

Large Personal Luxury Submarines



U.S. SUBMARINES, INC.

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U.S. Submarines, Inc.
9015 17th Place
Vero Beach, FL 32966

For more information regarding this document please contact:

L. Bruce Jones or Jean Claude Carme
U.S. Submarines, Inc.
Tel: 208/687-9057
Fax: 208/441-7478
E-Mail: ussubs@ussubmarines.com
Award Winning Website: <http://ussubs.com>

excitement

Dive to 300 meters



The wreck of the Kirk Pride is shown here perched along a ledge on the famed Cayman Wall at a depth of 240 meters. The photo was taken with natural light. If you ask the question, "What is there to see below 100 meters?" This is an example.

Large Personal Luxury Submarines

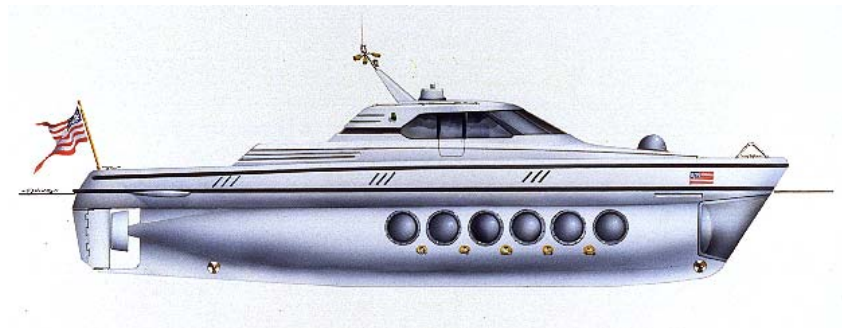
U.S. Submarines, Inc. offers you four different large luxury submarines designed to transport you and your guests on remarkable subsea journeys to depths of up to 300 meters – all in perfect comfort and safety.

Each of these four submarines is completely autonomous. Powered on the surface by turbo-diesels, our submarines have extended surface range and the ability to dive on battery power and remain submerged for days at a time. And, each vehicle is designed and built to the rigorous A1 Manned Submersible classification standards of the American Bureau of Shipping.

Notably, each year nearly 2 million passengers dive aboard ABS classed manned submersibles and tourist submarines – and the industry has a perfect safety record. So, whether you choose the luxurious *Marlin 1000*, the sophisticated *Nomad 1000*, the expansive *Seattle 1000* with its five private staterooms and transatlantic range or the magnificent \$70 million *Phoenix 1000*, you can rest assured that you will be experiencing one of the safest forms of transportation known to man.

Expect Fascination

One of our unique luxury submarines is a passport to a new frontier. As an owner, you and your guests can journey to



the silent depths of the sea and explore uncharted territory, or you can easily experience the fabulous abundance and diversity of life on a tropical coral reef.

With our submarines' extended cruising capability you will have the opportunity to explore a myriad of subsea environments as you cruise... and we even have a special program to advise you as to where to go for the ultimate subsea experiences.

The unbelievable profusion of lovely soft corals in the South China Sea and Indian Ocean. The splendid and dazzling profusion of reef fish in the South Pacific. The playful mammals of the wonderfully diverse Galapagos Islands. The crystal clear waters and mysterious shipwrecks of the Caribbean. The wonders of the subsea world are truly yours to experience.

Expect Luxury

All of our submarines have air conditioned one-atmosphere interiors, so regardless of how deep you dive you'll enjoy shirt-sleeve comfort at surface pressure. The interior appointments of each submarine in the fleet rival those of the finest superyachts, with en suite heads, superbly equipped galleys and complete amenities.



