



## Key Features:

- High reliability, Rugged Design
- Silent Running Technology
- Dual Prop Contra Rotating Propulsion
- 4 and 6 Man Options
- Module Options for Dry Chamber
- Auto Pilot System
- Direct Drive Reliability (no gearbox)
- Full Sonar Options
- Auto "Docking" Options
- Integrated Bridge System



# Seal Delivery Vehicles

## "Tiger Seal" SDV Series

Shallow Water Combat Submersible (SWCS) or SDV (Swimmer Delivery Vehicle) enables the crew to approach their objective tactically without being detected. It is a swimmer delivery vehicle which can carry assault swimmers. The SWCS can be used for offshore intervention or coastal intrusion. It is able to maneuver on and below water surface to carry 4 or 6 combat assault swimmers with their gear.

The typical Swimmer Delivery Vehicle (SDV) is a large electrically-propelled torpedo-like craft which can operate from a "dry deck shelter" fitted to a full-size submarine. The cylindrical deck shelter is hooked up to the sub's escape hatch, functioning as an underwater docking bay for the mini-sub. The vehicle can also be launched from shore or a small support vessel. 4 SEAL passengers and 2 crew can ride in the SDV, wearing breathing apparatus.



One of the roles of combat swimmers is to conduct amphibious reconnaissance or raids. In order to achieve tactical surprise, it is essential that the approach to targets must not be compromised.

**One of the methods used is by means of the sub-surface craft which has advantages as follows.**

- To transport assault swimmers to a target from launching mother ship.
- To carry necessary combat equipment, like demolition charges, electronics, counter measures or weapons for each specific operation.

To approach the target through underwater to avoid observation by the objective through radar, visual observation or patrol. Shallow water approach makes it extremely difficult for the objective to detect the craft by all means

***Silent Running.... Low Magnetic Signature.... Hi Mission Duration...***

Mission capabilities include and are not limited to: Reconnaissance, intelligence, surveillance, inspections, infiltration / ex-filtration, raid / assault, neutralization, counter measures, enemy access denial, intervention in hostage situations and recovery of assets in the water, anti smuggling, piracy, coastal and waterways police patrols and interventions.



# Marine Propulsion Solutions

## Naval Group

Singapore / Batam Offices

[www.marinepropulsionsolutions.com](http://www.marinepropulsionsolutions.com)

Phone : +62 7784168866

Mobile: +62 811 7788802

Email:

[Info@marinepropulsionsolutions.com](mailto:Info@marinepropulsionsolutions.com)



## Marine Propulsion Solutions – Naval Group Naval Seal Delivery Vehicles – SDV's

The SDV approaches the Coast just below the surface, then submerges deeper to close in to avoid enemy radar detection and once on the objective, the SDV is berthed in a safe position on the sea floor or at a pre-planned rendezvous, to release swimmers to complete the mission.

The availability of a combined SDV / Mother ship effectively enhances the capability of the commando team to conduct the following tasks:

- Surveillance of sea flanks/water-ways.
- Neutralization.
- Rescue Missions.
- Assaults
- Infiltrations

### **OPERATIONAL**

The maximum speed of the SWCS is 10 knots ..... cruising speed at 6-8 knots with the craft capable of operating at depths of 100M Max with greater than 95% reliability over 15x ..... twelve-hour missions and designed with low profile and stealth shape features allowing unobtrusive approach to the target when running submerged.

### **OPERATION**

The SDV can easily be operated with a crew of two SEAL ..... The Pilot and Mission Specialist

The SDV can carry upto 4 combat swimmers plus combat load

Fully automatic navigation modes, auto-pilot, touch screen charts to upload route to targets

The **"Integrated Bridge System"** is essentially a new comms/sensor/IT chasis. The open architecture, a power and signal distribution system capable of integrating various sonars systems that display operational data to the vehicle pilot and navigator.

### **SURVEILLANCE**

The autopilot system (APS) is ideally suited for surveillance requirements. Typically the autopilot guides the vehicle to the survey area and than follows a predefined route while payload instruments are brought to bear on the field of interest – weather it be side scan sonar, radar, visual/infrared imagery, chemical or radiation sensors or other supplied sensors.

### **REMOTE CONTROLLER MINE HUNTING**

Mine hunting involves operating payload sensor systems over a pre-programmed mission track. The autopilot is capable of driving the vehicle over the track, at low speeds, and hovering within a defined area when the sensors detect an object of interest.

- Heading Following
- Track Following
- Vehicle Following
- Hovering on a Point
- Hovering within an arear of interest
- Vehicle "Unmanned" Parking Mode

The autopilot system incorporates controllers for attitude (roll and pitch) and depth / height control. Roll control is built into the attitude controllers..... all operations are electric driven (no hydraulic systems utilized for low noise.

The Dual / Contra Rotating Propellers are built from carbon fibre with changeable blades when damages.

### **The "Tiger Seal" Mark IV - SDV Series**

## **The Shallow Water Combat Submersible**