

|                                                                                                                  |                                                                             |                                    |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b><u>NAU (Ver 2.0) – Vessel Performance Monitoring and Measurement</u></b> |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1                                            | Page: 1 of 21                      |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal                                               | Approved by: Capt. Mohit Sabharwal |



## **Welcome to NAU (Ver 2.0) – VPRMS**

***“Vessel Performance Monitoring and Measurement”***

**DNV GL  Type Approved Cert. No.: 20 306 - 11 HH**

|                                                                                                                  |                                             |                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                        |                                           |
|                                                                                                                  | <b>Dated:</b> 19-05-2015 <b>Revision:</b> 1 | <b>Page:</b> 2 of 23                      |
|                                                                                                                  | <b>Prepared by:</b> Ms. Mamta Kanyal        | <b>Approved by:</b> Capt. Mohit Sabharwal |

|                                                                         |    |
|-------------------------------------------------------------------------|----|
| Purpose of the system: .....                                            | 3  |
| Login Screen:.....                                                      | 3  |
| Section definitions and their use: .....                                | 5  |
| a) Compact Dashboard.....                                               | 5  |
| b) Benchmark table and other important entries for a vessel:.....       | 5  |
| c) Alert System: .....                                                  | 8  |
| d) Performance & analysis: .....                                        | 11 |
| I) Alerts:.....                                                         | 11 |
| ii) Vessel Performance: .....                                           | 13 |
| iii) Emission: .....                                                    | 15 |
| IV) Distance & Consumption: .....                                       | 15 |
| V) Voyage reports: .....                                                | 16 |
| VI) Periodical Data:.....                                               | 19 |
| e) Selecting vessel for viewing Particulars and historic reports: ..... | 20 |
| f) Sea and Port reports for the selected:.....                          | 21 |
| Other Alerts & notification: .....                                      | 22 |
| a) Alert for not receiving any report in the last 48 Hrs. ....          | 22 |
| b) Alert for Missing Export files,.....                                 | 22 |
| c) Missing engine parameter, .....                                      | 22 |
| d) Daily email consolidated report for vessel Performance.....          | 23 |

|                                                                                                                  |                                                                      |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU (Ver 2.0) – Vessel Performance Monitoring and Measurement</b> |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1                                     | Page: 3 of 21                      |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal                                        | Approved by: Capt. Mohit Sabharwal |

## 1. Purpose of the system:

As the name suggests vessel performance monitoring & measurement, this software is designed to analyse the performance of the vessel by generating various reports.

Also the system sets the bench mark for the alert system which comply with various other reports in the system. 01 Record must be submitted of the parameters.

## 2. Login Screen:



The login screen for VPRMS features a background image of a ship's propeller. It includes a title 'VPRMS', a 'USER NAME' input field with a person icon, a 'PASSWORD' input field with a key icon, a 'LOG IN' button, and a 'USER MANUAL' link. At the bottom, it displays 'Copyright © 2014 Orion Marine Concepts All Rights Reserved.', 'Certificate Number: 20 906 - 17 111', and the 'DNV GL' logo.

## 3. Initial Screen After Login:

| Vessel Performance System                                                                                                                       |               |                              |                            |                     |                  |                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------|----------------------------|---------------------|------------------|---------------------------|
| <div> Dashboard Benchmarking Vessel Alerts Performance &amp; Analysis </div> <div> Catherine_Mam Vessel Particulars Sea and Port Reports </div> |               |                              |                            |                     |                  |                           |
| Compact Dashboard                                                                                                                               |               |                              |                            |                     |                  |                           |
| Export as Excel                                                                                                                                 |               |                              |                            |                     |                  |                           |
| Vessel Name                                                                                                                                     | Voyage Number | From                         | To                         | Destination Country | ETA              | Next Port Agent           |
| Caly_Mam                                                                                                                                        | 56 40-L       | New Orleans, USA             | Santa Marta                | Colombia            | 05/12/2015 19:30 | Deep Blue Ship Agency     |
| Catherine_Mam                                                                                                                                   | 23 6-L        | FUJAIRAH UAE/BRAVO ANCHORAGE | WILMINGTON                 | NORTH CAROLINA USA  | 06/23/2015 18:00 | TBA                       |
| Densa_Alligator                                                                                                                                 | 58 17-B       | Singapore                    | Ras Laffan                 | Qatar               | 05/27/2015 07:30 |                           |
| Densa_Crocodile                                                                                                                                 | 13 DCRO 003-B | Mina Al Ahmadi, Kuwait       | Mina Al Ahmadi (Anchorage) | Kuwait              | 05/15/2015 22:12 |                           |
| Densa_Orca                                                                                                                                      | 62 23/2nd-L   | EL SEGUNDO                   | SAN                        | USA                 | 05/18/2015 09:00 | TRANSMARINE SAN FRANCISCO |

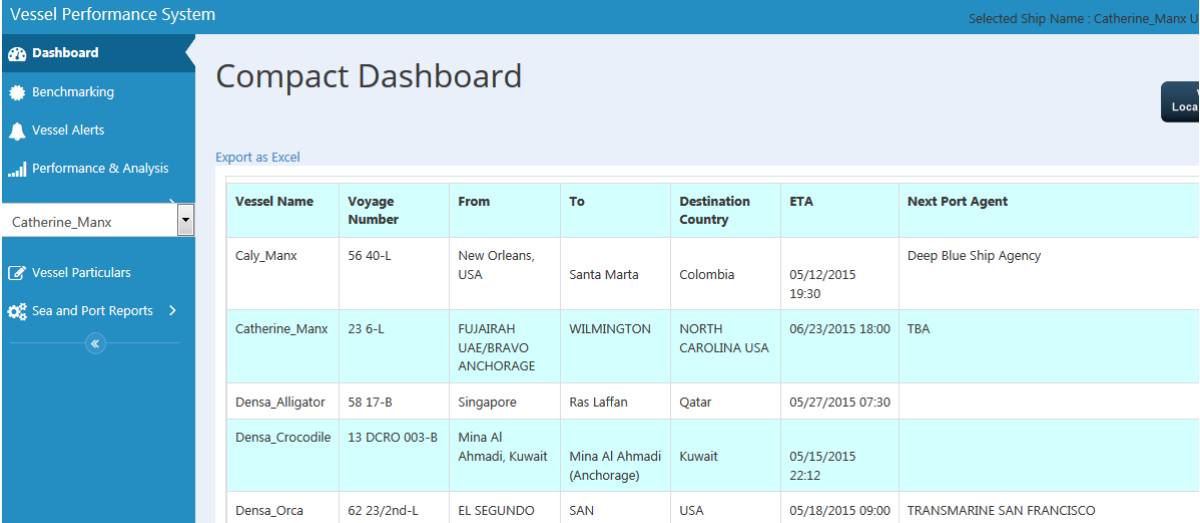
|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 4 of 23                      |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

