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Marine instrument uses new technology to chart the ocean depths, 1

Automotive centre opened, 3

World communications year conference planned, 3

Circulatory disease studied, 3

Solar water heaters on trial, 3

Entomologist honoured, 4

Guidelines on personal harassment introduced, 4

Space 'black hole' discovered, 5

New means to reduce sulphur dioxide emissions, 5

Biotechnology firm finds industrial uses for microbes, 5

Employees face hazards to fertility in the workplace, 6

Cheaper skate blades stay sharp longer, 6

Bomb-sniffer ready to test, 6

Canadian food aid for Mozambique, 6

News of the arts — films, 7

News briefs, 8

Marine instrument uses new technology to chart the ocean depths

A Canadian company is developing a sophisticated instrument that will chart the ocean floor and determine what resources may be found underneath the seabed.

The new research tool, called *Seabed 2*, is being designed by Hunttec ('70) Limited of Toronto and will be able to work in depths of more than 2 kilometres of water to identify resources that may lie as much as 100 metres underneath the seabed.

The *Seabed 2*, considered unique by its inventors, is an electronic "fish" that will be towed beneath a research boat.

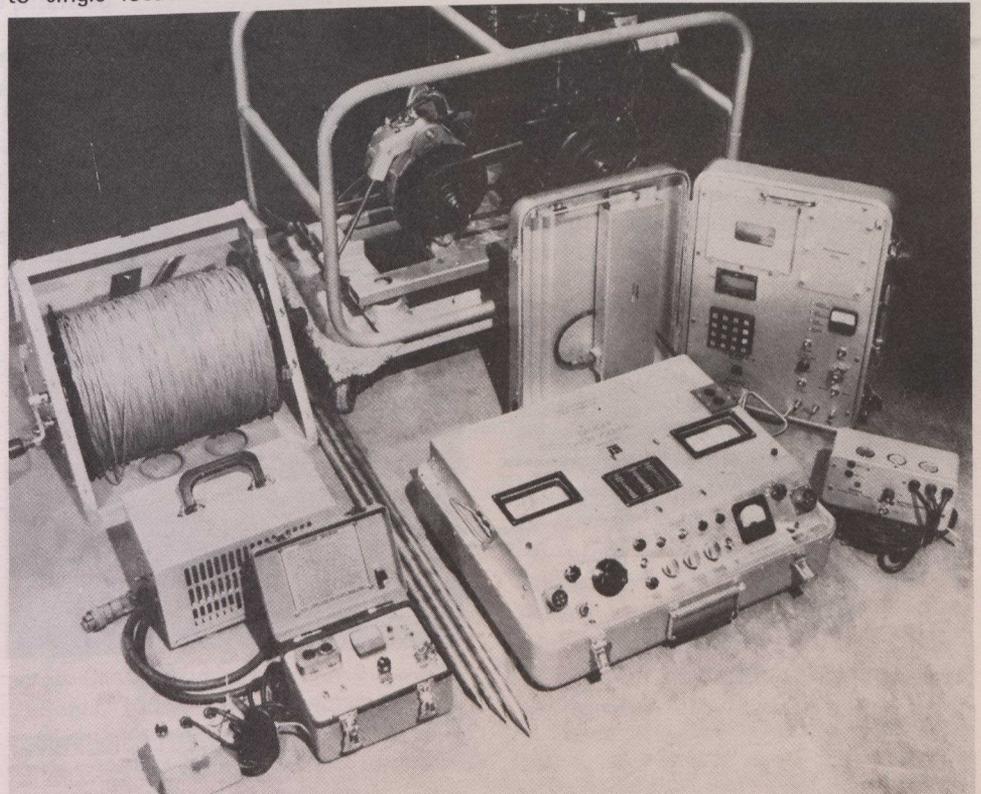
While oceans cover almost 70 per cent of the Earth's surface, it is only recently that explorers have been able to see on a wide plane what lies below water more than a few dozen metres in depth. Mini-submarines have been built to take divers to single locations at depths of several

thousand metres, but for much scientific and resource exploration, the efficient way of covering large areas is to use an unmanned, towed, sonar device.

Computer holds data

Usually called towfish, they often take the form of streamlined canisters filled with equipment that send out sound waves and measure how long it takes the sound to hit non-liquid surfaces and bounce back. *Seabed 2* is a rugged box-like cage holding two devices that take three kinds of measurements in one pass over an area. The data will be sent along a cable connecting the device to the research ship and will be entered into a computer on board.

A side scan sonar sends the waves out at an angle and the computer uses the readings to create a picture of major features on the bottom for a distance of



Some of the instrumentation produced by Hunttec ('70) Limited.