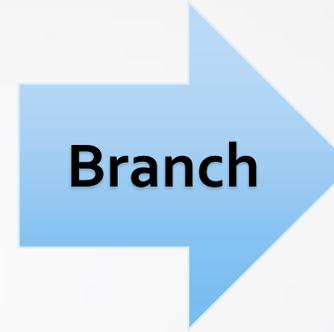




MIDDLE EAST NAVIGATION AIDS SERVICE



World-Class Safety of Navigation Service Provider

Memberships/Affiliates:

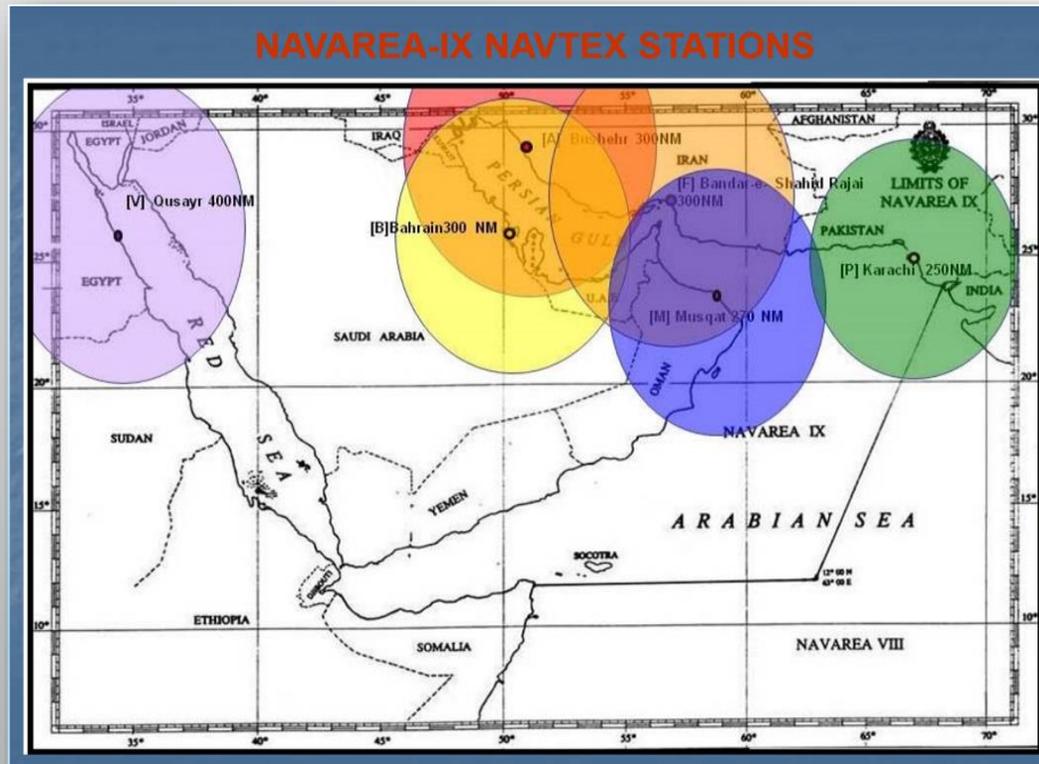


Core Activity

- Maritime Safety Information via Notices to Mariners and NAVTEX as the NAVAREA IX sub-area coordinator. MENAS is recognised as the most efficient MSI service provider in the Middle East Region
- A short-range visual and radio Aids to Navigation service to full IALA standards throughout the Gulf and its approaches
- A Differential GPS service covering the Gulf and its approaches
- These services are funded through the payment of Navdues