marlin

Significant versatility



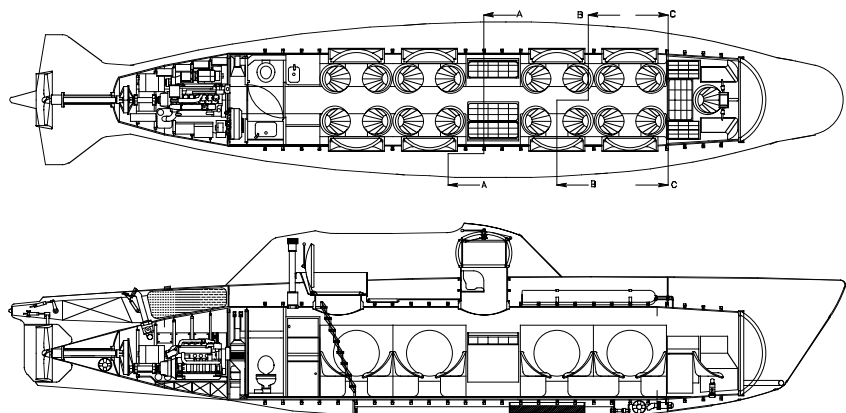
The Marlin 1000

The *Marlin 1000* is an incredibly versatile diesel electric submarine. At 17 meters (56') in overall length the Marlin is powered by a single turbo diesel for cruising speeds up to 10 knots and boasts a 305 meter diving depth. For maximum viewing the submarine has eight large side viewports of 900 mm in addition to a 1.46 meter bow viewport.

Marlin is designed to be very versatile. In its highest density seating configuration the submarine will accommodate 16 passengers in comfortable leather lounge chairs and

includes a head and galley. In a more luxurious configuration, Marlin can be equipped with tables, chairs and couches for eight. A private aft convertible stateroom is optional as well.

No matter which version you choose, rest assured that the interior appointments of the Marlin are warm and luxurious. The on-board life-support and climate control systems keep the temperature perfect and the air fresh, and like all U.S. Submarines' vehicles the air pressure in the passenger compartment is equivalent to surface pressure regardless of diving depth.



With a Marlin you can cruise out of your marina and enjoy the open air of the main deck or the surface views from the protected bridge cockpit. A stabilizer based roll compensation system keeps the ride smooth in all but the worst weather. And of course, one advantage to owning a submarine is that when the ocean gets too rough, you can simply dive and proceed to your destination.

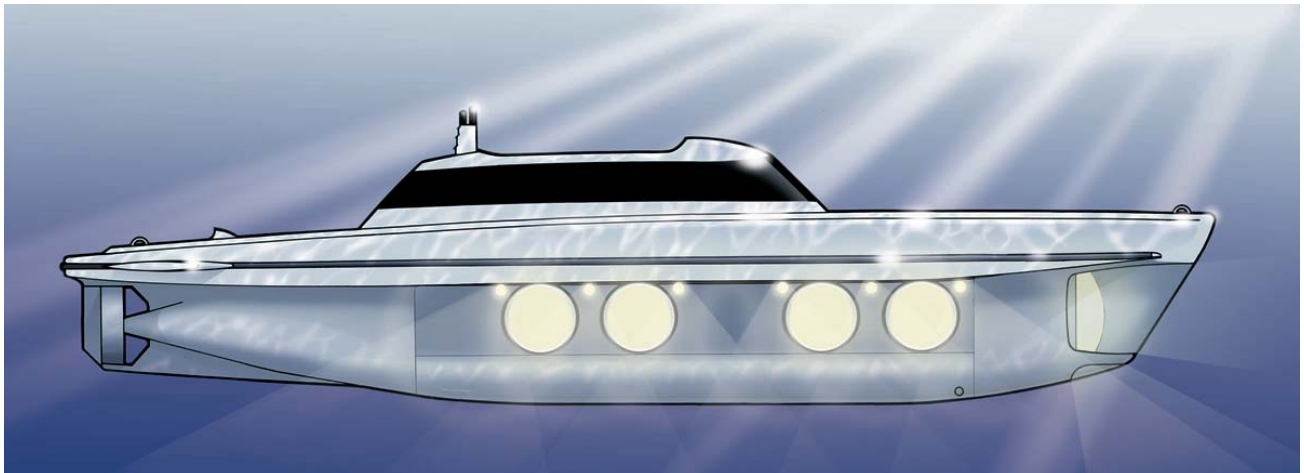
When it comes time to dive the pilot stops the main diesel and closes the surface control console. The passengers then descend a comfortable stairway into the main passenger com-

partment. The pilot shuts and dogs the hatch and moves forward to the pilot's compartment where he completes a checklist, vents the main ballast tanks and engages the electric drive system so that the submarine cruises silently and effortlessly into the depths. Stay submerged for minutes, or days... it's your choice.

