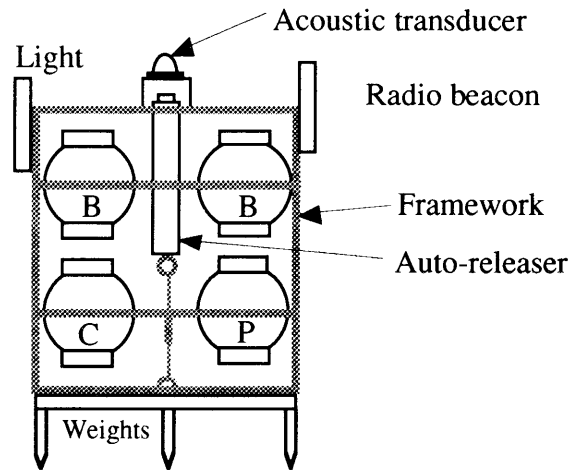


A NEW SEA-FLOOR HORIZONTAL DISTANCE MEASURING SYSTEM INVENTED BY JHD

The Hydrographic Department of Japan has recently achieved success in the test of a new prototype system for measuring horizontal distances on the deep sea floor.

By using the Survey Vessel SHOYO (1,900 tons) the Sea Floor Acoustic Ranging (SeaFAR) system, for which acoustic signals of variable frequencies from 30 to 50 kHz are used, was set on the sea floor 1,200 m deep in Sagami Bay. A 17-hour consecutive measurement was conducted, and the data obtained show an accuracy of ± 3.8 cm for a horizontal distance of 610 m. The measuring accuracy can be improved by making corrections for sea water temperatures. Its second trial for a longer period will be made in Sagami Bay for 45 days from October to November 1995.

While the observation of crustal movements of the sea bottom is one of the important factors for earthquake prediction, it was impossible to carry out precise surveys on the sea floor. Now that the test of the new system has proved successful, it is expected that the system will further be improved and contribute to development of researches on earthquake prediction by monitoring crustal movements in and around Japanese waters.



- B: Buoyancy
- C: Control unit
- P: Power unit