MSI Services

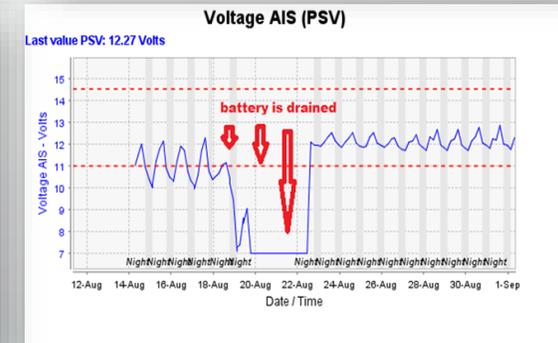
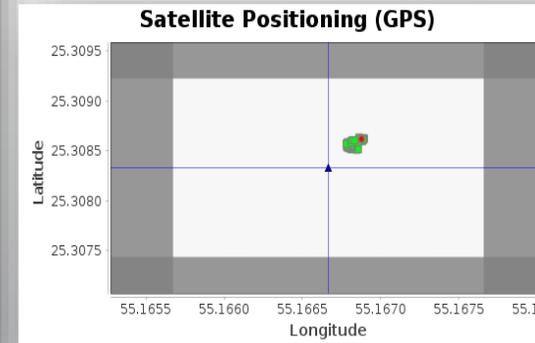
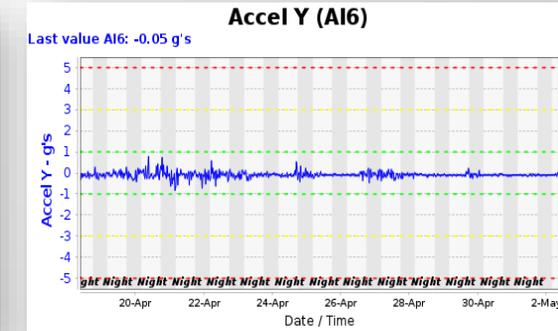
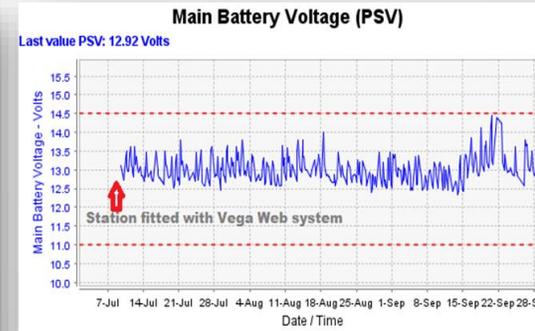
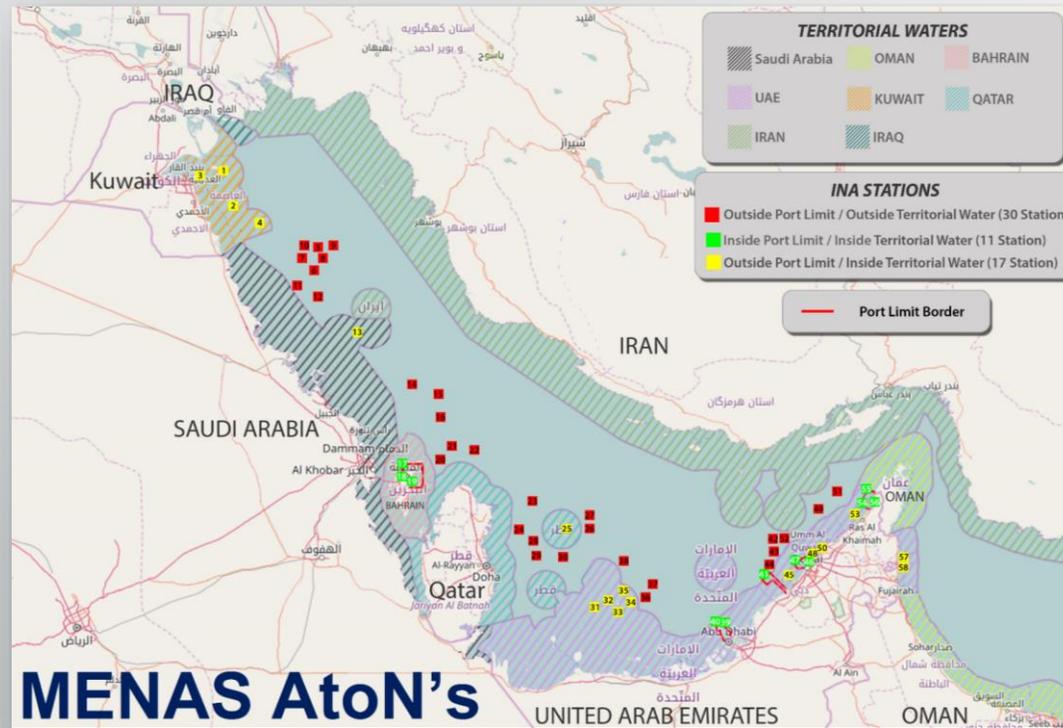
“Existing infrastructure- Controlled and coordinated by Ports & Maritime Authority (PMA) under Ministry of Transportation & Telecommunications as NAVAREA IX sub coordinator and it’s obligations are delegated to MENAS”



