Fully 70% of the earth’s surface is covered by water, yet few people have the opportunity to directly experience the subsea world, despite the fascination that exists for the myriad denizens of the sea.

SCUBA divers can traverse this realm for a few minutes at a time. Passengers in a tourist submarine can observe the undersea environment in relative comfort. Aquariums provide viewers with the opportunity to see aquatic creatures in accurately constructed artificial biotopes. Yet the advent of the SeaRoom allows for the extended observation of the natural aquatic world from a luxury environment.

The SeaRoom is a specially designed floating structure that provides accommodation both above and below water level. Its deep draft and considerable ballast make the SeaRoom platform very stable and comfortable, and the concept can be applied to a wide range of applications.

The fortunate owners of a SeaRoom might leave the office on a Friday afternoon and drive to the local marina, where they'll board a small outboard powered boat for a quick trip to their SeaRoom habitat, permanently moored in a nearby harbor. They approach the SeaRoom and tie up alongside. A door in the waist high bulwark admits them to the large deck area, where they admire the view that their floating island provides, a vista far superior to that of virtually any waterfront home.

The French doors to the deck level solarium are opened and drinks are prepared at the nearby wetbar. For a few minutes the couple sits in the warm, tranquil environment, surrounded by tropical plants. Lounging in heavily cushioned wicker chairs they enjoy the view provided by the floor to ceiling glass walls.

Minutes later they descend down the spiral staircase into another world of mystery and luxury. Surrounded now by rich woods and luxurious fabrics they stop at the bottom of the stairs to gaze across the room and out into the sea. Two adjacent panels of acrylic provide a wondrous window ten feet wide and six feet high. Outside that window fish cavort in the fading light, feeding on the encrustations of an artificial reef attachment stretching outward from the window's base.

They cross the room and slip into the comfort of an over-stuffed couch. Minutes go by as they watch, mesmerized by the activity. As the light fades to darkness they turn on the stereo and start the generator. As they begin cooking with the galley’s modern appliances, the generator charges the 12V batteries and powers the watermaker which makes 40 gallons of freshwater each hour. Run for two hours each day, there is enough fuel on board for the generator to operate for over a year and a half without refueling. The automatic viewport cleaning mechanisms cycle back and forth across the windows, spraying the outside surface with a high pressure jet of water.
The dining room table is a cozy booth set against another large 5' x 6' viewport. Behind this window is a special enclosed aquatic exhibit that highlights the fish and invertebrates of the region. An artificial rock wall forms the backdrop and while having their evening meal the couple watches the large plumose anemones and soft corals sway in the current.

After dinner, the dishes are placed in the dishwasher and they adjourn to the master bedroom suite. Soon they are both immersed in a luxurious Jacuzzi tub sipping champagne in the dim romantic light. But far from being a standard bath, this tub has had one side cut away and is attached to yet another large viewport. The couple lounges in the tub and enjoys the illusion of being immersed in the sea. At the flick of the switch, brilliant 1000 watt underwater lights illuminate the darkness. Within moments the sea life, attracted to the brightness, pirouettes in front of the viewport. Squid, shrimp and large pelagic fish dance from light to shadow. Another switch turns on the hydrophone, allowing the eerie sounds of the sea inside our luxury retreat.

The nearby king-size bed beckons and within minutes, our fortunate couple is sound asleep in the dark silence.

Morning comes with sunlight cascading through the large skylight above the bed. A quick look out the unique periscope window confirms the advent of a calm and brilliant day. Breakfast on the main deck will be followed by a leisurely swim, then some fishing and sun bathing. Later friends will arrive for a drinks and a barbecue.

Our couple remarks on their fortunate decision to purchase a SeaRoom as their vacation home. The wife notes that someone at work has purchased a time share unit in a SeaRoom restaurant. The hus-
Commercial SeaRoom

The SeaRoom can be designed to accommodate any number of applications, from retail shop space to Scuba diving platform, from a public aquarium gallery to a marine laboratory and observation facility.

Here again, the standard 16’ x 40’ structure can be expanded in size or linked to other units.

