

spent three days at 1000 feet

Divers Emerge from Record Depth

Five divers, two from Duke and three from the U. S. Navy, have opened the world 1,000 feet beneath the surface of the sea to human exploration as the result of a 16-day test in the medical center's hyperbaric chamber.

The men, who entered the chamber on Dec. 2, spent 77½ hours at a simulated pressure of 1,000 feet. The remainder of the time was spent compressing down to the bottom depth and then returning to normal pressure.

The men breathed a mixture of gases containing 96 per cent helium, three per cent nitrogen and one per cent oxygen. Normal percentages of nitrogen and oxygen in the air are narcotic or poisonous at such depths.

During the three days at the bottom, the divers underwent a battery of physical and psychological testing. While it is still too early for detailed findings, both Dr. Herbert A. Saltzman, director of the hyperbaric unit, and Lt. Cmdr. James Summitt, senior medical officer of the Navy's Experimental Diving Unit, agree all tests indicate that man can function

effectively at 1,000-foot pressure for extended periods.

Exercise tests, using a calibrated cycle and in which blood gases, expired gases and atmospheric gases were measured, indicated normal function. Psychological tests showed some anxiety on the part of the divers but only what was described as normal under the circumstances.

Some of the divers experienced slight joint pain, when the joints were fully extended during exercises, but monitors considered this neither significant nor unexpected.

One of the divers experiences a slight case of the bends, a decompression sickness which occurs when divers ascend too rapidly, but the problem was quickly remedied.

The five divers are Delmar L. Shelton, hyperbaric chamber operator and technician; Frank J. Falejczyk of Scott Aviation Corp., working with Duke; and Lt. Cmdr. James Kelly, M. D., Chief Francis J. Smelko and Chief Murray Cato of the Navy Experimental Diving Unit.



DIVER IN NEW EQUIPMENT TESTED



DR. SALTZMAN DIRECTS THE DIVE



AT DEDICATION—University President Douglas M. Knight spoke to persons attending the dedication Dec. 9 of the new Nanaline H. Duke Medical Science Building on Science Drive. The structure will house the departments of physiology-pharmacology and biochemistry-genetics.