

OPV River Class Trainer



VBS4 24.1.1



Documentation Legal Notice

This Documentation, including any embedded help systems and electronically distributed materials, (hereinafter referred to as the "Documentation") is for your informational purposes only and is subject to change or withdrawal by Bohemia Interactive Simulations (BISim) at any time. This Documentation and its contents are proprietary information of BISim, also protected by copyright, and may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of BISim.

If you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all BISim copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to BISim that all copies and partial copies of the Documentation have been returned to BISim or destroyed.

BISim has made every reasonable effort to ensure the accuracy of all the information contained in the Documentation. However, product specifications are subject to change without notice, and BISim makes no representations or warranties regarding the accuracy, completeness, or suitability of information contained in the Documentation. To the maximum extent permitted by law, BISim disclaims any and all liability for any loss, damage (direct or indirect) or other consequence which may arise from the use of or reliance upon any information contained in the Documentation.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

Copyright © 2024 - Bohemia Interactive Simulations. All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

Customer Support

The Bohemia Interactive Simulations Support page can be found at:

- <http://www.bisimulations.com/support>

For any type of assistance with Bohemia Interactive Simulations products, use the following support email and we will respond to your query with urgency.

- support@bisimulations.com

Our website contains a range of media and handouts relating to Bohemia Interactive Simulations products:

- <http://www.bisimulations.com/>

The BISim Wiki is the primary resource on VBS4 scripting:

<https://sqf.bisimulations.com/display/SQF/VBS+Scripting+Reference>

PhysX

VBS4 uses the PhysX physics engine. For more information on PhysX visit the Nvidia site.

<https://gameworksdocs.nvidia.com/simulation.html>



Contents

OPV River Class Trainer	1
1. OPV River Class Trainer Overview	5
2. Designing OPV River Class Missions	7
3. OPV River Class	8
4. River Class Interaction	9
5. River Class Gunner	13
6. River Class Davits	15
6.1 Pacific 24 User Actions	18
7. River Class Signal Lamps	19
8. River Class Anchors	21
8.1 Lower the Anchors	21
8.2 Raise the Anchors	23
9. Monitoring the OPV River Class	25
9.1 Plan View	25
9.2 Other Execute Mode Interaction	28

1. OPV River Class Trainer Overview

The River Class ship in VBS4 is designed to simulate reservist usage and onboard orientation, to familiarize Trainees with its operation and layout.

The River Class ship structure simulation includes:

- The decks layout.
- The rooms layout.

The ship is manned with a default crew of the following units:

- 1 player unit in the ship Driver position.
- 2 AI units in the gunner positions, at the GPMG turrets.
- 1 AI unit in the gunner positions, at the GAMBO gun.
- 2 AI units in the gunner positions, at the Signal Lamps.

You can also watch the overview video at <https://youtu.be/AELCt5J2Gp8>.

NOTE

Videos may not show the latest versions of the features they demonstrate.

Image-1: View of the River Class ship



The general workflow of the OPV River Class ship simulation in VBS4 is:

OPV River Class Ship Preparation

As a mission designer, create a River Class ship mission.

For more information, see [Designing OPV River Class Missions \(on page 7\)](#).

OPV River Class Ship Execution

- As a player, interact with the River Class ship.

For more information, see [OPV River Class \(on page 8\)](#).

- As an administrator, monitor the River Class ship activity.

For more information, see [Monitoring the OPV River Class \(on page 25\)](#).

2. Designing OPV River Class Missions

To design a River Class ship mission, you need to place the River Class Ship Editor Object in the OME.

For RTE interaction with the River Class ship, see [Monitoring the OPV River Class \(on page 25\)](#).

Follow these steps:

1. In the OME Editor Objects List, select **(F4) Vehicle** and double-click a location on the map, where you want to place the River Class ship.



