



**Orion Credence
Solutions Pvt. Ltd.**

Document:

NAU Fleet Performance Monitoring System Ver. 2.0.1

Dated: 01st Apr 2020
Revision: 0

PAGE: 1 OF 32

PREPARED BY: DOCUMENT ADMINISTRATOR

APPROVED BY: DIRECTOR



NAU Version 2.0.1

**Vessel Performance, Reporting &
Monitoring System**



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Documentation: Vessel Performance, Reporting & Monitoring System

Version Release : NAU 2.0.1

Document ID : ORN/01042020/VPRMS/001

Created : 01st Apr 2020

S.No.	Description	Revision Date	Created/Revised By	Approved By
1.	Version Release NAU 2.0.1	--	Document Administrator	Director



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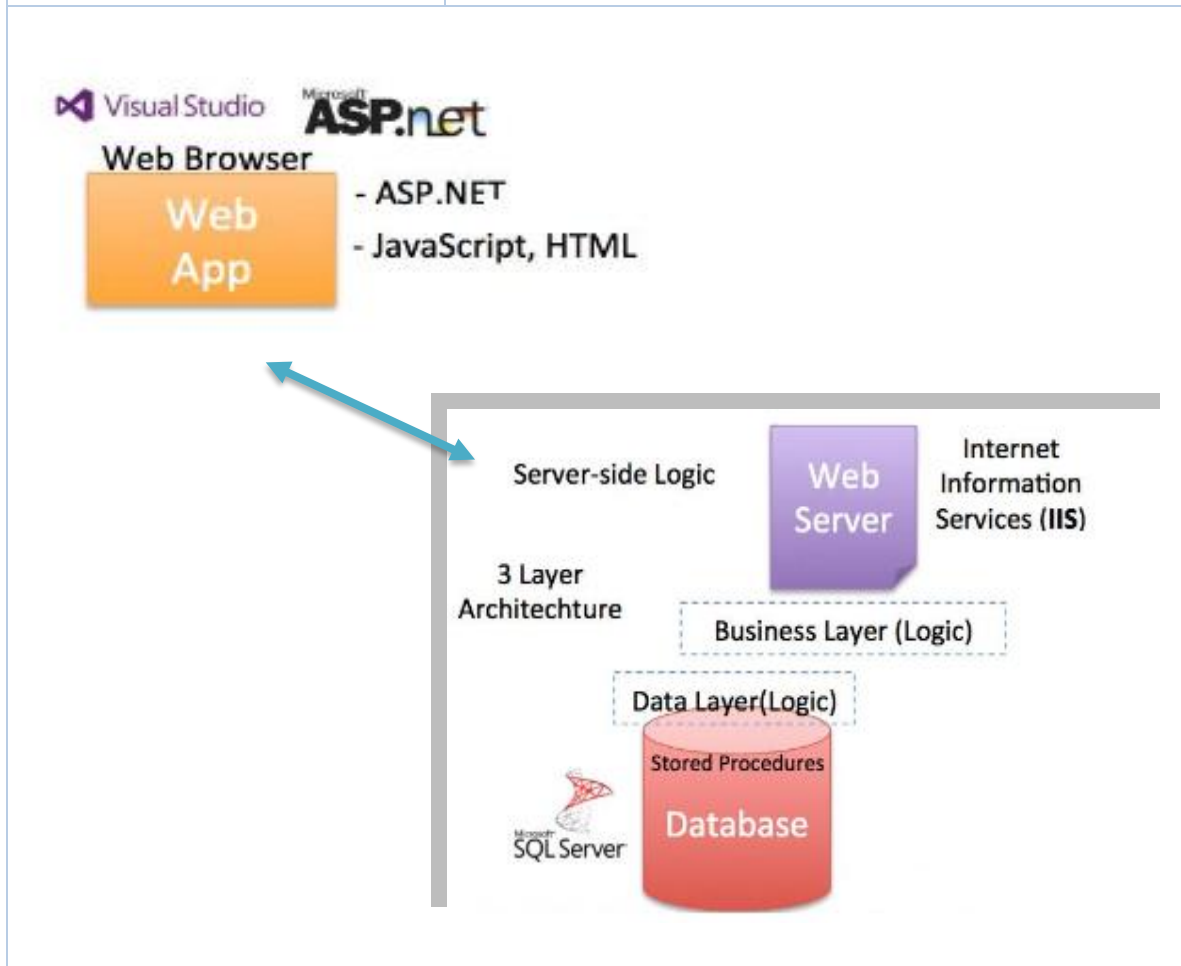
USER'S MANUAL

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1. GENERAL INFORMATION

1.1 TECHNICAL DETAILS

Platform	.net framework with DevExpress technology
Language	C#
Database	SQL SERVER 2014
Development Tool	VISUAL STUDIO 2017
Client Side Scripting	JavaScript
Chart Library	AM Charts, HighCharts
MAP	Open Layer for Weather tiles MapBox for World Map



1.2 VERSION RELEASE AND SYSTEM OVERVIEW

The 'NAU' 2.0.1 supersedes the earlier version 2.0 in totality and has been incorporated with various new features and functions to enhance the user experience, provide comprehensive fleet overview, dashboards and many other features.

- **Fleet positions**
- **Intuitive and enhanced Dashboards**
- **Detailed Event Reports**
- **Customisable table views and extracts**
- **Engine Parameters reports**
- **Voyage Reports**
- **Emission Reports**
- **Waste Management**
- **Analytical Tools**
- **Weather**
- **Under-performance Alerts**
- **Port arrival notification**
- **Customisable Reports and Analytics**

1.3 TECHNICAL AND OPERATIONAL SUPPORT POINT OF CONTACTS

Support Contact

Support Group Email : support@orionmarineconcepts.com
Escalation Email : msabharwal@orionmarineconcepts.com

2. SYSTEM SUMMARY

2.1 WEB ACCESS

The system is accessible on the internet through the web Mozilla Firefox and Google Chrome using the URL assigned.

2.2 USER ACCESS LEVELS

Users access will be created by the company administrator for the web as well as mobile application from the ADMINISTRATION section of the NAU. The user access can be controlled for desired sections, functions, rights, etc.

2.3 SESSION LOGIN AND ACCESS CONTROL

The user sessions for locations, times are being logged to ensure data and access security under the EU PDPR and GDPR company security policies. Therefore user credentials must never be shared, users are allowed to login from one PC at a time. The system administrator must be informed incase of any security breach and access must be controlled as per the same with immediate effect.

3. GETTING STARTED

3.1 LOGGING ON

A user ID and password is required to log onto web interface.

Web URL; <https://nauserver.com/>

Username; company email id

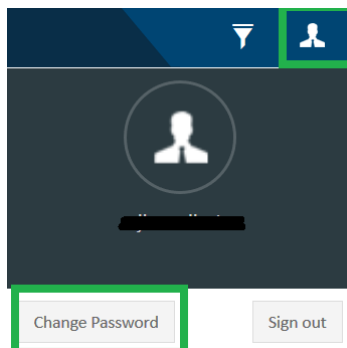
Password; as shared on email or by your admin.

Note; The usernames and rights have been assigned by the administrator and are logged for each session for location and time in order to maintain secure access to this application. Kindly do not share your credentials with anyone. You can have one live login session at any given point of time.

3.2 CHANGING USER ID AND PASSWORD

Incase forgotten, the password can be reset anytime from the login page by clicking the "Forgot Password" option.

Changing the password; After login and page load, click the human icon on the extreme right on the top of the main page and click the change password option.



