

# Newsletter

## Maritime Simulators, Vol 2 2006



**Virtual Engine Room integrated with the real engine room simulator, see section 1**



**Polaris Voice Recognition integrated with Polaris Ship Handling Simulator, see section 4**

### **Kongsberg Maritime European User Conference 2006**

More than 70 delegates attended the Kongsberg Maritime European User Conference 2006. The theme of the UC 2006 was "Simulation and the Return on Investment". The conference was co-hosted by the Maritime Institute Willem Barents at Terschelling.



Picture from UC 2006

### **Read more on our new web:**

<http://www.maritime-simulation.kongsberg.com>



A new flag system is released. Very flexible, easy to configure.

See section 2



In July, it is summer holidays in Norway

Visual image

More information: Please contact us or your local agent for more information.  
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**KONGSBERG**

## Table of Content

<b>1</b>	<b>VIRTUAL ENGINE ROOM SIMULATOR .....</b>	<b>3</b>
<b>2</b>	<b>DESKTOP FLAG SYSTEM .....</b>	<b>4</b>
<b>3</b>	<b>DEDICATED RADAR/ARPA TRAINER .....</b>	<b>5</b>
<b>4</b>	<b>POLARIS VOICE RECOGNITION .....</b>	<b>6</b>
<b>5</b>	<b>ARPA/ RADAR DISPLAYS (OLD NEWS).....</b>	<b>7</b>
<b>6</b>	<b>PRODUCTS NEWS FROM MARCH 2006.....</b>	<b>8</b>
6.1	Bigview.....	8
6.2	Neptune CHS LNG Membrane Simulator.....	8
6.3	From Unix to Windows.....	8
6.4	Thermal Power Plant Simulator .....	8
6.5	Gas Turbine Simulator.....	8
6.6	New Polaris Release 5.0 .....	9
6.7	AIS (Automatic Identification System) .....	9
6.8	Polaris automatic track keeping .....	9
6.9	Azimuth Conning Display.....	9
6.10	Day Symbols Panel .....	9
6.11	Waterjet Panel .....	9
6.12	Conning Display .....	10
6.13	Desktop Steering Stand .....	10
6.14	SeaView R5 Visual System .....	10
6.15	GMDSS Capella Release 5.0.....	10
6.16	Some available ownship models .....	10
6.17	Target models and Images.....	10
6.18	Database areas.....	10
<b>7</b>	<b>PRODUCTS NEWS FROM NOVEMBER 2005 .....</b>	<b>11</b>
7.1	SeaView R5 Visual System .....	11
7.2	Joystick Control .....	11
7.3	Search and Rescue package .....	11
7.4	Winch control - Software panel .....	11
7.5	Hydraulic Winch Control - Software panel .....	11
7.6	Thruster control SW/HW panel .....	11
7.7	Some of our new ownship models .....	11
7.8	Some of our new Target models .....	12
7.9	Some of our new database areas .....	12
7.10	Computer based training .....	12

Dear Customers,

Welcome to our Summer Newsletter 2006. Continuing our commitment to ensure that your simulation systems are state of the art and can be adapted to suit the changing face of the maritime training environment, we bring you another addition of our latest products and updates. We never forget that our business success is dependent on the success that you have in your field of training, whether in bridge, engine, cargo or a combination of the three and your possibilities to broaden your training environment within those areas.



Due to our recent innovations inside you will find a number of opportunities, for example; the Virtual Engine Room, a breakthrough in the efficiency of your training space usage, by providing a 3D environment to navigate around an engine room, yet within a space as small as 3 x 4 meters. Additionally through our relationship with the US Navy we have introduced the flag system and again a breakthrough with the voice recognition system, allowing voice commands and system response. All of which will provide possibilities to improve your Return on Investment, whether purely financial or the softer non-financial issues which have an impact on your operations or mission performance, including faster training cycles and improved customer satisfaction.

The Simulation and the Return on Investment was the theme of our recent User Conference Europe, held at West Terschelling where we showcased a number of our new products and concepts. Judging by the response we received we have a formidable product range and with your excellent feedback we are continuing to improve and innovate.

As we approach the summer, a number of training institutions have already entered the holiday break and no doubt many more will follow, we at our base in Horten, Norway will have a staff available to support you through this period, and we look forward to serving you.

