



AIS Presentation

**22 NOV 2022**

# Display Elements

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1. What is AIS?

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2. What are the components of the system?

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3. How does the system work?

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4. How is the installation process?

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5. Other Equipment

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# System Overview



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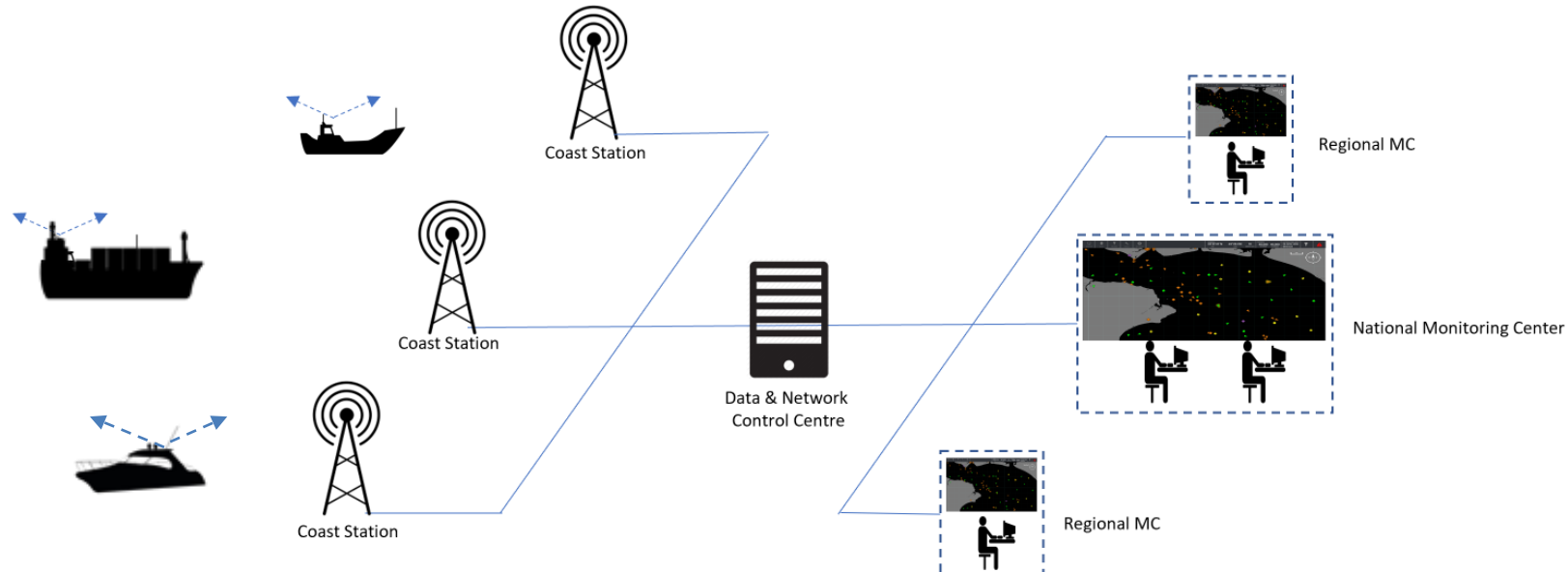
It is a system that provides identification solutions for various marine vessels to detect threats and conditions that require assistance through the (SOS) feature and the process of tracking with high-accuracy and identification in real time along an integrated and detailed digital data for each marine vessel.



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1. **Security:** Detects potential threats illicit activities.
  2. **Environment:** Preserves the marine environment as it is linked to the detection of IUU fishing.
  3. **Safety:** contributes to collision prevention, traffic management, and has an effective role in search and rescue operations and human safety



# (AIS) Automatic Identification System components



Monitoring Center	Data Center	Coastal stations	Transceivers
<p>National and regional control centers that will enable the Saudi border guard team to monitor all maritime activities through the GeoVS system installed on the operator's devices</p>	<p>The National System Data Center securely saves and process all system data with the integration across all operator centers.</p>	<p>A network of coastal stations that will provide continuous real-time coverage of all marine vessels within the Saudi territorial waters.</p>	<p>Encrypted and secure transceivers are installed on all vessels. Which in turn will send the location of the vessel according to the Global Positioning System (GPS) in addition to the identity and status of the vessel continuously.</p>





