



INTEGRATED SOLUTIONS FOR MARITIME SAFETY, SECURITY, AND SURVEILLANCE

VTMIS



- ▶ Homeland security
- ▶ Coastal surveillance
- ▶ Port surveillance
- ▶ Surface control in coastal and deep sea
- ▶ River and narrow waters surveillance

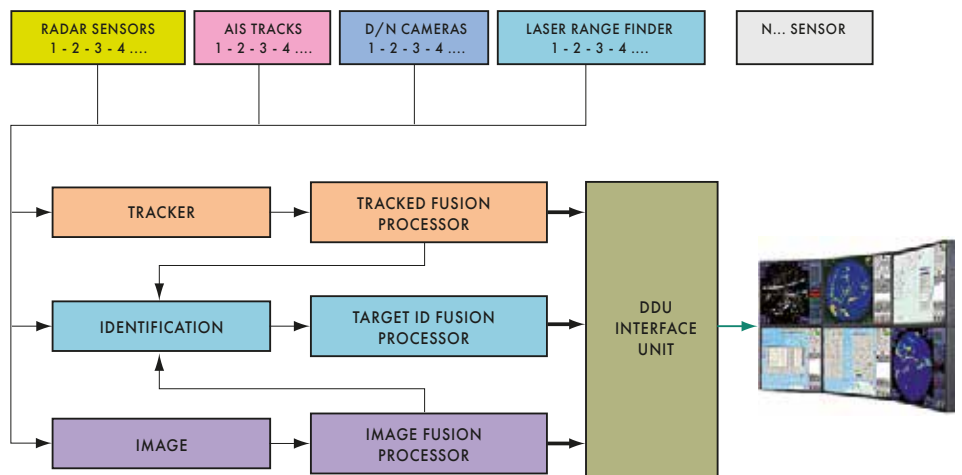
COMPREHENSIVE AND EXPERIENCED SYSTEM INTEGRATION SOLUTIONS TO ITS SHORE-BASED INTEGRATED SYSTEMS WITH ADDITIONAL WATERBORNE AND AIRBORNE INTERACTING COMPONENTS FOR SUPPLY, INSTALLATION, COMMISSIONING AND AFTER-SALE LOGISTIC SUPPORT THROUGHOUT THE LIFESPAN OF THE SYSTEM.

GEM IS INTEGRATOR AND DIRECT SUPPLIER OF MAIN SYSTEM ITEMS, SUCH AS: SOFTWARE RADAR TV/IR SYSTEMS PROCESSING, THEREBY AVOIDING ANY RISK OF INTEGRATION & COMMISSIONING AND INTEGRATED LOGISTIC SUPPORT.



- ▶ IALA Adv. level of recommendation radar detection and tracking
- ▶ IALA compliant AIS solutions
- ▶ Turn-key solution for either civil or defense applications extended to full EEZ monitoring and surveillance
- ▶ Multi sensor tracking and fusion
- ▶ Mixed telecommunications backbone to allow timely data/info streaming
- ▶ Picture-in-picture display
- ▶ Record and Play
- ▶ Interface to external Systems
- ▶ Reports generation and management
- ▶ Multi purpose Data Bases Management
- ▶ Automatic and reconfigurable record on mass storage supports
- ▶ WEB interface and external system connection as per IALA V-145
- ▶ Additional interface to other systems (fence protection, access protection, fleet tracking system, vessel monitoring system)
- ▶ Environmental Protection and Monitoring (oil spill detection, marine research and analysis)

To obtain superior performance of the systems, increased surveillance capability and reduced information uncertainty GEM elettronica offers automatic multi-sensor data fusion technologies and management system. Combined information assists the operators to detect, track, identify critical targets at any time, in the sea, undersea, land, air and all under weather conditions rendering a more complete scenario of the system.



Open architecture and huge choice of sensors and processors:

• System integration	:	GEM	SoftWare	Suite
• Radars	:	GEM	Sentinel	Family
• EO/TV (LRF extension on request)	:	GEM	EOSS	Family
• Sensor alignment	:	GEM	POLARIS	Family
• AIS	:	COTS	} integrable	
• Weather	:	COTS		
• Power generation (Diesel, Wind, Solar Cells)	:	COTS		
• TLC (Wireless, Satcomms, Web, Fiber Optic)	:	COTS		
• VoIP Comms (HF/VHF/UHF)	:	COTS		

EXTENSION TO TYPICAL EEZ AND PERIMETRIC SECURITY BY INTEGRATION OF GEM elettronica



Limassol (Cyprus)



Software key features according with IALA VTS Manual 2012



Maritime and Situational Awareness: this's the enquiry.
 No more sensor alignment and control, no more additional processing, no more sensor presentation. GEM's integrating to software does really make real the new VTS/VTMIS operator concept: immediate availability of information, synthetic and comprehensive data presentation, awareness of the system's health and status, connection to the external world. And last, but not least, interactive tools and modules for aiding decision making.

- Life Cycle Products Support
- Total Configuration Control
- Up-grade Sustainability

- Comprehensive technical manuals with complete trouble shooting and corrective maintenance procedures
- Operators guides
- Inventory and spare part lists

INTEGRATED LOGISTIC SUPPORT

- National & International Service
- Installation, Start up & Field Engineering
- Repair & Test
- Inventory & Spare Parts
- Obsolescence management

- In-factory training courses for operators and maintenance personnel using hardware and software installed at GEM premises
- On the job training courses for operators and maintenance personnel
- Refreshments courses during system life



BAHIA BLANCA (ARGENTINA)

VTS

Examples:



YANG-TZE (CHINA)



LARNACA (CYPRUS)



ANDROS (GREECE)



RAS LAFFAN (QATAR)



TULCEA (ROMANIA)



BOZCAADA (TURKEY)



CAPO VATICANO (ITALY)

Surveillance & Security

Guidance, Navigation & Positioning

Military & Defence

Marine Electronics

This brochure should not be considered a contractual offer to sell. The specifications given herein may be changed by the manufacturer, GEM elettronica S.r.l., without notice.



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