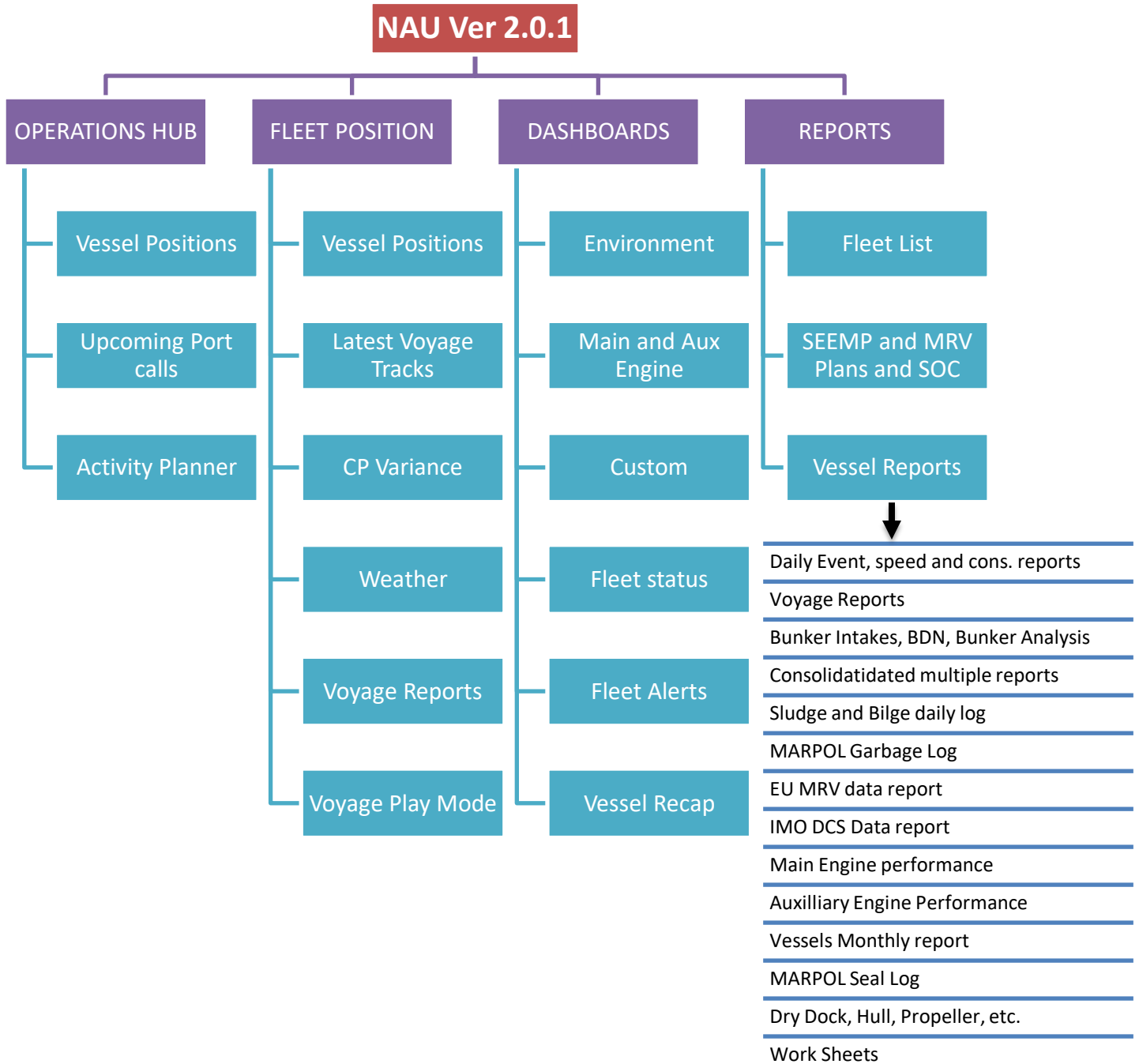
In the new window, enter your email id to confirm and click send after entering your current password and your new password.

3.3 EXIT SYSTEM

Click on Signout to logout.

3.4 RELEASE SITE MAP AND MENU

The system is divided into Main menus and subsequent sub menus;



4. USING THE SYSTEM (ONLINE)

4.1 SETTING YOUR FAVORITE VESSELS AND UNDERSTANDING THE FILTERS

The NAU 2.0.1 is distributed over two zones;

- Fleet positions & Operations Hub
- Dashboards and Reports

Upon signing in on the system for the first time, prior navigating through the system it is important to understand the process of setting;

- a. Favorite vessels for web and mobile app.
- b. The various filters and combinations that are custom created based on the relevance and section requirements.

Above are important functions of the application and effect the entire system, therefore must be understood in detail for ease of navigation.

4.1.1 Setting Favorite Vessels;

As a default the administrator assigns all vessels to all fleet users, except for Owner's in which case only their specific vessels are assigned.

At the first login;

- a. The first step is to reset the password and re-login with the new password for their own convenience and security, this password works for both the Web as well as the Mobile Application (IOS and Android).
- b. The users must make the selection for their favorite vessels. The favorite vessels could be the vessels belonging to a particular Fleet group or as desired as a mix as per the users choice.

The favorite selection enables;

- The Zone 2 (Dashboard & Reports) to have these filtered and marked with a Golden Star (*) on the filter and maintains the vessels selection filters as preset with this to save time for the user to search and select his group vessels through the entire fleet list.

Procedure;

After logging in click on the icon shown in the Box, a selection box opens; search and choose your vessels by ticking the box adjacent to the vessel name and click Apply, the system will log you out for resetting the Favorites;

CLICK HERE

<input type="checkbox"/>	Vessel Name	Fleet Group	Vessel Type
<input checked="" type="checkbox"/>	Ardmore Cheyenne	FG1	Chemical Carrier
<input checked="" type="checkbox"/>	Ardmore Chinook	FG1	Chemical Carrier
<input checked="" type="checkbox"/>	Ardmore Chippewa	FG1	Chemical Carrier
<input checked="" type="checkbox"/>	Ardmore Defender	FG1	Chemical Carrier
<input checked="" type="checkbox"/>	Ardmore Seamariner	FG1	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Compass	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Dalian	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Fuling	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Harmony	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Hector	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Nangang	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Neon	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Palladium	FG4	CHEMICAL CARRIER
<input checked="" type="checkbox"/>	Bow Platinum	FG4	CHEMICAL CARRIER

Post above, once the user logs into the system, the vessel count and the sections. i.e. the dashboards load only the users vessels, rest are present in the filter incase the user wishes to select any other.

Note; altering the filter with added / amended selections is temporary and the signing out / re-login process resets the setting back to original Favourite setting.

Re-login to view the settings have taken effect and continue working further;

Fleet Dashboard [Vessel Reports & Activities between - 6 Mar -2020 to 6 Jun -20]

Filters [Max Selection : 234 vessels]

29 Vessel (highlighted in red box)

4 Dry Docking (highlighted in blue box)

Favourite Vessels

- ANDREA VICTORY
- ARDMORE CHEYENNE
- ARDMORE CHINOOK
- ARDMORE CHIPPEWA
- ARDMORE DEFENDER

Other Vessels

- AGNES VICTORY
- ALCYONE T
- ARDMORE CHEROKEE
- ARDMORE SEAVALIAN T
- ARDMORE SEAVANGUARD

DELATED REPORTS

- Sea & Port Reports (1)
- ME Performance (3)
- AE Performance (1)
- Sludge & Bilge Waste Mgt (3)
- Garbage Log (5)
- Marpol Seal Log (23)

SLUDGE AND BILGE GENERATION (Cu.i)

Vessel Name	ROB 3.1	Buildup
Hafnia Mikala	3.2 MT	43.0
Bow Palladium	21.5 MT	69.0
Bow Platinum	4.3 MT	36.2
Bow Tungsten	3.4 MT	37.7
Ardmore Defen...	12.1 MT	41.6
Jo Ask	26.6 MT	22.1
Leonora Victory	14.5 MT	31.4
Wenche Victory	7.7 MT	35.1
Bow Fuling	9.4 MT	37.6
Bow Hector	15.5 MT	42.9
Bow Titanium	7.3 MT	31.3
Hafnia Sunda	25.3 MT	39.6

Time Stamp

Start Date: 06-Mar-2020 End Date: 06-Jun-2020

Reset Apply

4.2 VESSEL SELECTION AND DATE SELECTION FILTERS

4.2.1 Selecting your vessels and date range from the filter;

The vessel and duration selection filter is placed on the Top right next to Login area of the application.

A. General – Selecting your Vessels and Duration;

Click on this to filter the data basis, Owner, Fleet Group, Vessel Type/Size and Vessel Names and Duration / Time Stamp.



Filters [Max Selection : 236 vessels]

This tells whether this section allows Single or Multiple Vessels selection to view the data.

Make your selection by further filtering as per your choice through these areas

Vessel

Principal Fleet Group

Vessel Type Vessel Size

Select All Search..

- ★ AGNES VICTORY
- ★ ALCYONE T
- ★ ANDREA VICTORY
- ★ ARDMORE CHEROKEE
- ★ ARDMORE CHEYENNE

Choose the Date Range for Extracting the data

TimeStamp

Start Date: End Date:

25-Feb-2020 25-May-2020

Click on APPLY effect your selection.

Click RESET to clear the Filter.

B. Change of filter position;

While most of the application has the above area for filter and vessel selection, below have their independent filters, adjusted as per the need or detailed functionality of a section or are not required at all for the section.

1. Section where there are no filters required/provided;

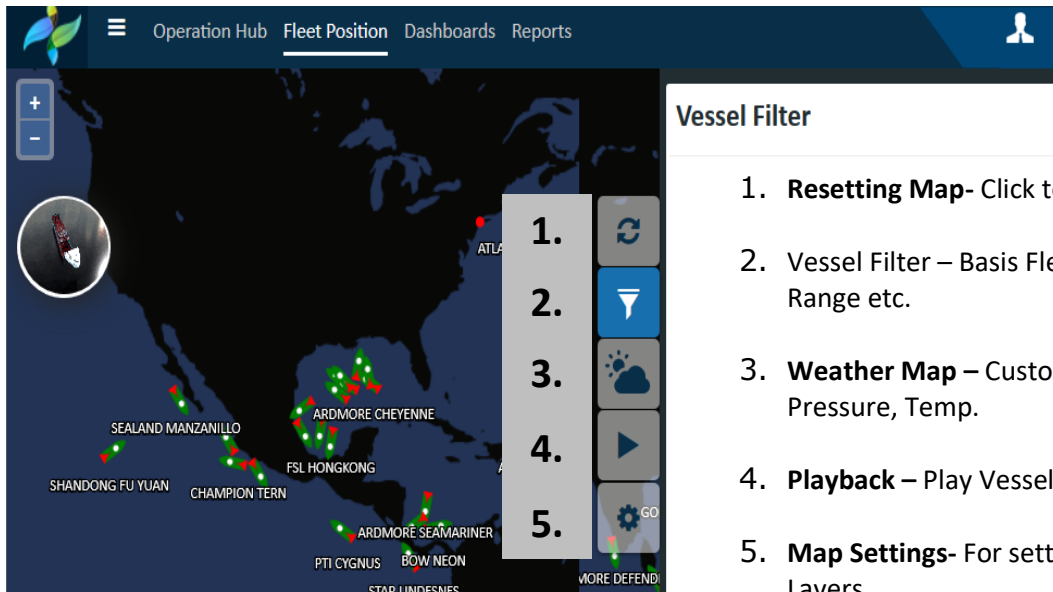
This is because the whole fleet / assigned vessels will always be shown.

