusion do avoid false alarm.

For search and rescue:

- Search of shipwrecked man or man overboard even in the dark
- Permanent search among masking waves
- Automatic recording of any detection (position and image)
- Specific Man Machine Interface for SAR
- Immediate alarm with bearing and distance

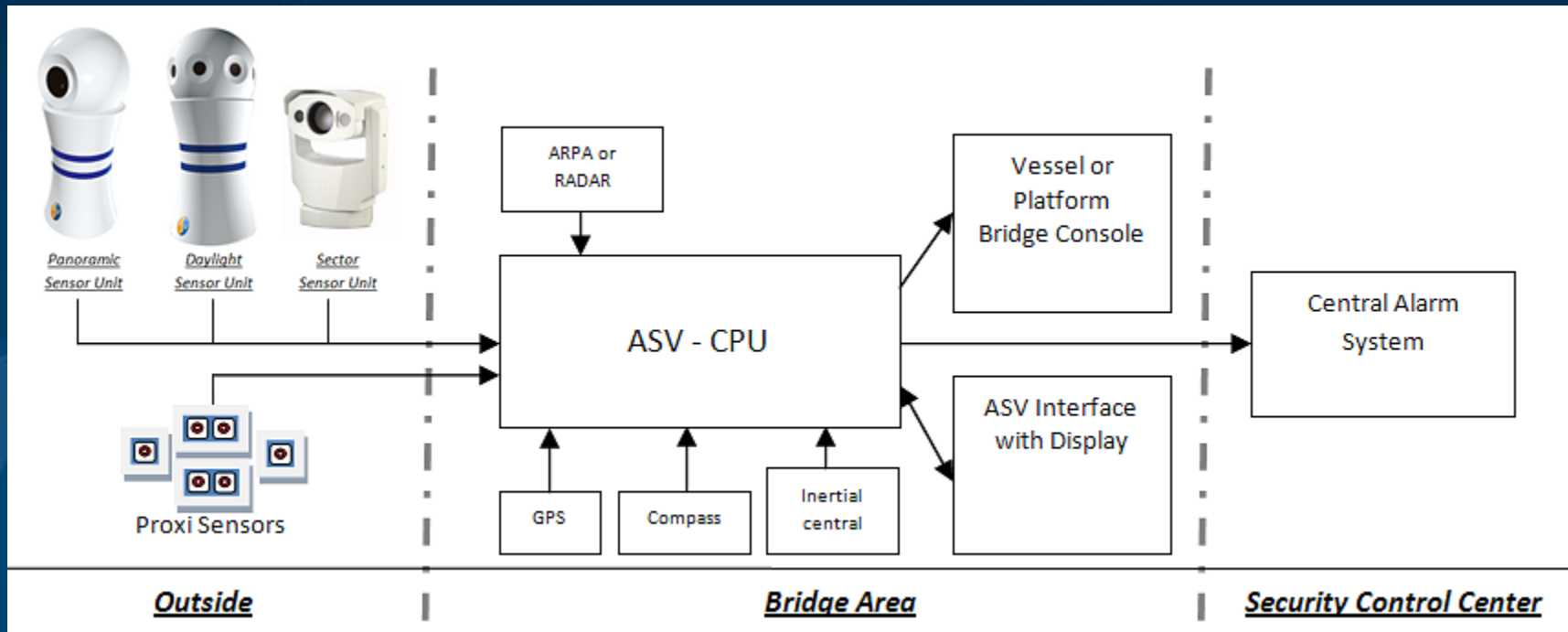
Man Machine Interface



Man Machine Interface



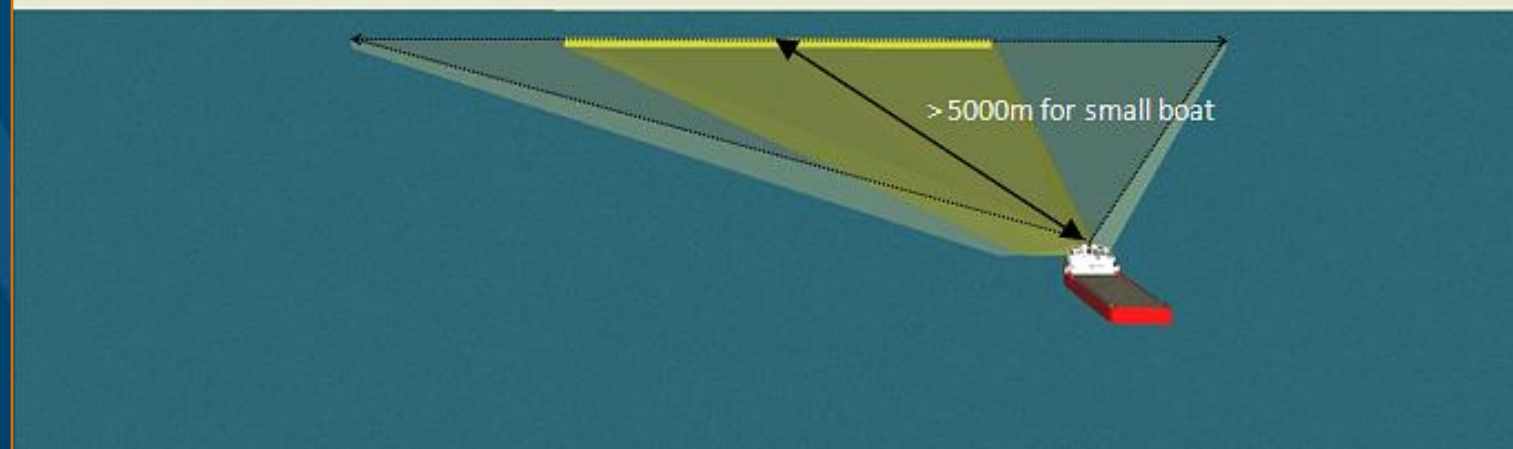
Easy Integration of ASV System



Sensor configuration tailored for specific needs