WARNING

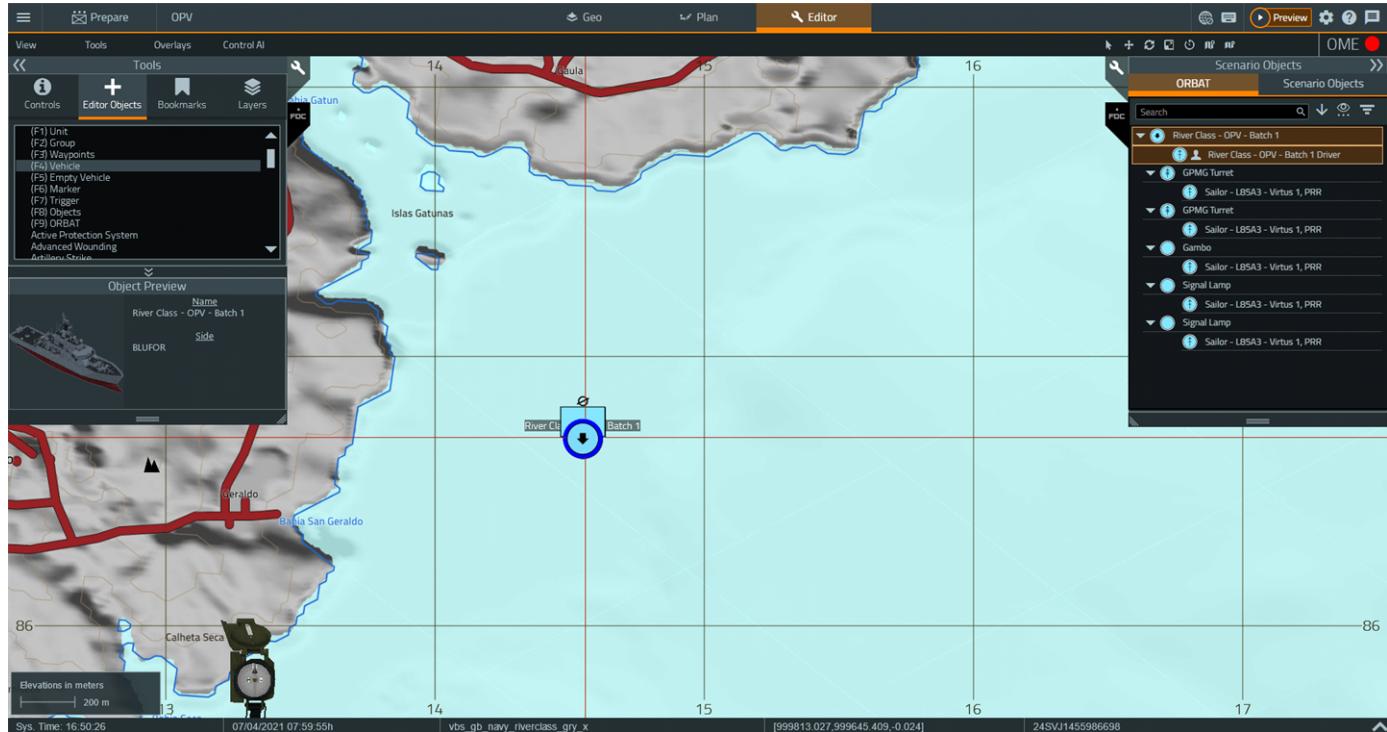
Do not place the ship in shallow water, to avoid keeling over.

The Object Properties dialog opens.

2. In **Filters**, type **River Class - OPV - Batch 1** and select it.
3. Click **OK**.

The River Class ship is placed on the map.

Image-2: River Class Ship Editor Object in the OME



3. OPV River Class

The Driver position is the default player position, when a River Class mission starts.

Image-3: River Class driver on the bridge



For driver controls, see **VBS Vehicle Control - Surface Vehicle Driver** section of VBS4 Controls in the VBS4 Trainee Manual.

To exit from the Driver position to explore and interact with other parts of the ship, press **Quick Menu (Left Windows)**, and select **GET OUT**.

As a player interacting with the River Class ship, the following simulation options are available:

- [River Class Interaction \(on the next page\)](#)
- [River Class Gunner \(on page 13\)](#)
- [River Class Davits \(on page 15\)](#)
- [River Class Signal Lamps \(on page 19\)](#)
- [River Class Anchors \(on page 21\)](#)

4. River Class Interaction

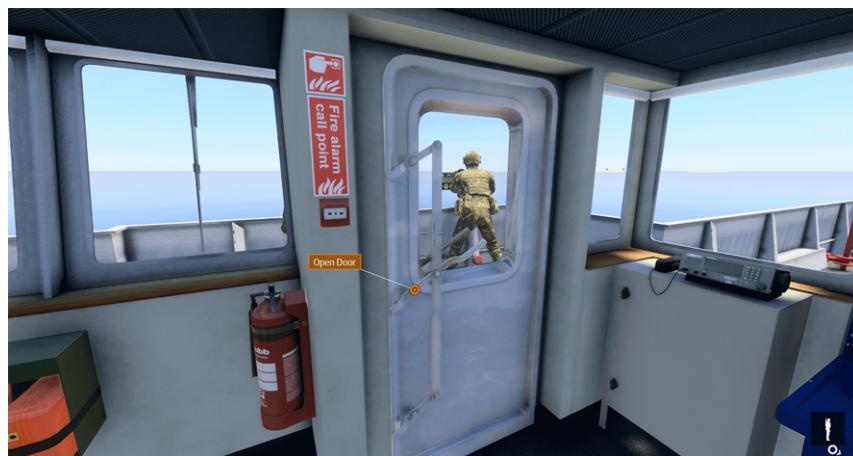
The River Class ship has the following general interaction capabilities:

- Moving around / boarding the Pacific 24 RHIBs.
- Opening / closing doors / hatches.
- Climbing ladders.
- Switching to the ship Driver position at any given time.
- Using Signal Lamps and Davits.

Exit (**Get Out** of) the **Driver** position and walk around the ship to access the following functionality:

Open Doors / Hatches

Approach and look at the door / hatch, until the **Open Door / Close Door** 3D World Action appears (see 3D World Actions in the VBS4 Trainee Manual). Then, select it.