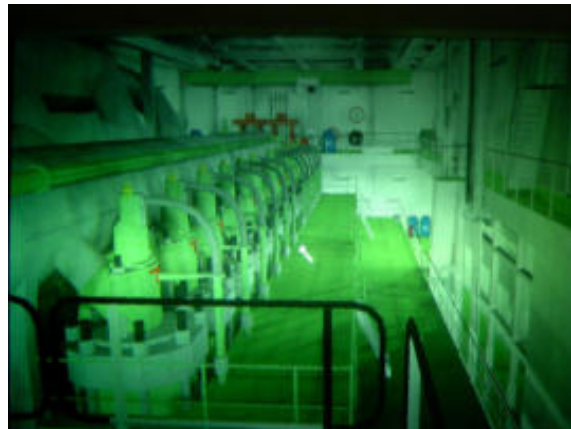
Thank you for your continued support, we look forward to working together with throughout 2006 and beyond.

Kind regards  
Mark Treen  
Sales and Marketing Manager  
Kongsberg Maritime Simulation

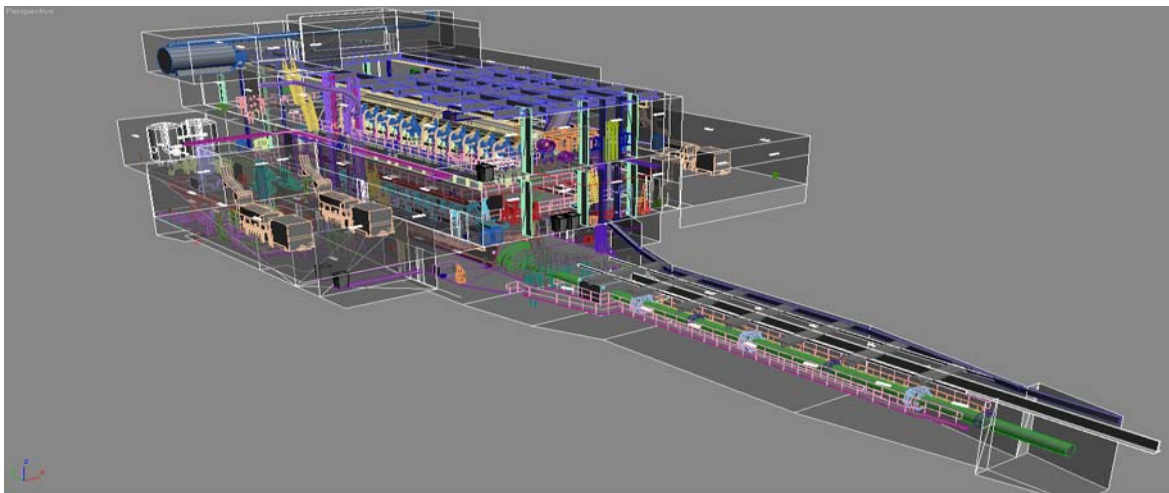
## 1 VIRTUAL ENGINE ROOM SIMULATOR

### Benefits:

- Strong impression as with bridge simulator visuals
- Projected software easy to change
- Unlimited size ER fits limited size classroom
- All simulated functions available in virtual ER
- Excellent for familiarization to the individual components, its appearance and its location onboard the actual ship



*1 channel visual image*



*Complete engine room developed as a 3D model.*

In close cooperation with Maritiem Instituut Willem Barentsz, Netherlands, Kongsberg has developed a virtual Full Mission Engine Room simulator representing a 12 cylinder low speed Sulzer RTA-84C. The complete engine room is represented by a virtual Engine room where projectors displays the complete engine room on three large 70-80" screens.

The 3D model is operated by a joystick located in front of the centre Screen, and the device enables students to "walk" around in the complete engine room and capable to open/close valves, start/stop pumps and perform readings of instrumentation.

Any operation alteration taken place in the 3D model will have impact on the simulation model. If the student starts SW Pump No.1 in the 3D model, SW Pump No.1 pump is also started in the actual simulation model, and can be verified at the Pump Control Console in the Engine Control Room.

Any engine room configuration can be presented as a 3D model, using the same HW.

