

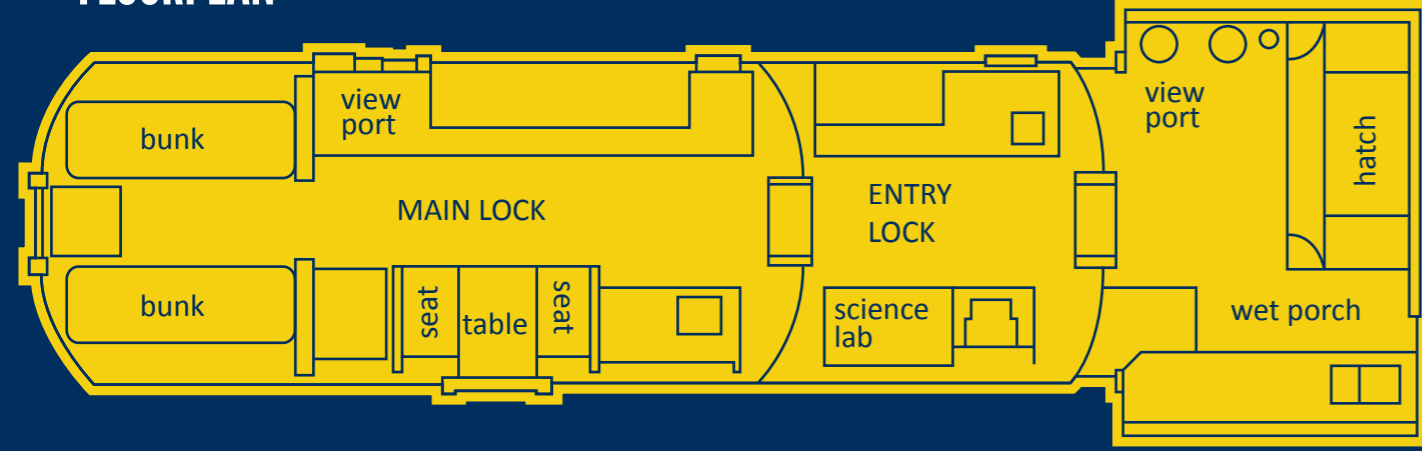
WHAT IS AQUARIUS?

Aquarius Reef Base is a unique ocean science and diving facility in Florida Keys National Marine Sanctuary that provides unparalleled means to study marine ecosystems, test new underwater technology, train divers and astronauts, and spark the imagination of people worldwide in the name of exploration, learning and conservation.

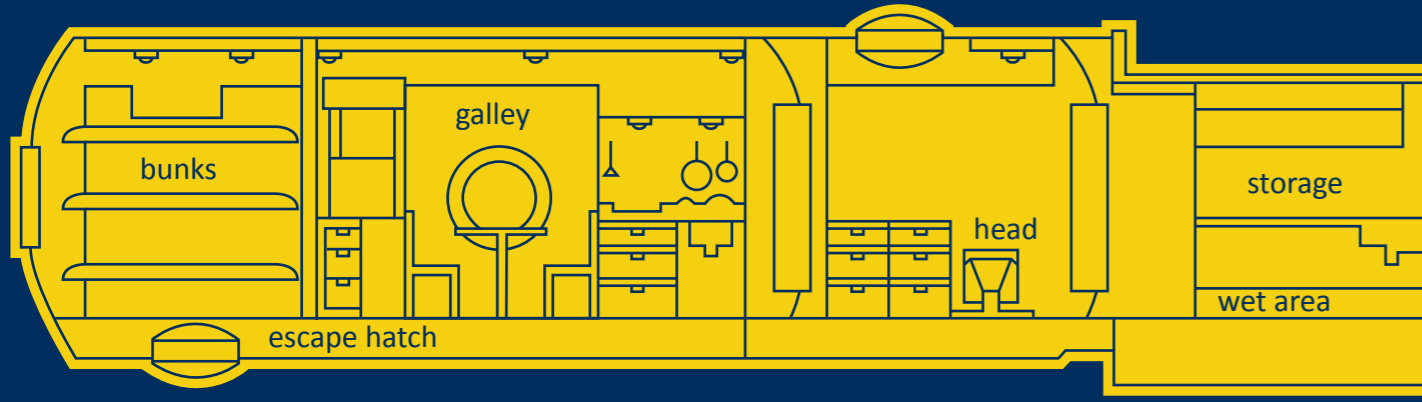
THE HABITAT

Aquarius is the last operating underwater sealab of its kind. The habitat allows scientists to live and work underwater 24 hours per day for up to two-week missions where they can participate in the world's longest running and most detailed coral reef monitoring program.