Climb Ladders

Approach and look at the ladder, until the **Climb Ladder Up / Climb Ladder Down** 3D World Action appears. Then, select it to climb up / down the ladder.



Enter Pacific 24 RHIBs (Rigid-Hulled Inflatable Boat)

For information on where the Davits and Pacific 24 RHIBs are located, see [Monitoring the OPV River Class \(on page 25\)](#).

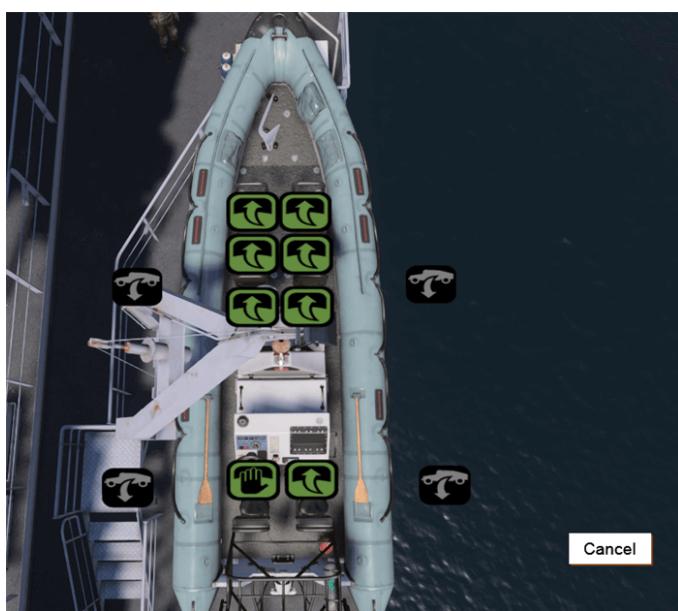
1. Approach and look at the Pacific 24 RHIB, until the **Interact** 3D World Action appears. Then, select it.



The player sees the Pacific 24 RHIB Interact with Vehicles Interface (IWV).

2. In the IWV interface, select one of the Pacific 24 RHIB positions to occupy.

The player enters the Pacific 24 RHIB at the selected position.



Deploy / Stow Pacific 24s Using Onboard Davits

For more information, see [River Class Davits \(on page 15\)](#).

Pacific 24 Back-Flush

You can alleviate a drop in speed / engine performance by performing a water jet back-flush.

NOTE

The water jet can be blocked by your Instructor during the scenario, which causes the speed and performance of the Pacific 24 to decrease. For more information, see Other RTE Interaction in the VBS4 Instructor Manual.

Do one of the following:

- Press the button mapped to the **User Defined 1** control by your Administrator.
- Push full forward / back, using any mapped Joystick Axis.

Use Port / Starboard Signal Lamps.

For more information, see [River Class Signal Lamps \(on page 19\)](#).

Switch to the Driver Position

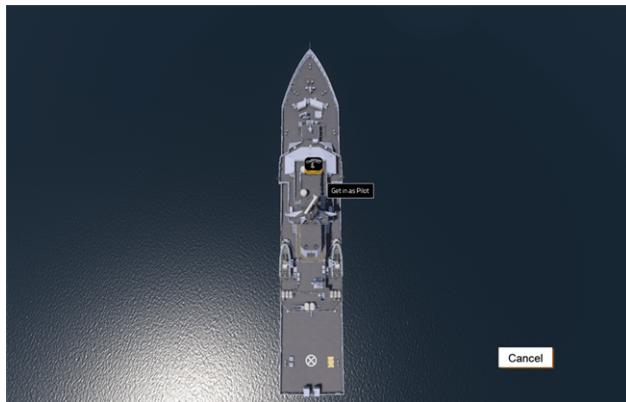
1. Anywhere on the ship, the **Interact** 3D World Action is available. Select it.



The player sees the River Class ship Interact with Vehicles Interface (IWF).

2. In the IWF interface, select the **Get in as Pilot** option.

The player enters the River Class ship at the Driver position.