Modular Design

The basic SeaRoom is designed to be shipped via container cargo vessel or heavy lift ship, depending on the lifting capacity of the destination port. The unit will take the deck space of four 20’ containers. The ballast, which is substantial, will be attached on site. Typically, a customer will elect to use concrete as ballast. The SeaRoom will generally require 430,000 pounds of concrete ballast consisting of 12 truck loads costing approximately $5,000 in total and adding five feet of draft to the vessel. Alternately, 250,000 pounds of lead, or 270,000 pounds of iron ballast can be used costing $90,000 or $60,000 respectively and adding only 7 inches or 10 inches of draft.

Once ballasted the SeaRoom will require a floating dry-dock or marine railway to remove it from the water. If a SeaRoom is to be used in an area where hurricanes are frequent, the site is exposed and lifting or dry-dock capacity is limited, the unit can be fitted with separate ballast modules which can be dropped in an emergency. The unit can then be removed from the water with ease. After the danger has passed the ballast can be recovered and reattached with a temporary winch system provided by U.S. Submarines, Inc.

The 16’ x 40’ size structure is the largest practical size that can be easily transported by ship, barge or permit holding truck. If long distance truck transport is required, the unit can be built in two 8’ x 40’ sections, transported, and then welded together before launching. In addition, two or four basic units can be built and joined together on site, forming a vessels 32’ x 40’ in the former case or either 40’ x 64’ or 32’ x 80’ where four units are amalgamated.

As described earlier the basic SeaRoom is designed to be moored in groups linked to each other, and to the shore where possible. These configurations vary with the number of units placed, and the mooring arrangements are independently configured to match the site and the unit arrangement.

Shipping & Remote Assembly

Where shipping of the basic units is cost prohibitive, or in a situation where the unit size is so large as to preclude modular assembly, the SeaRoom can be shipped as a pre-cut group of fabricated steel components and interior modules that can be assembled on site.

The advent of computer controlled NC equipment allows for the cost-effective precision cutting of steel plate and related support frames. These hull components can be plastic-coated, shipped by container, and quickly welded together on site, after which the modular interior is fitted. Using this technique any size SeaRoom can be built on site while maintaining excellent quality control.

Alternately, a large custom SeaRoom can be built at the U.S. Submarines facility, partially ballasted and fitted with a detachable bow and then towed anywhere in the world. Once on site the facility would be ballasted and anchored.

Current Status

Currently, a SeaRoom design is underway for a client of the company who wants to establish a floating base platform for a tourist submersible operation. Three modules are being designed that will collectively contain a bar, 40-seat restaurant and a gift shop as well as full support facilities for the submarine. Once the design and costs are approved, U.S. Submarines will contract to construct the units.

The first SeaRoom is bound to attract international attention due to its unique nature, but it is difficult to predict the degree of acceptance that the concept will enjoy. To date, no marketing at all has been undertaken. U.S. Submarines management views the SeaRoom as a potentially profitable adjunct to the company’s core business of building multi-purpose submarines.

Custom Design

Each SeaRoom module is custom designed to the owner’s requirements. Preliminary design for most units will cost approximately $7,500 and will result in a construction price estimate, interior and exterior arrangement drawings, etc. Final detailed design is included in the construction.

Jules Undersea Lodge requires that a guest be dive certified in order to spend the night. The facility, which will sleep up to 6 persons in two groups, is located in 30 feet of water near Key Largo, Florida. Though it is expensive to operate and has limited access, it has proven to be profitable and is booked months in advance.
The 16’ x 40’ SeaRoom is shown here in plan view in its luxury residential configuration. Six large, glass clad acrylic viewing panels provide spectacular undersea vistas, yet because the entire structure floats, it is cost effective and non-claustrophobic in nature. Large skylights in the upper deck provide ample sunlight below.

The dining area features a 6’ x 6’ viewing panel adjacent to the table.

A profile view of the bedroom and bath. The periscope window above the bed uses mirrors to provide an amazing view of the surface from below the waterline.

A profile view of the living area and kitchen displays a high level of comfort.

The bedroom includes a chaise lounge with spectacular viewing in addition to a Jacuzzi tub with one side attached to a viewing panel.