- a. Dashboards Section – ***FLEET ALERTS DASHBOARD***, this section does not have any filter selection as all the vessels status shall show at all times.
- b. Reports Section – ***FLEET LIST & MRV PLANS***, these two areas show all vessels in the fleet by default, further table headers can be used for filtering as required.

2. Special Filters changed position or dedicated;

a. Fleet Positions & Operations Hub;

The position of the filter has been merged with the right panel / group of filters that caters to other filter functions for the section as shown below;



The screenshot shows the 'Fleet Position' section of the application. On the left is a map of the Pacific Ocean with several vessels marked by colored dots and labeled. On the right is a 'Vessel Filter' panel with five numbered items:

1. **Resetting Map**- Click to clear all filters.
2. **Vessel Filter** – Basis Fleet List, Voyage, Date Range etc.
3. **Weather Map** – Customizable basis Wind, Pressure, Temp.
4. **Playback** – Play Vessels voyages and tracks.
5. **Map Settings**- For setting themes and Map Layers.

b. Executive Dashboard:

This section demands dedicated filter since it has different criteria requirements, therefore the filter position has been altered as shown.

The screenshot shows the 'Environment Dashboard' interface. The top navigation bar includes 'Operation Hub', 'Fleet Position', 'Dashboards', and 'Reports'. The dashboard displays 'TOTAL EMISSIONS (MT's)' with a value of 36884 and 'TOTAL SLUDGE DISPOSALS (Cu.m)'. A 'Criteria' and 'Filters' section is highlighted with a red box. The 'Criteria' section includes a 'Range' filter with 'From' (08 May 2020) and 'To' (08 Jun 2020) dates, and a 'Quick Navigation Menu to other Dashboards' with icons for a leaf, a camera, a map, and a bell. The 'Filters' section includes 'Fleet Group', 'Owner', 'Vessel Type', 'Vessel Size', and 'Vessel List (29)'. At the bottom of the filter section are 'Clear' and 'Apply' buttons. Callouts provide instructions: 'Quick Navigation Menu to other Dashboards' points to the navigation icons; 'Filter out data basis the following parameters' points to the filter dropdowns; 'Click Clear to remove the Criteria/filters.' points to the 'Clear' button; and 'Click Apply to Save the Criteria/filters.' points to the 'Apply' button.

Environment Dashboard [Emissions, Waste disposals, ...]

Criteria > Filters >

Range

From 08 May 2020

To 08 Jun 2020

Quick Navigation Menu to other Dashboards

Filter out data basis the following parameters

Clear Apply

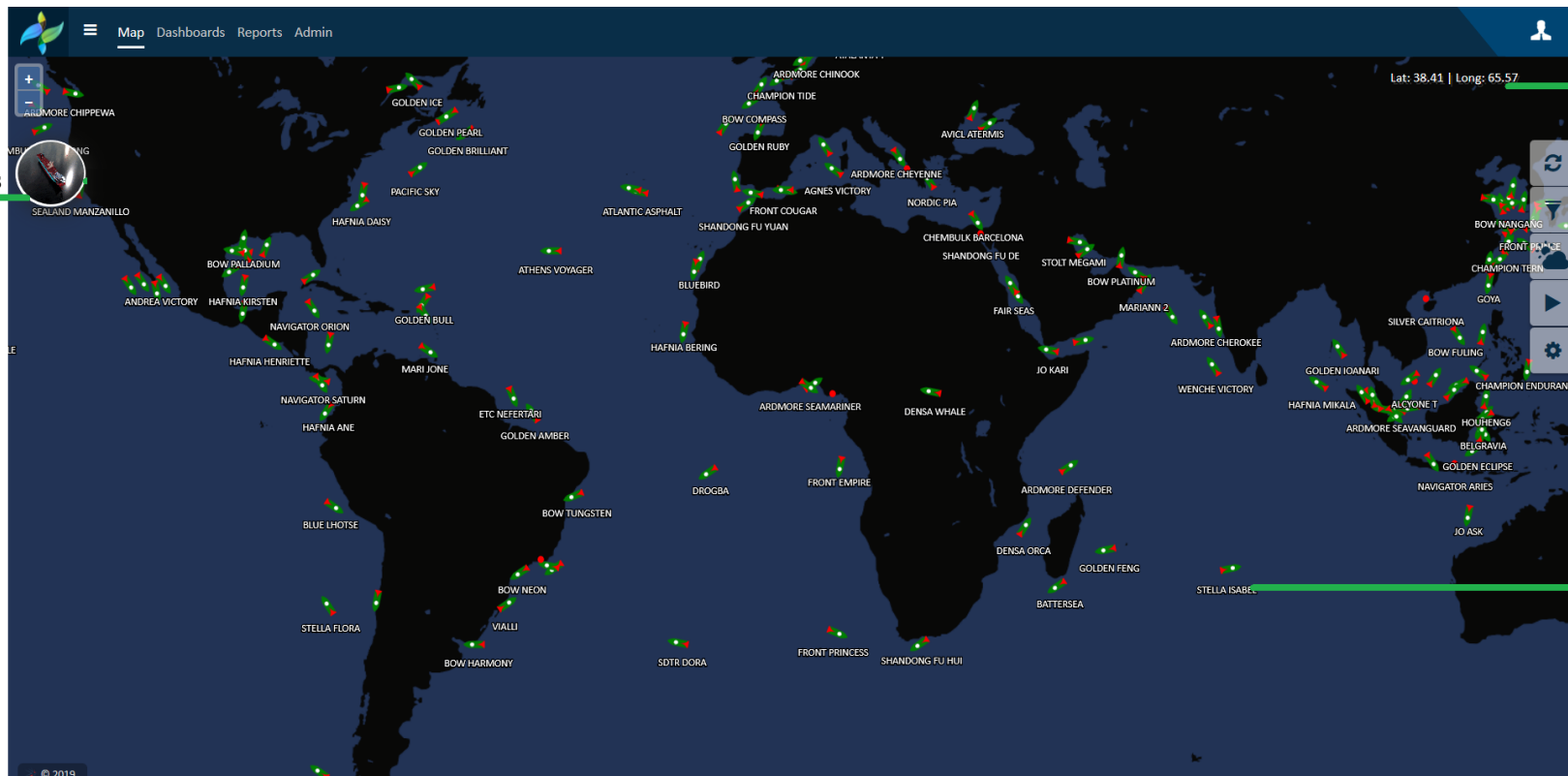
Click Clear to remove the Criteria/filters.

Click Apply to Save the Criteria/filters.

4.3 MAP / FLEET POSITIONS

The MAP section provides access to your fleet overview, vessel positions, important and relevant information, current & historic voyage data, event reports, filter with multiple attributes.

4.3.1 Overview;



A. Voyages
Speed and
Cons. Var.

B. Cursor position

C. Reset Map

D. Vessel Filter

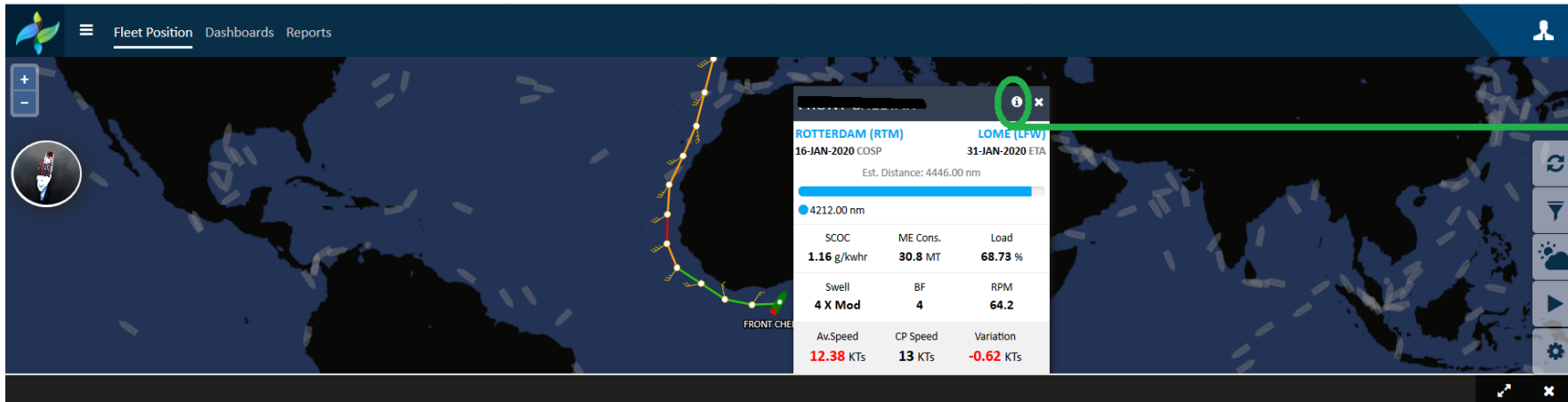
E. Weather

F. Playback

G. Map settings

**H. Vessel position
& information**

4.3.2 Event Reports;



Click on any vessel and view

Its events and voyage data.