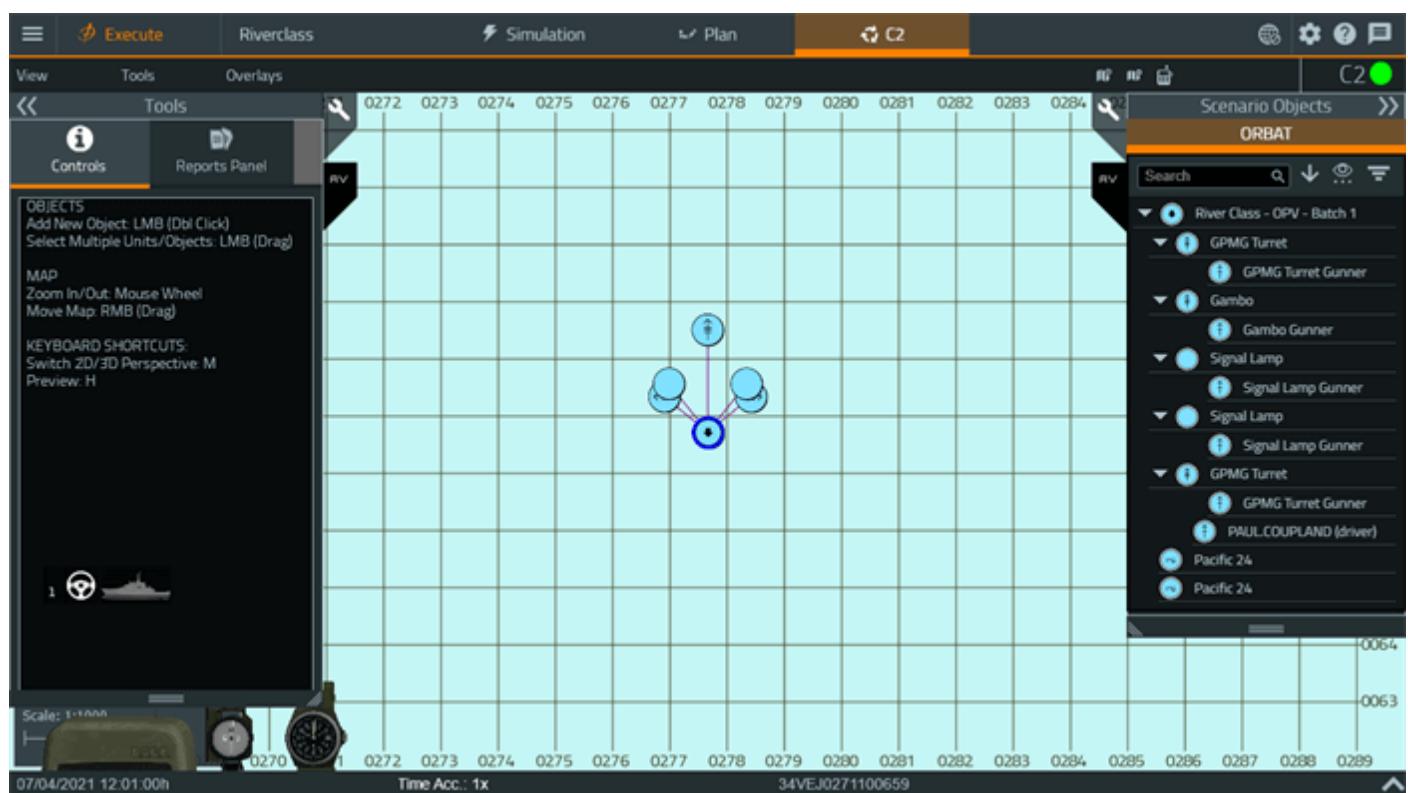
Use the C2 View

For a commander, the C2 view displays the interactive elements on board the River Class ship.

The displayed interactive elements include:

- The River Class ship itself.
- The GAMBO gun.
- Two GPMG turrets.
- Two Pacific 24 boats.
- Personnel units.
- Two Signal Lamps.
- Two Davits.
- ORBAT structure on the River Class.

Image-4: C2 2D view with River Class ship interactive elements



For more information about the C2 view, see [Command and Control \(C2\) Screen in the VBS4 Trainee Manual](#).

The RTE view is similar to the C2 view. For more information, see [Monitoring the OPV River Class \(on page 25\)](#).

5. River Class Gunner

The River Class ship has the following weapons with gunner positions:

- One GAMBO gun at the front of the ship.
- Two GPMG turrets on either side of the ship.

For information on where the weapons are located, see Monitoring the OPV River Class.

To use the GAMBO gun / GPMG turret, follow these steps:

1. Make sure to exit the **Ship Driver** position.
2. Approach and look at the GAMBO gun / GPMG turret, until the **Interact** 3D World Action appears (see 3D World Actions in the VBS4 Trainee Manual). Then, select it.

Image-5: GAMBO gunner position



Image-6: GPMG gunner position



The player sees the weapon Interact with Vehicles Interface (IWI).

3. In the IWF interface, select the **Get in as Gunner** option.

The player mounts the GAMBO gun / GPMG turret.

