

Navy divers in 1,000-foot test

By Rodney Cowton, Defence Correspondent

Four Royal Navy divers are spending a month living in conditions identical to those to be found on the sea bed at a depth of more than 1,100 feet.

The purpose is to test diving systems for the sea-bed operations vessel, HMS Challenger, which is not expected to be fully operational until late 1987.

In the test centre at Toronto, Canada, the four men are simulating the deepest dive ever carried out by Navy divers in near working conditions. It is said supporting life at these depths is more difficult than keeping men alive in space.

HMS Challenger was recently involved in the search for the flight recorder of the Air India Jumbo jet which crashed off Ireland. It was, however,

only able to give limited assistance because it is not yet equipped with the unmanned submersible vessel which will be able to operate at depths up to 20,000 feet.

The men have recently completed nine days in conditions that would prevail at a depth of 360 metres, where the pressure is about 36 times that on the earth's surface. It took five days to adjust them to those conditions, and they have started the process of decompression during which, over a period of 14 days, they will be brought back to normal conditions.

Commander Alan Padwick, the Royal Navy's Superintendent of Diving, yesterday said that at a depth of 360 metres the men were breathing almost

pure helium gas, mixed with about 2 per cent oxygen. In those conditions, the body temperature has to be kept within one degree of normal temperature, and is constantly monitored.

He said the helium and the pressure affected the voice making it almost impossible for the men to talk to each other but the sounds can be understood by computer analysis.

One aim of the dive, which is being carried out in co-operation with the Canadians and the Norwegian oil company, Norsk Hydro, is to test a system for recovering all the helium breathed, so that it can be purified and recycled. If the helium was not recovered, the cost of breathing would be up to £3 a minute.