



السلطة البحرية الأردنية
Jordan Maritime Authority



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Humans have always been interested in how to move safely :-





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One of the **basic questions** have always been **where I am?** which leads to...
where am I going how do I get there and **How can I reach**?

Early solutions

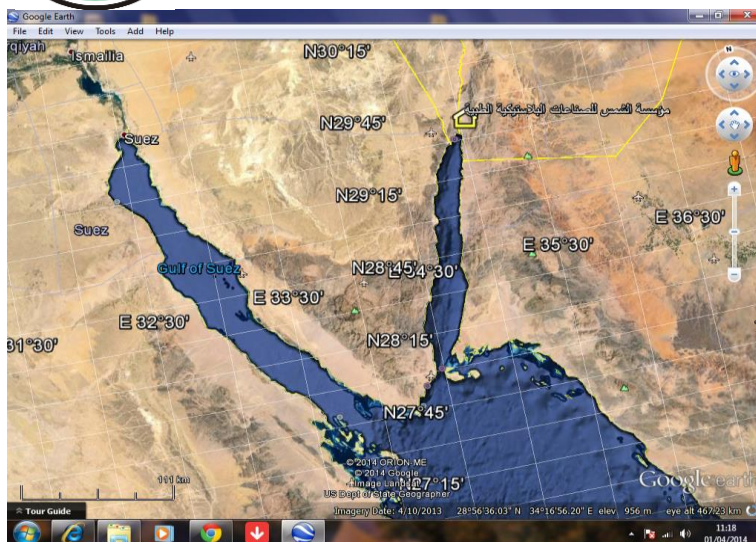
- marking trails with piles of stones (problems when snow falls...or on ocean)
- navigating by stars (requires clear nights and careful measurements)
...location within a mile or most widely used for centuries using old equipment for navigation at sea and land.

Modern solutions:

- Radars : marine radars X band . Then S band
- DF : Radio direction finder
- OMEGA: Radio stations with special charts
- LORAN C: radio-based; good for coastal waters
...limited outside of coastal areas
- **Sat-Nav. : low orbit satellites; use of low frequency Doppler**
...problems with small movements of receivers



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Red Sea
Gulf of Aqaba



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Jordan Territorial water
Aqaba Port Limits
 Jordan have not more than
 26 Km of sea coast line



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Jordan have limited territorial water on the northern
 east part of the gulf of Aqaba.

, with about 26 KM coast length .all the port facilities
 terminals are

Located in longitudinal situation along the coast ,

New port infrastructure is under process . Will be in
 operational situation in beginning of the 2016 .



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Jordan is part of Most of the international maritime conventions (SOLAS, MARPOLE, SEARCH and RESCUE conventions.....etc ,) and we try to comply with all the requirements of the conventions for safety of navigation of ships and Marine environmental protection.

Jordan Maritime Authority has been comply with all requirements needed for safety of navigation of ship and sign agreement for [LRIT](#) system and [AIS](#) system

Both of agreement has give the Jordan flag state and port state.



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Every day Numbers of Universal fleet of ship is increasing in accordance of the increasing of the population of the word , port state control PSC is selected the ship for inspection with difficulty to discriminate between ships due to lack of information for the ship . That no data base for all the ships directly could be obtained to facilitate the selection for the port state officer of ships attended the port requiring such important information,(Age , Type , Flag ,class, Out standing deficienciesetc).



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For that AIS is solve the problem for the PSC officers through all information given by the system.

LRIT

1-We have agreement with **pole star** company in U.K for the LRIT system which is effective the ships under Jordanian flag.

AIS

1- We have agreement with the EU/ EMSA MED AIS Data Sharing among the SAFE MED beneficiaries , Regional server located in Rome.



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A- AIS base station fixed on the Jordan maritime authority building with antenna of height about 20 meters covers the Gulf of Aqaba . It is Transas T214 AIS.

This is coming in cooperation with EU – Safe MED II Working with the Italy coast Guard .



