



# Introducing DPD3



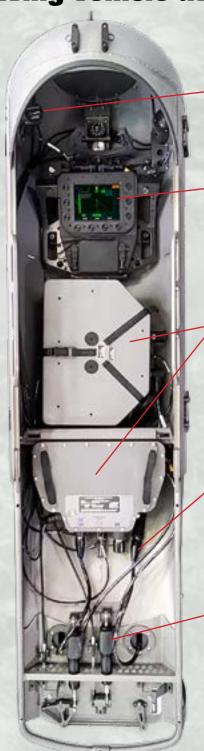
## **The Largest and Most Advanced Combat Diving Vehicle available!**

#### **DPD3 includes:**

- Powerful DPD3 Propulsion Battery increases DPD range and run time.
- Integrated RNAV3 displays operational and diagnostic data directly from DPD3 **Propulsion Battery.**
- Ruggedized JAK-LOC connectors eliminate cable/plug failures.
- Advanced DPD3 AP3 Module enables innovative Diver Assist capability for DPD3.
- Re-designed Battery Status Indicator provides backup battery status.
- DPD3 is Deep Submergence rated to 300 FSW (91.4m).
- DPD3 is now available configured with "SUB-SAFE" materials.



**New DPD3 Propulsion Battery** 



## NEW!

#### **BATTERY STATUS INDICATOR (BSI)**

- 10 Segment LED CST
- +/- 5% Accuracy

#### RNAV3

- Real time battery status information display
- Range at current throttle settings displays for range option
- SUB-SAFE materials and Deep-Submergence rated



#### DPD3 **BATTERY SYSTEM**

- Increased run-time
- Digitized output to RNAV3
- **Ruggedized Connectors**
- Ergonomic bulkhead angle for ease of access
- Deep Submergence (DS) 300 FSW (91.4 M) rated



#### CONNECTORS

- Ruggedized Easy Mate / De-mate
- Simple Replacement
- Damage prone penetrator whips eliminated



#### **AP3 DIVER ASSIST**

- **Operating parameters** and diagnostic information integrated into RNAV3 and **Smart Charger**
- 1 Ethernet port to RNAV3
- 1 Ethernet port (powered)

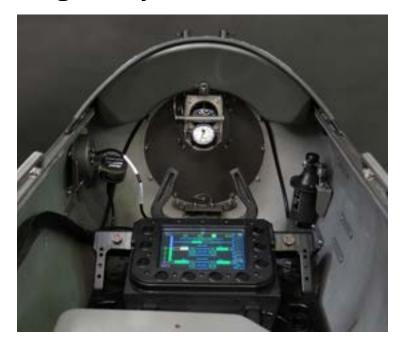
# INTRODUCING NEW RECCONS

STIDD's new advanced precision navigation system for DPD3



Building on the legacy of its Diver Propulsion Device (DPD), the most widely used combat vehicle of its kind, STIDD designed and developed a system of DPD Navigation, Control, Communications, and Automation features which enable a seamless transition between Manned and fully Autonomous modes, known as RECCONS.

RNAV3 was developed by STIDD partnering with Greensea as the backbone of this capability. RNAV3 is powered by Greensea's patent-pending OPENSEA™ operating platform, which not only enables RNAV3's open architecture, but also seamlessly integrates STIDD's OM3/AP3 Diver Assist /S3 Sonar/ AC3 Communications products into an intuitive, easy to use, autonomous system. When fully configured with the Precision Navigation, Control & Automation System including RNAV3/OM3/AP3/S3/AC3, any DPD easily transitions between Manned, Semi-Autonomous, and Full-Autonomous modes.



# PERECCONS

RNAV, ENABLED, CONTROL, COMMS, OPTIONALLY MANNED, NAV & SONAR PACKAGE

#### **RNAV3** PRECISION NAVIGATION & CONTROL

- Ensures Precise Clandestine Navigation
  - Intuitive, User-Friendly Interface
    - Open Architecture System
- Diver-Portable and DPD-Mounted in single form factor



#### **0M3**



#### OPTIONALLY-MANNED

- Automates key DPD Functions
- Seamless transition from Manned to Autonomous Modes

#### **AP3**



#### **DIVER ASSIST**

Provides accurate 2 Axis
 Heading Control of the DPD and
 4th Axis Depth Control

#### **S3**



#### **SONAR**

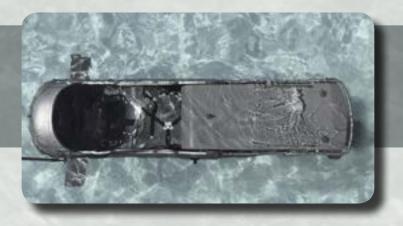
- Enhances Precision Navigation
- Allows Obstacle Avoidance and Target Identification

#### AC3



# ACOUSTIC COMMUNICATIONS

- Provides long range communications between DPDs
- Enables texting, data sharing and tracking



RNAV

ENABLED

CONTROL

STIDD DPD RE

# DPD3 DIVER PROP

The DPD, designed for and certified by widely used military-grade underwater

#### **DPD Certifications:**

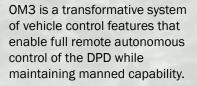
- DPD is the only export controlled "A certified diver propulsion device in
- NATO NSN NATO (National) Stock N
- UN Transport Certified

\*PATENTED: U.S. Patent No. 6,615,761 \* In:



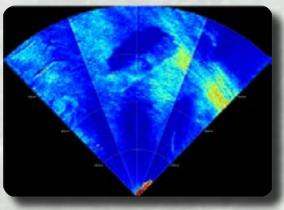
## DPD in OM3 Mode

### **0M3**



#### **OM3** features include:

- Automated Antenna Mast
- Automated Throttle Control
- Communications Receiver
- Network Sensor Integration Hub



S3 Sonar 100m range 900kHz

## **S3 SONAR**

The S3 Sonar Option for RNAV3 enhances the precision navigation capabilities of the innovative RNAV3, adding high quality forward-looking sonar images to the operator in low- and zero-visibility environments for precise long, or short range obstacle avoidance and/or target interrogation.