# Coastal stations on the Arabian Gulf



الموقع

المحطة

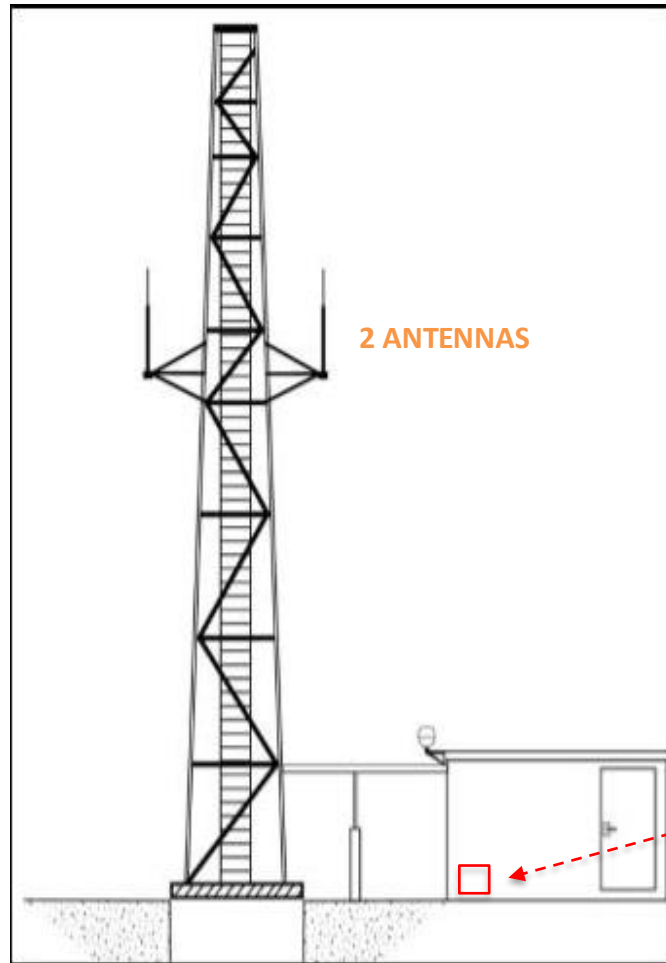
الخفجي - Khafji	1
السفانية Saffaniyah -	2
منيفة - Munifah	3
راس الخير - ras alkhair	4
الجبيل - jubail	5
راس تنورة - ras tanurrah	6
المزروعية - mazrouiah	7
الدمام - MC Dammam	8
King fahad causeway -	9
جسر الملك فهد -	10
العقير - Al uqair	11
ام حضيف - um hudaif	12
سلوى - salwa	
 محطة ساحلية - CS	
 مركز مراقبة - MC	
 مركز المعلومات - NSDC	



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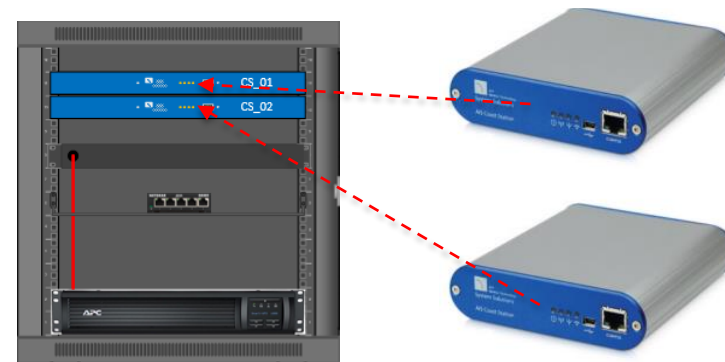


# COASTAL STATION CS100



## CS 100

- Long-range tracking of all vessels equipped with AIS
- Support Encryption
- Ease of programming
- Smart Grid Management



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# System Data & Network Centers



- Centralized data and network control system (total 2:1 main and 2 is backup) that connects multiple command centers and operators into a single digital operating system.
- Dynamic intelligent network management.
- Fully secured digital data storage + 10-year capacity.