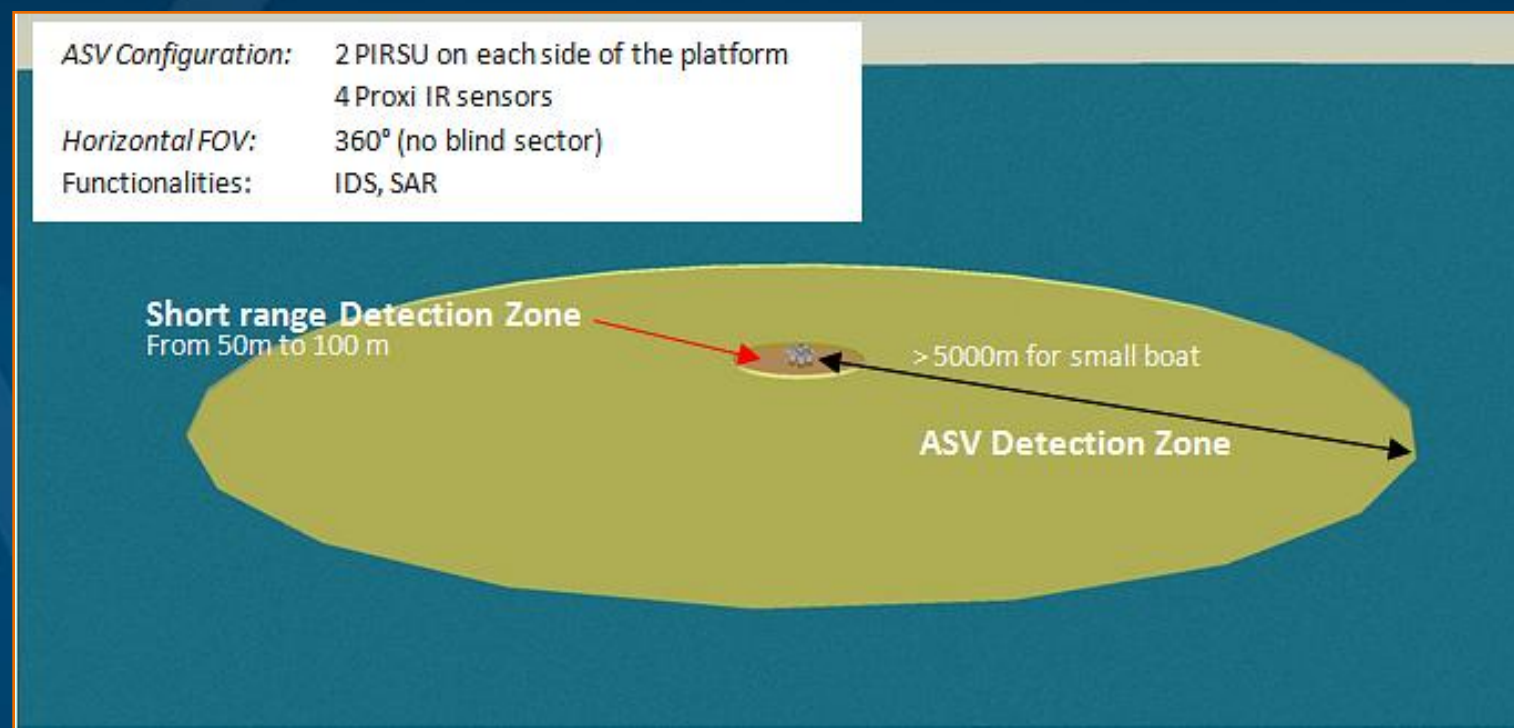
Escort boat or supply vessel

<i>ASV Configuration:</i>	1 Sector IR Sensor
<i>Horizontal FOV:</i>	20° + scan mode
<i>Functionalities:</i>	IDS, SAR



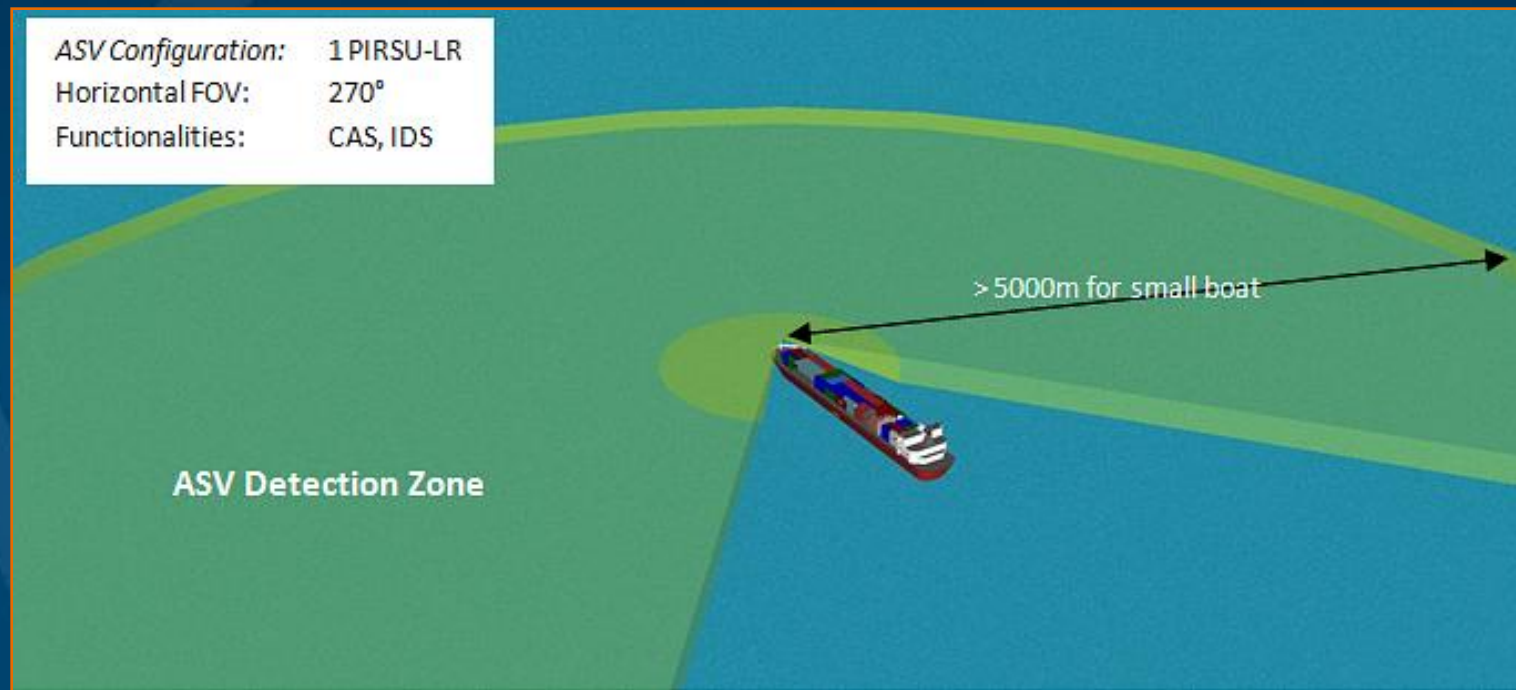
Sensor configuration tailored for specific needs