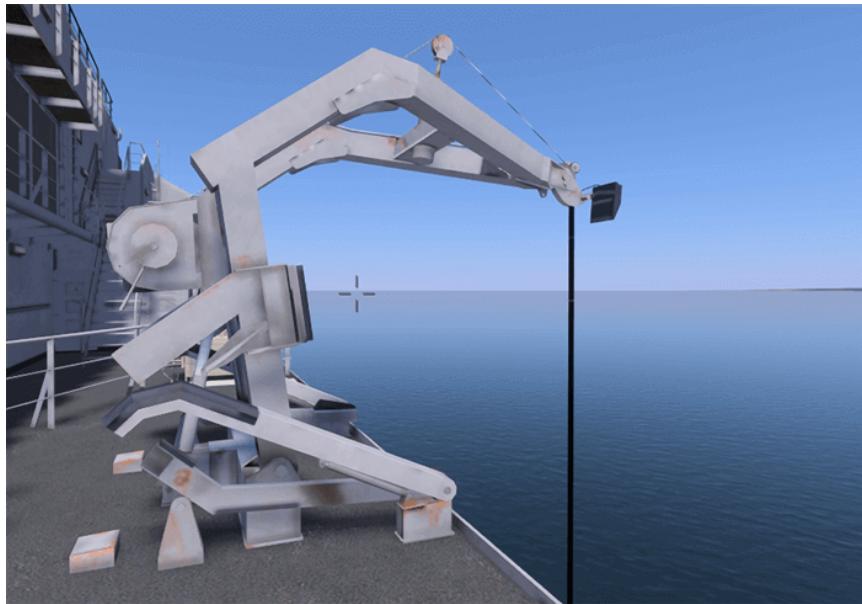
Image-7: Weapon IWF interface



4. Use the weapon controls, described in the **VBS Vehicle Control - Commander, Gunner, and Co-Pilot** section in VBS4 Controls(in the VBS4 Trainee Manual).
5. If necessary, use the compass at the top-right of your screen to accurately direct the gun.

6. River Class Davits

The River Class has two Davits, located on the port and starboard sides of the ship, which are used to maneuver Pacific 24 RHIBs.



For more information about where the Davits and their respective Pacific 24s are located, see Monitoring the OPV River Class.

To use the Port / Starboard Davit:

1. Approach the **Power Control Box**, located at the front of the Davit.
2. Look at the **Power Control Box**, until the **Open Port / Starboard Davit Control Panel** 3D World Action appears (see 3D World Actions in the VBS4 Trainee Manual), and select it.

The Davit Control Panel Opens.



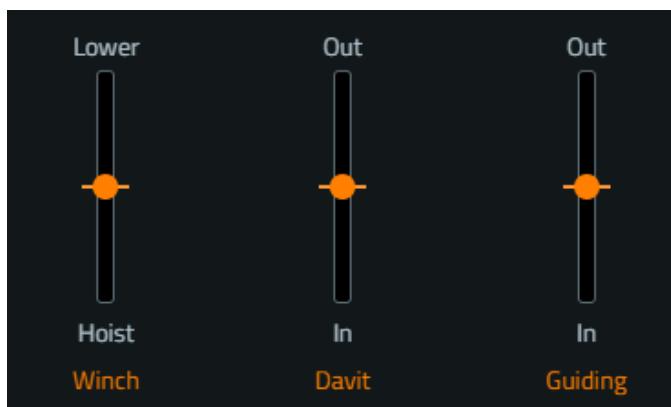
To deploy the Pacific 24:

1. Click the **Main Pump** button to switch the pump on.

NOTE

This can also be done before opening / after closing the Davit Control Panel by looking at the **Power Control Box**, until the **Turn On / Off Main Pump** 3D World Action appears, and then select it.

2. Await verbal clearance from the bridge.
3. Press and hold the **orange Winch** lever and slide it fully down to the **Hoist** position to lift the Pacific 24 out of the blocks.



4. Press and hold the **orange Davit** lever and slide it up to the **Out** position.

The Pacific 24 moves away from the River Class.

NOTE

If the Davit Arm is not far enough out from the River Class, the message **Davit arm has to be further out to unwind / wind the rope more** appears. In which case, move the Davit Arm further out from the River Class.

5. Once the Davit Arm is far enough out, press and hold the **orange Winch** lever and slide it up to the **Lower** position.

The Pacific 24 is lowered towards the water.

6. Once the Pacific 24 is lowered as far as possible, click **Unhook RHIB**.

The message **RHIB is unhooked** is shown, the Pacific 24 is unhooked, and drops into the water.

7. Click **X** or **Close** to close the Davit Control Panel.

The Pacific 24 is deployed.

Image-8: Deploying the Pacific 24



To bring the Pacific 24 back onboard the River Class, follow these steps:

1. Ensure that the Pilot has positioned the Pacific 24 close enough to the River Class.
2. Approach and look at the **Power Control Box**, until the **Open Port / Starboard Davit Control Panel** 3D World Action appears, and select it.
3. Click **Hook RHIB** to reattach the Pacific 24 to the Davit Winch.
4. Repeat steps winch procedure in reverse order, this time sliding the levers down to the **Hoist / In** positions.

The Pacific 24 is secured and stowed in the Davit.

6.1 Pacific 24 User Actions

Units onboard the River Class can board the Pacific 24 using the Interact with Vehicles Interface (IWI).

Once onboard the Pacific 24, the unit in the Pilot position has access to user actions which enable them to hook / unhook the Pacific 24 to the Davit Winch, providing that the Pacific 24 is close enough to the River Class.

Follow these steps:

1. In the Pilot position, press **Quick Menu (Left Windows)** to open the Quick Menu (see Quick Menu Actions in the VBS4 Trainee Manual), and select **HOOK RHIB / UNHOOK RHIB**.

The Pacific 24 is hooked to / unhooked from the Davit Winch, and the message **RHIB is hooked / RHIB is unhooked** is shown.

2. With the hook attached, the Davit Operator onboard the River Class can use the **Davit Control Panel** to hoist the Pacific 24 back onboard.

