



## Overview:

This simulation is based on near future Deep Sea Reconnaissance/Salvage Vehicles (DSR/SV) from a pilot's point of view. A generic undersea environment is provided for the player to explore and recover salvageable objects. These salvageable objects range from abandoned cars and shipping containers all the way up to large aircraft crash sites with wreckage and active Flight Data Recorder (FDR).

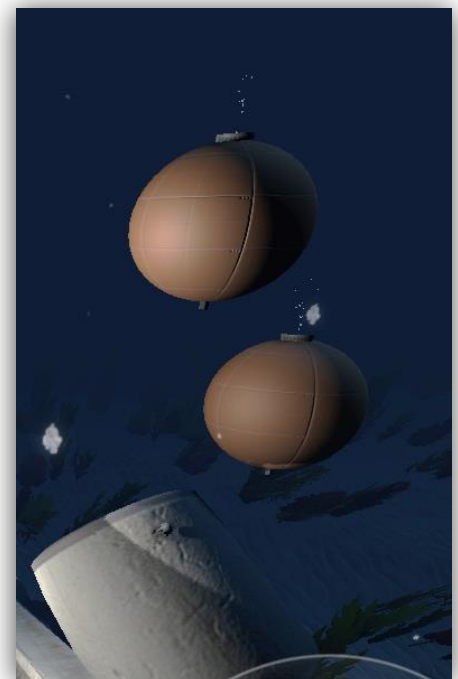
## Scenario:

The simulation begins with the player in their DSR/SV ready to dive. Because this is an untethered DSR/SV, the player must rely on limited battery power to explore their environment and locate salvageable objects. As salvageable objects are located, flotation devices are attached via a forward mounted LASER sighted flotation gun. These flotation devices are rated to lift a certain amount of salvage so in order to raise larger/heavier objects to the surface you may need to attach several flotation devices. Money is awarded to the player when the salvageable object reaches the surface for collection collected.

The DSR/SV is equipped with various instruments (e.g. Sonar, Cameras, Flood Lights, Maneuvering Thrusters, etc.) that will assist the player in locating and retrieving salvageable objects. The trade-off is that the more instruments you use, along with excessive maneuvering, the faster your battery power will be drained. When your power runs out the simulation is over and your ballast is released returning you to the surface.

## Objectives:

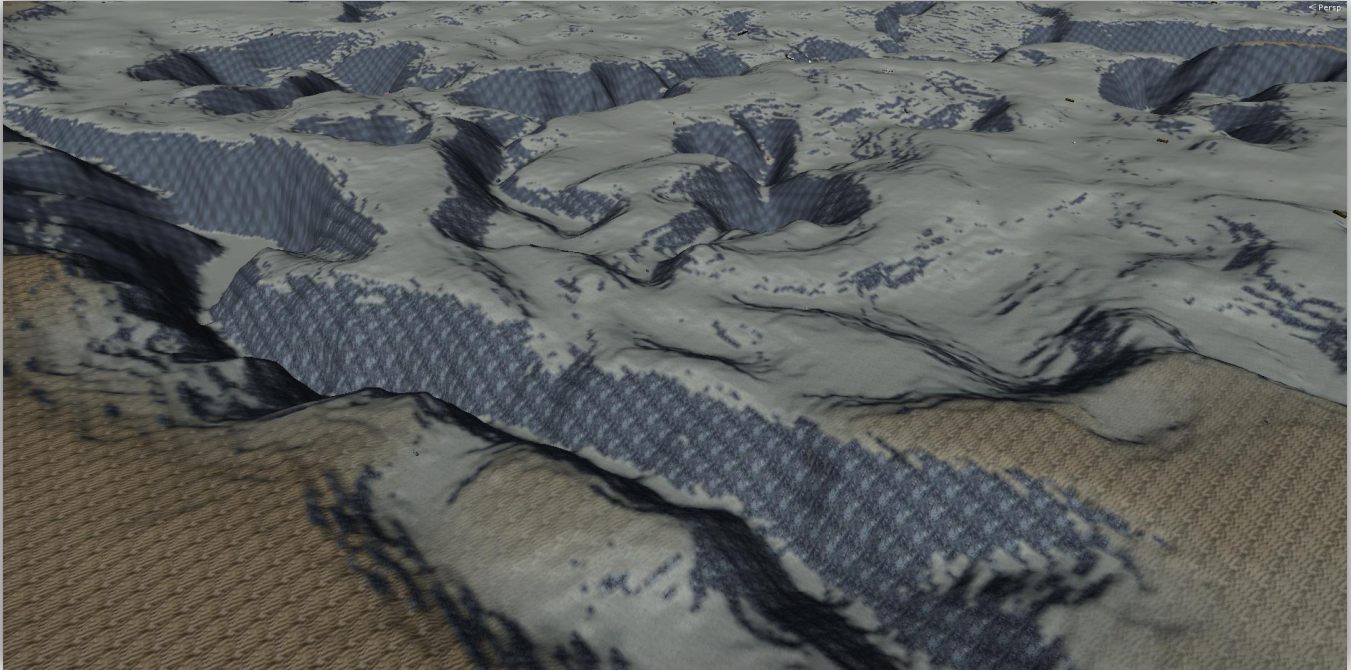
The primary objective is to retrieve the FDR from all crash sites. These sites have been randomly scattered within the environment and will include one FDR and the various pieces of salvageable wreckage. The secondary objective is to collect as much of the 'other' salvageable objects as possible (e.g. cars, shipping containers, etc.) for as long as your battery power lasts.