Geovs HUB

## GeoVS HUB

- Centralized control of the entire system.
- Receive, process and store all system data and user control
- Complete Access and control of GeoVS system data and analytics
- Compile data from all coast stations



# Long range coastal stations



- CS100 long-range high-capacity coast stations.
- Smart secure network.
- Two-way data connections.
- Integrated with continuous standby power.
- Ability to Transfer Data of Digital Navigation Systems (ATN).

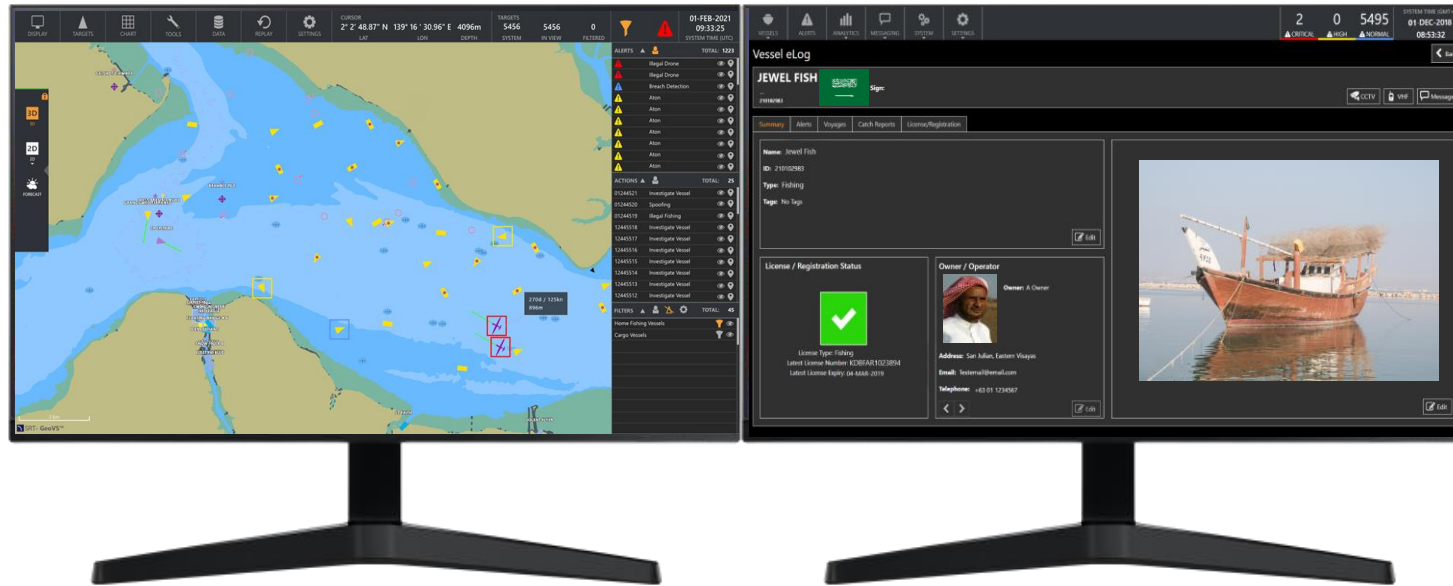


## GeoVS Controller 10 controllers in two locations:

- Provides all system functions for each operator - plus vessel tracking and management
- Complete Access and control GeoVS system data and analytics
- The left screen shows a map showing chart data and live vessel tracking
- The right screen displays data that displays reports and electronic records



# Multiple operator controllers and command centers



Multiple integrated digital display units in surveillance command centers  
Ship Tracking | Ship Information System | AI analytics | Management of alert notifications



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# أجهزة الإرسال والاستقبال الخاصة بمعرف السفينة