#### S3 Sonar Applications include:

- Detection / Obstacle Avoidance
- Situational Awareness
- Operations Monitoring
- Area Survey/Search & Recovery
- Hydro graphic Survey





DPD3 with fore/aft cutaway

# RNAV3 N



RNAV3 is an innovat in the DPD to enable missions. The RNAV3 displays the operato instantaneous situat is achieved through a Kalman filter.

The RNAV3 is powere system power for 7+

user-friendly mission planning software allow all le easily upload them into the RNAV3.

#### RNAV3 includes the following cutting edge pred

- 600kHz Doppler Velocity Log (DVL)
   3-axis comp
- 40 channel GPS with <2.4m position accuracy</li>



#### **OPTIONALLY MANNED, NAV & SONAR PACKAGE**

**OPTIONALLY** OMMS **MANNED** 

**NAVIGATION** 

SONAR

LAYOUT CCONS



**AC3 Communications Screen** 

## ULSION DEVICE

the U.S. Navy, is the most mobility vehicle in the world.

pproved for Navy Use" (ANU) the world. umber

ternational Patents Pending



## **AC3 COMMUNICATIONS**

The AC3 acoustic communications system is designed to work with the STIDD DPD and RNAV3 system to provide subsea communications and situational awareness between divers. Dive team members can easily text message each other to reduce risk and improve operational efficiency.

#### AC3 features include:

- Track team mates Support for homing and docking
- Exchange mission data
   Broadcast GOTO waypoints
- Configurable commands
   Macro commands





s exposing installed RNAV3 and AP3 actuators

## AVIGATION SYST

ve electronic navigation system that can be either mounted precision navigation by divers, or without divers for AUV Badjustable back lit 8.4" color LCD screen constantly r's position on a high resolution moving map display for ional awareness. Superior accuracy over distance traveled a suite of high-accuracy on-board sensors and an optimized

ed by an internal BB-2590/U Li-lon battery which provides hours. The simple to operate ergonomic input devices and vels of users to create waypoints and routes and

#### cision accuracy sensors:

pass module with sub .5° heading accuracy Multi-state Kalman filter

### **DIVER ASSIST**



The AP3 Diver Assist Option provides exceptional RNAV3 control of the DPD by dynamically adjusting vehicle pitch and heading, automatically keeping the DPD on its programmed or manuallyselected course and depth, while accurately compensating for the effects of currents, diver motions, and changes in diver buoyancy.

#### **AP3 Diver Assist features include:**

- AP3 Diver Assist 2-axis heading control and 4th axis depth control of the DPD via integrated electro-mechanical actuators fitted to the pitch and rudder linkages of the DPD
- The AP3 Diver Assist eliminates manual heading errors, deviations, depth excursions, and delayed diver response to changing environmental conditions.
- AP3 Diver Assist software control algorithms provide a smooth and safe descent/ascent rate, protecting the divers from undesired excursions.



# NEW! RNAV3 **Battery Display Integration**

Integrated battery info displayed on RNAV3 provides enhanced mission planning and real-time operational utilitv.\*

- DPD3 propulsion battery STATE OF CHARGE (SOC) displayed on RNAV3 screen.
- DPD3 propulsion battery DISCHARGE RATE (Amps) displayed on RNAV3 screen.
- DPD3 propulsion battery TIME REMAINING displayed real-time as DPD throttle position changes
- Range at current throttle setting calculator displayed on RNAV3 screen enables diver to optimize range remaining.

<sup>\*</sup>requires AP3 Control Module.



RNAV3 display of DPD3 Battery (fore/aft) operational parameters

#### Real-time detailed battery status enables simplified diagnosis and operation.

- Charge time to full
- · Discharge time to empty
- Cell Pack Temperature
   Cell Pack Voltage
- Cell Pack Current
- Charge time to full
- State of Charge (SOC) Discharge Cycle Count



RNAV3 graphic display of DPD3 Battery DTE/TTE parameters.