## Introduction to the Menus:



## Section definitions and their use:

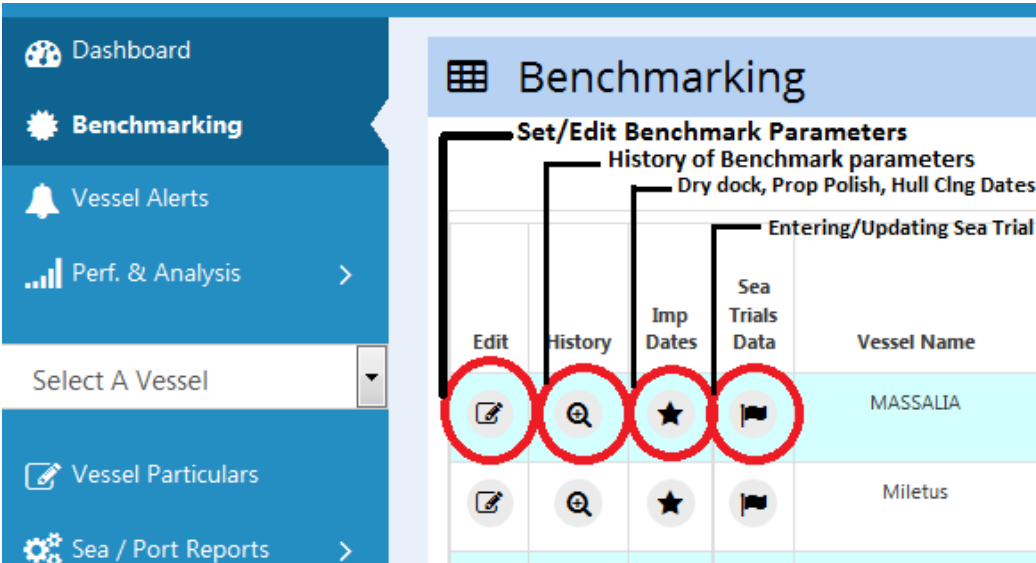
### a) Compact Dashboard



| Vessel Name     | Voyage Number | From                         | To                         | Destination Country | ETA              | Next Port Agent           |
|-----------------|---------------|------------------------------|----------------------------|---------------------|------------------|---------------------------|
| Caly_Manx       | 56 40-L       | New Orleans, USA             | Santa Marta                | Colombia            | 05/12/2015 19:30 | Deep Blue Ship Agency     |
| Catherine_Manx  | 23 6-L        | FUJAIRAH UAE/BRAVO ANCHORAGE | WILMINGTON                 | NORTH CAROLINA USA  | 06/23/2015 18:00 | TBA                       |
| Densa_Alligator | 58 17-B       | Singapore                    | Ras Laffan                 | Qatar               | 05/27/2015 07:30 |                           |
| Densa_Crocodile | 13 DCRO 003-B | Mina Al Ahmadi, Kuwait       | Mina Al Ahmadi (Anchorage) | Kuwait              | 05/15/2015 22:12 |                           |
| Densa_Orca      | 62 23/2nd-L   | EL SEGUNDO                   | SAN FRANCISCO              | USA                 | 05/18/2015 09:00 | TRANSMARINE SAN FRANCISCO |

Compact Dashboard provides information for the ongoing Leg of the vessel with Departure port and destination port/country alongwith ETA and agent's details as reported by the vessel.

### b) Benchmark table and other important entries for a vessel:



| Benchmarking                                                                        |                                                                                     |                                                                                     |                                                                                       |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| Set/Edit Benchmark Parameters                                                       |                                                                                     |                                                                                     |                                                                                       |             |
| History of Benchmark parameters                                                     |                                                                                     |                                                                                     |                                                                                       |             |
| Dry dock, Prop Polish, Hull Cng Dates here.                                         |                                                                                     |                                                                                     |                                                                                       |             |
| Entering/Updating Sea Trial Data.                                                   |                                                                                     |                                                                                     |                                                                                       |             |
| Edit                                                                                | History                                                                             | Imp Dates                                                                           | Sea Trials Data                                                                       | Vessel Name |
|  |  |  |  | MASSALIA    |
|  |  |  |  | Miletus     |

The benchmark table is the start point the Alert system along with other important aspects

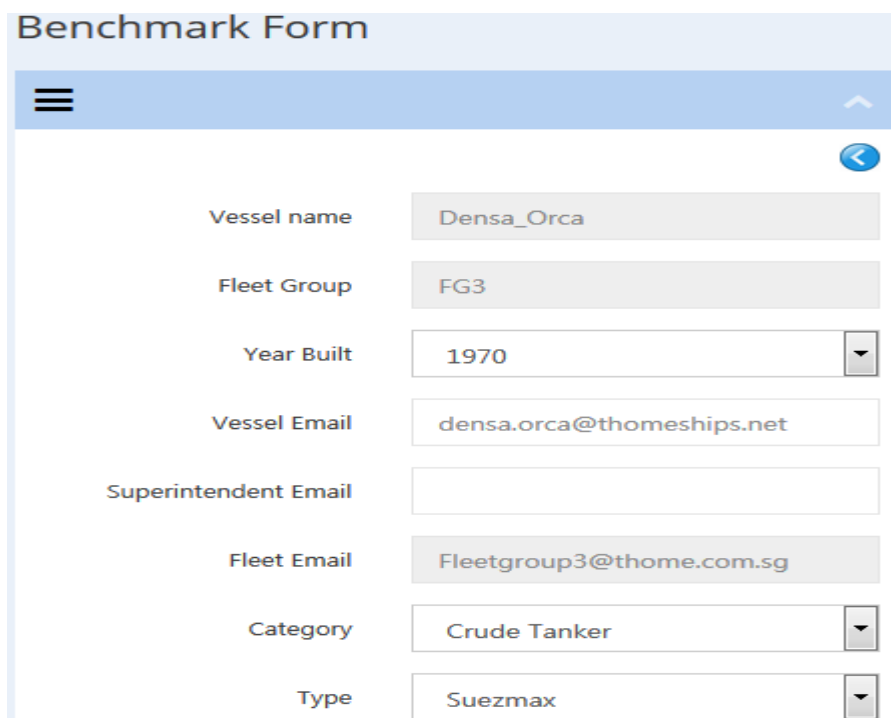
|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 6 of 23                      |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

for each vessel and has to be managed by the fleet groups for their respective vessels and will bear the following:

- The list of parameters defined for the vessel basis which the alerts will be generated.
- This table will be aligned for entering all other including; pitch, Email ids.

**i) Form for setting Benchmark parameters:**

CLICK <<BENCHMARK<<CLICK EDIT (FIRST COLUMN)



**The following parameters can be set using the bench mark Form:**

1. Speed
2. IFO & MDO consumption
3. Cylinder Oil consumption
4. Fresh water Generation
5. Other may be added as per requirement.

For 1 & 2 above, CP is Chosen by default but can be set otherwise also.

**Other Important Inputs (one time & others);**

1. Superintendent's email;
2. Year Built,
3. Vessel Category ,

|                                                                                                                  |                                             |                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                        |                                           |
|                                                                                                                  | <b>Dated:</b> 19-05-2015 <b>Revision:</b> 1 | <b>Page:</b> 7 of 23                      |
|                                                                                                                  | <b>Prepared by:</b> Ms. Mamta Kanyal        | <b>Approved by:</b> Capt. Mohit Sabharwal |

4. Vessel Type,
5. Pitch,
6. Flow Meter; Y or N,
7. Torque Meter; Y or N,

**ii) Bench marking history:**

**Benchmark History Table**

Vessel Name : Front Page

10 Records per page

Search:

| Torque Meter | Flow Meter | BF | FWG | Laden |         |         |             |          | Ballast |         |         |             |          | Date of Creation    |
|--------------|------------|----|-----|-------|---------|---------|-------------|----------|---------|---------|---------|-------------|----------|---------------------|
|              |            |    |     | Speed | Cons ME | Cons AE | Cons Boiler | Cyl Cons | Speed   | Cons ME | Cons AE | Cons Boiler | Cyl Cons |                     |
| X            | X          | CP | 25  | CP    | CP      | CP      | CP          | 500      | CP      | CP      | CP      | CP          | 500      | 4/8/2015 9:36:03 AM |
| X            | X          | CP | 25  | CP    | CP      | CP      | CP          | 500      | CP      | CP      | CP      | CP          | 500      | 4/8/2015 8:23:19 AM |
| X            | X          | CP | 122 | CP    | CP      | CP      | CP          | 500      | CP      | CP      | CP      | CP          | 500      | 4/8/2015 8:21:28 AM |
| X            | X          | CP | 122 | CP    | CP      | CP      | CP          | 12       | CP      | CP      | CP      | CP          | 14       | 4/8/2015 8:16:27 AM |
| X            | X          | CP | 122 | CP    | CP      | CP      | CP          | 12       | CP      | CP      | CP      | CP          | 14       | 4/8/2015 8:09:16 AM |

1 - 5 of 5

Prev 1 Next

*This table maintains the historic Records for the changes made to the Vessel Benchmark parameters, with the date & time.*

**iii) Important dates:**

Date vessel was taken over, last Dry docking, hull cleaning & propeller polishing.