ASV global coverage for Offshore Platform



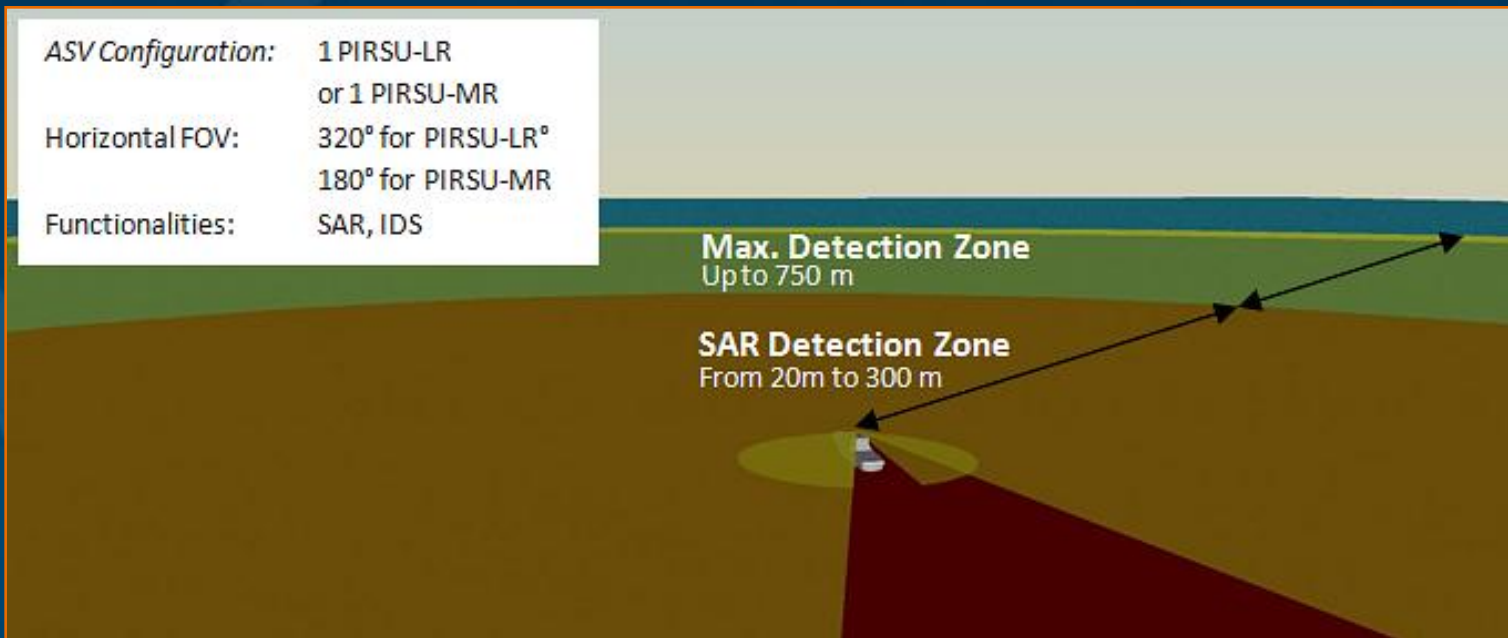
Sensor configuration tailored for specific needs