**DPD3 Propulsion Battery** 



### **DPD3 Propulsion Battery**

p/n 4600-121

- **Increased Charging Connector conductor size allows** 66% faster rate of charge.
- Compatible with all planned and future capability expansions.
  - · Conforms to all space claims of current and future components (RNAV3, S3, AP3, OM3, Diver Comms, future Sensors)
- New battery container ergonomic bulkhead angle improves access and ease of cable attachment/removal.



p/n 4600-114

- Less than 8 hours to full charge
- Fully automatic charging
- Fully automatic discharging to 30% SOC for UN/DOT shipping requirements
- Capable of unattended maintenance charging for long-term storage
- Parasitic discharge prevention (will not discharge battery if left connected)
- Fully automatic charging
- 3 LEDs Charge Done Fault



# nced Technology





- Ruggedized easy-mate/de-mate Jak-Lok<sup>TM</sup> connectors and cables eliminate handling damage and penetrator failure.
- Damage prone penetrator whips eliminated
- Ruggedized battery bulkhead connector pairs carefully chosen based on decades of prior experience to reduce component failure rate and down time
- Cables mate/de-mate by manually turning Jack Screw Collars, eliminating tugging, pulling, and wiggling of connectors that has caused wire breakage and contact damage
- If a cable failure occurs, it can be quickly replaced from spares inventory on-site without factory service, since it is no longer integral to the battery pressure vessel



AP3 Control Module for DPD3



p/n 4600-122

Contoured to fit expanding space claims of DPD3 in the environment of the DPD3 Propulsion Battery, the AP3 Control Module retains all the diver assist performance and operational features of previous diver assist module, but provides dramatically enhanced DPD3 connectivity features, including:

- X2 Ethernet ports for connecting to DPD3 propulsion battery data
- X1 Ethernet port with software switchable DC power for capability expansion, (i.e. Side scan sonar, Diver Comms, Video)



**Indicator** 

p/n 4526-1-152

- 10 segmented LED/CST
- +/- 5% accuracy



Battery Status Indicator at full charge

# RNAV3 PRECISION NAVIGATION

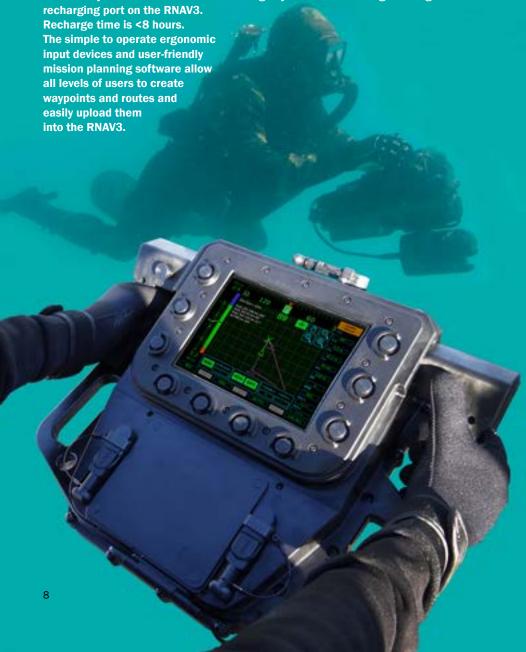
# for DPD-Mounted, Diver-Portable & DPD-OM3 Missions.

RNAV3 Precision Navigation System (p/n 4600-101) is an innovative electronic navigation system that can be either mounted in the DPD to enable precision navigation by combat divers, or without divers for Optionally-Manned Vehicle (OM3) missions. Additionally, the RNAV3 can be dismounted in seconds for swimming in hand-held mode. In any role, the RNAV3 offers SOF personnel the unprecedented capability of a navigation tool for precise clandestine subsea navigation, mine countermeasures, beach reconnaissance, ship-attack, missions, object identification, and AUV operations.

The RNAV3 adjustable back-lit 8.4" color LCD screen constantly displays the operator's position on a high resolution moving map display for instantaneous situational awareness. Position accuracy of 0.5% over distance traveled is achieved through a suite of high-accuracy on-board sensors and an optimized Kalman filter.

The RNAV3 is powered by an internal BB-2590/U Li-lon battery which provides system power for 7+ hours or 5+ hours when configured with the S3 Sonar Option forward imaging sonar.

The battery life enables 1500 full discharge cycles and is recharged though an external





#### RNAV3, AP3 Diver Assist, AC3 Communications and OM3 run on Greensea proprietary software

RNAV3, OM3, AP3 Diver Assist and AC3 Communications are powered by Greensea's proprietary Balefire software, which provides easy-to-use, highly accurate navigation and control system applications for military and commercial use. Surveillance, detection, identification, and prosecution of targets can be executed efficiently and repeatedly with the exclusive proprietary RNAV3/Greensea package.

The AP3 Diver Assist provides instantaneous heading and depth control for a stable platform and pinpoint navigational accuracy. Stability and control translates to accurate, reliable mission performance, while divers in hostile environments are free to focus on the mission rather than vehicle control.



### GREENSEA

#### **Greensea proprietary features:**

- Station keeping
- Alarm management
- Target tracking
- Target-relative positioning
- Dynamic positioning
- Mission execution
- · Single-screen, intuitive interface

Greensea's reliability, presentation, and performance make it the choice of leading military and scientific operators of manned, unmanned, subsea, and surface vessels worldwide.

Greensea partners with STIDD Systems, Inc. to provide advanced custom solutions for the DPD, RNAV3, AP3, OM3, AC3 and other diver products.