Image-9: Pacific 24 Pilot menu



7. River Class Signal Lamps

The River Class ship has two Signal Lamps placed on either side of the bridge, which can be angled in all directions by moving your mouse.

Image-10: Signal Lamp



Follow these steps:

1. If you are not already in the **Signal Lamp Operator** position, approach a Signal Lamp and do one of the following:
 - Look at the Signal Lamp, until the **Interact** 3D World Action appears (see 3D World Actions in the VBS4 Trainee Manual). Then, select it.
 - Press **Interact with Vehicle (U)** to open the Interact with Vehicles Interface (IWI) (in the VBS4 Trainee Manual).
2. Click the yellow AI icon to **Get in As Gunner**.
You are now in the Gunner position.
3. Press and hold **Fire (LMB)** to switch the light on.
4. If necessary, use the Situational Awareness Indicator at the top-right of your screen to accurately direct the lamp.

The lamp remains on until the LMB is released, enabling you to perform, for example, Morse Code type signaling.

NOTE

Signal Lamps may be negatively affected by adverse weather conditions, such as those set in Weather Settings in the VBS4 Editor Manual, for example.

Image-11: Signal Lamp at night

The following image shows the glint of the Signal Lamp as seen from a distance.

Image-12: Signal Lamp glint

At further ranges, the glint is seen at a smaller angle, and is visible from several kilometers away.

8. River Class Anchors

The River Class has two anchors on either side of the bow, which can be controlled individually using a windlass. Anchor caps on the deck, located at the front of the windlass, are color-coded **red** for the port anchor, and **green** for the starboard anchor.



The following is discussed:

- [Lower the Anchors \(below\)](#)
- [Raise the Anchors \(on page 23\)](#)

8.1 Lower the Anchors

The following procedure explains the correct way to lower the port / starboard anchors.

Follow these steps:

1. Approach the front of the windlass.

NOTE

Where you stand in relation to the windlass can determine what functionality is made available, as the 3D World Actions (see the VBS4 Trainee Manual) that appear are based on distance constraints.

2. Approach and look at the Port / Starboard Cap, until the **Toggle Port / Starboard Cap** 3D World Action appears. Then, select it to remove the **red / green** anchor cap.



3. Approach and look at the Port / Starboard Guillotine, until the **Toggle Port / Starboard Guillotine** 3D World Action appears. Then, select it to release the guillotine brake.
4. Approach and look at the Port / Starboard Bottlescrew, until the **Toggle Port / Starboard Bottlescrew** 3D World Action appears. Then, select it to remove the bottlescrew.
5. Move towards the rear of the windlass.
6. Approach and look at the Port / Starboard Winch Gear, until the **Toggle Port / Starboard Winch Gear** 3D World Action appears. Then, select it to decouple the clutch.
7. Approach the **red / green** friction brake lever, and press **Lean Left (Q)** to release the friction brake.



The **red / green** friction brake leaver rotates anti-clockwise, and the anchor is lowered towards the water.

8. To make the winch go faster, press and hold **Lean Left (Q)**.

The anchor automatically stops unwinding to a maximum of 1.5 times the sea depth.

- To stop lowering the anchor before it reaches the sea bed, press and hold **Lean Right (E)** to tighten the friction brake until the winch drum stops turning.

✓ TIP

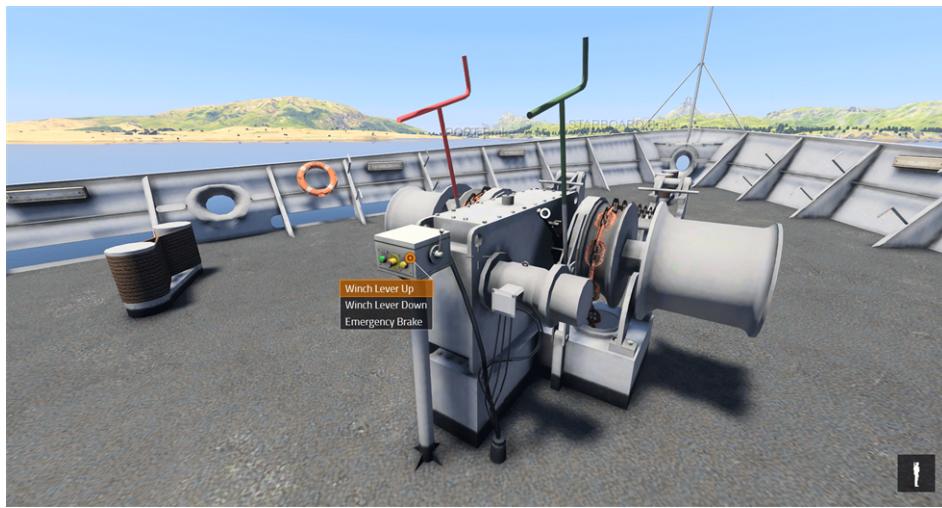
If you are using the **winch motor** you can stop lowering the anchor by approaching and looking at the Emergency Brake, and selecting the **Emergency Brake** 3D World Action. To restart lowering the anchor, select the 3D World Action again.