**Densa\_Orca**

**Vessel Details**

Build Date:

Date of Entry into Management:

|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 8 of 23                      |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

#### iv) Sea trial data:

Input available for Sea Trials carried out in Laden/Ballast conditions and for various BF scale value as applicable.

 **Sea Trials Data**

**Density**

**BF Scale**

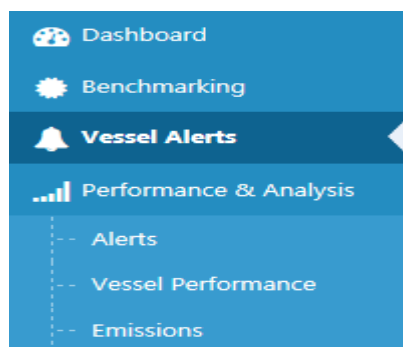
Edit

| Delete | Speed | ME   | AE   | BLR  | Tons/Mile |
|--------|-------|------|------|------|-----------|
| Delete | 0.00  | 0.00 | 0.00 | 0.00 | 0.00      |

Engine Details    Max

| MCR (%) | KW |
|---------|----|
| 0       | 0  |

#### c) Alert System:



To start the Alert system, the FG has to notify the system Admin / Orion Marine to start/stop the alerts for a vessel.

Once activated by the admin the Parameters have to be Set/Submitted on the Benchmark table for the alerts to trigger.

The alert system is based on an auto run exe which is scheduled for every morning.

The alert service runs once a DAY for the vessels and sends this email to the Superintendent and/or the Fleet Group and further the Hierarchical chain as per the resolution time setting and the Vessel as notification.

#### The email bears;

1. ONLY the vessels which have generated the latest Alerts,
2. Total number of Open Alerts on the system,
3. Link to go online to the Alert Management section to resolve the alerts.

|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 9 of 23                      |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

The alert system has been set to three levels;

**LEVEL – 1 Alert;** an alert on email to the Superintendent and the Vessel with the details of the vessel which has generated the alert and the affected parameter.

The alert bears a link called; “RESOLVE ALERTS”, click on the same to take to the online area for recording reason for the Alert and closing the same.

Level - 1 Alert:Under Performance





1

Good Day,  
This is an alert from Nau New Alert System under Test.  
Please find the alert generated for below listed vessels.

| LATEST ALERTS : <a href="mailto:msabharwal@orionmarineconcepts.com">msabharwal@orionmarineconcepts.com</a> |              |        |       |         |           |             |
|------------------------------------------------------------------------------------------------------------|--------------|--------|-------|---------|-----------|-------------|
| Date                                                                                                       | Vessel Name  | Voyage | Speed | ME Cons | AE Cons   | Boiler Cons |
| 04/09/2015                                                                                                 | Front_Falcon | 65     | -     | -       | 0.7   0.1 | -           |

Total Open Alerts : 1

You are requested to take necessary action by clicking the following link: [Resolve Alerts](#)  
Guidelines for alert system are attached for your quick reference and please find the following link : [Benchmark](#)

**LEVEL – 2 Alert;** Incase the Superintendent doesn't close the alert in 3 days the LEVEL 2 alert is generated to the Fleet Group Manager notifying the same.

Similar email but with multiple ships incase there are other vessels with active alerts.

**LEVEL – 3 Alert;** Incase the Alert remains active for more than 7 days, the Senior management is notified of the same in the similar email.

Good Day,  
This is an alert from Nau New Alert System under Test.  
Please find the alert generated for below listed vessels.

| LATEST ALERTS : Top Management |              |        |               |              |            |             |                   |               |       |
|--------------------------------|--------------|--------|---------------|--------------|------------|-------------|-------------------|---------------|-------|
| Date                           | Vessel Name  | Voyage | Speed         | ME Cons      | AE Cons    | Boiler Cons | Cylinder Oil Cons | FW Generation | BF    |
| 05/12/2015                     | Front Page   | 101    | 12.21   13.00 | -            | -          | -           | -                 | 20   25       | 6   4 |
| 05/12/2015                     | Front_Falcon | 68     | 11.87   13.00 | -            | -          | -           | -                 | -             | -     |
| 05/12/2015                     | Front_Force  | 62     | 12.44   12.50 | 55.9   55.00 | 6.7   4.90 | -           | -                 | -             | -     |
| Total Open Alerts : 3          |              |        |               |              |            |             |                   |               |       |

You are requested to take necessary action by clicking the following link: [View Alerts](#)  
Guidelines for alert system are attached for your quick reference and please find the following link : [Benchmark](#)

The alert bears a link called; “RESOLVE ALERTS”, click on the same to take to the online area for recording reason for the Alert and closing the same.

|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 10 of 23                     |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

## STEP BY STEP GUIDELINES TO HANDLE VESSEL ALERTS:

**STEP 1:** Generation of email alert for under performance.

Level - 1 Alert:Under Performance

Good Day,  
This is an alert from Nau New Alert System under Test.  
Please find the alert generated for below listed vessels.

| LATEST ALERTS : <a href="mailto:msabharwal@orionmarineconcepts.com">msabharwal@orionmarineconcepts.com</a> |              |        |       |         |           |             |
|------------------------------------------------------------------------------------------------------------|--------------|--------|-------|---------|-----------|-------------|
| Date                                                                                                       | Vessel Name  | Voyage | Speed | ME Cons | AE Cons   | Boiler Cons |
| 04/09/2015                                                                                                 | Front_Falcon | 65     | -     | -       | 0.7   0.1 | -           |

Total Open Alerts : 1

You are requested to take necessary action by clicking the following link [Resolve Alerts](#)  
Guidelines for alert system are attached for your quick reference and please find the following link : [Benchmark](#)

**STEP 2:** Click on Resolve Alert to go to the online alert panel to view & manage alert.

Fleet Group : All ( Open Alerts) From : 01/02/2015 To : 04/02/2015

10 Records per page

| Vessel Name    | FWG   | Speed | Cons ME | Cons AE | Cons Boiler | Cyl Cons | Status                         |
|----------------|-------|-------|---------|---------|-------------|----------|--------------------------------|
| Argos          | 1   1 | 1   1 | 1   1   | -       | -           | 1   1    | <a href="#">Resolve Alerts</a> |
| Front Serenade | -     | 1   1 | 1   1   | -       | -           | 1   1    | <a href="#">Resolve Alerts</a> |

Resolved Unresolved

**STEP 3:** Enter remarks & reason, change the status and close the alert.

Vessel Name: Argos

10 Records per page

| Date       | Voyage | FWG      | Speed    | Cons ME   | Cons AE    | Cons Boiler | Cyl Cons | BF    | Level         | Pending days | Reason | Action | Alert Status |
|------------|--------|----------|----------|-----------|------------|-------------|----------|-------|---------------|--------------|--------|--------|--------------|
| 02/20/2015 | 40     | 103   52 | 5   12.3 | 40   12.3 | 625   32.9 | 9   3.6     | 396   34 | 3   4 | 1   1   5   9 | 42           |        |        |              |

1 - 1 of 1

Reported Parameter Causing Alert: FWG  
Benchmark Parameter: Speed

Vessel Notified  
Supt. Notified  
FGM NOT notified  
Sr. Mgt. Not Notified.