## 2 DESKTOP FLAG SYSTEM

**Benefits:**

- Full control of flags on target and ownships.
- More than 60 types of flags
- Selected flag configuration is displayed in the visual scene.
- Can hoist the flag on Starboard and Port side.
- To be used at replenishment at sea (Navy)
- Can be installed on existing Panorama/ Desktop stations.



Flag system as it will appear on desktop/ Panorama system.

The purpose of the Flag panel is to allow remote operation from the bridge of hoisting flags up, down and at dip. In the mast top, signal flag and national flag can be hoisted.

To hoist a flag, select first a halyard and press the actual  flag position. Starboard side is the upper most flag on the halyard when hoisted. The flag shelf will now be available as a pop up panel and a flag can be selected. To fulfil the signal select the next flag position and repeat the operation.

**FOR INSTRUCTOR STATION**



This page (picture to the left) lets the Instructor set flag combinations for the actual **target ship** taking part in the exercise. The flags can be seen from the Ownships on their respective visual screens.



This page lets the Instructor set flag combinations for the actual **Ownship** taking part in the exercise. The flags can be seen from other Ownships on their respective visual screens.

**HW requirements :**  
 Computer with  
 CPU >1 Ghz, 512 MB memory,  
 mouse, keyboard, USB, CD-ROM,  
 Monitor etc

**SW requirements :**  
 Windows platform: Windows® XP or  
 Windows®2000  
 Polaris Release 5.1  
 Visual system Seaview R5

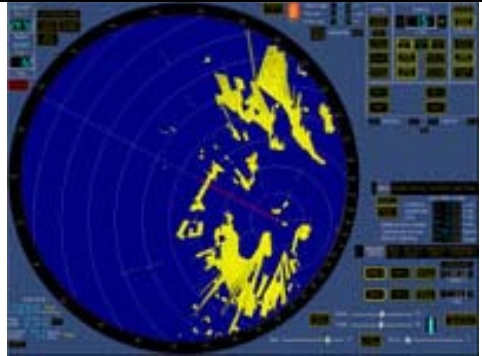
Price: Please contact us or your local agent for more information.  
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### 3 DEDICATED RADAR/ARPA TRAINER

Benefits:




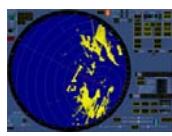


- Desktop Radar/ ARPA trainer according to STCW'95 requirements including VHF communication.
- Can be delivered as Software licenses only where the customer supply hardware.
- **Competitive price**



A complete and fully functioning Polaris Desktop Bridge simulator in a Radar/ARPA simulator configuration according to the STCW'95 Convention/Code (Section A-I/12 and Section B-I/12) and based on IMO performance standard. The simulator meets and exceeds the international requirements set in STCW 95 and DNV Class X for Radar/ARPA training.

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Instructor station</li> <li>• System software</li> <li>• Student workstations</li> <li>• Own ship hydrodynamic models</li> <li>• Target ships</li> <li>• Communication (VHF)</li> </ul> | <ul style="list-style-type: none"> <li>• Radar database(s)</li> <li>• Documentation</li> <li>• Quality assurance and quality control</li> <li>• Training (Optional)</li> <li>• Site acceptance test (Optional)</li> <li>• Warranty</li> </ul> |
|--|---|

The dedicated radar/ARPA trainer contains the following panels...

	Autopilot		Throttle		Log/ Distance / Time
	Polaris ARPA / Radar		VHF Radio		DGPS



<p><b>HW requirements :</b>                  Computer with CPU &gt;1 Ghz, 512 MB memory, mouse, keyboard, USB, CD-ROM, Monitor etc</p>	<p><b>SW requirements :</b>                  Windows platform: Windows® XP or Windows®2000                  Polaris release 5.1</p>
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Price: Please contact us or your local agent for more information.  
 E-mail: [odd.arne.reberg@kongsberg.com](mailto:odd.arne.reberg@kongsberg.com) Tlf: +47 33032125

## 4 POLARIS VOICE RECOGNITION

- Benefits:**
- Dedicated command trainer for naval applications
  - Control the ship by use of voice commands
  - No need for helm man
  - Add on component to Polaris



The speech interaction module supports natural voice communication between the Conning Officer and simulated bridge personnel who control the ship through helm and engine orders.

It recognizes normal commands used during ship handling manoeuvres and follows standard rules of discourse in response to commands by generating appropriate replies and reports. The module is based on the grammar defined in the Watch Officer's Guide, in consultation with subject matter experts from the US Navy.