Event Report | **8** /20 Bad Wx **17** /20 Speed **1** /20 ME Cons **1** /20 AE Cons **2** /20 Boiler Cons

Type to Search...

vesselname	Voyage ID	Voyage No.	Voyage Type	Date	Latitude	Longitude	Event	Port	Port Code	Stmg Hours	Distance (nm)	Log Distance	CP
FRONTIER	155	2001L2	L	16 Jan 2020 04:04	52°2'N	3°52'E	COSP	-	NLRM	0.0	0.0	0.0	
FRONTIER	155	2001L2	L	16 Jan 2020 12:00	51°33'N	002°05'E	NOON - At Sea	-	TGLFW	7.2	79.0	82.0	
FRONTIER	155	2001L2	L	17 Jan 2020 12:00	49°49'N	003°20'W	NOON - At Sea	-	TGLFW	24.0	242.0	244.0	
FRONTIER	155	2001L2	L	18 Jan 2020 12:00	47°55'N	006°36'W	NOON - At Sea	-	TGLFW	25.0	178.0	180.0	
FRONTIER	155	2001L2	L	19 Jan 2020 12:00	44°11'N	009°33'W	NOON - At Sea	-	TGLFW	24.0	256.0	263.0	
FRONTIER	155	2001L2	L	20 Jan 2020 12:00	39°56'N	011°11'W	NOON - At Sea	-	TGLFW	24.0	268.0	270.0	
FRONTIER	155	2001L2	L	21 Jan 2020 12:00	35°29'N	012°41'W	NOON - At Sea	-	TGLFW	24.0	276.0	284.0	
FRONTIER	155	2001L2	L	22 Jan 2020 12:00	30°48'N	014°10'W	NOON - At Sea	-	TGLFW	24.0	291.0	294.0	13.0

Default [Filter Icon] [List Icon]

System View

- Default
- Aux Engine Data
- Boiler Data
- Draughts and Displacement
- Lubes
- Main Engine Data
- Speed And Cons

User View

- TEST_1
- ➕ Add New

Different views and modes for

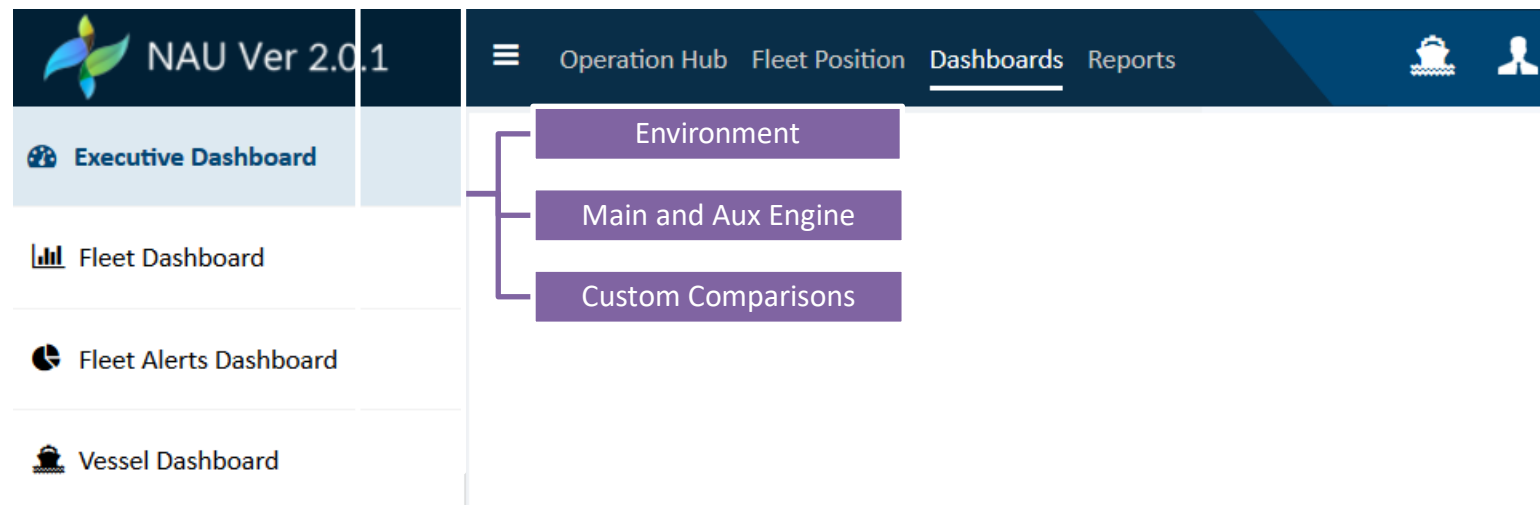
the data and create your own from "Add New".

4.4 DASHBOARDS

There are multiple dashboards provided to have an immediate overview of the fleet status in terms of operational and technical parameters at any time. There are numerous filters with different combinations for the users.

The dashboards have been categorized as a group data of similar sort to facilitate in depth analysis.

The Navigation Menu



4.4.1 Fleet Dashboard; Landing dashboard/page after Login

Fleet Dashboard [Vessel Reports & Activities between - 18 Feb -2020 to 18 May -2020]

A. 198 Vessel, 11 Dry Docking, 14 Hull Cleaning, 21 Propeller Polishing, 20 Under Water Survey

B. DELAYED REPORTS: Sea & Port Reports (5), ME Performance (17), AE Performance (6), Sludge & Bilge Waste Mgt (9), Garbage Log (29), Marpat Seal Log (14)

C. Crew Sign On/Off

D. SLUDGE AND BILGE GENERATION (Cu.m)

Vessel Name	ROB 3.1		ROB 3.3	
	Sludge	Bilge	Sludge	Bilge
ETC Me...	6.3 MT	67.2	7.2 MT	207.3
Hafnia ...	2.9 MT	38.0	14.7 MT	218.5
Front P...	18.8 MT	50.8	53.0 MT	144.0
Front Pa...	29.8 MT	117.8	10.7 MT	100.0
Bow Tu...	3.0 MT	37.1	4.3 MT	189.7
Sealand...	36.5 MT	121.7	13.7 MT	76.4
Front Fo...	10.5 MT	86.8	29.1 MT	198.4
Front C...	8.3 MT	57.5	22.3 MT	136.0
Bow Pa...	23.3 MT	70.5	13.1 MT	107.0
Navigat...	21.0 MT	81.3	6.0 MT	96.0
Mari Jone	8.6 MT	29.8	15.5 MT	143.5
KSL Syd...	29.9 MT	18.2	41.1 MT	132.9

E. OPEN ALERTS (Pie Chart): Fresh Water Gen., Speed, ME Cons., AE Cons., Boiler Cons., MECYL

F. OPEN ALERTS (Horizontal Bar Chart): Manzanillo, Munk Strait, Golden Savannah

Click to View (Crew Sign On/Off Table)

Sr. No.	Vessel Name	Fleet Group	Voyage	Signed Off Reason	Signed On/Off Date	Signed On/Off Time
1	Hafnia Torres	FG15	100230-081-B	End of Contract	16 May 2020	12:00
2	Stella Cherise	FG8	23-2002-L	End of Contract	15 May 2020	21:00
3	Stella Cherise	FG8	23-2002-L	-	15 May 2020	21:00
4	Stella Cherise	FG8	23-2002-L	-	15 May 2020	21:00

View Daily Reports from this Section (Main Engine and Auxiliary Engine Report Table)

Sr. No.	Vessel Name	Fleet Group	ME	AE-1	AE-2	AE-3	AE-4	ME Perf. on Distillate Fuel (< 10 out Vessel's Fuel)
1	Agnes Victory	FG6	8/27 Apr 2020	8/25 Apr 2020	6/25 Apr 2020	4/26 Apr 2020	-	20 Feb 2020
2	Alysona T	FG6	11/27 Apr 2020	11/19 Apr 2020	11/19 Apr 2020	11/19 Apr 2020	-	25 Feb 2020
3	Andrea Victory	FG6	8/10 Feb 2020	11/29 Apr 2020	11/17 Apr 2020	11/29 Apr 2020	-	02 Jan 2020
4	Andmore Chenokee	FG1	8/20 Apr 2020	12/01 May 2020	11/30 Apr 2020	12/30 Apr 2020	-	08 Oct 2019
5	Andmore Chyenne	FG1	11/04 Apr 2020	12/25 Apr 2020	12/25 Apr 2020	12/25 Apr 2020	-	16 Mar 2020

NOTE: Each section on this dashboard is clickable to view further

- This Dashboard shows the overview of the Fleet of vessels under your login and the ability to click and drill down each section to view for any duration.

- A. No. of Vessels, Dry Dockings, Hull & Propeller cleaning, Underwater cleaning, Inspections and surveys.**
- B. Delayed Reporting status** for all the modules within the NAU.
- C. Crew Sign On/Off details**
- D. Sludge and Bilge generation** and latest ROB's
- E. Alerts; Speed, Cons, Lubes and Fresh Water.**
- F. Daily report links** for ready online viewing.

NOTE: Each section on this dashboard is clickable to view further

Fleet Dashboard Continued:

G.

MAIN ENGINE MONTHLY PERFORMANCE REPORTS AND ALERTS

#	●	●	●
T/C Exhgas temp diff	39	15	76
Scan. Air Pressure	30	11	89
Air Cooler Pr Drop	90	2	36
Turbocharger RPM	56	22	51
RPM	30	48	52
SFOC	105	1	23
SCOC	111	0	29

Click to expand for viewing each vessel

View and filter map settings bss Critical Port and ETA

H.