Enter Reason for the Alerts

Select Resolved

Resolved  
Need more time  
Resolved

Open

Click to Change Status to Closed

The vessel has Main Engine and FWG Failure.

Resolved Closed

|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 11 of 23                     |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

#### Alert Management area;

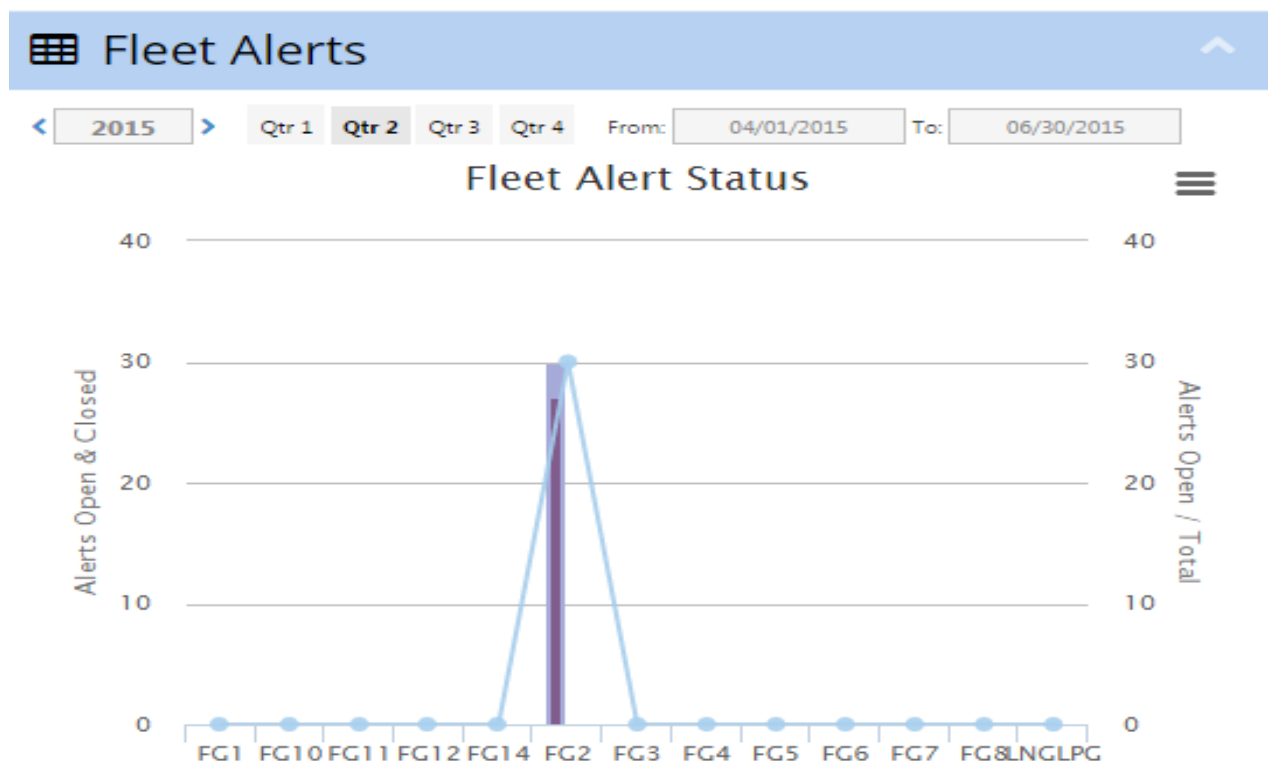
- the status of their Vessels alerts in order to remark accordingly and proceed to Close by selecting Resolve or can select other option of Need More Time
- Effectuated Parameters list the RIGHT SIDE Blue Values indicate the BENCHMARK values and Left are the reported values.
- List shows the number of days in which the Alert was marked as resolved/running counter till resolved.
- Level field shows values of “0” and “1” for the various hierarchy, depicting to which level the mail was sent, 0 for not sent, 1 for sent, above case 1 showing TOP Management was not Alerted and the lower record shows all parties were alerted.

#### d) Performance & analysis:

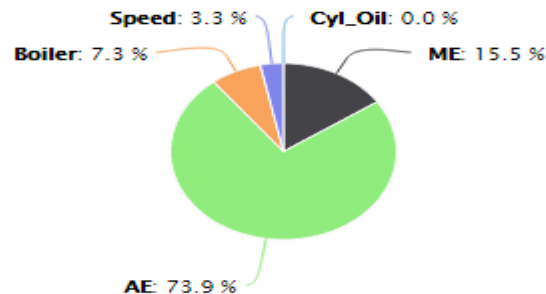
##### 1) Alerts:

Fleet Group Analysis towards Total Alerts vs. Open Alerts and their Average.

Click on the desired Fleet Group Bar to drill down to Each Vessel status.



## Quantifying Alerts to Potential Savings

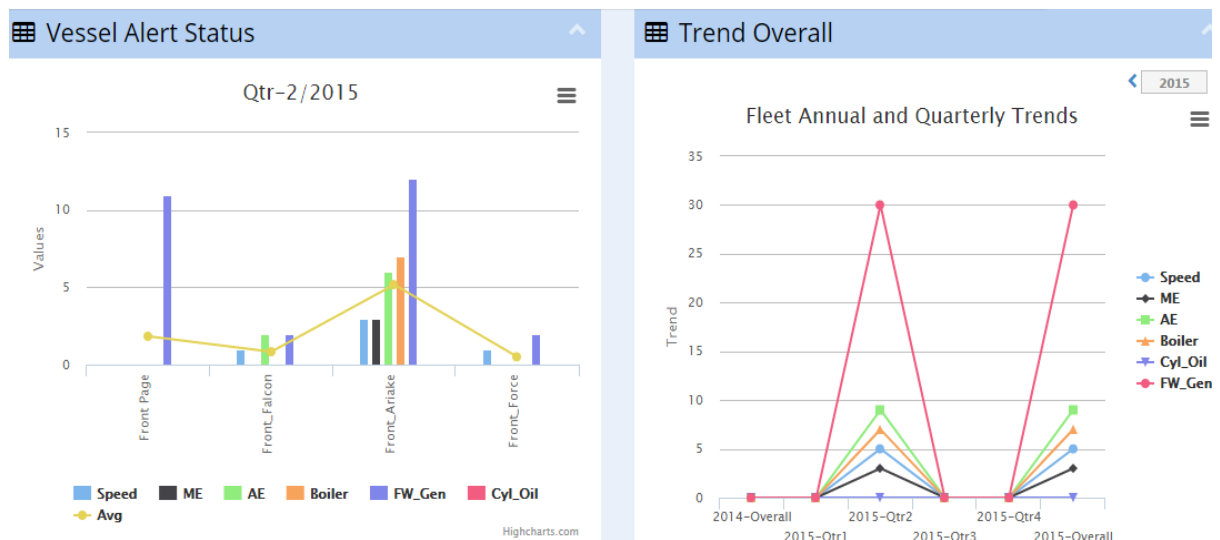


Highcharts.com

| Parameters        | Lost | Units  | Quantifiers          | Enter Value | Amount     |
|-------------------|------|--------|----------------------|-------------|------------|
| Speed             | 0.02 | Days   | Avg Charter Hire/Day | \$ 8500     | \$ 170.00  |
| ME Over Cons      | 2.3  | MTs    | Avg Bunker Cost/MT   | \$ 350      | \$ 805.00  |
| AE Over Cons      | 6.09 | MTs    | Avg Bunker Cost/MT   | \$ 630      | \$ 3836.70 |
| Boiler Over Cons  | 0.6  | MTs    | Avg Bunker Cost/MT   | \$ 630      | \$ 378.00  |
| Cyl Oil Over Cons | 0    | Liters | Avg Cost/100 Ltrs    | \$ 2000     | \$ 0.00    |

- Chart representing Percentage value of the contributing factors for the alerts.
- The Table represents totaled results from the Alerts and basis inputs on the latest average Cost Value for each header, the system converts the Alert results consolidated into Money and thereby presenting total potential savings.