**VMS-100s**  
Large and medium boats

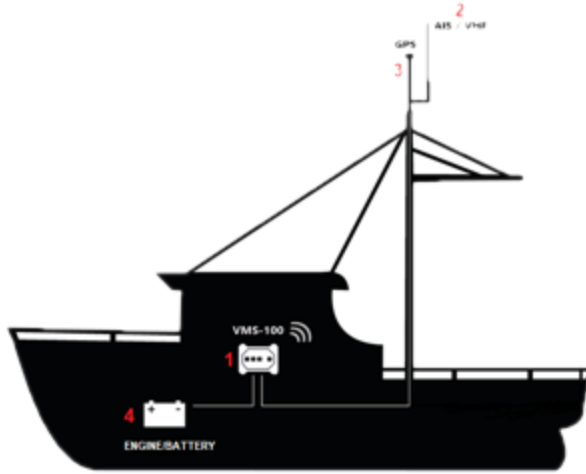


**Small boat devices**

**Safe transceivers intended for ship identification.  
Encrypted | Power reserve | Tamper Proof | Anti-Circumvention | VDR System | SOS**



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VMS-100S

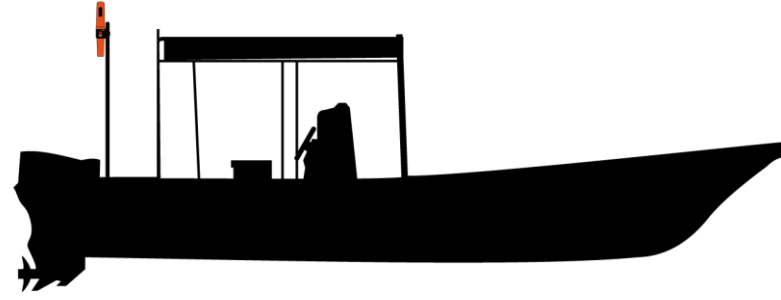
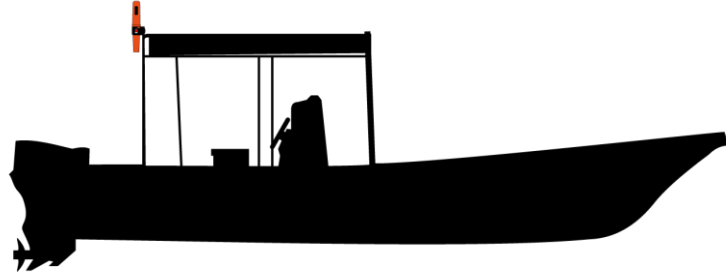
## VMS-100S

- VMS100S is a certified high-power AIS transceiver
- Resistance to severe weather and water (P66 and IP67))
- Automatic perimeter alert system with built-in beeper and LED user alert notification
- Anti-tampering, encryption, anti-spoofing alerts as well as distress alert.





# I-100 (قارب لا يحتوي على مصدر للطاقة)



## I-100



## I-100

- Class B AIS transceiver
- 5 days internal battery life
- The antenna must be removed to recharge it
- Automatic Perimeter Alert System
- Internal Secure Voyage Data Log.
- Anti-tampering and plagiarism alerts in addition to distress call



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How does the system works?

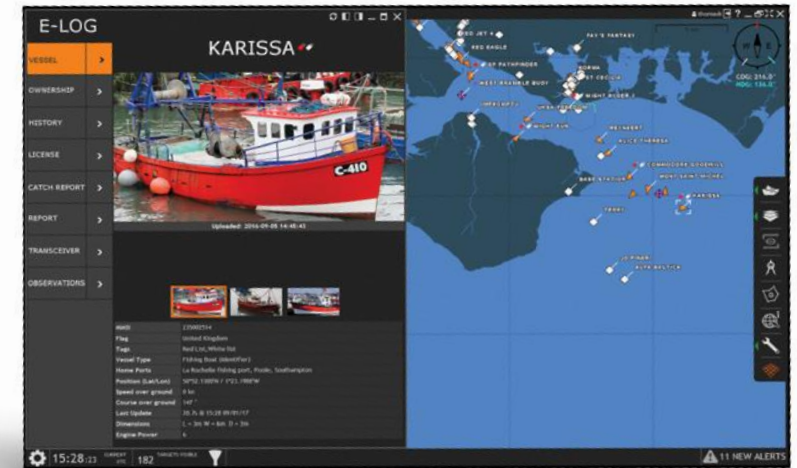
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# GeoVS VIEWER

It is a state-of-the-art marine command and control application that enables command and control room operators to control, enhance awareness and event management through a range of data processing and technical visualization functions so that it provides optimal presentation and integrated operational management.