# RNAV3 Training Simulator System



"Operator using RNAV3 Training Simulator System to mimic training dive profile"

#### The RNAV3 Training Simulator System (R-TSS) consists of:

- Production RNAV3 Casing with all external ports mounted on a custom desktop interface base
- OPENSEA Simulator Hub with Software
- Hand Controller to simulate DPD inputs, and all required cables
- \* TV Monitor not included



RNAV3 Casing mounted on custom desktop interface with all external ports required to support dive simulation

# MINIMUM OPERATOR PROVIDED COMPUTER SYSTEM PERFORMANCE SPECIFICATIONS:

Computer type: Desktop or Laptop

Video Card: Nvidia GeForce GTX770
(or better)

Operating System: Windows 10 Professional
Processor Core: i7 Haswell (or better)
Min. RAM: 8 GB

Screen Resolution: 1280 X 720 pixels (1920 X 1080 preferred)

# Simulator for RNAV3 Prepares Operators in a Virtual Underwater Environment

#### **PRACTICE ON LAND - EXECUTE IN WATER**

The RNAV3 Simulator provides a powerful training tool to develop and maintain proficiency with RNAV3 without utilizing actual RNAV3 hardware or requiring in-water activities. With controls that closely mimic RNAV3 and the same software as RNAV3 running on a laptop, users experience realistic navigation, sonar, mission planning, and DPD simulation.

Practicing and training on missions within the simulator replicates actual CONOPS with the mission planning software. Trainers can specify starting coordinates, environmental conditions such as time of day, surface conditions, current, and turbidity. Each scene is typically 2km x 2km and includes seeded mine targets to facilitate operators developing sonar proficiency and object detection.

#### **REAL WORLD BECOMES VIRTUAL REALITY**

Based on a high-fidelity physics engine with an accurate hydrodynamic model of the DPD and using real world bathymetry and satellite data, simulated raw sensor data is provided to RNAV3 as operators maneuver in the virtual world. Simulation happens at the raw sensor level to fully utilize the software platform of RNAV3. Operators can accurately exercise all functions of RNAV3 including pre-dive checks, mission planning, initialization, alignment, sonar, and diver assist.

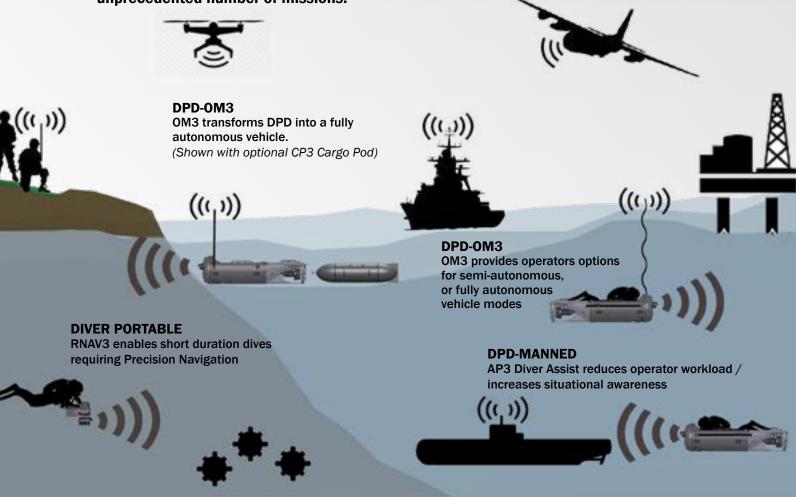
The RNAV3 Simulator provides a powerful and comprehensive means for operators to maintain proficiency, train, and evaluate operational scenarios without going into the water. The simulator uses the exact software as RNAV3 and the identical embedded processor creating a convenient means to evaluate new software releases, demonstrate the functions of RNAV3, and even practice failure scenarios. RNAV3 provides navigation, control, communications, and autonomy for the Diver Propulsion Device (DPD) sold and manufactured by STIDD and is in use by SOF programs around the world. RNAV3 runs Greensea's SOF Workspace and open architecture navigation, mission planning, and vehicle control software platform developed for SOF combat swimmers based on OPENSEA®.



Greensea provides navigation, control, and autonomy products for marine vehicles based on their patent-pending OPENSEA™ operating platform. Over 700 systems have been installed on manned, unmanned, surface, and subsea vehicles, www.greenseasystems.com

# **DPD System 3 Mission Scenarios**

Switching easily between Manned, Semi-Autonomous, and Full Autonomous modes, the DPD configured with the complete Navigation, Control and Automation System can perform an unprecedented number of missions.



#### **MISSIONS:**

When equipped with the complete Navigation, Control and Automation System, the DPD's inherent speed, endurance, and payload capacity enable operators to conduct an unprecedented range of missions in Manned, Semi-Autonomous, Full Autonomous Mode... all with the same DPD!

- ISR
- Infil/Exfil
- PayloadDelivery
- MCM

- CT Piracy / Narcotics
- Over-Watch of CACHE site
- · Near Land / Harbor Monitoring
- Deploy Leave Behind Sensors Arrays
- Hydrographic Survey