LATEST POSITIONS

LATEST POSITIONS

Critical Ports	Vessel	ETA	Port
● Australia (6)	Batterssea	19 May 20...	Port Hedland (PHE), ...
● Canada (0)	Pacific Courage	20 May 20...	Port Walcott (PWL), ...
● China (11)	Hafnia Mikala	27 May 20...	Botany Bay (RTB), A...
● Hong Kong (0)	Houheng6	23 May 20...	Port Hedland (PHE), ...
● Netherlands (4)	Pacific Grace	30 May 20...	Port Walcott (PWL), ...
● Russia (2)	Champion Endu...	21 May 20...	Gladstone (GLT), AU...
● Ukraine (1)			
● United Kingdom (0)			
● United States (12)			

ETA in

- 7 Days (21)
- 2 Weeks (31)

G. Main Engine monthly Performance status for each vessel. Click on Vessel Name to view detailed report.

H. Vessel Latest positions with upcoming ETA to critical ports. - View and Filter Map Settings (as shown) bss ETA's and Critical Ports.

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4.4.2 Executive Dashboard – Environment Dashboard

Environment Dashboard [Emissions, Waste disposals, EEOI, Capacity Utilization & Energy used between - 19 Apr 2020 to 19 May 2020]

TOTAL EMISSIONS (MTs)
 CO₂ (MTs): **330965.9**
 SO_x (MTs): **1297**
 NO_x (MTs): **7491.8**

TOTAL SLUDGE DISPOSALS (Cu.m)
 Incineration, Landed, Evaporation

TOTAL BILGE DISPOSALS (Cu.m)
 OWS, Evaporator, Landfill

TOTAL GARBAGE DISPOSALS (Cu.m)
 At Sea, Ashore, Incineration

AVG. EEOI (CO₂ gms/tonmile) & DWT CAPACITY UTILIZATION (%)

Click on the Bar graph to drill down to vessel history

Click to Extract the Excel File for Wastage & Emissions Data

Environment Data Report

Set the Criteria by selecting the Date Range

Filter out data basis the following parameters

Quick Navigation Menu to other Dashboards

Click Clear to remove the Criteria/filters

Click Apply to Save the Criteria/filters

Environment dashboard encompasses the emissions, operating index, capacity utilizations, waste data and fleet energy usage

A. Total Emissions , Sludge, Bilge & Garbage Disposals basis the Date Range Criteria.

B. EEOI and DWT Capacity utilizations for each voyage bss Fleet Groups, Owners and Vessel Type.

- Drill down by clicking on the Bar graph to the vessel level for history.

C. Environment Data Report: Extract the Excel File comprising the Wastage & Emissions Data.

D. Criteria: Set the Date Range for the purpose of data extraction.

E. Filter: Data can be filtered out basis the parameters shown.

F. Clear & Apply Buttons: Use Apply to save the criteria/ filters and Clear to remove the same.

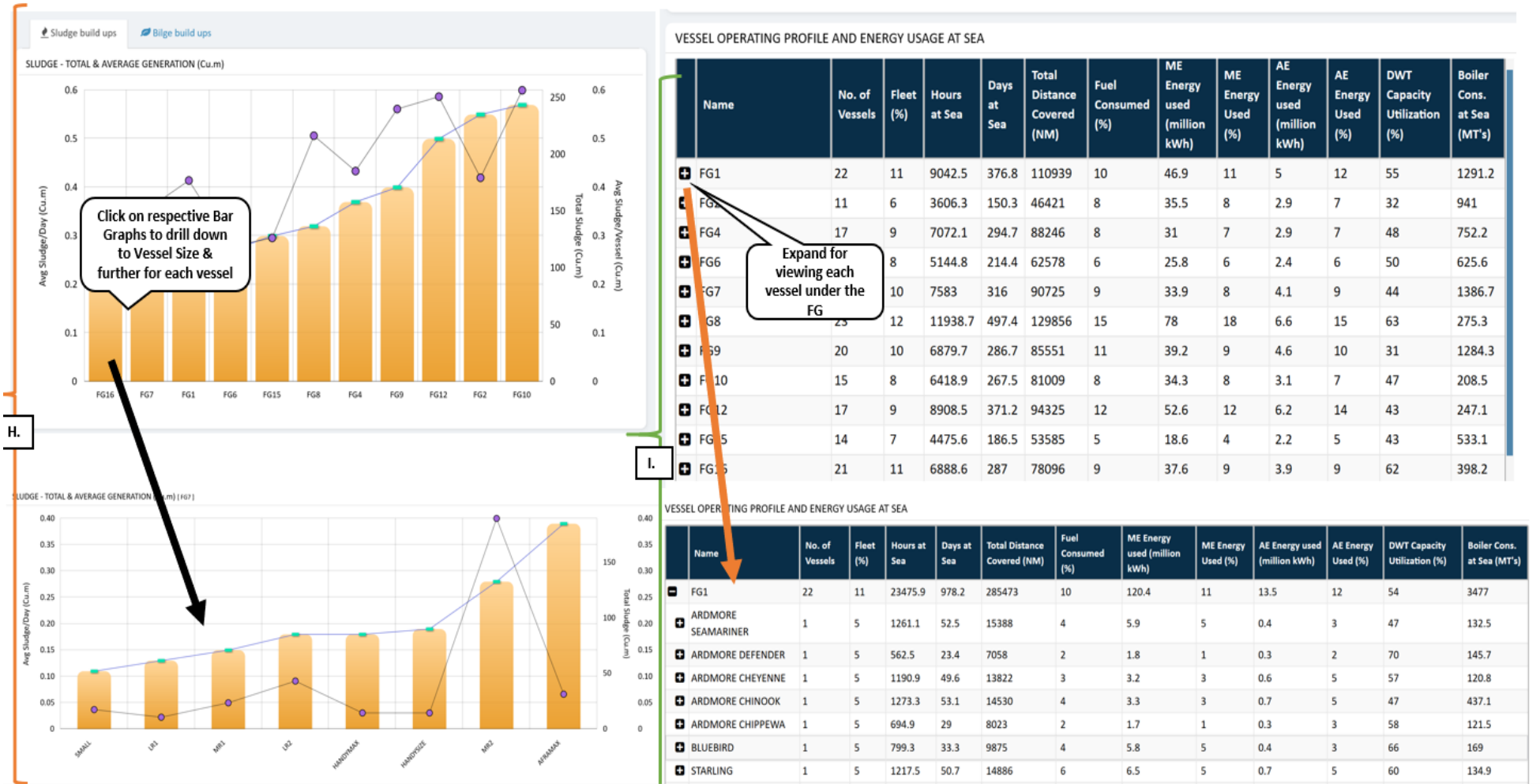
G. Quick Navigation to different Dashboards.

H. Sludge and Bilge generation (shown in next section)

-Drill down by clicking on the Bar graph to the vessel level.

I. Operating profile and Energy utilisation Fleet and individual vessel time at sea with energy and consumptions (shown in next section)

4.4.2 “Environment Dashboard” continued;



4.4.3 Executive Dashboard – Main and Aux Engine Dashboard

Main Engine

- View and compare ME Running Hours Vs Load
- Plot and compare sister vessels.
- ME Load and time distribution.

Auxiliary Engine

- Running Hrs Vs Load
- Create multiple vessel combinations to view running hours and Load over the selected period of time.



4.4.4 Executive Dashboard – Custom Comparison Dashboard

Create charts for comparing the different parameters and vessels performance can be with various combinations.

Speed Vs Main engine consumption

Users can select different vessels or same type / size of vessels to compare speed vs main engine consumptions at different drafts.

The dashboard allows to create custom combinations for various drafts to analyse speed and consumptions with 2nd degree regression.

Apply beaufort scale, speed and consumption range filters to obtain filtered range of data.

Main engine RPM vs Load

Create multiple vessel combinations to view their RPM and Load over the selected period of time.

Create as many charts to compare different types and sizes of vessels.

Download charts for using on your reports.

New Comparisons

You can advise the orion support team to add more combinations as desired.

The screenshot displays the 'Custom Comparison Dashboard' for 'Tanker > LR1'. It features two line charts with 2nd-degree regression lines. The top chart, 'Speed vs Main Engine Cons', plots Main Engine Consumption (MT) on the y-axis (0-40) against Speed (Kts) on the x-axis (8-16). The bottom chart, 'Main Engine Load vs Main Engine RPM', plots Main Engine RPM on the y-axis (0-150) against Main Engine Load (%) on the x-axis (34-84). The dashboard includes a sidebar with filters for Report, Draft Bands (5.5-14.22 m), Vessel Type (Tanker selected), Vessel Size (LR1 selected), and Range (16 Apr 2019 to 16 Feb 2020). A callout box at the bottom right contains a book icon and the text: "Click here to access Custom Comparison Dashboard".