8.2 Raise the Anchors

The following procedure explains the correct way to raise the port / starboard anchors.

Follow these steps:

- Approach and look at any of the brakes, and select their **Toggle** 3D World Action (see 3D World Actions in the VBS4 Trainee Manual).
- Approach and look at the Port / Starboard Winch Gear, until the **Toggle Port / Starboard Winch Gear** 3D World Action appears. Then, select it to re-enable the clutch.
- Approach and look at the Winch Lever, and select the **Winch Lever Up** 3D World Action.



The winch drum turns, and the anchor begins to rise.

✓ TIP

To turn the winch faster, select **Winch Lever Up** again (moves the winch lever anti-clockwise each time).

If you are using the **winch motor** you can stop raising the anchor approaching and looking at the Emergency Brake, and selecting the **Emergency Brake** 3D World Action. To restart raising the anchor, select the 3D World Action again.

Once the anchor is fully raised, the winch drum stops moving automatically.

4. Approach and look at the Port / Starboard Guillotine, until the **Toggle Port / Starboard Guillotine** 3D World Action appears. Then, select it to apply the guillotine brake.
5. Approach and look at the Port / Starboard Bottlescrew, until the **Toggle Port / Starboard Bottlescrew** 3D World Action appears. Then, select it to put the bottlescrew back in its place.
6. Approach and look at the Port / Starboard Cap, until the **Toggle Port / Starboard Cap** 3D World Action appears. Then, select it to return the **red / green** anchor cap.

The anchor is secured and stowed in its original position.

9. Monitoring the OPV River Class

As an administrator in Execute Mode, you can view the ship plan and directly switch to the interactive ship parts, as a player.

- [Plan View \(below\)](#)
- [Other Execute Mode Interaction \(on page 28\)](#)

For River Class ship mission design, see [Designing OPV River Class Missions \(on page 7\)](#).

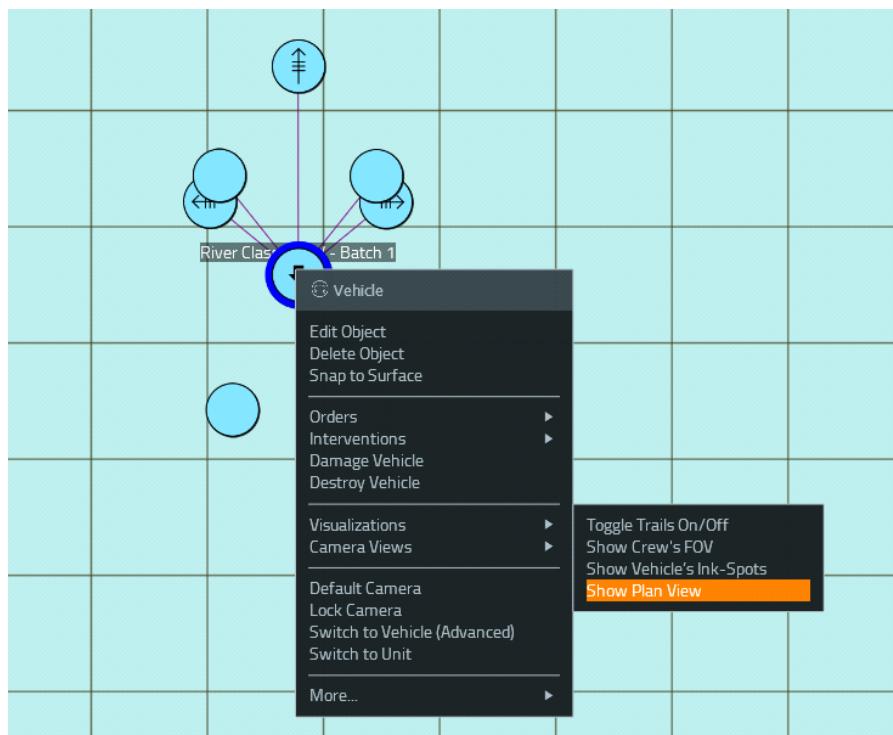
9.1 Plan View

You can view the River Class ship plan.