The Marlin is an advanced submarine with digital proportional joystick controls and a computer monitoring system. The submarine is low maintenance and only requires one annual haul-out for routine inspection and ABS survey.

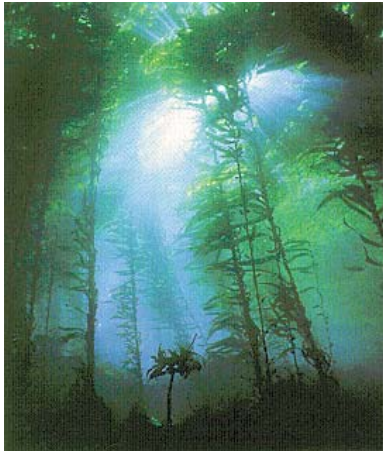
Specifications:

Operating Depth 305 m
Passengers up to 16
Length 17.20 m
Beam 3.00 m
Height 3.55 m
Draft 2.02 m
Weight 40 tons
Surface Range .. up to 750 nm
Max. Speed 10 knots
Submerged Range 60 nm
Max. Mission Time 96 hrs
Add. Life Support 96 hrs



nomad

Serious capability



Nomad 1000

The *Nomad 1000* is U.S. Submarines' original design for a personal luxury submarine. With a pressure hull diameter of 2.4 meters and an overall length of 20 meters the Nomad has a wider and more spacious interior than the Marlin and is nearly twice the displacement. Nomad is powered by twin 185 kW turbo diesels and has a 305 meter diving depth and 1000 nautical mile surface range.

A luxury interior by Glade Johnson design provides seating for eight guests and two crew. Converting the seating allows sleeping arrangements for six. Nomad also has a full head with sink and shower as well as a completely equipped galley. An extended version of the Nomad is also available with a convertible private stateroom.

The Nomad is absolutely unique. If the weather deterio-

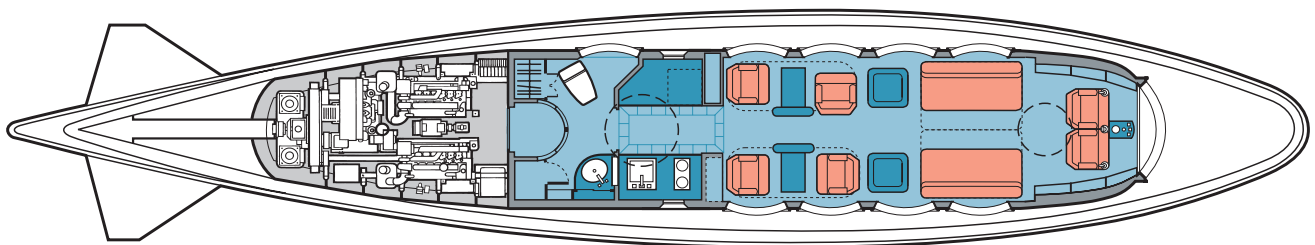


rates or if you simply crave some isolation or a change of scenery, simply close the hatch and dive. You can either continue to cruise toward your destination submerged, or you can take a break, settling Nomad on the sea floor and enjoying the view through panoramic viewports. After a luxurious dinner you might do some exploring, using the high resolution color imaging sonar to locate interesting features on the bottom.

Tired? You can retire to a queen-sized bed with the world's most exclusive view – through a remarkable 1.5 meter diameter viewport, and you can light the subsea vista with up to sixteen 1000 watt quartz halogen undersea lights. In the morning, after a hot shower and breakfast, you can surface Nomad, start the diesels and continue on to the next amazing destination.