RESPONSE COUNTRIES				
COUNTRY	2016	2017	2018	SOURCE OF INFORMATON
BAHRAIN	129	171	173	E-MAIL & FAX
IRAN	07	12	15	E-MAIL & FAX
OMAN	03	05	10	E-MAIL & FAX
SAUDIA	10	09	07	E-MAIL, FAX
EGYPT	133		01	POSTAL MAIL ONLY
MISC.	25		10	E-MAIL & FAX

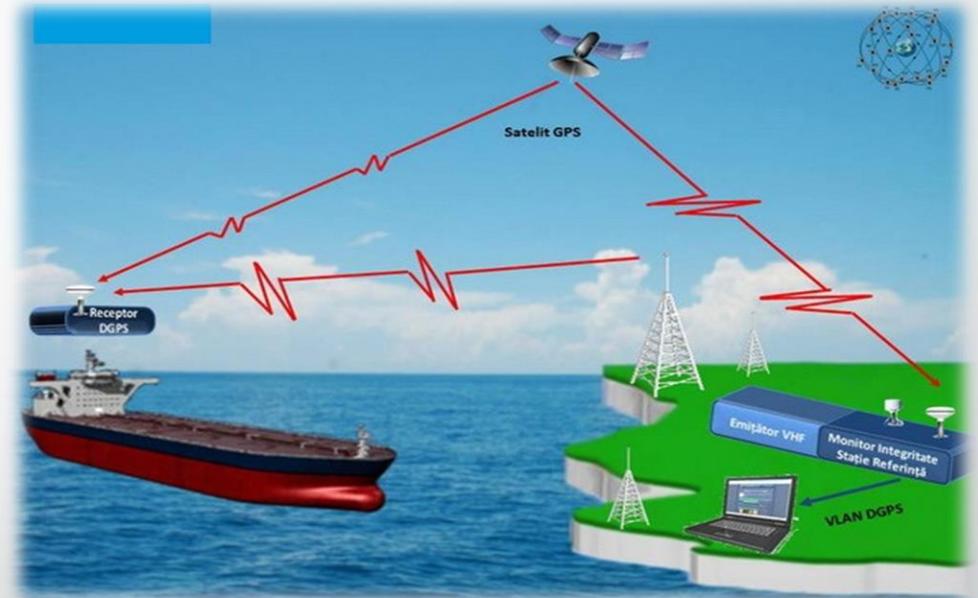
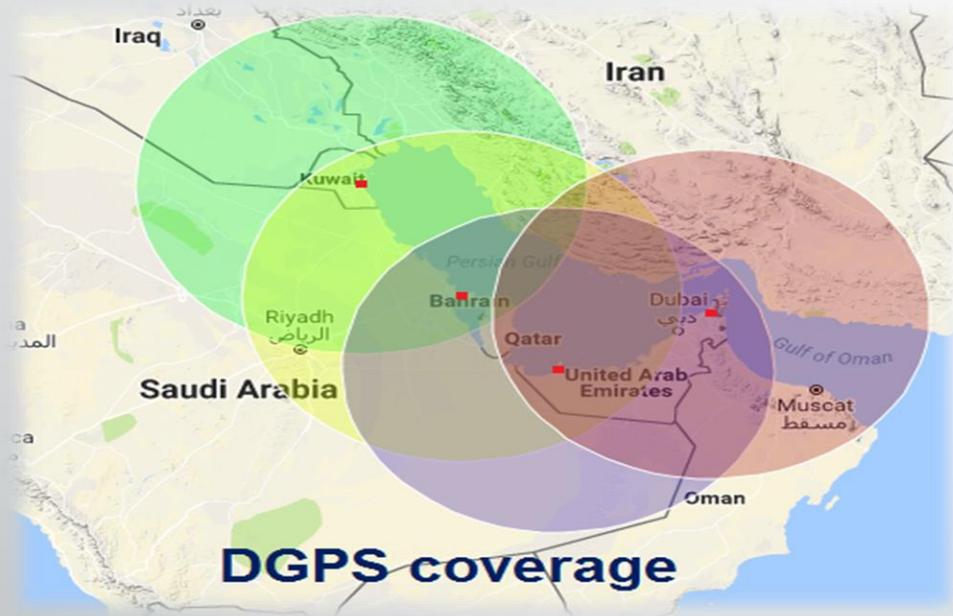
Reference: NAVAREA IX Coordinator Report RSAHC8-10, prepared by Pakistan Navy for 8th ROPME SEA AREA HYDROGHRAPHIC COMMISSION MEETING held in Islamabad, Pakistan between 18 to 20 February 2019.