## VESSEL ALERT STATUS & OVERALL TRENDS:



|                                                                                                                  |                                             |                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                        |                                           |
|                                                                                                                  | <b>Dated:</b> 19-05-2015 <b>Revision:</b> 1 | <b>Page:</b> 13 of 23                     |
|                                                                                                                  | <b>Prepared by:</b> Ms. Mamta Kanyal        | <b>Approved by:</b> Capt. Mohit Sabharwal |

### VESSEL ALERT:

- Fleet Group Analysis towards Total Alerts vs. Open Alerts and their Average.
- Click on the desired Fleet Group Bar to drill down to Each Vessel status.

### TRENDS:

Trend of the Alerts for the Fleet towards each Parameter calculated for the Quarters and annually.

### ii) Vessel Performance:

The vessel performance report can be utilised to measure the vessel performance against the other vessel bases fleet group & size.

Vessel Performance

Crude Tanker

Select Vessel Ty

Select Vessel

Densa\_Orca  
Densa\_Whale  
Fair\_Seas

multi selection option

Laden

Less than and ex

kindly select data from the drop down menu

click here to export the data to pdf format

2015

Qtr 1

Qtr 2

Qtr 3

Qtr 4

Yearly

From: 01/01/2015

To: 03/31/2015

PDF

Individual Parameters

Select the data from the drop down menu to view the reports.

### Voyage Based Data

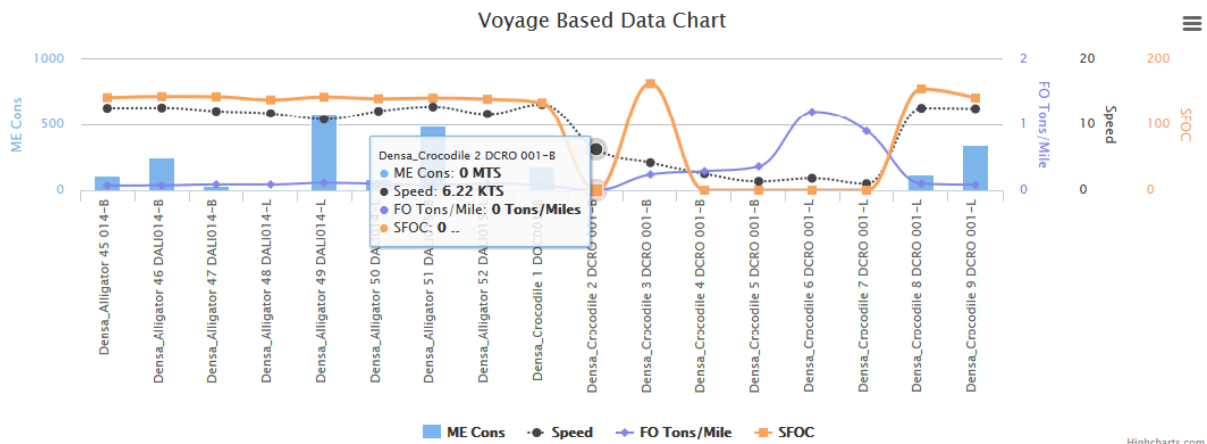
Excel PDF

Voyage Based DATA (From: 01/01/2015 To: 03/31/2015)

| Voyage ID       | Distance (NM) | Stmng Time (Days) | Avg Speed/Day (KTs) | ME Cons.(MTs) |         | AE Cons.(MTs) |         | Boiler Cons.(MTs) |         | Total Engine Distance (NM) | Stmng Time (Days) bss MEP Records | Tons/Mile | SFOC   | Total A/E RH | Avg A/E RH/Day |
|-----------------|---------------|-------------------|---------------------|---------------|---------|---------------|---------|-------------------|---------|----------------------------|-----------------------------------|-----------|--------|--------------|----------------|
|                 |               |                   |                     | Total         | Avg/Day | Total         | Avg/Day | Total             | Avg/Day |                            |                                   |           |        |              |                |
| Densa_Alligator |               |                   |                     |               |         |               |         |                   |         |                            |                                   |           |        |              |                |
| 45 014-B        | 1521.5        | 5.04              | 12.57               | 108.4         | 21.5    | 13.9          | 2.76    | 0                 | 0       | 1669.9                     | 5.04                              | 0.0712    | 141.8  | 146          | 28.96          |
| 46 DALI014-B    | 3318          | 10.96             | 12.62               | 245.8         | 22.43   | 32.9          | 3       | 0.8               | 0.07    | 2903.7                     | 10.4                              | 0.0741    | 143.52 | 267          | 25.68          |
| 47 DALI014-B    | 411           | 1.42              | 12.09               | 36.2          | 25.55   | 4.5           | 3.18    | 0                 | 0       | 582.8                      | 1.42                              | 0.0881    | 143.18 | 62           | 43.76          |

|                                                                                                                  |                                             |                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                        |                                           |
|                                                                                                                  | <b>Dated:</b> 19-05-2015 <b>Revision:</b> 1 | <b>Page:</b> 14 of 23                     |
|                                                                                                                  | <b>Prepared by:</b> Ms. Mamta Kanyal        | <b>Approved by:</b> Capt. Mohit Sabharwal |

**GRAPHICAL REPRESENTATION OF THE ABOVE DATA IS AS UNDER:**



### Vessel Performance

Crude Tanker
Select Vessel Ty

Select Vessel  
 Densa\_Orca  
 Densa\_Whale  
 Fair\_Seas

Laden
Less than and e

[click here to view the individual parameters in graphical format](#)

2015
Qtr 1
Qtr 2
Qtr 3
Qtr 4
Yearly
From: 01/01/2015 To: 03/31/2015
PDF
**Individual Parameters**

The various parameters like:

Speed (KTS), Tons/miles, SFOC (g/bhph), slip (%), HFO (MTs) can be viewed on clicking on individual parameter after selecting other options from the drop down menu.

Below you can see the graphical representation of the above mentioned parameters.



|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 15 of 23                     |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

### iii) Emission:

This report is generated to help you to analyse the level of various gases released by the vessel namely NOX, CO2, SOX & EEOI Emission.