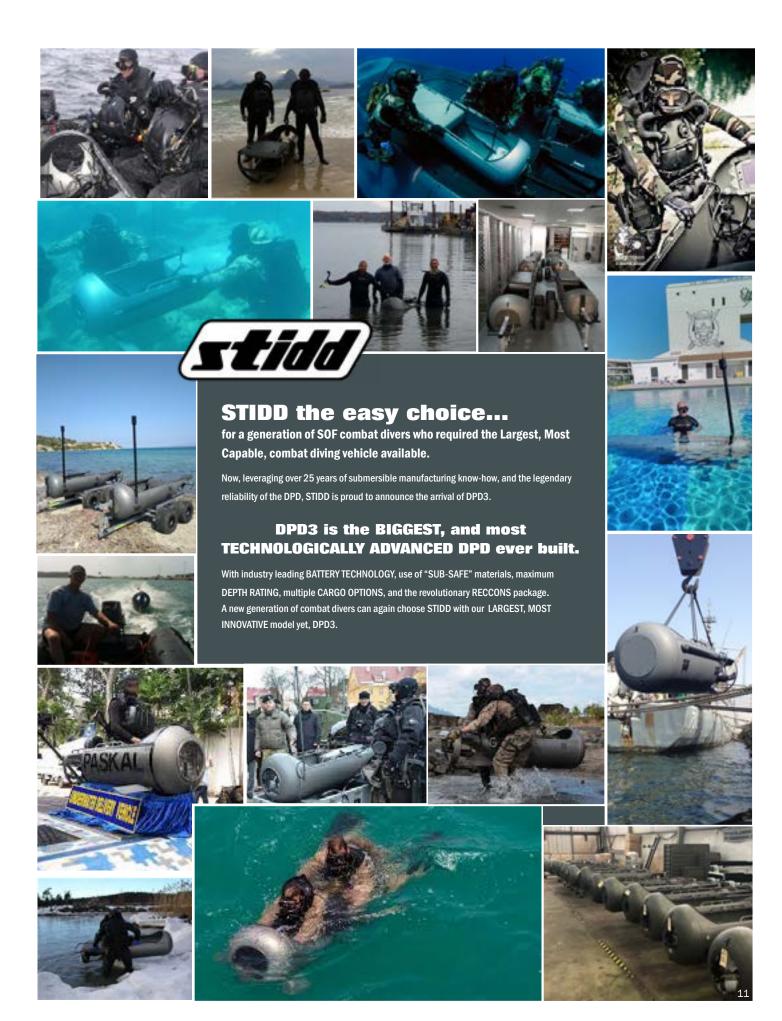
- Search & Recovery Operations
- MUM-T Operations
- Rapid Environmental Assessment
- Beach Survey





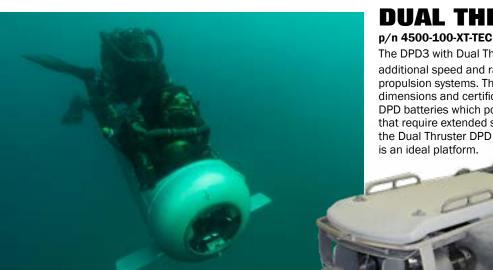






# **PD3** Vehicles for All Missions . . .

STIDD now offers an expanded lineup of three different DPD3 Vehicles optimized to execute any mission profile with different combinations of SPEED, RANGE, and PAYLOAD CAPACITY



#### **DUAL THRUSTER (XT)**

p/n 4500-100-XT-TEC

The DPD3 with Dual Thruster (DPD-XT) provides operators not only additional speed and range, but also two independently redundant propulsion systems. The DPD-XT maintains all DPD exterior dimensions and certifications. The DPD-XT utilizes two (2) standard DPD batteries which power two (2) TEC3 thrusters. For missions that require extended speed and range,

**Standard DPD3** 

 Redundant propulsion improves mission safety • Twin high efficiency,

33% Faster than

low noise direct drive DC thruster motors Additional towing capacity: Easily tows multiple

divers with full load . Two Batteries



#### **SINGLE THRUSTER (TEC3) EXTENDED RANGE**

p/n 4500-100-TEC-ER

With the addition of a second High Capacity "MUSCLES" Lithium-Ion Battery System, the Single Thruster DPD with Extended Range Option effectively doubles the Range.

- 200% the Range of a Single Thruster DPD
- **Two Batteries Required**
- Same Dimensions & Certifications as Standard DPD

#### SINGLE THRUSTER (TEC3)

p/n 4500-100-TEC

The STIDD Diver Propulsion Device (DPD) is the most widely used military-grade underwater mobility platform in the world. The DPD enables divers to travel farther and faster with more payload than previously possible with any other diver propulsion device.

- Approved for US NAVY Use (ANU Listing)
- Under contract to USMC, US Army, USSOCOM and many International SOF Maritime Units
- NATO NSN (National Stock Number)



deployed rapid operation mode to stowed lightweight space-saving transportation mode. All DPD3 vehicles have the same proven and reliable dimensions and certifications.

\*Forward battery and RNAV3 must be removed to stow DPD.

with all the Power Required.

All DPD Vehicles are now available with **STIDD's High-Performance TEC3 Thruster** providing Brute Power for Maritime SOF



# **High Performance TEC3 THRUSTER**

TEC3 High Performance Thruster (p/n 4600-1-200)

#### **Brute Power for Maritime SOF**

All DPD vehicles are available with STIDD's NEW high-efficiency TEC3 Thruster, which provides a 25% increase in speed over our standard MIK Thruster.

- Proprietary Magnetically Coupled Drive
- No dynamic seals to maintain
- Innovative Nozzle and Ducted Propeller
- Increased Diver Safety
- Significantly Improved Efficiency
- Self-Regulating Motor Load Electronics for improved reliability



#### **MAXIMUM DPD SPEEDS\***

**DPD-TEC3 (Single TEC3 Thruster)** 3.2kt **DPD-XT-TEC3 (Dual TEC3 Thruster)** 

\*All DPD speed & range values are based upon (1) diver. Actual performance may vary with diver, training, environmental conditions and equipment.