Short Range AtoN



AtoN Monitoring System

Long Range DGPS Service



Four overlapping universally free-to-air (DGPS) for ships on 250 Nm range covering the entire Gulf to provide less than 1 meter of accuracy

Meeting International Obligations

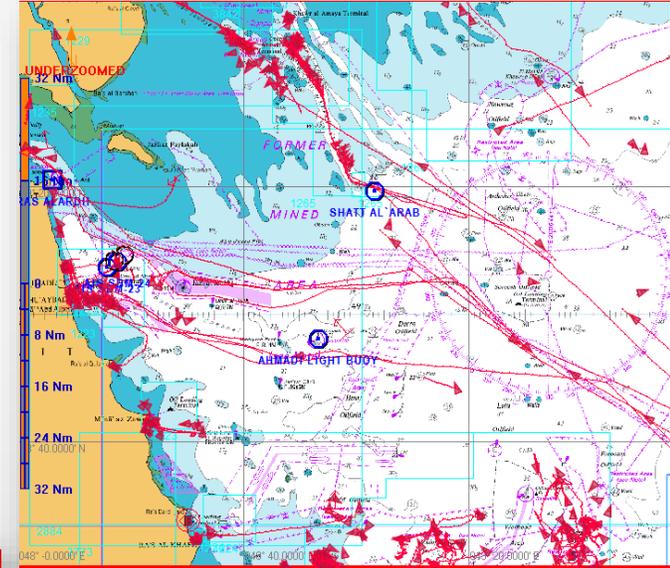
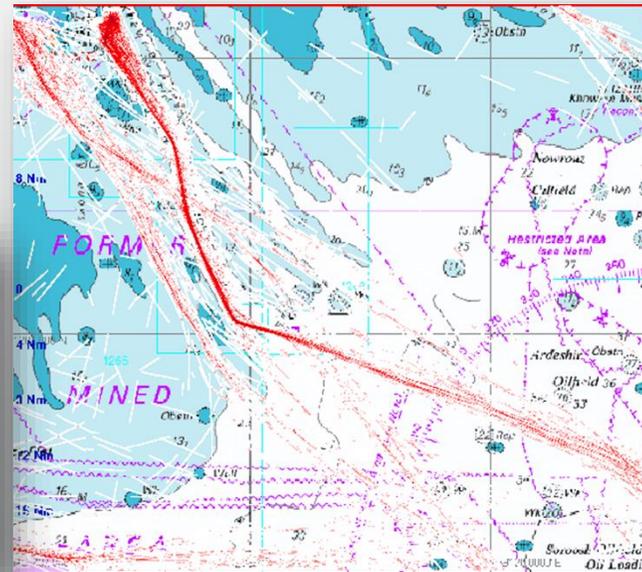
- SOLAS Chapter V sets out exactly what Coastal States must do to meet their international obligations related to the safety of navigation
- Over 60 States have yet to demonstrate that such obligations have been met
- IALA lists these “Priority States” on its website
- MENAS provides specific contract services to assist coastal States and port authorities to provide aids to navigation services to full international standards

Contract Services for Coastal States and Port Authorities

- The “RAS” – Risk Assessment Service using IALA risk management tools
- The analysis and calibration of marine lanterns operated by marine authorities using MENAS’ world-class light range
- A quality control and inspection service to ensure that all Aids to Navigation operated by a maritime authority are fully compliant with best international practice and standards
- Tailored short training courses for aids to navigation technicians based on the suite of IALA “Level 2” model courses