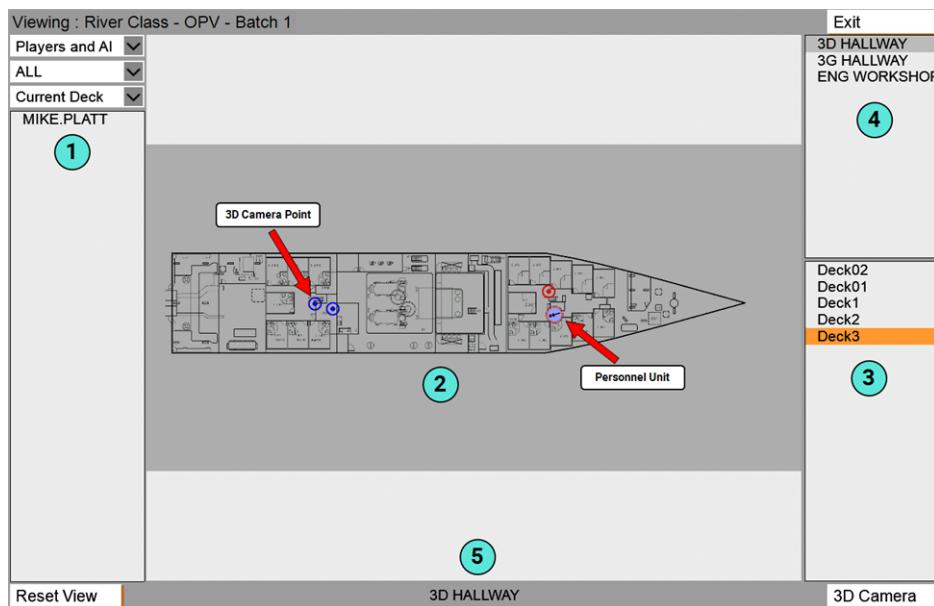
In the Execute Mode 2D View, right-click the ship, and select **Visualizations > Show Plan View** in the context menu.

The River Class ship Plan View dialog opens.

Image-13: Execute Mode Show Plan View option



In the **Plan View** dialog, use the following controls:



UI Element	Description
1	Ship personnel viewer, with three filter drop-downs.
2	Deck plan, which displays the 3D camera points and personnel units.
3	Deck selection.
4	Deck compartment selection.
5	Other controls.

The Plan View controls are:

Ship Personnel Viewer (UI Element 1 (above)):

Personnel Filters

- **(TOP) Control Filter** - Displays personnel, based on player and / or AI units:
 - **Players and AI** - Displays player and AI personnel.
 - **Players** - Displays only the player personnel.
 - **AI** - Displays only the AI personnel.
- **(MIDDLE) Unit Side Filter** - Displays personnel, based on their side.
 - **ALL** - Displays all the personnel.
 - **Civilian** - Displays the civilian personnel.
 - **BLUFOR** - Displays the BLUFOR personnel.
 - **OPFOR** - Displays the OPFOR personnel.
 - **Independent** - Displays the independent personnel.

- **(BOTTOM) Deck Filter** - Displays personnel, based on deck:
 - **Current Deck** - Displays personnel on the current deck (see current deck selection in UI Element 3 [\(on the previous page\)](#)).
 - **All Decks** - Displays personnel on all decks.

Personnel List

- The unit names appear in the personnel viewer, based on the filter criteria. Click any of the unit names, to see them highlighted on the deck plan (see UI Element 2 [\(on the previous page\)](#)).

Deck Plan (UI Element 2 [\(on the previous page\)](#)):

- **3D Camera Point:**

1. Click one of the 3D camera points.
2. Click **3D Camera**.

The 3D camera view of the ship interior opens.

3. Use the following camera controls:

- Hold the **LMB** and move the mouse, to move the camera.
- Press **Esc** to return to the Plan View dialog.

- **Personnel Unit:** Click one of the personnel units.

The unit is highlighted in the Personnel List [\(above\)](#).

Deck Selection (UI Element 3 [\(on the previous page\)](#)):

Click one of the decks to display its plan (see UI Element 2 [\(on the previous page\)](#)).

Deck Compartment Selection (UI Element 4 [\(on the previous page\)](#)):

1. Double-click one of the deck compartments

The compartment is zoomed in on it in the deck plan (see UI Element 2 [\(on the previous page\)](#)).

2. Click **Reset View**, to reset the plan zoom level.

Other Controls (UI Element 5 [\(on the previous page\)](#)):

- **Reset View** - Resets the plan zoom level.
- **3D Camera** - Switches to the 3D camera view (see UI Element 2 [\(on the previous page\)](#)).

To exit the Plan View dialog, press **Esc** or click **Exit**.

9.2 Other Execute Mode Interaction

The Execute Mode 2D View displays some of the interactive elements on board the River Class ship.

The displayed interactive elements include:

- The River Class ship itself
- The GAMBO gun
- Two GPMG turrets
- Two Signal Lamps
- Personnel units
- Two Pacific 24 RHIBs

Instructors can cause a drop in speed / engine performance for Pacific 24 boats, simulating a blockage of the water jet, which requires Trainees to perform a back-flush.

Follow these steps:

1. Right-click the **Pacific 24** Editor Object.
 2. In the context menu, select **Block Water Jet**.
- Speed / engine performance is reduced.
3. To restore engine performance to normal levels, repeat steps 1 and 2, but this time select **Unblock Water Jet**.

Engine performance is restored.

NOTE

Trainees perform the back-flush by pressing the button mapped to the **User Defined 1** control by the Administrator, or pushing full forward / back using any mapped Joystick Axis. See Pacific 24 Back-Flush in the VBS4 Trainee Manual.

For more information on the River Class ship interactive elements, see [OPV River Class \(on page 8\)](#) in the VBS4 Trainee Manual.

Image-14: Execute Mode 2D view with River Class ship interactive elements