Bulk Carrier

Bulk Carrier

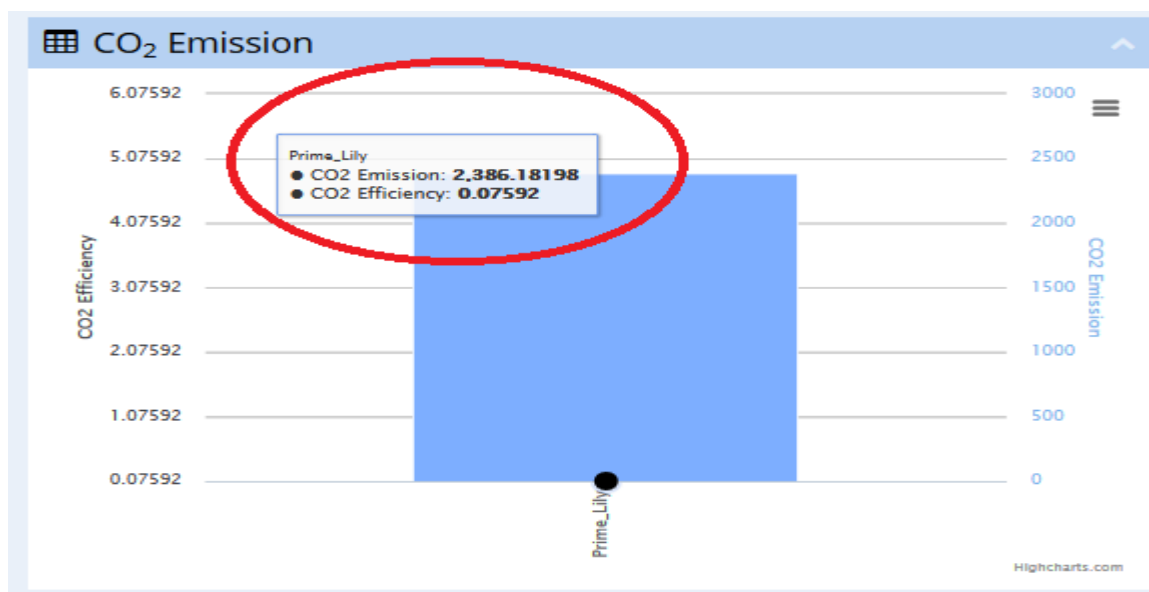
Select Vessel  
 Prime\_Lily

Laden

select the option from dropdown menu to view the reports

< 2015 >    Qtr 1   Qtr 2   Qtr 3   Qtr 4   Yearly    From: 01/01/2015   To: 03/31/2015    PDF   Excel

Similar graphical reports are generated for other gases:



### IV) Distance & Consumption:

Consolidated report to overview distances, steaming time, consumption & other:

STEP 1: select values from the drop down

Distance

Bulk Carrier

Bulk Carrier

Select Vessel  
 Prime\_Lily

Laden & Ballast

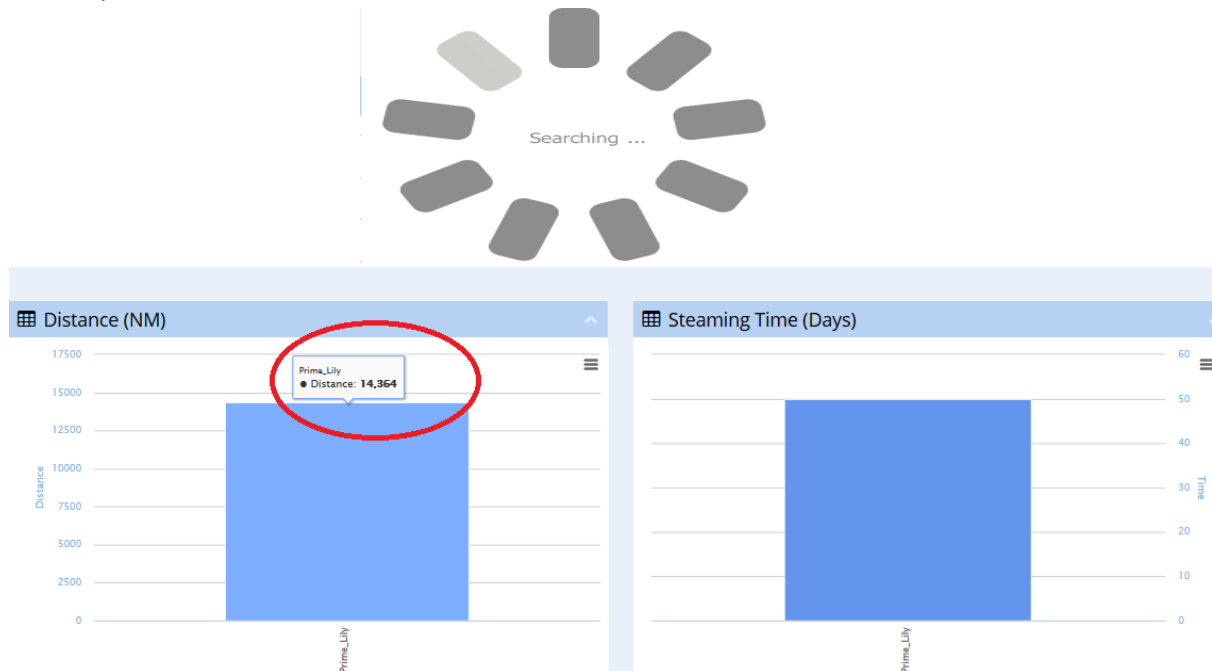
Select BF

< 2015 >    Qtr 1   Qtr 2   Qtr 3   Qtr 4   Yearly    From: 01/01/2015   To: 03/31/2015    PDF   Excel

STEP 2: select values from the time field:

< 2015 >    **Qtr 1**   Qtr 2   Qtr 3   Qtr 4   Yearly    From: 01/01/2015   To: 03/31/2015    PDF   Excel

STEP 3: you will see a search timer on the screen like this:



Similarly the reports can be viewed for other parameters as well.

| Distance And Consumption Table |               |             |              |              |
|--------------------------------|---------------|-------------|--------------|--------------|
| Vessel name                    | Distance (NM) | Time (Days) | IFO+LS (MTs) | MDO+LS (MTs) |
| Fair_Seas                      | 0             | 0           | 0            | 0            |
| Pacific_Sky                    | 0             | 0           | 0            | 0            |
| Riverside                      | 0             | 0           | 0            | 0            |
| Southport                      | 0             | 0           | 0            | 0            |

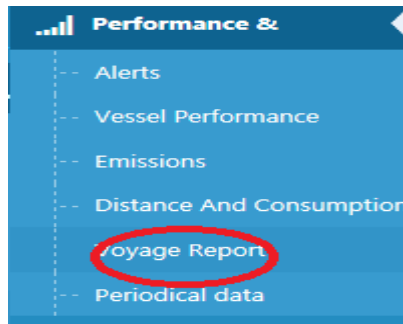
## V) Voyage reports:

Contains leg summary report about consumption & performance report, steaming performance for the vessel, combined charts & Avg consumption report for laden and ballast.

The voyage report is generated by following the following steps:

Step 1: login<<performance & analysis <<click voyage reports

|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 17 of 23                     |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |



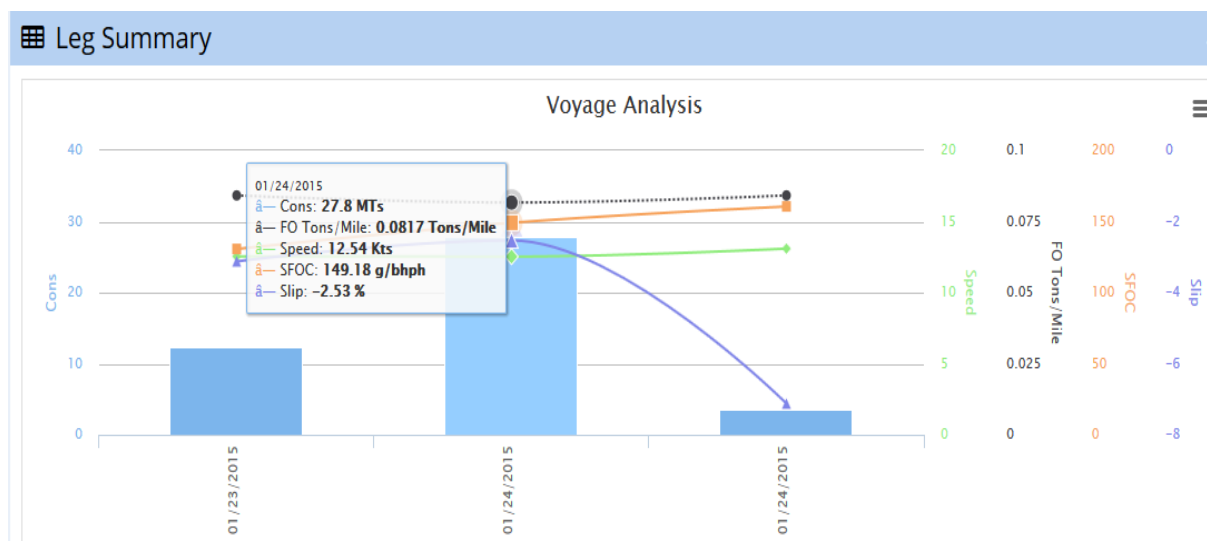
Step 2: select the data from the drop down panel.