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# التعريف بالنظام

يتيح النظام التعرف والكشف على السفن الموثوق بها والتعرف على التهديدات لجميع القطع البحرية بشكل أفضل



# مزايا النظام

## | Security

Early detection of potential security threats will enable the strengthening of intelligence command operations to thwart smuggling and terrorism.



## | environment

Preserving and sustaining the sensitive marine environment, in particular ensuring sustainable and legal fishing.



## | Safety

Collision prevention, movement management and search and rescue.



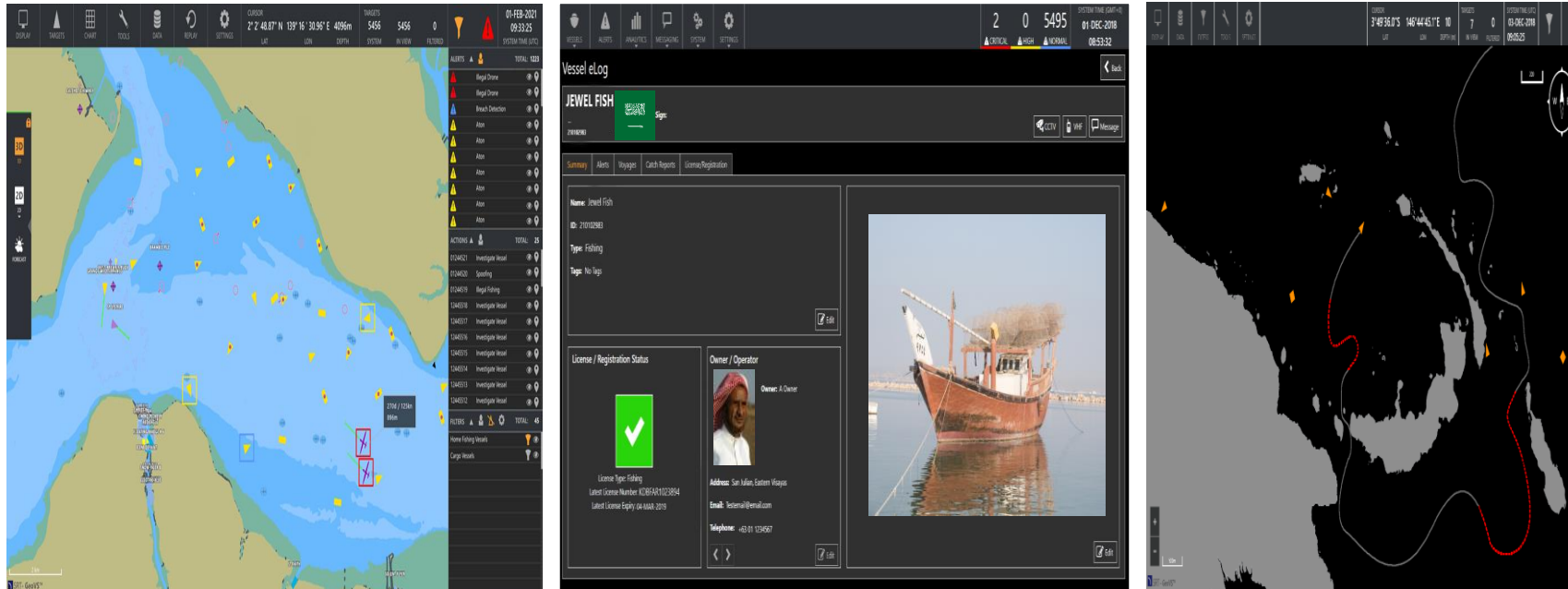
# Functional characteristics and main features

- ✓ High-resolution real-time tracking of vessels with an instantly available digital information file for each vessel.
- ✓ Analytics to automatically detect and alert suspicious vessels.
- ✓ Alarm management system.
- ✓ Many operators in different locations are fully integrated into one secure operating environment.
- ✓ Fully digital and encrypted for complete privacy and security.