ASV collision avoidance for container ship



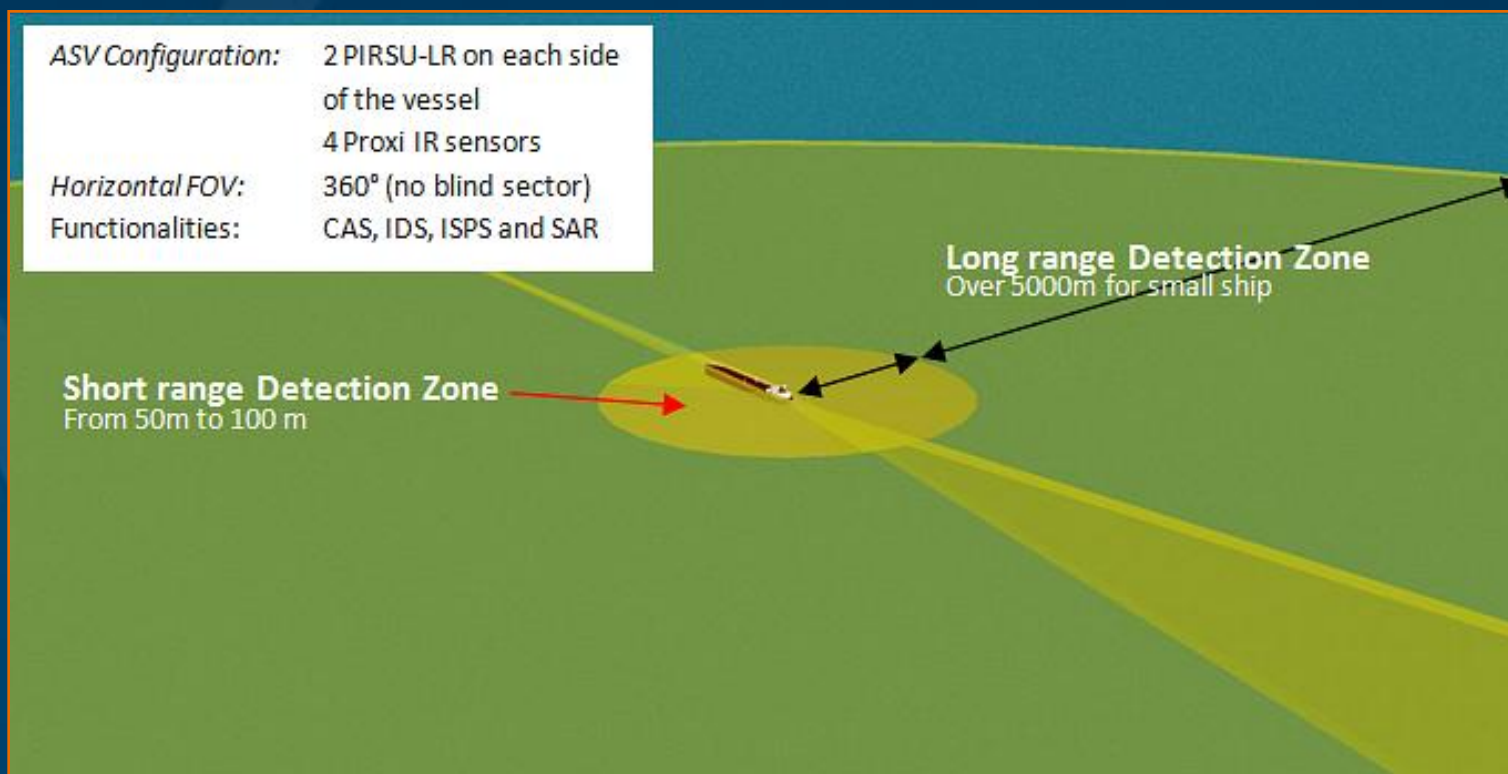
Sensor configuration tailored for specific needs

ASV Global coverage for Search and Rescue



Sensor configuration tailored for specific needs

ASV Global coverage for FPSO and Tankers



Capabilities matching the safety and security needs

Permanent watch at sea, totally operator-free	
Optical sensors:	1 to 8 sensors (Visible and infrared wavelength)
Detection range:	6 nautical miles for ships
	3 nautical miles for small boats
	750 meters for man overboard
Data refreshment rate:	1 scan per second
Display screens:	Real time video, radar , ECDIS, and/or remote MMI
Alarm interface:	Visual and/or sound alarm
	Voice synthesizer
	Remote phone and pager alarm
	Link to Ship Alarm system

Contact

SEA ON LINE S.A.

664 avenue Roger Salengro

92370 Chaville – FRANCE

Tel : + 33 1 80 22 01 02

Fax : + 33 1 47 09 60 82

Jean.auboyneau@seaonline.fr

www.automaticseavision.com