Crude Tanker    Aframax    Riverside    Ballast  
 56 14-B    < 2015 >    Qtr 1    Qtr 2    Qtr 3    Qtr 4    Yearly    From: 01/01/2015 To: 03/31/2015    Leg Report PDF    Voyage Extract

Step 3: click on the time field as per your requirement.

< 2015 >    Qtr 1    Qtr 2    Qtr 3    Qtr 4    Yearly    From: 01/01/2015 To: 03/31/2015

Step 4: the report is now generated:



The entire summary can be viewed, kindly scroll down on your screen to see more reports:



Orion Marine  
Concepts

NAU – Ver 2.0

Dated: 19-05-2015 Revision: 1

Page: 18 of 23

Prepared by: Ms. Mamta Kanyal

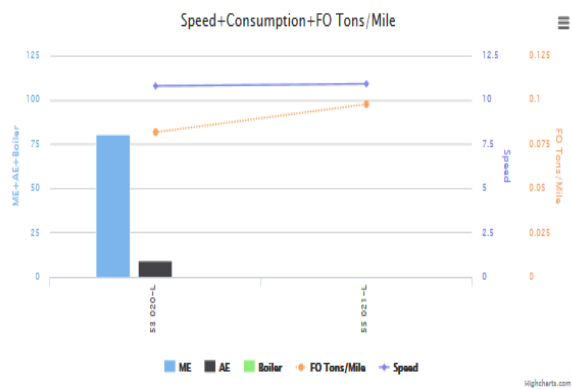
Approved by: Capt. Mohit Sabharwal

### VOYAGE COMPLETE LEG SUMMARY

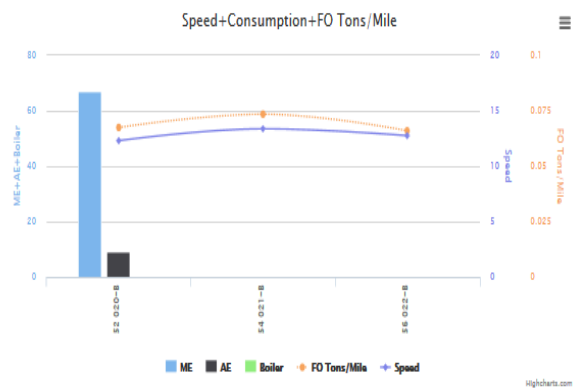
|                        |                                             |
|------------------------|---------------------------------------------|
| Vessel Name            | Riverside                                   |
| Voyage No.             | 56-14                                       |
| Voyage Type            | B                                           |
| Departure Port         | ROTTERDAM                                   |
| Date/Time of Departure | 01/23/2015 01:24                            |
| Port of Arrival        | SKAGEN                                      |
| Date/Time of Arrival   | 01/24/2015 14:54                            |
| Total Cargo Onboard    | 0                                           |
| LastThree Cargoes      | 1) JET A1<br>2) NAPTHA<br>3) DFC CONDENSATE |

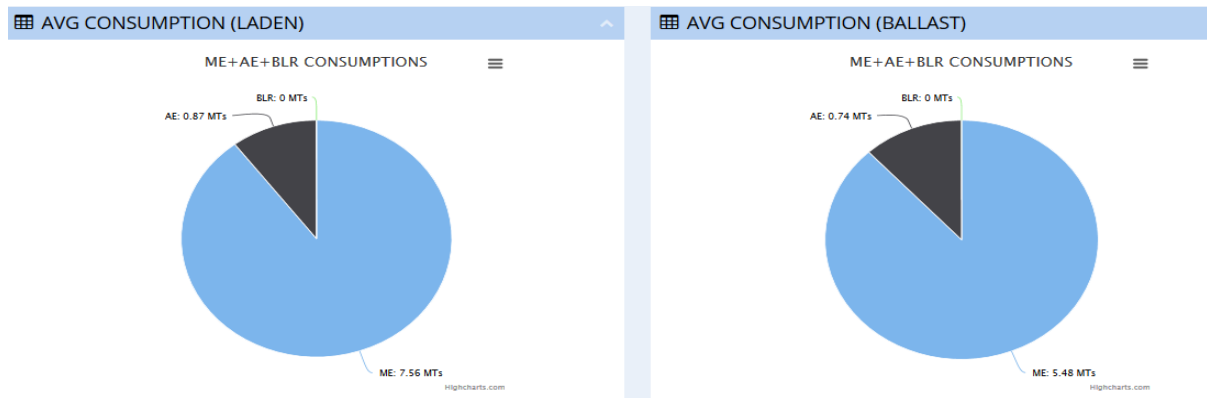
Screenshots of some more reports:

COMBINED CHART (LADEN)



COMBINED CHART (BALLAST)

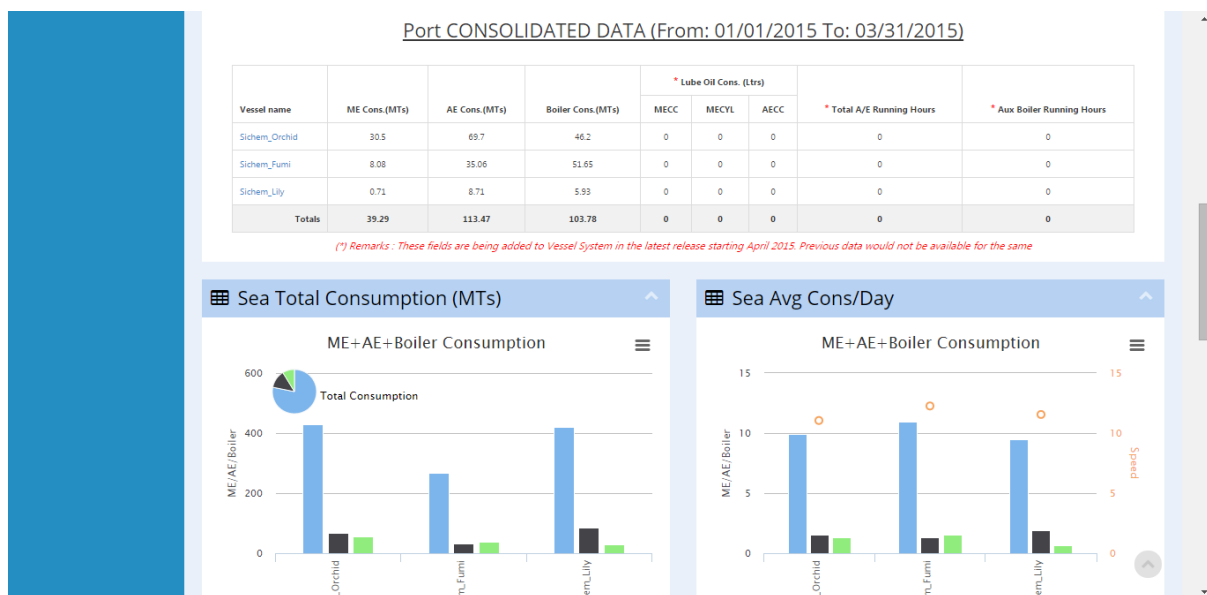




## VI) Periodical Data:

### Port consolidation report for quarterly /yearly.

Login<<performance & analysis<<periodic data  
screenshots from the periodical data:



|                                                                                                                  |                                         |                                           |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                    |                                           |
|                                                                                                                  | <b>Dated: 19-05-2015    Revision: 1</b> | <b>Page: 20 of 23</b>                     |
|                                                                                                                  | <b>Prepared by: Ms. Mamta Kanyal</b>    | <b>Approved by: Capt. Mohit Sabharwal</b> |



