



## Neutral Buoyancy Laboratory Diving Backgrounder

The NBL pool is one of the world's largest pools with dimensions of 202 feet long, 102 feet wide and 40 feet deep. The pool is one of the most critical and hazardous training facilities at NASA and is used to house a full-size space shuttle and space station mockup underwater. RTSC and NASA employees work closely together in helping to prepare and train astronauts for space walks and other activities associated with spaceflight during all three main phases of flight.

### Surface Operation

The NBL is used for water survival training, lifeguard training, bailout and other surface tasks. Features of these activities include simulated parachute drops using the crane systems, and wind drag simulator by a winch pull.

### Diver Support

With an experienced and certified professional diving staff, the NBL offers operations support, reconfiguration, camera operations and safety diving functions.

### Diving Systems

The NBL includes an extensive collection of SCUBA gear, wet suits, tanks and Surface Supplied Diving System Units. Teams can dive in two-hour increments.

### Breathing Gas

Divers breathe oxygen-enriched gas (NITROX) for all diving operations. Gas mixing and tank charging is performed onsite. It takes less than 1 hour to charge a NITROX tank.

### Water Treatment System

The 6.2 million gallons of water in the NBL tank is recycled and filtered every 19.6 hours. It is automatically monitored and controlled to a temperature ranging from 82 to 88 degrees Fahrenheit (27.8 to 31 degrees Celsius). This temperature greatly reduces the potential for hypothermia of the divers.



**Raytheon**