“Click here to access Custom Comparison Dashboard”

4.4.5 Fleet Alerts Dashboard

Alerts Dashboard [Reporting Status & Critical Parameters alerts till 21 May 2020]

Number of Vessels with Delayed Reports

	Sea & Port Reports	ME Performance	AE Performance	Sludge & Bilge Waste Mgt	Marpol Seal Log	Garbage Log
FG1	0	10	0	2	20	3
FG2	0	3	1	0	8	3
FG4	0	4	1	0	10	3
FG6	1	4	1	0	10	3
FG7	1	7	2	1	13	3
FG8	0	2	0	0	17	3
FG9	1	7	4	0	16	3
FG10	0	3	1	1	9	3
FG12	1	2	1	0	14	2
FG15	0	0	0	0	13	2
FG16	0	5	1	1	12	4
TOM	0	0	0	1	0	1

LOW HIGH

Vessels 166 / 198

- Delayed Reports
- Ardmore Chinook - FG1 (2)
- Ardmore Chippewa - FG1 (1)
- Marpol Seal Log
- Ardmore Defender - FG1 (2)
- Ardmore Seamariner - FG1 (1)
- Ardmore Seavallant - FG1 (2)
- ME Performance
- Marpol Seal Log
- Ardmore Seavanguard - FG1 (1)
- Marpol Seal Log
- Ardmore Seaventure - FG1 (1)
- Bluebird - FG1 (1)

Open / Current Alerts (Speed Alerts)

Open Alerts Current Alerts Speed Alerts

Expand by clicking on Red Bars to view Open Alerts for Each Vessel under selected FG

Open Alerts

- Fresh Water Generation Alerts
- ME Cons Alerts
- AE Cons Alerts
- Boiler Cons Alerts
- MECYL Cons Alerts
- Split All

Wedgeage

Open Alerts

SAI CALACA
NAVIGATOR VENUS
NAVIGATOR FLUID
STENA OCEA
ETL ANAK
ETL NEYFAR
ETL MARSH
STENA MARALE
ONEMILLA NEW ORLEANS
ONEMILLA MARITONIA
ONEMILLA HONGKONG
NAVIGATOR MEXI
NAVIGATOR GLOBAL
NAVIGATOR ALANK
NAVIGATOR OCEAN
NAVIGATOR SATURN
NAVIGATOR METEOR
NAVIGATOR EXPANSION

Fleet wise reporting status for all the reports as an insight for the vessel managers and management.

A. Delayed Reporting Status: Color coded from Low to High basis the Number of Vessels with delayed reports for flwg modules;

- Sea and port reports,
- Main and Aux Engine Perf. Reports,
- Sludge & Bilge reports,
- MARPOL Seal log status,
- Garbage Log.

B. Alerts Open, Latest and Overall status: Option for selecting flwg Desired Parameters for viewing the Open Alerts and drill down to Vessel List under respective FG

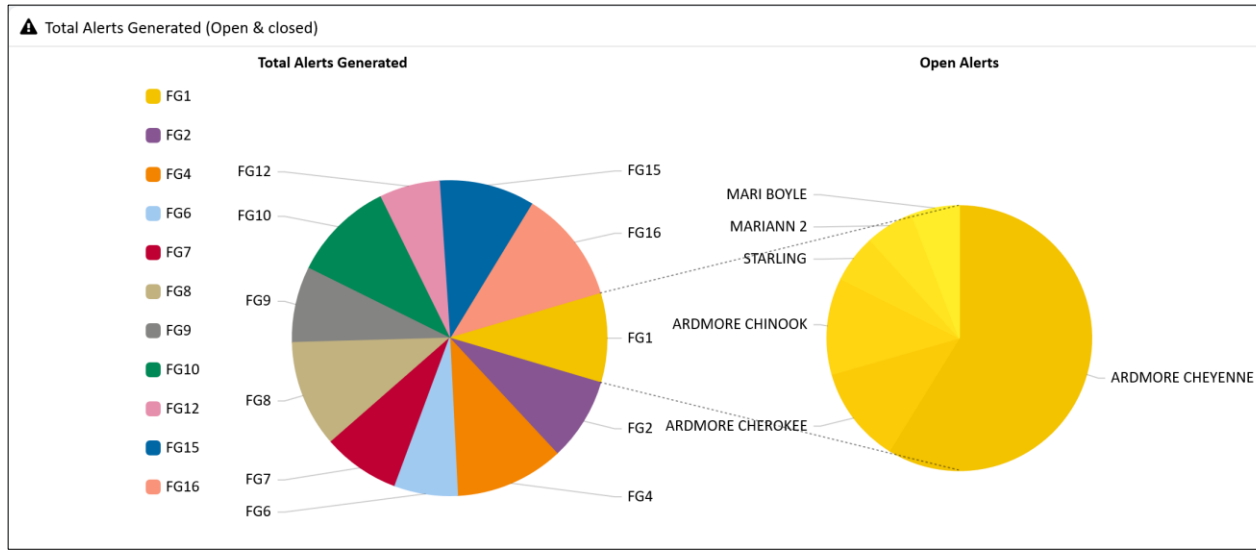
- Speed,
- Main and Aux Engine Cons,
- Boiler Consumptions,
- MECYL Cons,
- Fresh Water Generation.

Click on the Numbers to view the Vessel List for respective FG

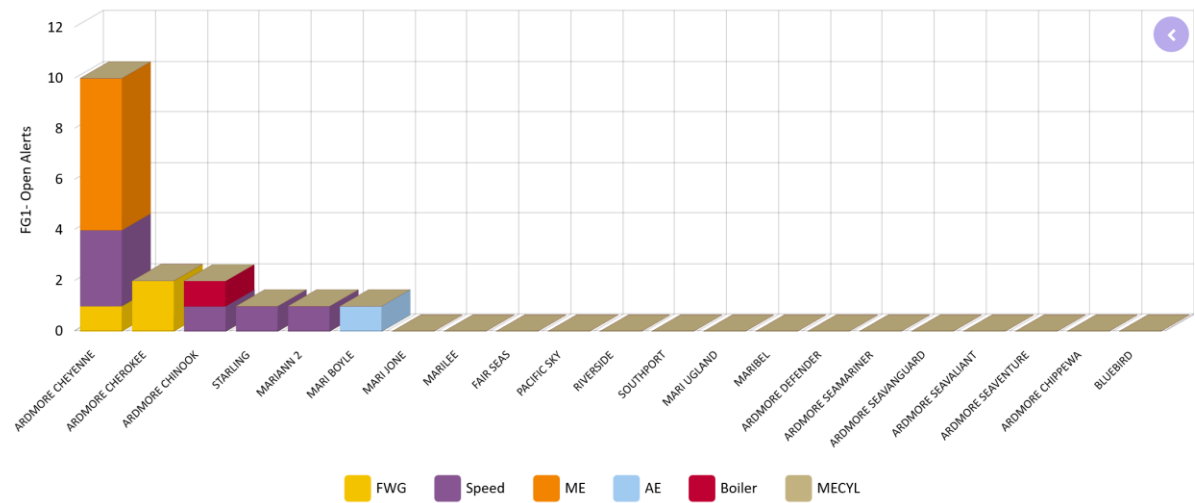
Click on the Number to view list

Choose desired Parameter for viewing the Alerts from Drop Down

4.4.5 Fleet Alerts Dashboard *Continued..*



▲ Total Alerts Generated (Open & closed)



4.4.6 Vessel Dashboard

Vessel - ARDMORE CHEROKEE [Reporting Status, Alerts, Voyage & Rolling Performance Analysis between - 22 Feb -2020 to 22 May -2020]

REPORTING STATUS

- Main Engine Performance 13 May 2020 13:00
- Sludge & Bilge Waste Management 21 May 2020 12:00
- Marpol Seal Log No Record
- Sea & Port Reports 21 May 2020 12:00
- Auxiliary Engine Performance 30 Apr 2020 10:00
- Garbage Log 20 May 2020 19:00

OPEN ALERTS

- Speed 0
- ME Consumption 0
- AE Consumption 0
- Boiler Consumption 0
- Fresh Water Gen. 3
- MECYL 0

TOTAL ALERTS

- Boiler Cons. - 0
- MECYL - 0
- AE Cons. - 4
- Speed - 13
- Fresh Water Gen. - 25

VOYAGE STATUS VOYAGE NO. [30231 - 20 B]

DEPARTURE

Davao (BIY), PHILIPPINES (PH) | 16 May 2020 21:30

Distance Covered: 1392 nm / Distance To Go: 371 nm

Mab Tapud (MAT), THAILAND (TH) | 22 May 2020 20:00

ETA

DEP draft F / A : 4.8 / 6.6 in mtrs
Cargo Onboard: In Ballast
Displacement: 17428 MT's

Last Reported: 21 May 2020 12:00

Departure Report | Noon At Sea | Daily Engine Parameters | Arrival Report | Daily Engine | Port Reports | Leg Complete

Filters [Single Selection]

Vessel

- Principal
- Fleet Group
- Vessel Type
- Vessel Size

Search...