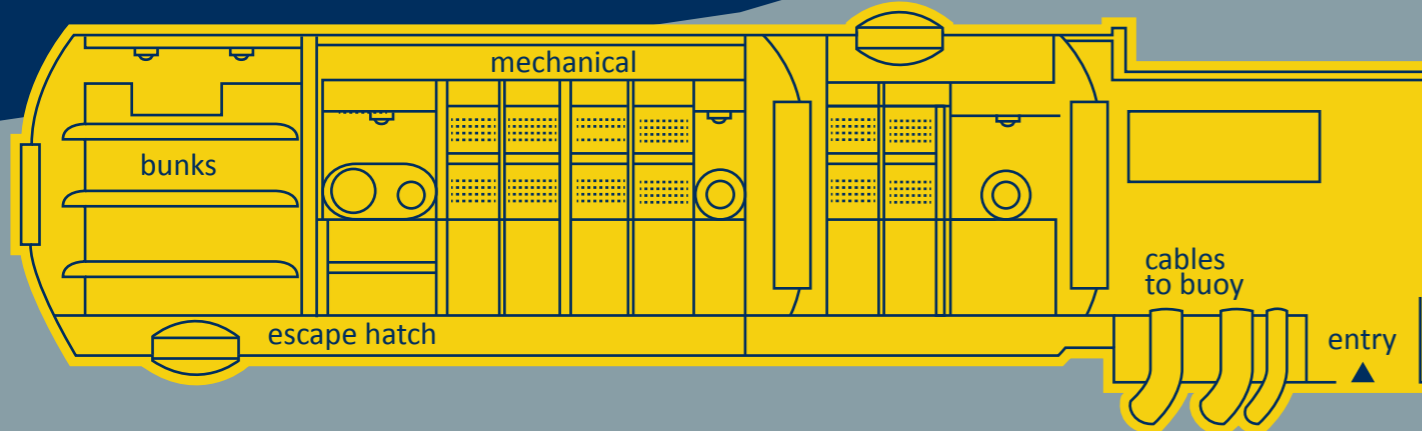
FLOORPLAN



PORT SIDE



STARBOARD SIDE

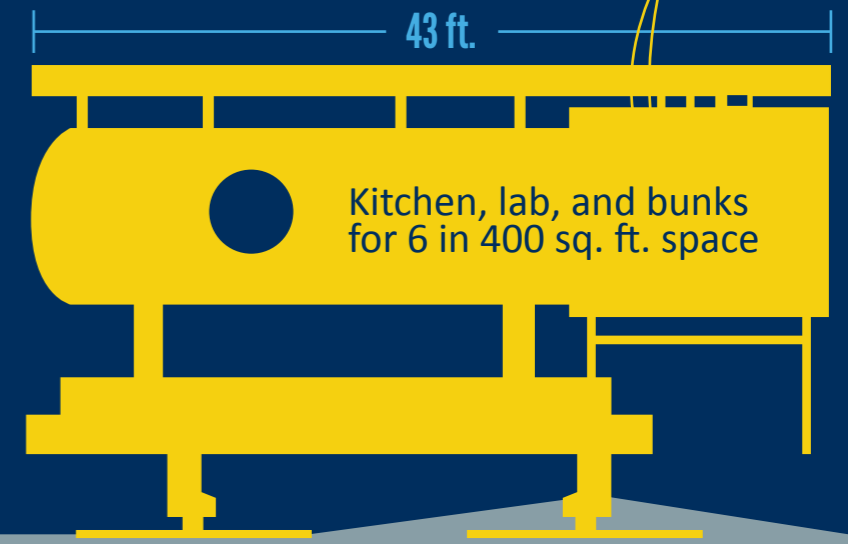


THE LIFE SUPPORT BUOY

provides power, air compressors, communications and other support equipment.

100 Mbps

connectivity for broadcast quality streaming video and call capability to international space station.



AQUANAUTS LIVING IN AQUARIUS CAN STAY UP TO 2 WEEKS, AND HAVE 6 TO 9 HOURS OF DIVING DOWN TO ABOUT 95 FT. EACH DAY.

ENVIRONMENT



Aquarius is located within a special "research only" zone of Florida Keys National Marine Sanctuary. Four miles off Key Largo on Conch Reef, part of Great Florida Reef, the world's 3rd largest barrier reef.

AQUARIUS HISTORY

- 1986** Built in Victoria, Texas
- 1992** Deployed near Key Largo
- 1993** Long-term coral reef monitoring begins
- 1994** Crew forced to evacuate during Hurricane Gordon's 15-ft. seas
- 2001** NASA begins using Aquarius for its Extreme Environment Mission Operations (NEEMO)
- 2012** 115th and final Aquarius mission takes place.

OCEAN LIFE



Atlantic Giant Grouper: A massive fish that can reach 8 ft. long, weigh almost 800lbs. Aquarius Reef Base has its own resident groupers.

Barrel Sponge: Sponges are now the dominant habitat-forming animals on Caribbean coral reefs. Among them, the giant barrel sponge, *Xestospongia muta*, has the greatest biomass on Florida coral reefs.



Corals: Not just pretty rock-like animals, corals are voracious predators. Using tentacles, they capture small creatures which swim by.

OPERATIONS

- Owner:** National Oceanic and Atmospheric Administration
- Operator:** University of North Carolina Wilmington
- Participants:** 1266 astronauts, scientists, grad students and film makers
- Partners:** NASA, US Navy



FIVE - FOLD MISSION



SCIENTIFIC RESEARCH

Hundreds of peer-reviewed scientific papers



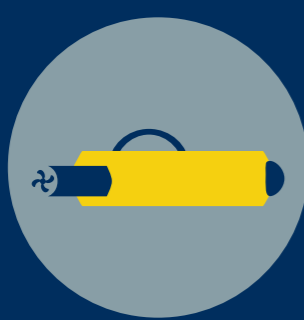
TRAINING

NASA astronauts simulating extreme space environments



OCEAN EDUCATION & OUTREACH

Live broadcasts from a 16-day mission reached 450,000 students



R&D OF UNDERSEA TECHNOLOGY

Development of various technologies for ocean exploration



CORAL REEF & OCEAN OBSERVATION

20 years of in depth research and real-time analysis