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Device Type:
AIS Base Station

Device Model:
TRANSAS (T214)

Device Info:

The Transas T214 AIS Base Station is a cost-effective solution designed specifically for coastal surveillance, vessel traffic monitoring and management at ports. The T214 Base Station facilitates safe navigation of ships, helps to protect the marine environment and supports the VTMS operation. Moreover, the effective processing of AIS information contributes significantly to the security of port and offshore installations. Easily configured to the specific needs of any customer, Transas AIS Base Station can operate as a standalone solution or in an AIS Network, and can be used as an additional sensor to existing VTS/ VTMS systems.

Services:

- Automatic identification of ships (Name, IMO number, MMSI and Call sign).
- Reception of messages on coordinates, course, speed over the ground, heading, GNSS.
- Antenna position on the ship, ship length, width and draft via AIS radio data link from other ships, and output of this information to be presented on the AIS and VTS displays.
- Reception of data on the rate of turn, ship type, port of destination and time of arrival in this port, route plan, availability of dangerous cargo.
- Reception of static and dynamic data and binary messages.
- Reception and transmission of Safety Related text messages.
- Reception of differential GNSS (GPS) corrections from the GNSS reference station or radio beacon data link and their transmission via AIS channel.
- Assigning appropriate operating modes to the ship stations including the assigning of regions, frequencies, radiating power, slots, reporting intervals, number of report.
- Transmitting vessel tracking data from radar tracking system to mobile AIS units via AIS VHF data links.



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Device Type:
AIS Transponder

Device Model:
FURUNO (FA-50, Class-B)

Device Info:

FURUNO FA-50 class-B AIS transponder receives navigation data from AIS-equipped vessels nearby that can be utilized to aid in safe navigation. Also, the FA-50 transmits own ship's information to the vessels around, which also aids in collision avoidance.

Services:

- Greatly improves the level of the situational awareness even in fog, darkness or congested waterways.
- Enhances safe navigation by exchanging critical navigation information from AIS-equipped vessels nearby.
- Receives both Class-A and Class-B AIS information.
- Outputs data to NavNet 3D, NavNet vx2 and PC through Ethernet.
- Flexible integration with various AIS compatible radar and chart plotters.
- Sturdy design mounts easily on a bulkhead.





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Lloyds List AIS System:-

This system is provide JMA ships within round of circle 24 Nautical Mils diameter , 3D satellite pictures for Aqaba Gulf traffic can be obtained .(the world largest based AIS network can receiving reporting of 61 positions per day and 72000 vessels . At the world wide oceans and seas. it is network give all information about all the world wide fleet .



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➤ Targeting of ships:

Every day a number of ships will be selected for a PSC inspection throughout the region. To facilitate such selection PSC officer refer to the Med-MoU information center and AIS database. This information system. Data on ships particulars and reports of previous inspections carried out within the Med-MoU and all memorandums of understandings around the world region are provided by the information system as well to determine the ships priority for inspection.

➤ Targeting ships Elements:

- 1-Ships age
- 2-Ships type
- 3-Ships flag
- 4-Classification society(IACS, non IACS)
- 5-Out standing deficiencies.
- 6-Time since last initial inspection

Automatic Identification System(AIS)

This instrument enabling JMA to identify ships within circle diameter around 24 Nautical Mile ,also 3D satellite picture for the Gulf of Aqaba can be obtained.



as a part of the project, the world's largest AIS network is being established according to the IMO AIS standards.



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AIS Receiver with Electronic chart Nav Net 3D (MFD12)

This is fixed as Receiver for all information in the Aqaba Control tower . Controlling the ships within the Jordanian territorial water and adjacent water . Enter , departure, anchored and drifting ships.
To Maintain the safety of navigation and search and rescue activity.



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- Enhances safe navigation by exchanging critical navigation information from AIS-equipped vessels nearby.
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Device Type:
AIS Transponder

Device Model:
FURUNO (FA-150. Class-A)

Device Info:
FURUNO FA-150 class-A AIS transponder is designed to improve navigation safety by observing other AIS equipped ships.

Services:

- Integrates with Radar, ECDIS and Electronic Chart System.
- Easy to operate.
- Optional PC software.
- Compact 4.5" silver bright display.
- Provides real-time AIS info for collision avoidance.



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Jordan didn't have any infrastructure for AIS information supply we get all information through the international AIS infrastructure , by using the receivers which supply the international information reports and fleet information ,

By the Lloyds automatic identification system and EU /EMSA AIS system , and through the receivers with chart data system.



Than you

شكراً