- ★ ARDMORE CHEROKEE
- ★ ALCYONE T
- ★ ANDREA VICTORY
- ★ ARDMORE CHEYENNE

TimeStamp

Start Date: 22-Feb-2020 End Date: 22-May-2020

Reset Apply

Voyage Report

Voyage Report

Ardmore Cherokee

Vessel's operational overview:

- A. Current Reporting Status
- B. Open alert conditions and total alerts generated.
- C. Filter: Click to select a single vessel and set Date Range for the data.
- D. Recap of the latest voyage
- E. Generate voyage report

4.4.6 Vessel Dashboard Continued..

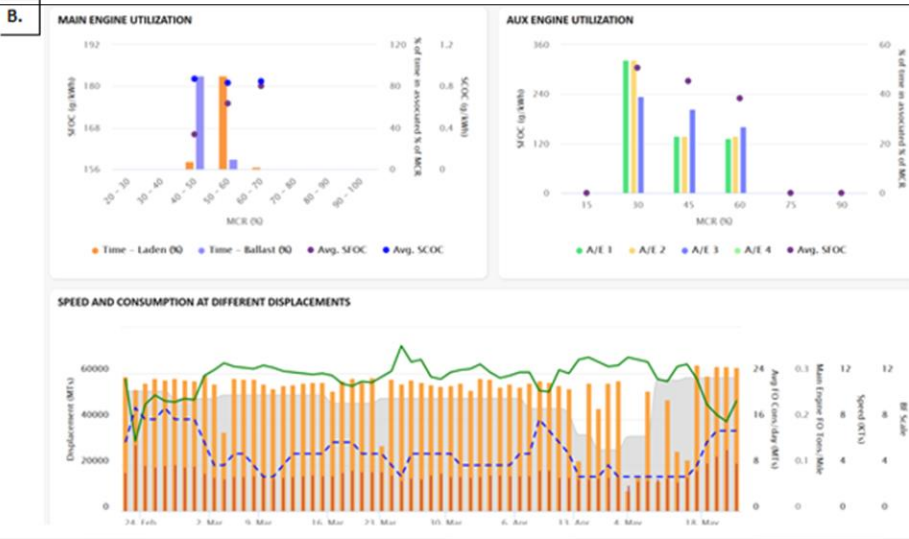
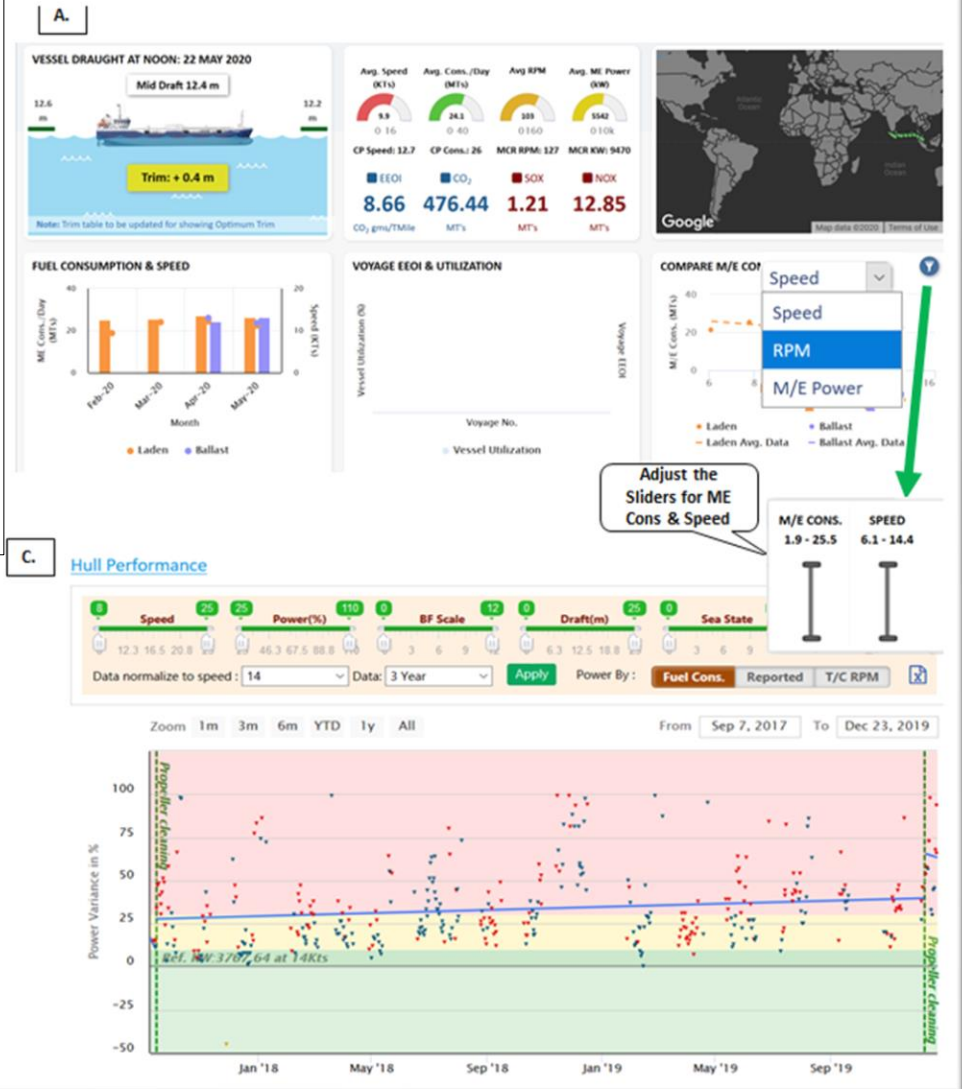
A. Quick View of the flwg;

- Fuel Cons Vs Speed Analysis
- Voyage EEOI and capacity Utilization
- Vessel Draught at Noon
- ME Cons Vs Various Parameters (select from the drop down menu)
- Emissions, EEOI and Avg. Consumption Data for the selected time period.
- Vessel Route on Map

B. Main Engine & Aux Engine Utilization

C. Vessel's operational overview for:

- Speed and Consumption at different displacements
- Hull and propeller performance post docking, hull cleaning and propeller polishing.

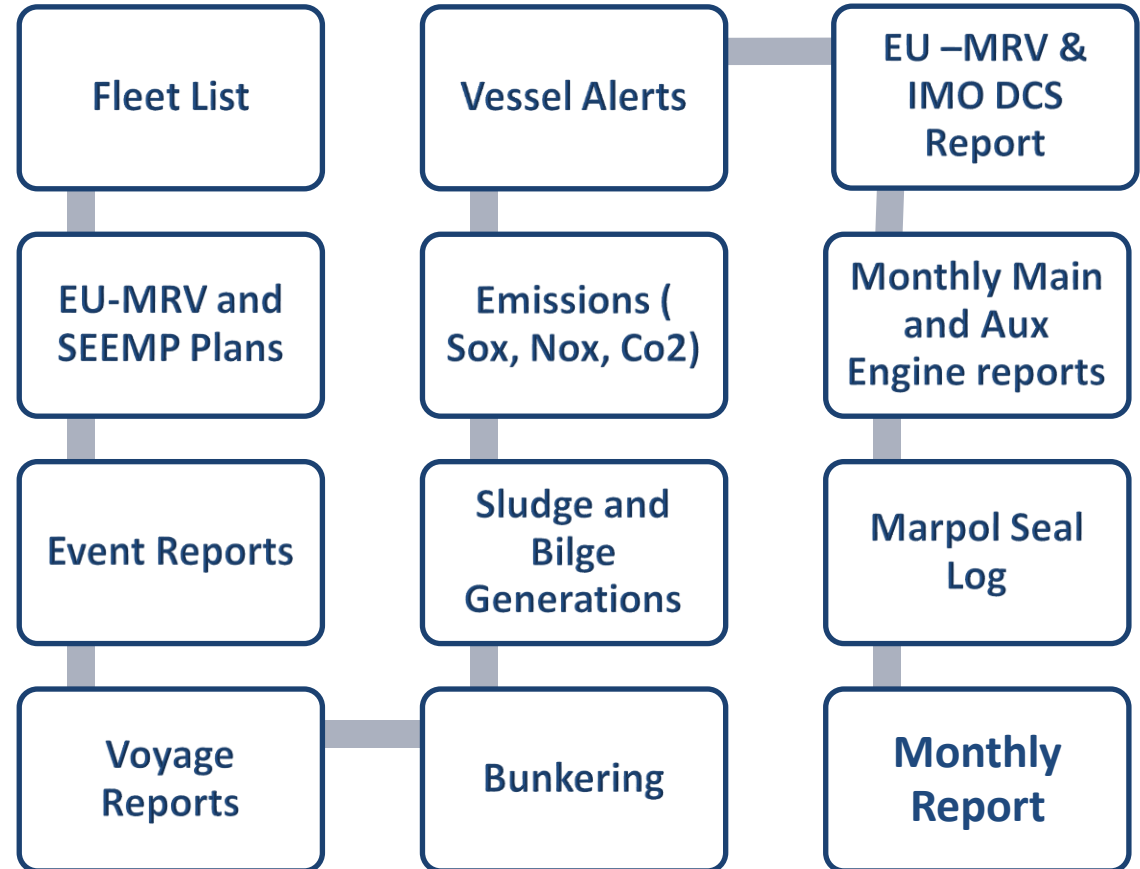


4.5 REPORTS

4.5.1 Features and Reports

Features

1. **Fleet List:** List of all the vessels with their respective details.
2. **EU MRV, SOC's & SEEMP Plans:** Ready to view and download from this section.
3. **Event Reports** for the flwg;
 - **Event:** Captures Daily Noon & MEP Report Data
 - **Voyage:** Voyage Abstracts for the selected Voyage with Speed Consumption Analysis and Calculations
 - **Bunker Report** recording all Bunker Intakes, BDN Receipts and Bunker Analysis Report available for downloading
 - **Consolidated Report** captures all the parameters like; Emissions, Consumptions etc.
4. **Waste Management Report** for Sludge & Bilge Generations & Garbage Disposals
5. **IMO DCS & EU-MRV Reports**
6. **Engine Performance Reports** for ME & AE encapsulating the Static Data, Performance Logs and Monthly Reports.
7. **MARPOL Seal Log** includes Series Lists, Seal Status, Spare Seal Inventory, Equipment etc.
8. **Vessel Alerts:** List of all Open Alerts for respective Fleet Groups
9. **Monthly Report** for ME & AE Performance, CP Speed & Consumption Analysis, Hull Performance & EEOI