The basic list has been extended to include specialized features of other ship classes and additional evolutions, and other communications from the bridge. The official doctrine, as taught in the schoolhouse, and current practices and conventions make up the set of acceptable commands. Commands are customer specific.

Other commands can easily be implemented.

**HW requirements :**  
 Computer with CPU >1 Ghz, 512 MB memory, mouse, keyboard, USB, CD-ROM, Monitor etc

**SW requirements :**  
 Windows platform: Windows® XP or Windows®2000  
 Polaris Release 5.2

**Price:** Please contact us or your local agent for more information.  
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## 5 ARPA/RADAR DISPLAYS (OLD NEWS)



**Benefits:**  
 Possible to train on dedicated Radar / ARPA screens for the Kelvin Hughes (KH) KH5000 and KH1007 including the use of the dedicated keyboard. The selection of display type can be done from the instructor station prior to the start of the exercise.

If you have a Polaris Radar/ ARPA today, it is easy to implement these radars. The brand of radar can be selected at instructor station.

For the KH 1007 we have two kinds of keyboards.

1. Desktop keyboard
2. Console keyboard

KH 5000 (PC-based)

KH 1007 (PC-based)




*Desktop keyboard*

**HW requirements :**  
 Ownship computer with Polaris Radar/ ARPA or installed on a separate computer.

**SW requirements :**  
 Windows platform: Windows® XP or Windows®2000  
 Polaris Release 4.3

**Price:** Please contact us or your local agent for more information.  
**E-mail:** [odd.arne.reberg@kongsberg.com](mailto:odd.arne.reberg@kongsberg.com) **Tlf:** +47 33032125



## 6 PRODUCTS NEWS FROM MARCH 2006

### 6.1 Bigview

BigView representing the engine room in a Full Mission Engine Room Simulator with use of 4 displays e.g. Monitors, projectors.

BigView can be used for various simulation models in addition to implementation of drawings, pictures and documentation.



### 6.2 Neptune CHS LNG Membrane Simulator

The simulator is suited for the following training:

- Junior officers in basic cargo operations and familiarization
- Senior officers in advanced training with focus on the understanding of how the cargo gas behaves under different conditions and at different stages in the loading/discharging operation. The training will also focus on temperature and pressure changes.



### 6.3 From Unix to Windows

- Lower your maintenance cost
  - IT personnel with UNIX competence is not necessary.
  - Easy to find spare parts
  - COTS products
- Application runs on Laptop computers.



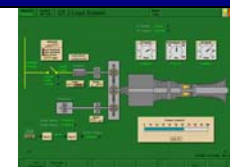
### 6.4 Thermal Power Plant Simulator

- Powerful learning tool for process engineers and Power Plant Management
- Train and assess operators in the operation of Distributed Control Systems (DCS)



### 6.5 Gas Turbine Simulator

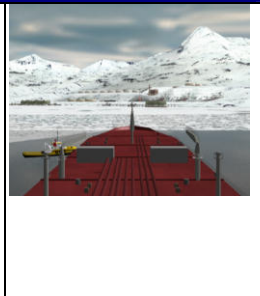
- Excellent for study of gas turbine performance
- Weather conditions can be introduced to study the impact on the gas turbine performance.



## 6.6 New Polaris Release 5.0

**Polaris-Neptune Waterjet**  
 Connection between Polaris simulator model fast ferry 22 and the engine Simulator Neptune H22 model has been implemented.

**Ice module**  
 A new ice module has been released for the Polaris simulator. The ice simulation has influence on the ownship model, radar and the visual and more.



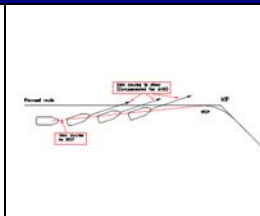
## 6.7 AIS (Automatic Identification System)

- The Polaris AIS software module fulfils the needs for Ship Navigators to learn AIS operation, by carrying out various AIS exercises.