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# Functional characteristics and main features



All vessels are tracked in real-time, with a detailed digital information file on any vessel instantly provided to all system operators

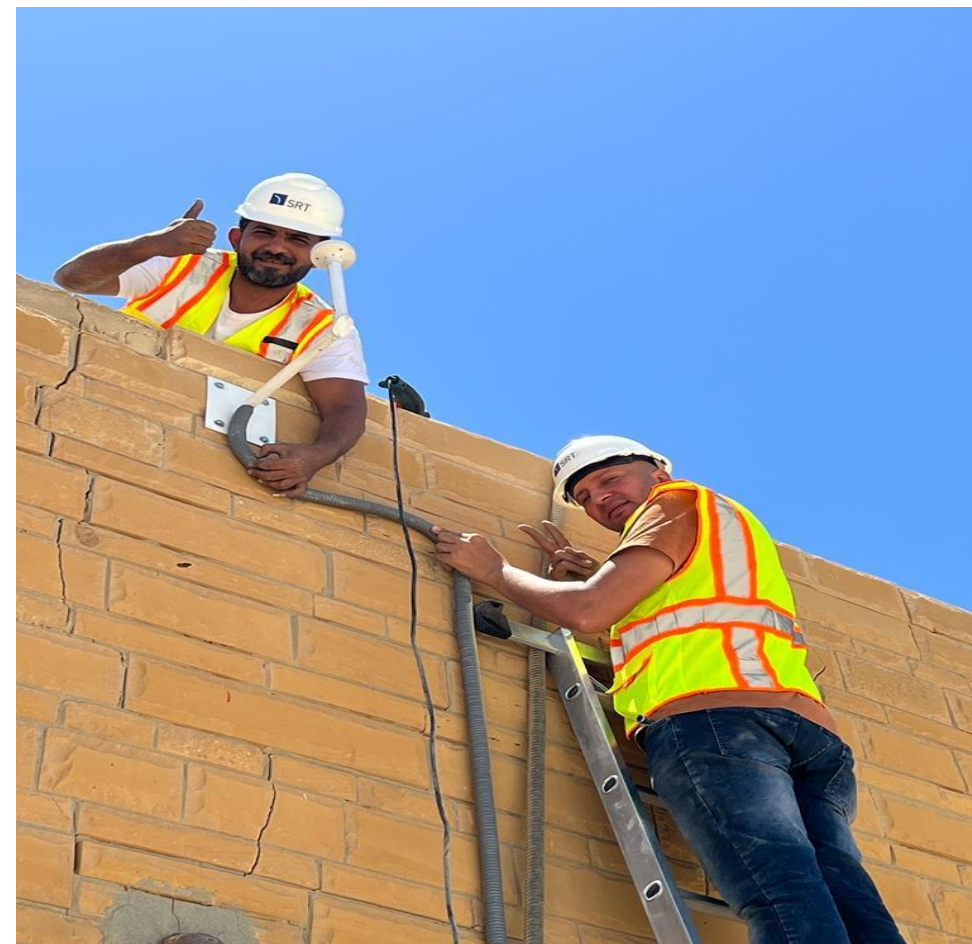


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## System installation process

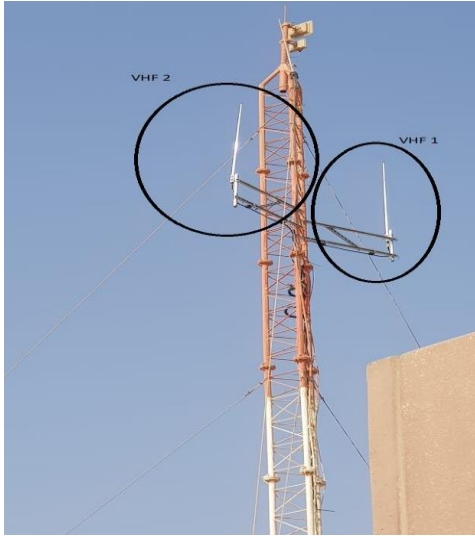
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# تركيب المحطات الساحلية