4.5.2 Various Report Snapshots

Date	Location	Center_LUB OIL RENOVATING TANK (20.70)	Port_LUB.OIL FUEL OIL DRAIN TANK (15.30)
22 May 2020	At Sea	0.00	0.50
21 May 2020	At Sea	0.00	0.90
20 May 2020	At Sea	0.00	1.10
19 May 2020	At Sea	0.00	1.10
18 May 2020	At Sea	0.00	0.40
17 May 2020	At Sea	0.00	0.30
16 May 2020	At Sea	0.00	0.20
15 May 2020	At Port	0.00	0.20

AE Actual	vesselname	Voyage ID	Voyage No.	Voyage Type	Date	Latitude	Longitude	Event
8 Tank cleanin...	Agnes Victory	24	14	L	22 Apr 2020 05:48	26°44'N	154°17'W	LOSP
	Agnes Victory	24	14	L	22 Apr 2020 11:42	27°26'N	153°57'W	Port Maneuver...
	Agnes Victory	24	14	L	22 Apr 2020 12:00	27°26'N	153°57'W	At Sea - At Berth
	Agnes Victory	24	14	L	22 Apr 2020 21:24	27°15'N	153°57'W	DEF SDE from Berth
	Agnes Victory	25	15	B	23 Apr 2020 02:30	25°51'N	154°11'W	COSP
	Agnes Victory	25	15	B	23 Apr 2020 12:00	25°51'N	154°11'W	NOON - At Sea
8 Tank cleanin...	Agnes Victory	25	15	B	24 Apr 2020 12:00	19°50'N	154°51'W	NOON - At Sea
3 Tank cleanin...	Agnes Victory	25	15	B	25 Apr 2020 12:00	15°45'N	152°34'W	NOON - At Sea
3 Tank cleanin...	Agnes Victory	25	15	B	26 Apr 2020 12:00	10°45'N	152°05'W	NOON - At Sea
3 Tank cleanin...	Agnes Victory	25	15	B	27 Apr 2020 12:00	06°45'N	148°53'W	NOON - At Sea
	Agnes Victory	25	15	B	28 Apr 2020 12:00	03°13'N	144°34'W	NOON - At Sea
	Agnes Victory	25	15	B	29 Apr 2020 12:00	00°40'N	139°54'W	NOON - At Sea
	Agnes Victory	25	15	B	30 Apr 2020 12:00	01°46'N	135°28'W	NOON - At Sea
4 Ballasting/D...	Agnes Victory	25	15	B	01 May 2020 12:00	03°57'N	131°30'W	NOON - At Sea

4.5.3 Report Useful Features

1. **Extract** to Excel or Pdf.
2. **User Views;** Combine desired columns and create your own personalized report formats.
3. **Filters;** Each column header has its filter.
4. **Change Column position;** User can drag and drop to change to column position.
5. **Email;** The reports can be emailed directly from the system.
6. **Worksheets;** Users can create worksheets and share across with other users.
7. **Alerts;** The column content or headers are coloured/shaded to depict any deviation from the parameters.
8. **Multiple consolidated view;** For large screens the users can view multiple blocks of reports together.

The screenshot displays a data table with columns: Voyage Type, Latitude, Longitude, Event, Port, Port Code, String Hours, Distance (nm), and Log Distance. The table shows data for dates 18, 12, 10, 14, 10, 10, 25, 25, and 27 Apr 2020 12:00. A 'Manage View' dialog box is open, allowing users to edit parameters and view names. The dialog includes a search bar, a list of parameters to include (all checked), and buttons for Delete, Cancel, and OK. Callout boxes provide instructions: 'Click on this Filter icon to Edit the User View' points to a filter icon in the top right; 'Click to Export the Report in Excel' points to an 'Export To Excel' button in a dropdown menu; and 'Click "OK" to save changes' points to the OK button in the dialog.

Bad Wx	Speed	ME Cons	AE Cons	Boiler Cons
14	6	10	10	

Voyage Type	Latitude	Longitude	Event	Port	Port Code	String Hours	Distance (nm)	Log Distance
L								
L								
L								
L								
B								
B								
B								
B								
B								
B								
B								
B								
B								

25	15	25 Apr 2020 12:00	B					
25	15	26 Apr 2020 12:00	B					
25	15	27 Apr 2020 12:00	B					

Manage View

Sample View

vesselname
 Voyage ID
 Voyage No.
 Voyage Type
 Date
 Latitude
 Longitude
 Event
 Port
 Port Code
 String Hours
 Distance (nm)
 Log Distance
 CP Speed (KT's)

Edit the Parameters / View Name as required

Delete Cancel OK

Click on this Filter icon to Edit the User View

Click to Export the Report in Excel

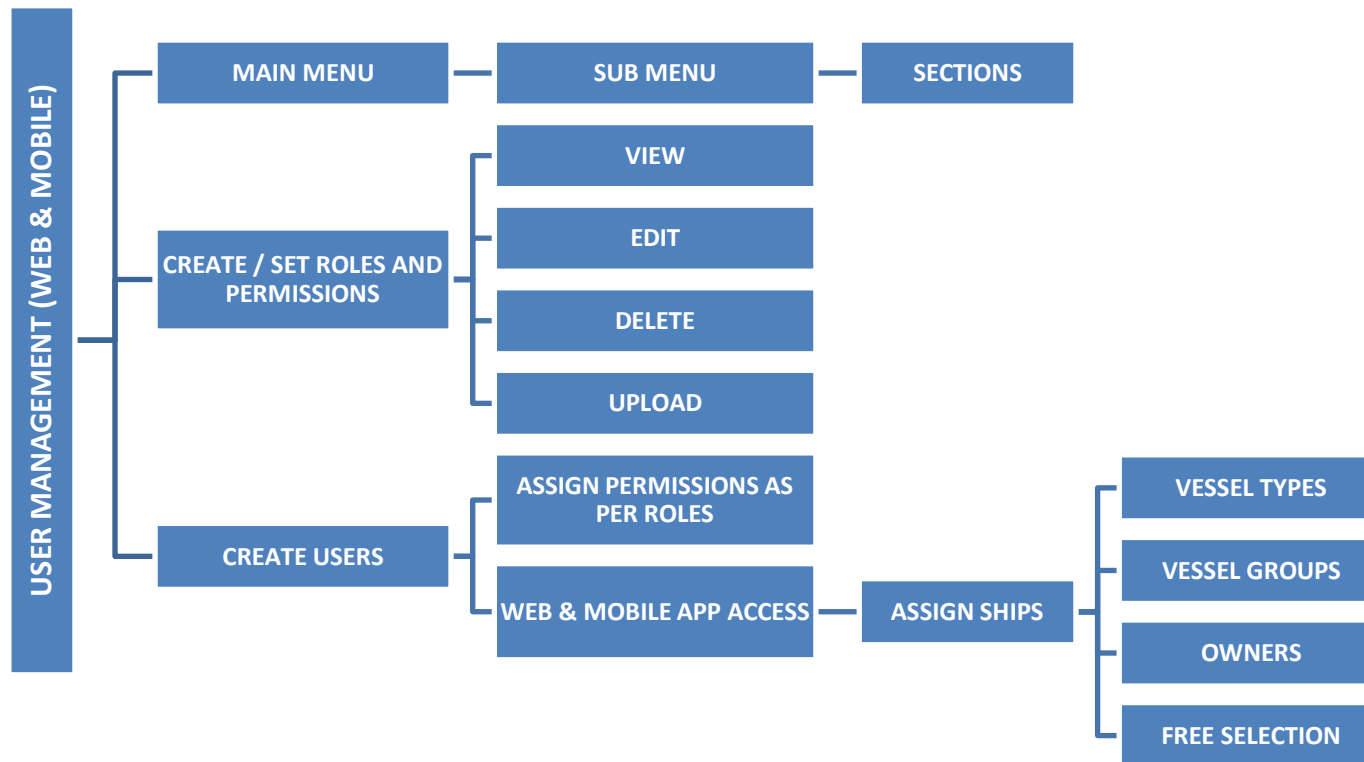
Export To Excel
Columns
Reset
Refresh
Email

Click "OK" to save changes

5. ADMINISTRATIVE FUNCTIONS

5.1 USER MANAGEMENT

User management is an administrative function and maintained with very strict controlled access. The user management section maintains records/logs for web access and mobile app access with date, time and location history of the users to ensure secure logins. User sections are recorded and controlled for access from a single login at any time. The mobile APP is also controlled in number of devices and allowed devices to be used. The user can request for more than one device access on the Mobile APP, however Web access is single sign in at any time. The below diagram shows the entire process as simplified and carried out by the administrator.




5.2 SUPPORT MODE

This area provides complete overview of the reporting status including but not limited to;

1. Reporting status,
2. Auto Synchronization status; Missing exports, last updates from vessels,
3. Reset requests;
 - a. Waste Management,
 - b. Garbage Management,
 - c. MARPOL Seal Log,
 - d. Correction Patches,
 - e. Ship system restore,
 - f. Adding, Amending, updating vessel specific information,
 - g. Static Benchmark data for ships.

Vessel Particulars and Reporting Status

Version [...] Reset [...] Export [[Delayed : 8](#) | [Missing ZIP : 1](#)]  Delayed [...] Patch [...]

Action	Vessel ID	Vessel Name	Vessel Email	Patch Execution	Shore Execution	Vessel Version
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