**Environment:**

A single 4 km x 4 km undersea environment is provided with varying terrain with coastal shallows and canyons up to 600 feet deep. All flat terrain is covered with various sea vegetation, rock outcroppings, and/or coral formations.

A randomly generated/ever changing undersea current is also simulated that causes all floating objects to drift along with the prevailing current. Ambient lighting also decreases with depth along with randomly changing visibility.

**Salvageable Objects:**

Each salvageable object has a distinct Sonar sound, including Doppler shifts, to help you locate them aurally. These objects will also be represented on the Sonar screen (bottom right) to assist you in finding their exact location.

Each salvageable object recovered will earn the player the following amounts of money:

- Aircraft Transponders (depending on aircraft size) ..... Ranging from \$5,000 to \$20,000
- Shipping Containers (random, in \$250 increments) ..... Ranging from \$750 to \$10,000
- Aircraft Wreckage (depending on the size/weight) ..... Ranging from \$100 to \$5,000
- Vehicles:
  - Tanker Truck .....\$500
  - Flatbed Truck .....\$400
  - Van .....\$200
  - Car .....\$200
- Oil Tank .....\$350
- Dumpster .....\$100
- Concrete Pipe .....\$50
- Flotation Devices .....-\$10
- Main Ballast Ejected .....-\$1,000

**Planned Future Development:**

- Buy better sonar, faster propulsion, stronger flotation devices, tagging transponders, etc.
- Collision & Pressure Damage
- Mission & Free-Play Modes
- Multiple/larger undersea environments of varying depth and complexity
- Rescue Operations on Downed Submarines & Research Bases
- Tag locations of Sunken Ruins, Ships, Volcanic Vents, Prospecting, Whales, etc.
- Crew & Cargo transfers between various undersea facilities (e.g. Surface Support Ships, Harvesters, Habitats, Research Labs, etc.)

## Primary Display & Camera System:

The primary display will be a Third Person Follow Camera view which will occupy the main display screen. A secondary camera view (left side) can be toggled between 'Targeting', 'Docking', and 'Pilot' camera views.

### Vertical Status - Top Left

- DPT: The depth of your DSR/SV below or distance to surface
- ALT: Your DSR/SV's altitude above or distance to the sea floor
- BTY: Bathymetric depth data or the depth of the water column at you DSR/SV's position.
- ATM: The current number of atmospheres or pressure on your DSR/SV's hull




### Horizontal Status - Top Center

- POS: Your DSR/SV's current GPS grid coordinates or Latitude/Longitude in decimal degrees  
Your DSR/SV's current heading and speed

### Mission Status - Top Right

- CLK: Mission time clock that started running at the start of your current mission
- REV: The total amount of revenue generated from the salvage your DSR/SV recovered from the bottom

### Attitude Status HUD - Center

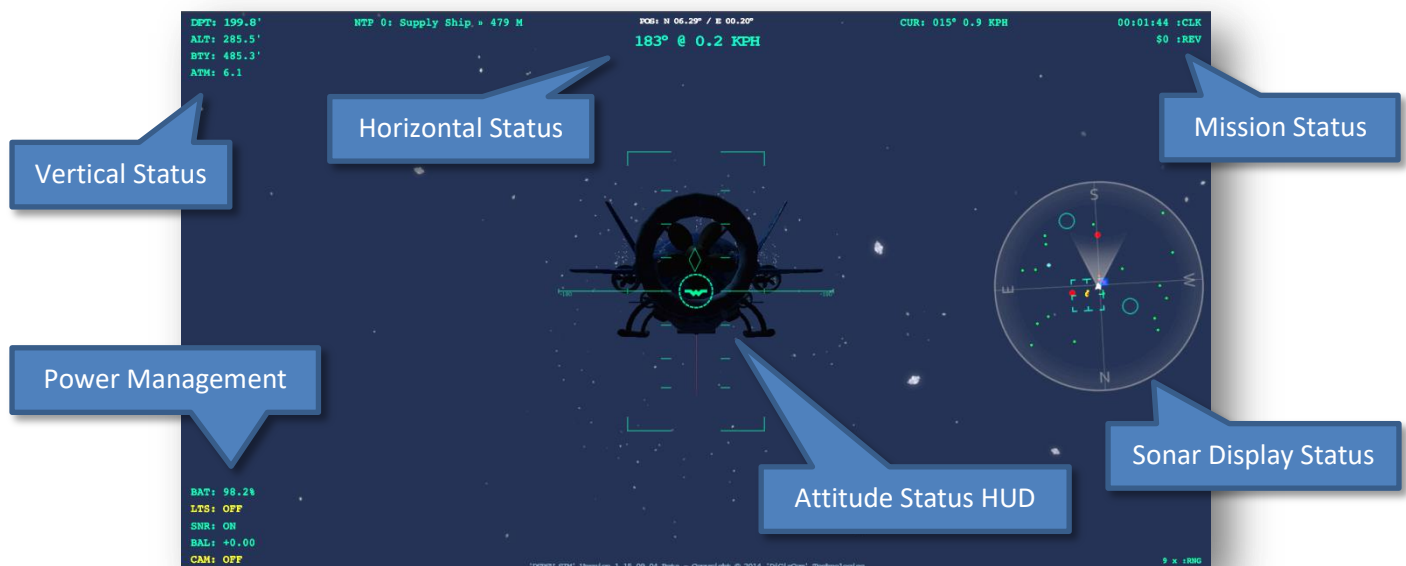
- Ladder: A series of horizontal lines in 10° increments nose up/down with top & bottom guides at 45°
-  Velocity vector indicating your DSR/SV's attitude or rotation (flying W)
-  Vertical Speed & ballast indicator (dashed circle, moves up and down)
-  Navigational Turn Point (NTP) directional indicator