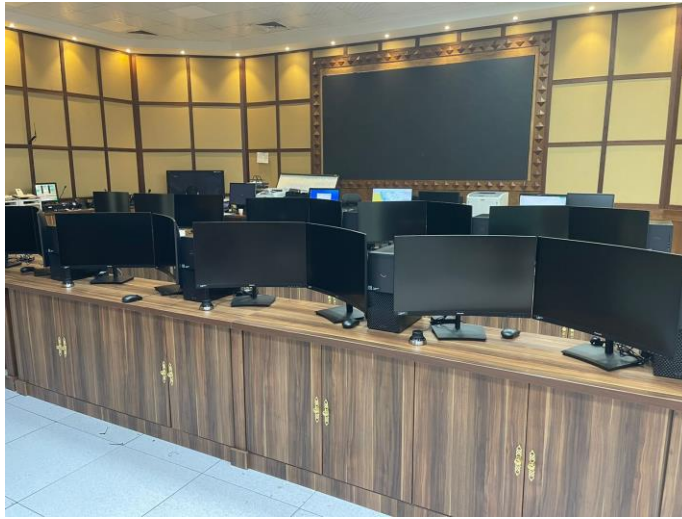
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# Installation of the data Center



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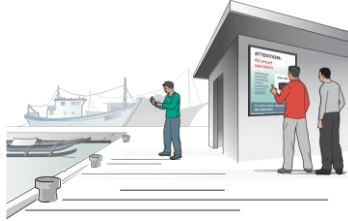
# Installation of the command and control center



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# Installation of transceivers

## 1. Inform the shipowner



There must be a clear legal requirement with a specific time scale for marine modes to install and operate a specific transceiver on their vessel. This can be achieved by using social media and posters in ports and customer location.

## 2. Registration



As a result of informing the shipowner of the installation request. Ship owners can perform verification using the following methods:  
Phone call  
Website with registration form  
WhatsApp

## 3. Appointment confirmation



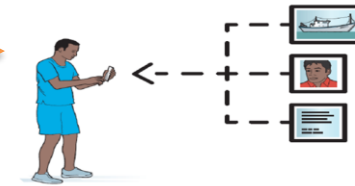
Once the vessel registration is successfully completed, an installation date can be arranged. The appointment can then be arranged/completed with the installer within the geographical area of the port of installation.

## 4. installation



As part of the installation, all installation data on the vessel and operator will be collected on the approved GeoVS CONNECT-Install device.

## 5. Confirm installation process



The installer will upload the installation history he collected on the GeoVS CONNECT-Install. , the technician will receive an automatic notification of successful installation from GeoVS once the transmission is received from the transceiver

Document Title: VESSEL Installation Quality report  
Report Number:  
Report Number:  
SRT

### SAUDI BORDER GUARD VESSEL INSTALLATION QUALITY REPORT



Owner Name:  
Vessel Name:  
Transceiver SN:  
MMSI:  
Date:

Form Code: VESSEL-01  
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تم اكتمال عملية التثبيت



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# I-100 equipment



**SRT** معاني الإشارات الضوئية  
**Common Status Indications**

Battery OK ✓ البطارية جيدة  
Battery Low البطارية ضعيفة  
No GPS Signal لا توجد إشارة GPS  
SOS Activated نداء الاستغاثة مغل

**SRT** طريقة تفعيل وإيقاف نداء الاستغاثة  
**Activation and Deactivation of SOS**

للتفعيل، اضغط باستمرار لمدة 5 ثوان  
**Activation, Hold for 5 Seconds**

للايقاف، اضغط باستمرار لمدة 3 ثوان  
**Deactivation, Hold for 3 Seconds**

**SRT** SRT Contact Details for Device Faults

UIN

Installed By

Customer Service

Email

**SRT** بيانات الاتصال بشركة SRT  
عند حدوث مشكلة في الجهاز

الرقم التسلسلي

تم التركيب بواسطة

خدمة العملاء

البريد الإلكتروني