Specifications:

Operating Depth	305 m
Passengers	10
Length	20.0 m
Beam	3.70 m
Height	5.80 m
Draft	2.70 m
Weight	72.5 tons
Max. Speed	12 knots
Submerged Range	60 nm
Max. Mission Time	120 hrs
Life Support	200 hrs



seattle

The megayacht of the deep



Passenger compartments composed of transparent acrylic provide exceptional viewing and characterize several U.S. Submarines' designs.

Seattle 1000

The *Seattle 1000* is a natural progression from the Nomad design and is capable of extended surface range and endurance with greatly expanded interior space. With a 36 meter overall length and a 6.5 meter beam, the Seattle class boasts a central twin deck arrangement which includes independent private staterooms with ensuite baths, crews quarters and galley as well as spacious living and dining rooms. Several different layout

options are available depending upon the owner's requirements.

Some of Seattle's unique attributes include an all acrylic passenger lounge above the waterline, and an optional diver lock out chamber aft of the engine compartment.

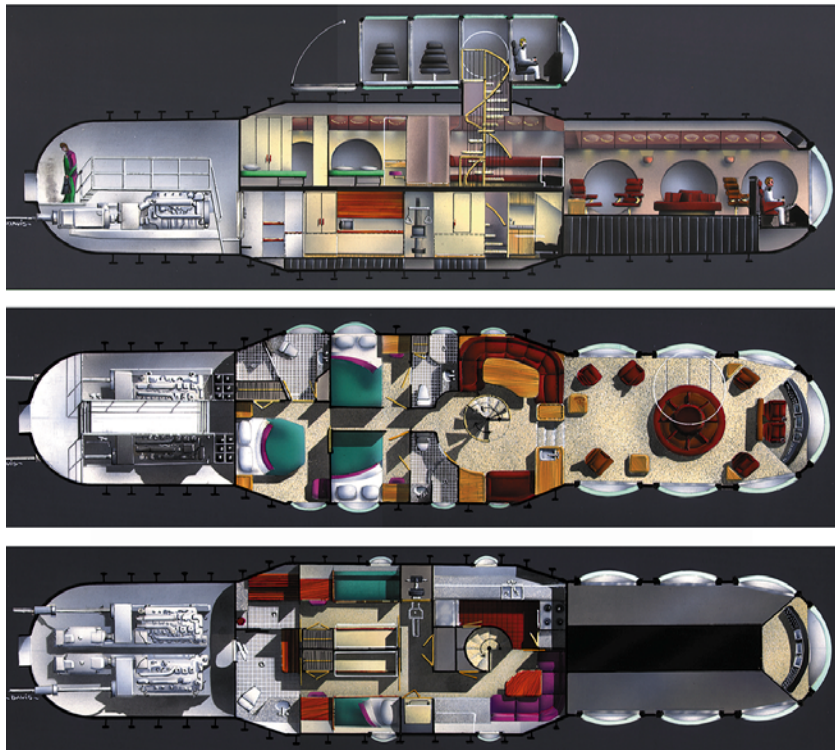
The Seattle's 3000+ nautical mile cruising range is sufficient for transatlantic crossings. The ample battery capacity of 1100 kilowatt hours means that the Seattle can remain submerged for several days without surfacing.

The Seattle 1000 is truly the “megayacht of the deep”. Imagine the amazing adventures you could have aboard this submarine. With Seattle’s extended range the undersea world awaits, from the tropical abundance of the Sea of Cortez to the fabulous shipwrecks of Truk lagoon – the Seattle 1000 can take you there in absolute luxury and complete safety.

In the graphic below you can see how our talented design staff has developed a luxurious interior arrangement. Virtually every room has a viewport, and in the main lounge you are surrounded by viewports that are 2.3 meters in diameter and provide amazing views in to the subsea world.

