

# Earth and Environment Notes

## SEISMOLOGY

### Earthquakes Take a Vacation

The longest quiet period observed since seismological records have been kept in the United States is in progress.

The record was broken when Aug. 19 passed without the recording of any tremor of magnitude eight or more on the Richter scale striking U.S. territory. The last major U.S. quake struck Anchorage, Alaska, on March 28, 1964, taking 131 lives.

## GEOLOGY

### Soviet Oil Find Rumored

Soviet geologists have discovered a huge petroleum deposit beneath the Arctic Ocean just north of the Yamal peninsula, according to reports reaching major U.S. oil companies.

Reportedly, the field is large enough to supply the Soviet Union's oil needs for 50 years. It is said to be at "reasonably accessible depth" beneath the surface of the ice-locked sea.

Nikolai Budnikov, the Soviet geologist said to be in charge of the operation, has claimed that the enormous reserves can be reached easily with modern techniques of drilling through the ice.

## MARINE TECHNOLOGY

### Deep Diving Record

A two-day, 600-foot dive in the Gulf of Mexico has been successfully completed by two divers from Ocean Systems, Inc., the firm reports.

Following the record dive, the two men took six days to decompress in a pressure chamber on the deck of the construction barge from which they descended.

No special problems or ill effects were reported by Ocean Systems or Esso Production Research Company which sponsored the dive.

The divers spent a total of six hours in the water at 636 feet repairing an underwater oil well head system. Between the three dives to 636 feet, they lived in the deck decompression chamber at the pressure equivalent of 600 feet. Throughout the operation the divers breathed a helium-oxygen mixture.

Other divers have been subjected to 600-foot pressures for brief periods, but, apparently, no one has previously stayed long enough at that depth to become saturated with gas under such high pressures (roughly 280 psia).

The Navy's Sealab III experiment, now scheduled to take place next spring, may take two, eight-man teams of divers to 600 feet for 12 days each if an earlier descent to 430 feet goes well.

## OCEANOGRAPHY

### Aluminaut Schedule Set

A series of deep-diving research trips in the Aluminaut has been scheduled by Reynolds Submarine Services,

the all-aluminum sub's operators. The trips are open, at \$1,000 a day, to any scientists who want to go along.

The first trip in the 51-foot-long craft will be devoted largely to undersea geology. It will take the vessel to 3,000 feet at the base of the Bahama escarpment, five miles west of Gun Cay, south of Bimini.

A series of dives, probably beginning on Sept. 18, will enable marine biologists to study calico scallops and royal red shrimps at 1,500 feet in the Gulf Stream off Cape Kennedy.

Starting Sept. 25, the craft will undertake three dives to the 4,500-foot level to search the sea floor for phosphorite deposits and manganese nodules. This will be along the Blake Plateau off North and South Carolina and northern Florida.

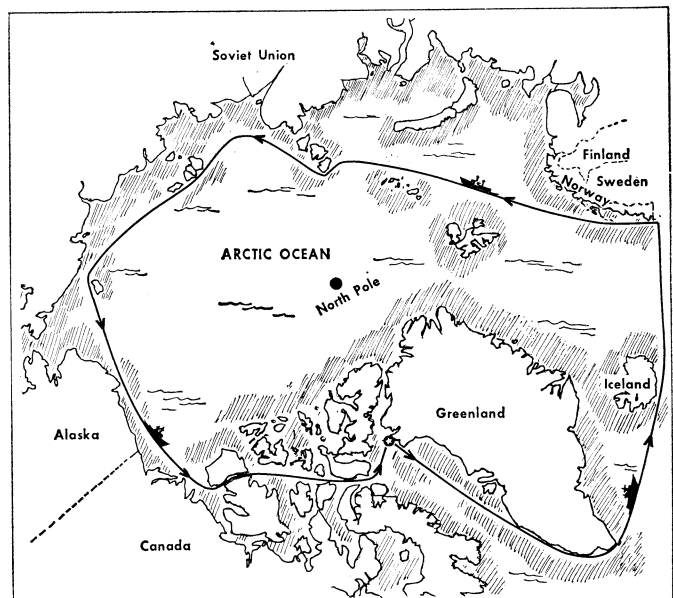
Possibly during one of those dives, Reynolds engineers hope to take their \$4 million sub to a new record depth of 9,000 feet. The Aluminaut is designed to dive to 15,000 feet, but prohibitive costs, especially for insurance, have so far prevented an attempt, according to a Reynolds spokesman.

## OCEANOGRAPHY

### Circumnavigation of Arctic Sea

Two Coast Guard icebreakers are attempting the first circumnavigation of the Arctic Ocean, the service reports.

Presently at sea on the perilous 8,000-mile journey are the 269-foot cutters Edisto and Eastwind, both of Boston. They are both conducting oceanographic studies



and evaluating the effectiveness of the ships' design in the heavy arctic pack ice.

Oceanographic data obtained are expected to aid understanding of the exchange of water among the Pacific, Atlantic and Arctic Oceans. All data from the cruise will be made available through the World Data Centers in Moscow and Washington, D.C.

Information gained from ship operations will be used in determining future polar icebreaker design.