### e) Selecting vessel for viewing Particulars and historic reports:

**Step 1:** select vessel from the Drop down for which you wish to see the data.

Dashboard
 Benchmarking
 **Vessel Alerts**
 Performance & Analysis

Densa\_Crocodile

Select A Vessel
Caly\_Manx
Catherine\_Manx
Densa\_Alligator
Densa\_Crocodile
Densa\_Orca
Densa\_Whale

Last Update Received From Densa\_Crocodile on 05/17/2015

**select the vessel from the drop down to view the last update**

|                                                                                                                  |                                  |                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>             |                                    |
|                                                                                                                  | Dated: 19-05-2015    Revision: 1 | Page: 21 of 23                     |
|                                                                                                                  | Prepared by: Ms. Mamta Kanyal    | Approved by: Capt. Mohit Sabharwal |

**Step 2: click on vessel particulars to view the data.**

Performance & Analysis

Fair\_Seas

Vessel Particulars

Sea and Port Reports

|                                            |                  |
|--------------------------------------------|------------------|
| Vessel                                     | Fair_Seas        |
| Master                                     |                  |
| IMO Number                                 | 9405057          |
| NT                                         | 35798            |
| Year Built                                 | 2008             |
| Ship Type                                  | 453832564        |
| Flag                                       | MARSHALL ISLANDS |
| Classification                             | DNV              |
| Length Over All (LOA)                      | 249.99           |
| Extreme Breadth (Beam)                     |                  |
| Summer Draft (m)                           | 14.917           |
| Summer Displacement (MT)                   |                  |
| Min Aft draft (in mts) for Prop. Immersion | 000              |
| Main Engine Model                          | STX B&W 6S60MC-C |

#### f) Sea and Port reports for the selected:

Performance & Analysis

Fair\_Seas

Vessel Particulars

Sea and Port Reports

Full Away

Daily Noon Report

Cargo Heating Report

Eosp/Arr Report

Berthing Report

Load/Discharge

Departure Timesheet

Select Voyage62 - 14 B

Voyage No14 B

Cons Basis 24 Hrs, i.e. Per Day, irrespective of TODAY's Steaming Hrs:

Charter Party Allowed Spd / Cons:Speed:M/E Cons:A/E Cons:Boiler Cons:BF Scale:

Reason for changing CP Allowed:

Special InstructionsSpeed:Bunkers:

Date/time sea passage ends (LT)03/28/201514:36DD/MM/YYYY HH:MM

NOR tendered DD/MM/YYYY HH:MM

Arrival FWE03/28/201517:00

PortAmsterdamDestination Country:

Bunker ROB upon end of sea passage (MT's)(ROB of Low Sulphur fuel to be shown separate)

| IFO     | MDO  | IFOLS  | MDOLS  |
|---------|------|--------|--------|
| 1510.40 | 0.00 | 157.00 | 306.80 |

The various reports in sea & port report can be extracted in pdf format:

|                                |
|--------------------------------|
|                                |
| Water                          |
| Displacement                   |
| <a href="#">Download Excel</a> |

|                                                                                                                  |                                             |                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                        |                                           |
|                                                                                                                  | <b>Dated:</b> 19-05-2015 <b>Revision:</b> 1 | <b>Page:</b> 22 of 23                     |
|                                                                                                                  | <b>Prepared by:</b> Ms. Mamta Kanyal        | <b>Approved by:</b> Capt. Mohit Sabharwal |

## Other Alerts & notification:

### a) Alert for not receiving any report in the last 48 Hrs.

**Content:** NAU \_shore hour system says”no reports received for more than 48”.

**Action:** Reports are to be submitted & exported every day. In case the vessel is in port, port consumption report must be submitted every day till departure.

### b) Alert for Missing Export files,

**CONTENT:** Export no\_123.zip (number is only for ref.) has not been received.

**ACTION: the following action should be taken in case of export missing:**

1. How to Resend?

Click on send & Receive tab<< go to sent item<<click infront of the missing file<<click send again button.

\*do not regenerate Zip, but send again.

OR

**Alternatively:** hosted computer C drive<<inetpub →NAU → Queue folder

→Outgoing\_Archive<<select the desired file, copy/attach & send on –email. Please do not move the file only copy/attach & send.

### c) Missing engine parameter,

**CONTENT:** Engine daily parameter report not found for the mentioned date.

**ACTION REQUIRED:** Proceed to manage daily Engine parameter, ensure the mentioned date’s entry exists, if not submit the report for the required date.

**NOTE:** The number of Noon Reports and 1 EOSP Report is not equal to number of MEP Reports.

E.g. if there were 7 noon reports +1EOSP it is equal to 8. Hence there should be 8 records in the engine parameters.

This includes occasions when the last noon report & EOSP report fall on the same date (even if after 30 Mins of the last noon report), for such cases there must be 2 engine daily parameters report with same dates.

|                                                                                                                  |                                             |                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <br><b>Orion Marine Concepts</b> | <b>NAU – Ver 2.0</b>                        |                                           |
|                                                                                                                  | <b>Dated:</b> 19-05-2015 <b>Revision:</b> 1 | <b>Page:</b> 23 of 23                     |
|                                                                                                                  | <b>Prepared by:</b> Ms. Mamta Kanyal        | <b>Approved by:</b> Capt. Mohit Sabharwal |

### d) Daily email consolidated report for vessel Performance

The Daily Report provides following to the Fleet Groups at a Glance;

**General Data ;**

- Position Report,      - Speed,      - SFOC,
- Consumptions,      - Slip,      - Comparison with Authorised parameters, etc.

4/20/15 10:10

#### Noon Report

| Vessel Name        | Voyage No | Date    | CP Norms |                                |    | Wind |       | Position |          | Stmng | Dist. | Speed  | Slip %                           | M/E   |
|--------------------|-----------|---------|----------|--------------------------------|----|------|-------|----------|----------|-------|-------|--------|----------------------------------|-------|
|                    |           |         | Speed    | Cons (HFO/MDO)                 | BF | Dir. | Force | Lat      | Long     | Hrs   | in Nm | in Kts |                                  |       |
| African_Lunde      | 004 B     | 4/19/15 | 12       | 25.00/0.00                     | 5  | SSE  | 6     | 22:44-N  | 086:18-W | 24    | 276   | 11.5   | 16.53                            | 14.94 |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 6.19  |
| Anja_Kirk          | 38 B      | 4/19/15 | -        | ME : -<br>AE : -<br>Boiler : - | -  | NE   | 5     | 29:0-N   | 13:3-W   | 24    | 298   | 12.42  | 7.73                             | 19.7  |
| Ardmore_Centurion  | 27 B      | 4/19/15 | 12.5     | 21.00/0.00                     | 6  | N    | 3     | 25:07-N  | 056:59-E | 25    | 321   | 12.84  | Engine Paramet<br>er not defined | 18.2  |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
| Ardmore_Cheyenne   | 1501 L    | 4/18/15 | 12       | 26.00/0.00                     | 5  | W    | 5     | 38:55-N  | 167:15-W | 24    | 327   | 13.63  | Pitch is not defined             | 19.4  |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
|                    |           |         |          |                                |    |      |       |          |          |       |       |        |                                  | 0     |
| Ardmore_Seamariner | 02 L      | 4/19/15 | 14       | 35.00/0.10                     | 4  | SE   | 6     | 06:02-S  | 44:49-E  | 25    | 341   | 13.64  | 3.77                             | 26.6  |

=====End Document=====