**DPD-XT (Dual TEC3 Thruster)** 





### DPD3 **Propulsion Battery**

p/n 460<del>0</del>-121

- Increased Charging Connector conductor size allows 66% faster rate of charge
- Compatible with all planned and future capability expansion
  - · Conforms to all space claims of current and future components (RNAV3, S3, AP3, OM3, Diver Comms, future Sensors)
- New battery container ergonomic bulkhead angle improves access and ease of cable attachment/removal.

The DPD provides combat divers versatile options for carrying combat equipment including Internal, External, and Towable Cargo POD.

#### **INTERNAL CARGO HOLD**

Up to 3 ft<sup>3</sup> (85L) of cargo can be stowed in the DPD's fore body section secured by a cargo net. Internal cargo can include diver personal gear or mission equipment. With optional Cargo Bag with Neutral Buoyancy Unit (NBU) Pouches and the optional (NBU) Packs, divers are able to make their internally carried cargo neutrally buoyant.

\* Only available with Single Thruster Model with no RNAV3 installed.





(Above) Cargo Bag contoured fits into the DPD cargo area. Once the bag is filled with equipment it can be made neutral with the addition of the NBU Packs.



(Left) Neutral Buoyancy Unit (NBU) Pack contains 64 NBU cells. Each cell provides 1lb (500g) of buoyancy. For use with the Contoured Cargo Bag, or other load out containers.

# Haul all the Gear. . .

When all options are used together, operators expand available cargo capacity to over 15 cu-ft (425L) enabling the easy transport of all required gear.



#### EXTERIOR CARGO TIE-DOWN POINTS

Versatile cargo points, positioned port and starboard on the DPD fore body, allow operators to attach weapons, hooks, and other cargo to the DPD while underway.





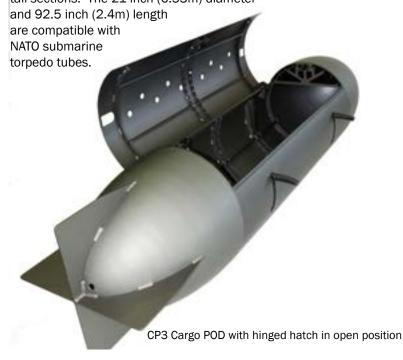
CP3 Cargo POD towed by DPD in OM3 mode



# **CP3 CARGO POD**

# **Low-Drag Towable Capsule** p/n 4580-100

The new CP3 DPD Cargo POD (p/n 4510-400), provides an additional 12 cubic feet (340L) of cargo space with minimal additional drag, when towed behind the Diver Propulsion Device (DPD). Optimized for minimal drag using advanced CFD (Computational Fluid Dynamics), and extensively dive-tested under real world conditions, the Cargo POD is fabricated from marine alloy aluminum and hardcoat anodized for prolonged corrosion resistance and rugged durability. Neutral buoyancy is provided by hard-mounted rigid foam volumes in the nose and tail sections. The 21 inch (0.53m) diameter



#### **CP3 Cargo POD features include:**

- · Hinged Hatch, allowing full access to the interior
- Positive spring-loaded gloved-hand operable hatch lock
- · Internal tie down rails to secure gear
- · Bow tow-eye for quick link to DPD
- Forward and aft lifting eyes for fast launch and recovery
- Stabilizing stern planes for positive tracking without pitch or yaw
- Multiple vents for quick fill/drain
- Four (4) Hand Holds for easy manual lift/carry



Internal tie down rails to secure gear.



Bow tow-eye for quick link to DPD



Forward and aft Lifting Eyes for fast launch and recovery

#### **CP3 Specifications:**

Material: Marine aluminum alloy
Finish: Hardcoat anodized
Hardware & fittings: 316L Stainless steel
Cargo Volume: 12 cu-ft (340L)
Cargo Weight (air): 700 lbs (317kg) max
Cargo Access: Hinged hatch
Cargo Hatch: 18 in x 48 in
(0.5m x 1.2m)

Cargo length, max : 66 in (1.7m)
Cargo hatch lock: Spring-loaded latch
Cargo Tie Downs: Three (3) 48 in (1.2m) rails

Drag Load: Minimal
Diameter: 21 in (0.53m)
Length: 93.5 in (2.4m)
Weight, empty (air): 80lbs (36.3kg)
Weight (salt water): 0lbs (0kg)
Lifting Handles: Four (4)
Lifting Points: Forward and aft



#### **DPD TOWABLE - NAVSEA/ANU CERTIFIED - SUBMERGED AUXILIARY POWER**

Building on the success of its exclusive towable Cargo POD, and in response to worldwide user demand, STIDD proudly introduces the all new PowerPOD family of submersible auxiliary power units.

PowerPOD is an innovative, one-of-a-kind maritime portable power capability, giving DPD operators a neutrally buoyant, low drag, high capacity, long duration power source for maritime surface and submerged missions.



With PowerPOD, Operators have full and easy access to 28VDC electrical power from two choices of proven NAVSEA/ANU Certified Lithium-ion batteries.

Two PowerPOD versions are available NOW in 190 and 380Ahr Long shallow water version, and COMING SOON in 170Ahr Compact Deep Submergence (DS) version, for a wide range of applications.