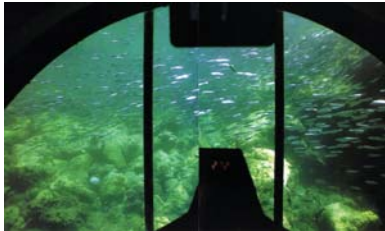
Specifications:

- Operating Depth 305 m
- Passengers variable
- Length 36.0 m
- Beam 6.5 m
- Hull diameter 5.0 m
- Draft 6.0 m
- Weight 380 tons
- Max. Speed 15 knots
- Submerged Range 160 nm
- Max. Mission Time 240 hrs
- Life Support 330 hrs



phoenix

The ultimate submarine



Phoenix 1000

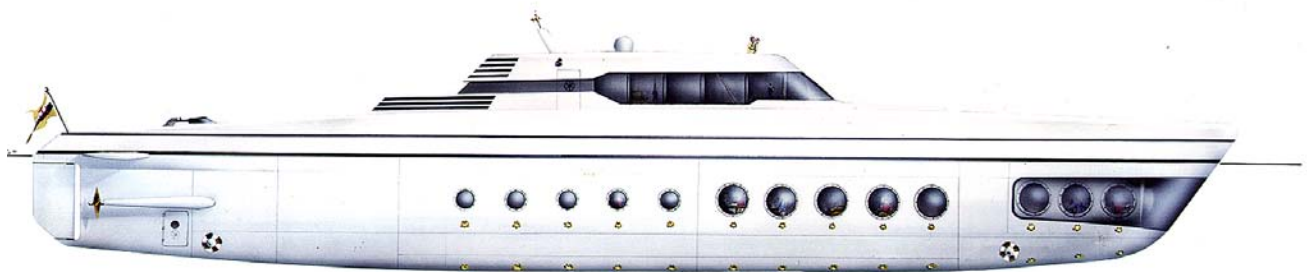
As proposed, the Phoenix 1000 would constitute the single largest private undersea vehicle ever built, and arguably, the most significant personal transportation device of the 20th century.

A Luxurious Undersea Vehicle

The *Phoenix 1000*, has more than ample space. The total interior area of the submarine is in excess of 460 square meters (5000 square feet). The significant volume, coupled with very large acrylic viewports, and the potential for relatively large

open spaces, results in a vehicle as luxurious as the finest of motor yachts.

Clearly, the *Phoenix* provides its owner with substantially more capability than a simple yacht — the opportunity to explore the depths of the world's oceans in perfect comfort and safety. The *Phoenix* is capable of making transatlantic crossings at 16 knots, yet can dive along the route and explore the continental margins of some of the most fascinating waters on earth. And unlike surface yachts, when the water gets rough, the submarine can submerge into a perfectly smooth and quiet environment, continuing on



toward its destination, providing a ride unsurpassed in quality—unequaled by the finest motor coach or the most luxurious executive aircraft.