### Power Management - Bottom Left

- BAT: The current amount of power remaining in your DSR/SV's battery
- LTS: External lighting indicator (ON/OFF)
- SNR: External lighting indicator (ON/OFF)
- BAL: Your DSR/SV's current buoyancy setting, +positive values make your DSR/SV heavy/sink and -negative make you light/rise
- CAM: Your current camera selection: OFF, Targeting (for attaching flotation devices, Docking (for picking up supplies and transferring passengers/cargo (future), and Cockpit giving you an over the pilot's shoulder view of the control room

### Other Displays

- NTP: The selected Navigational Turn Point (NTP) with cursor (top left)
- CUR: The ever changing direction and speed of the undersea currents pushing against your DSR/SV's hull (top right)
- RNG: The current sonar range setting (bottom right)





**Game Controller & Keyboard Control Matrix:**

The simulation can be controlled via any standard game controller, mouse, and keyboard or any combination. For keyboard users, please note that translation (lateral movement) is performed via the WASD keys and turning (rotational movement) is controlled via the arrow keys. Most control inputs will display a status message just above the HUD.

Category/Item	Controller	Keyboard	Notes & Mouse Input
<b><u>Movement Controls...</u></b>			
Move: Forward/Aft	Left Stick Y	W/S	-
Move: Right/Left	Left Stick X	A/D	-
Turn: Roll Left/Right	Trigger Left/Right	Q/E	-
Turn: Pitch Up/Down	Right Stick Y	Up/Down	Mouse Forward/Back
Turn: Yaw Left/ Right	Right Stick X	Left/Right	Mouse Left/Right
<b><u>Ship Controls...</u></b>			
Drop Ballast	-	B	Hold for 3 seconds (rapid ascent)
Camera Switch (Off, Targeting, Docking, Pilot)	Button 2 (X)	C	Mouse Right Click
Cruise/Docking Mode Toggle	-	H	Hover Restricts movement speed
Lights: On/Off	Button 3 (Y)	L	-
Sonar: On/Off	Button 0 (A)	M	Mouse Wheel Click
Undock from Station	-	U	Unlocks & releases ship from docking port
Max Descend Toggle	-	X	Increases Ballast x 2
Max Ascend Toggle	-	Z	Decreases Ballast x 2
Next/Previous NTP	-	[ / ]	Selects the current Nave Turn Pointer
Ballast Decrease	Button 5 (RF)	Minus -	Makes DSS/RV lighter (float up)
Ballast Increase	Button 4 (LF)	Plus +	Makes DSS/RV heavier (sink down)
Sonar Range Decrease	Button 6 (Back)	Page Up	Mouse Wheel Forward
Sonar Range Increase	Button 7 (Start)	Page Down	Mouse Wheel Back
Fire Flotation Device	Button 1 (B)	Spacebar	Mouse Left Click
<b><u>Game Controls...</u></b>			
Restart Game/Mission	-	R	-
Pause Menu: Restart, Quality, & Quit	-	ESC	-
Swap Joystick Controls	-	F2/Num Lock	-
Help Menu	-	F1	-
Full Screen On/Off	-	F3	-
HUD On/Off	-	F4	-
Follow Camera Move In/Out	-	F5/F6	-
Follow Camera Move Up/Down	-	F7/F8	-
Lighting: Depth Drop Off	-	F9/F10	Adjusts light penetration depth (1KM default)
Lighting: Ambient Intensity	-	F11/F12	Adjusts sunlight penetration intensity



Note: F3 to swap left & right stick functions.