Compact Deep Submergence (DS)
DPD3 PowerPOD Coming Soon!



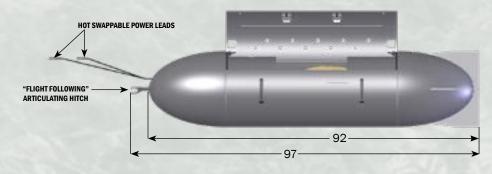
#### **Features & Benefits**

- Meets the unique needs of unattended
   Sensor operations requiring a safe and reliable long-duration DC power source
- Provides hot-swappable full-mission duration Diver Heating power for submerged operations
- Powers ground support activity
- Connects Emergency backup power to DPD Thrusters
- Tows with excellent stability and low drag behind any DPD equipped with STIDD's innovative "Flight Following" Articulating Hitch
- Easily Cached on the bottom
- · Fits on-board any maritime platform
- Easily carried ashore
- Includes ample cargo space for diver gear, rucks or other payloads.

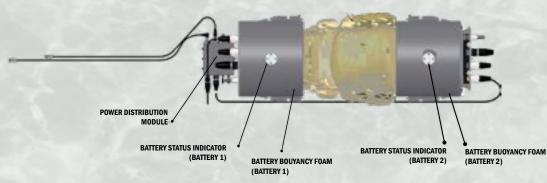


#### **PowerPOD General Arrangements**

SIDE VIEW



**TOP VIEW** MILITARY RUCKSACK (CARGO HOLD)





LB380 Long Dual Battery Shallow Water PowerPOD

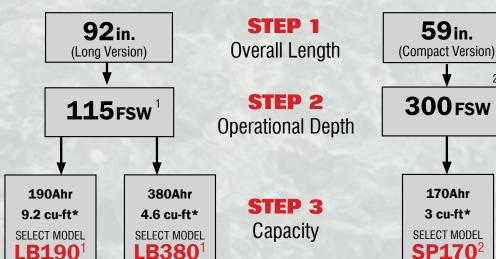


**Battery Shallow Water PowerPOD** 



"Flight Following" **Articulating Hitch** 

#### PowerPon stidd **SELECTION GUIDE**



- 1 NAVSEA / ANU Certified Now Available 2021
- 2 NAVSEA / ANU Certification in-process Coming Soon
- \*Neutrally Buoyant Cargo Capacity

# 59in.

**300** FSW

170Ahr 3 cu-ft\*

- **PowerPOD WEIGHTS:** • LB190: 179 lbs in Air; 0 lbs in Water
- LB380: 270 lbs in Air; 0 lbs in Water
- SP170: 152 lbs in Air; 0 lbs in Water

#### **Battery Specifications:**

#### **BT BATTERY**

• Nominal Voltage: 28.8 VDC · Nominal Capacity: 190 Ah • Un/DOT 38.3 Rating: 5.4 Kwh • Max Operating Depth: 115: fsw

· Weight: 88 lbs. · Battery Status Indicator: 5 LED Gauge

NAVSEA Certified

· Approved for Navy Use (ANU)

#### **DPD3 BATTERY**

 Nominal Voltage: 28.8 VDC · Nominal Capacity: 170 Ah • Un/DOT 38.3 Rating: 4.8 Kwh • Max Operating Depth: 300: fsw

· Weight: 79 lbs. · Battery Status

Indicator: 10 LED Gauge

 NAVSEA/ANU Certifications in process

# **DPD3** and **OPTIONS** & **ACCESSORIES**

#### 4500-100-TEC3 DPD3 Vehicle, RNAV3 Ready

Includes:

- 1 ea. DPD3 Li-lon Battery
- 1 ea. TEC3 Thruster with T-Prop and T-Struts

#### 4500-100-XT-TEC3 DPD3 Dual Thruster Vehicle, RNAV3 Ready

Includes:

- 2 ea. DPD3 Li-lon Battery
- 2 ea. TEC3 Thruster with T-Prop and T-Struts

#### 4600-101 RNAV3 Precision Underwater Navigation & Control System

An innovative electronic navigation system for use by combat divers, mounted in the DPD3, or dismounted in seconds for swimming in hand-held mode. Includes, internal Li-lon battery and external charger.

#### 4600-104

**S3 Sonar** (Single Frequency 900 MHz)

Enhances the precision navigation capabilities of the innovative RNAV3, adding high quality forward looking sonar images to the operator in low and zero visibility environments for precise long or short range obstacle avoidance and/or target interrogation.

#### 4600-120 AP3 Diver Assist

Provides exceptional RNAV3 control of the DPD3 by dynamically adjusting vehicle pitch and heading, automatically keeping the DPD3 on its programmed or manually selected course and depth, while accurately compensating for the effects of current, diver motion, and changes in diver buoyancy.

#### 4600-200 OM3 Autonomy

OM3 is a transformative system of vehicle control features that enable full remote autonomous control of the DPD3 while maintaining manned capability.

#### 4600-301 AC3 Acoustic Communications

The AC3 acoustic communications system is designed to work with the STIDD DPD and RNAV3 system to provide subsea communications and situational awareness between divers. Dive team members can easily text message each other to reduce risk and improve operational efficiency.

# 4600-111 RNAV3 Tactical Mission Planning/Debrief Terminal

The mission planning terminal allows for a computerized method of planning and optimizing mission parameters for use with the RNAV3 navigation system. Post mission debriefing capabilities allows the users to review actual tracks and transit depths, recorded sonar images, marked target positions, etc.