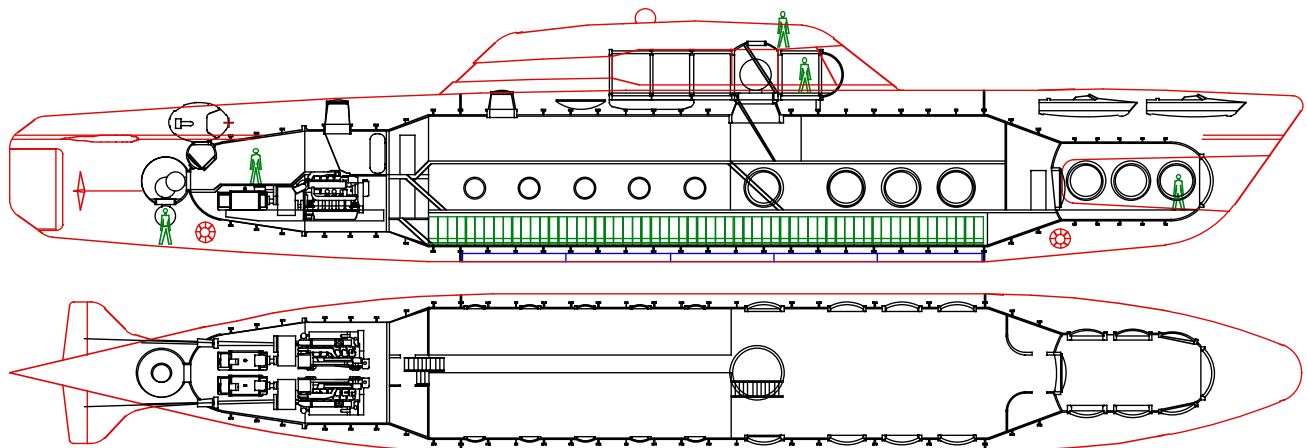
The Size Advantage

At 65-meters (213 feet) in overall length, and with a beam in excess of 8 meters (26 feet), the *Phoenix* is a vehicle of formidable size. Yet despite its 1500-ton displacement, the submarine is quite streamlined. Given the significant water-plane area and ample internal volume, which allows for greater battery storage, the

Phoenix will outperform smaller counterparts in surface speed, submerged speed and submerged endurance. The large pressure hull diameter allows for very large acrylic viewports, making the undersea viewing capability truly extraordinary. The interior space, with the noted absence of structural bulkheads, provides for tremendous versatility in interior layout and space planning. And finally, the *Phoenix's* large size coupled with its integrated roll stabilization system makes surface transit quite comfortable in all but the worst conditions.

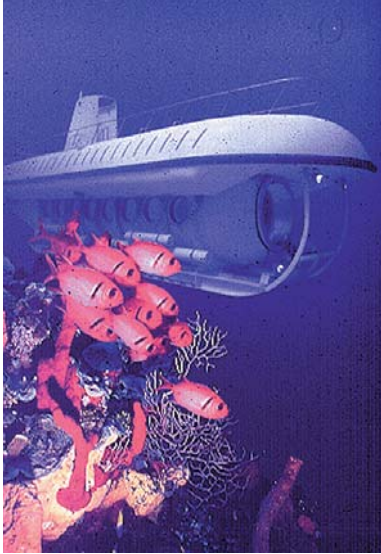
Specifications:

Operating Depth	305 m
Passengers	variable
Length	65.0 m
Beam	8.0 m
Hull diameter	6.7 m
Draft	7.0 m
Weight	1500 tons
Max. Speed	18 knots
Submerged Range	240 nm
Max. Mission Time	360 hrs
Life Support	460 hrs



technical

Things to know



Here a tourist submarine is shown cruising the depths along a coral reef. Over 40 such submarines have been built, most of them with a passenger capacity of 48. The tourist submarine industry carries nearly 2,000,000 passengers a year and has a perfect safety record.

ABS Classification: Safety is First

Contemporary manned submersibles and tourist submarines have a perfect safety record and are statistically the safest form of transportation in the world today. This is due in large part to the rigorous classification requirements of the American Bureau of Shipping and other classification societies.

The requirements for ⌘A1 Manned Submersible classification are significant. The process begins with a thorough review of the submarine's design and its engineering calculations. Typically, several hundred design drawings will be submitted to ABS for review and approval. Subsequently, all materials and components used in the vehicle must be approved as well. Once the basic design is approved, ABS surveyors test and certify pressure hull materi-

als on site, and then continue the testing and inspection process of all major systems throughout construction.

The certification process culminates in shop trials and then extensive sea trials. Once approved, the submarine is awarded its classification certificate. Each year, the submarine must be thoroughly inspected by an ABS surveyor in order to maintain classification.

Classification is a requirement for insurance and provides you, the owner, with the assurance that your submarine has been built to stringent safety requirements. In addition, ABS classification is accepted by all regulatory authorities worldwide. All U.S. Submarines' vehicles are classed to ABS, and the company's President, L. Bruce Jones, is an appointed member to the ABS Special Committee on Undersea Vehicles.

Control & Navigation

Each of our larger submarines has at least two pilot's stations. When the submarine is on the surface it is piloted from the pilot's station on the bridge. In the case of the Marlin and Nomad the bridge floods when the submarine dives, so the control and navigation equipment is enclosed in a one-atmosphere pressure vessel.