“RAS” – Risk Assessment Service

Uses “IWRAP Mk II” and “SIRA” to determine which Aids to Navigation should be installed in specific waterways based on the volume of marine traffic and degree of risk in those waterways



Marine Lantern Calibration Range

- The only fully compliant light range in the MENA region
- Marine Lantern effectiveness will be analysed and test certificates issued



Light Intensity Test Report			
Intensity vs. Angle (symmetrical)	Angle in Degree	Intensity (cd)	Intensity (cd)
Serial No.	015-18	1.00	10.13
Model No.	WGL-40	1.00	10.13
Technician	M. Khalil	1.00	10.13
Inspector in charge		1.00	10.13
Date	06-10-2018	1.00	10.13
Time	10:14:10	1.00	10.13
Temperature	25.5	1.00	10.13
Humidity	55%	1.00	10.13
Lantern Type	WGL-40	1.00	10.13
Lens Colour	Clear	1.00	10.13
Wavelength	LED	1.00	10.13
Fluor. S. No.	365072	1.00	10.13
Flash Code	05, 10000	1.00	10.13
Lamp type & size	LED	1.00	10.13
Voltmeter reading (V)	13.21	1.00	10.13
Ammeter Reading (A)	2.5	1.00	10.13
Required range	2	1.00	10.13
Approved by		1.00	10.13
Customer Details		1.00	10.13
Manufacturer	Janaya RO 100 - UN 805510106	1.00	10.13
Customer Details	Flare 175, S/N: 80110105	1.00	10.13
Lantern Details	Hanger - Ser. No. 3545	1.00	10.13
Reference publication	IALA Recommendations R-122, R-240, R-241	1.00	10.13
Measurement Site	MENAS Light Measurement Room	1.00	10.13

MIDDLE EAST NAVIGATION AIDS SERVICE
Light Intensity Certificate

Certificate No: SMA-012-18 Date: 06 Oct. 2018

Light Owner Details:
Middle East Navigation Aids Services - MENAS
Kingdom of Bahrain

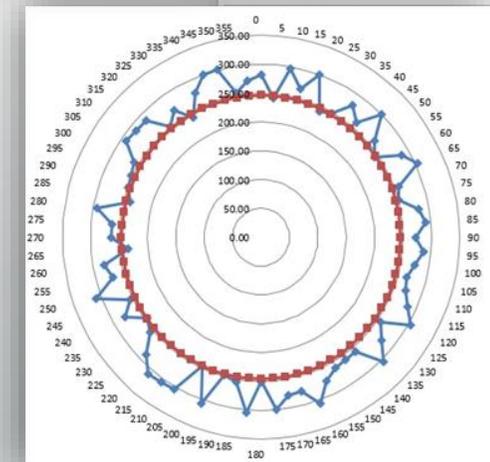
Lantern Detail
Light Details : Incandescent / LED / Halogen/ ... other
Manufacturer : VEGA
Light Source Profile : Single LED with reflector Mirror / LED Tear / Fresnel Lens
Model No. : VLB-87
Serial No. : 884088
Condition : NEW

Test Results
- Intensity vs Angle (Symmetrical) 360 deg. PASS
- Vertical Diversion @ (+/-) 10 deg. PASS
- Effective Intensity PASS
- Nominal Range PASS
- Electrical & Mechanical condition test PASS

All MENAS tests comply & follows IALA Standards with reference to the following documents
- E-110 on Rhythmic characters of lights on aids to navigation
- E-200-3 Marine Signal Lights - Part 3 - Measurement

Performed by: Approved by:

ISO 9001:2015 IALA
Light Intensity Certificate R.1 Oct.2018



Quality Control Services

- Fully IALA certified MENAS Managers will inspect both fixed and floating short-range AtoN to determine compliance with IALA standards
- Periodic QC audits undertaken



“Level 2” AtoN Technician Training

- MENAS accreditation by Government of Bahrain as a training organisation on track
- Plan to deliver one-week “Level 2” training based on IALA model courses from mid-2019
- Foundation “Level 3” training planned in due course





Questions?....