## 6.8 Polaris automatic track keeping

- Manoeuvre the ship from the ECDIS or the Radar.
- Can be used in waypoint or track mode.
- Use of routes or manoeuvre the ship in restricted waters.
- The routes are easily generated and stored with use on screen commands



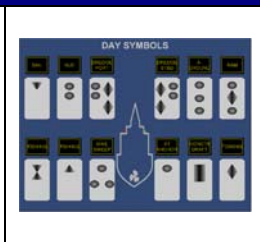
## 6.9 Azimuth Conning Display

- This panel is used for viewing only and has no user interaction.
- To be used together with Azimuth Panel.



## 6.10 Day Symbols Panel

- To display different shapes and day symbols on the mast of the own ship.
- Click on the desired key to display the corresponding day signal, as the picture shown on the panel. The key will become illuminated to indicate that the signal is being displayed.



## 6.11 Waterjet Panel

- The purpose of the waterjet panel is to provide the bridge with the necessary information and controls to operate the water jet propulsion.



**6.12 Conning Display**

- Automatically configured based on the model that is being simulated in the bridge.
- A generic hull structure represents all ship models.
- It can view different propeller and thrusters types (Automatic according to model loaded)



**6.13 Desktop Steering Stand**

- Real hands on
- Can be connected to a desktop system
- Increase of realism
- Easy to connect/disconnect
- USB2 connection



**6.14 SeaView R5 Visual System**

Excellent new sea visuals, New bow wave, Azimuth/propeller wake, Target wake, Stars, Spectacular reflection of sun and stars, Ice module



**6.15 GMDSS Capella Release 5.0**

This Release Note provides information about KM Capella software version 5.0. Released December 5, 2005.



**6.16 Some available ownship models**

- CRUIS07, CRUIS08, GAS03L, ICBRK01, SUPPLY08L



**6.17 Target models and Images**

- FERRY27, FISH06L, HELO03, LIFE02, ICBRG02



**6.18 Database areas**

- Gibraltar, Bergen (Norway), Great Belt (Denmark)



## 7 PRODUCTS NEWS FROM NOVEMBER 2005

### 7.1 SeaView R5 Visual System

With twenty years of experience developing visual software and the latest ten years working on the SeaView concept, the visual development team commemorates the centennial milestone with the release of SeaView R5:



### 7.2 Joystick Control

Includes:

- Search Light Control license.
- Joystick Control
- Turn light on / off
- Movement of light
- Size of highlighted area depends on the distance.



### 7.3 Search and Rescue package

The purpose of the Search and Rescue training is to allow the student to train on Search and Rescue operations that are among the most difficult and dangerous tasks undertaken by navigation officers. All this can be trained on a simulator.



*Picture on right: Search and Rescue situation.*

### 7.4 Winch control - Software panel

The purpose of the Winch Control is to allow the operator to heave in and out the mooring lines connected to the winch. The panel contains four winches and possibility monitoring of chain speed, tension and length.



### 7.5 Hydraulic Winch Control - Software panel

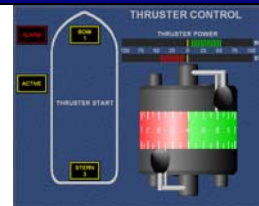
The purpose of the Winch Control is to allow operation and monitoring of the own ship's winch control. The Winch Control operates one winch at the time.

Now available both at desktop panel or hardware panel.



### 7.6 Thruster control SW/HW panel

Now available both as software panel and hardware panel.



### 7.7 Some of our new ownship models

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Ferry, MV Ulysses</li> <li>• Fast Ferry, HSC Jonathan Swift</li> <li>• Coastal Offshore Fishing</li> </ul> | <ul style="list-style-type: none"> <li>• Bulk Carrier</li> <li>• Azimuth, Stern Drive</li> </ul> |
|---|--|



### **7.8 Some of our new Target models**

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Metre ASD Tug</li><li>• Cars.</li></ul> | <ul style="list-style-type: none"><li>• Bulk Carrier</li><li>• Container</li></ul> |
|---|--|

### **7.9 Some of our new database areas**

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Los Angeles – US</li><li>• San Francisco – US</li><li>• Milford – UK</li><li>• Cork – Ireland</li></ul> | <ul style="list-style-type: none"><li>• Dublin / Belfast – Ireland</li><li>• Portugal coast, incl. Lisboa and Setubal – Portugal</li><li>• Europoort – NL</li></ul> |
|---|---|

### **7.10 Computer based training**

We have a number of CD's containing following: Seagull Administrator, Personal Safety, Ship General Safety, Safety Equipment, etc.