#### 4600-113 RNAV3 Training Simulator System

Provides a tool for operators to maintain proficiency, train, and evaluate operational scenarios in a classroom setup without having to get in the water.

#### 4510-112 DPD3 "MUSCLES" Li-Ion Battery Charger

Charges one (1) DPD3 Li-lon Battery from full discharge to full charge. (NSN 6130-01-536-0585)

#### 4510-120 Spare DPD3 Li-lon Battery

Contained in sealed Pressure-Proof Battery Container. (NSN 6140-01-536-0008)

#### 4580-100 Cargo POD

The CP3 cargo POD provides an additional 12 cubic feet (340L) of cargo space with minimal additional drag when towed behind the DPD. Hardcoat anodized and neutrally buoyant, the 21 inch (0.53m) diameter and 92.5 inch (2.4m) length are compatible with NATO submarine torpedo tubes.

#### 4580-102 Power Pod

Towable POD with on-board power.

#### 4510-130 DPD3 Contoured Cargo Bag with NBU Pouches

Cargo bag contoured to fit into the DPD3 cargo area and be made neutral with NBUs (p/n 4510-944)

#### 4510-944

#### **Neutral Buoyancy Unit (NBU) Pack**

Contains 64 NBU cells, each c ell provides 1 lb (454g) of buoyancy. For use with Contoured Cargo Bag (p/n 4510-130) or other load out container. (NSN 4220-01-538-5980)





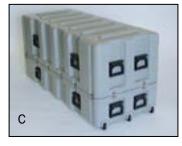




# **DPD3** and **OPTIONS** & **ACCESSORIES**









#### 4510-210 TEC3 Deployment Load Out Kit

All parts and consumables required to support the DPD3 during both operational deployment and emergency field repairs for one (1) DPD for approximately four (4) years. (NSN 4220-01-538-5985)

#### 4510-131-RNAV3 Heavy Duty Carry Bag (A)

Protective nylon zippered bag designed for hand-carrying the DPD3.

#### 4510-137 Maintenance Cart (B)

Wheeled cart for servicing or storing the DPD3. (NSN 4220-01-536-1013)

# **4510-155 Reusable Shipping Container** (C)

Molded IATA-Approved HDPE Container with foam inserts. For one (1) DPD3. Stainless Hardware.

#### 4510-138 DPD All Terrain Dolly (D)

Launches the DPD3 over rough terrain and over the beach to water.

#### 4510-940 TEC3 Long Term Maintenance Spare Parts

Includes all spare parts required to perform DPD depot maintenance and non-warranty repair for one (1) DPD for approximately four (4) years. (NSN 2590-01-536-1576)

#### 4510-200-TEC Field Service Kit

Basic tool kit required to service and maintain the DPD3 while in operational deployment.

# 4510-210-TEC Deployment Load Out Kit

All parts and consumables required to support the DPD3 during both operational deployment and emergency field repairs.

#### 4510-943 Provisioning Parts List (PPL)

Listing of all recommended replaceable parts and LRUs for the DPD with current FY pricing.

#### 4600-901 RNAV Software Support Program

Service and Support: Annual Subscription 1 year DPD/RNAV3 (additional years of support available upon request)

- email/phone/24hr urgent phone support
- · RNAV3 Software Updates
- bug fixes access to minor feature updates
- · access to major feature updates
- Greensea Knowledge Base
   Personal online training
- \*Customized programs are available as necessary, including extended on-site and/or offshore support.

#### 4600-900 DPD3 Training Package

Includes: 5 days on-site DPD and RNAV3 training by STIDD certified technician

4510-932 Factory Technical Support 4510-933 ON-SITE Technical Support \* 4510-934 ON-SITE Operational Training &

\* For services rendered in CONUS. Consult factory for details.







Support \*



# MILITARY EXHIBIT SCHEDULE & IN-WATER DEMOS

Our military exhibit booth is an ideal place to see STIDD Sub Boats and discuss your requirements with STIDD's team of expert acquisition specialists. Please check our website for exact show dates.

STIDD also invites approved users to visit our Sub Boat Test Facility in South Florida for inwater demonstrations.

On-site demonstrations at customer's facility are also possible.

Contact STIDD for more details





#### **STIDD Systems Inc.**

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email: sales@stidd.com

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Specifications and availability of all STIDD Systems, Inc. products are subject to change without notice.

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The STIDD Military Products website includes the latest, most up to date unclassified information on STIDD Military Submersibles

To become an authorized STIDD Military Website User Contact: 631-477-2400 ext 158 or e-mail sales@stiddmil.com

- STIDD Systems is a Small Business Entity.
- STIDD Submersible Boats are subject to export controls.
   US Department of Commerce license required for export.

With over 700 units in operation by US and International Special Operations Forces (SOF), the STIDD DPD is the most widely used Combat Diver Propulsion Vehicle (DPV) in the world.

STIDD Systems, Inc. is proud to support these Military Units and International Organizations, including:

- U.S. Special Operations Command United States Marine Corps
- Navy Special Warfare Command
   Army Special Forces Command
- North Atlantic Treaty Organization (NATO) Members and Major Non-NATO Allies (MNNA)
   Association of South East Asian Nation Members (ASEAN)

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