With the Seattle and Phoenix class submarines there is a pilot's compartment forward of the above-water passenger's lounge. All stations are fully equipped.

When the submarine dives, the pilot moves to the bow of the submarine where he has an extraordinary view. Computer based stations with touch screens provide most control and monitoring functions while

digital proportional joystick controls allow for precise maneuvering in all three axes.

All submarines are equipped with GPS, radar, sonar, autopilot, fluxgate compass or gyro, chart plotter, VHF radio and dual frequency underwater telephone with pinger locator.

A wide range of optional equipment is also available.

Navigation & Communications

Compass Main	: Magnetic fluxgate
Compass Gyro	: C. Plath
Speed Log	: Digital
Depth Gauge	: 1200 ft (2)
Depth Sounder:	: 50kHz
Active Sonar	: Color imaging
Surface Comms	: VHF Marine, Cellphone
Satphone	: A or M (optional)
Subsurface UWT	: Orcatron 10 & 27 KHz
Radar	: Raytheon
Plotter	: Raytheon
DGPS	: Trimble

Additional Instrumentation

Control Display CPU	<ul style="list-style-type: none"> • heading • speed • depth • time & dive time • cabin pressure • cabin temperature • trim weight location • rudder angle • bow plane angle • volts, amps & Ah% • motor current • VBT level • alarms (12) • interlock indicators
Thruster Control Panel	<ul style="list-style-type: none"> • F-16 Style Joystick
Life Support Panel	<ul style="list-style-type: none"> • O₂ Gauges
	<ul style="list-style-type: none"> • regulator, flowmeter • O₂, CO₂, H₂ Analyzer
	Ballast Panel
	<ul style="list-style-type: none"> • Air gauges • Vent valve controls • Blow valve controls • Pump switches (3) • Hull valve controls
	Electrical Panel
	<ul style="list-style-type: none"> • Breaker controls • Distribution controls • Light switches • A/C controls • Volts/Amps gauges
	Fire Suppression System
	Hydraulic Panel
	Depth Sounder CRT
	IR & Circuit Protection
	Inclinometers
	Various options

u.s. subs

Experience counts



In 1994 we designed the 4-passenger *Discovery 1000* specifically to be launched and recovered from a 72 meter yacht. The launch and recovery system was engineered by Caley Ocean Systems. When desirable, both the submarine and the launch and recovery system could be removed from the yacht and placed in a 40 foot container for shipping.

The *Discovery 1000* is the world's most advanced small submarine. The vehicle has a unique acrylic pressure hull and is capable of diving to 305 meters. A video is available upon request.

U.S. Submarines, Inc.

At U.S. Submarines we developed designs for the world's first luxury submarines back in 1993. We are the only company in the world today with a luxury submarine program and one of only five firms world-wide active in the design, engineering and construction of manned submersibles and tourist submarines.

The management team at U.S. Submarines has been involved in the design, engineering, construction or operations of over 50 submarines or submersibles, amounting to approximately 40% of all operating tourist submarines and manned submersibles. We also consult with well known engineers, naval architects and operations specialists, making our group the most experienced and capable civil submarine experts in the world today.



Design Philosophy

As designers and builders we believe in innovative adaptation of existing technology. But as submarine operators we never put a component in one of our submarines that has not been demonstrated to be effective in the subsea environment. Reliability and maintainability are critical issues to us. Our products are fully warranted and we provide initial operations and maintenance training as well as full on-going technical support.

Other Submarines

In addition to the large submarines described on these pages, U.S. Submarines can design and engineer a submarine or submersible specifically to your requirements.

U.S. Submarines also builds and sells a line of small submersibles ranging from 2 to 10 passenger capacities. For more information please request our small submarine brochure.

In addition to personal submarines and deep submersibles we are also very active in the commercial tourist submarine industry.

For more information please contact us by telephone, facsimile or e-mail. And please visit our award winning website at <http://ussubs.com>

