

Sailed from Woods Hole, Massachusetts at 0930 on August 10, 1970 and returned at 1645 on August 13, 1970.

Scientific personnel

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Purpose

To set two current meters, make current measurements and vertical profiles of salinity and temperature in Massachusetts Bay and west of Stellwagen Bank.

Equipment

Small Van Veen, ORE Current Meters (Model 102), Marine Advisers Current Meter, Van Dorn Bottles, Laser Nephelometer, In situ Temperature-Salinometer.

Itinerary

Departed Woods Hole at 0930, August 10 and proceeded to Massachusetts Bay. Set an ORE current meter approximately 3 miles east of the Boston Light Ship in on a gravel bottom, 140 feet deep. That night we proceeded 4½ miles to the north-northwest and anchored. The next morning (August 11) we set the second ORE meter in approximately 90 feet of water. Weather deteriorated during the day as a northeaster blew up, with 25 kt winds and waves 5 to 6 feet. We made two more stations in the rain, both to measure in situ currents near the sea floor utilizing the Marine Advisers meters. The first station was off Marblehead and the second off Nahant Bay. That evening we took shelter in the Boston Harbor. On August 12 we listened with a hydrophone for electronically bugged sea bed drifter released on the previous month's cruise by Dave Folger, near the entrance to Boston Harbor. Then we went approximately 3 miles east-northeast of the Graves Lighthouse, and made additional bottom current measurements. After ¾ hour of operation the meter banged on the bottom and ceased operation. Attempts to repair it proved unsuccessful. We set and tracked an electronically bugged sea bed drifter, checked unsuccessfully for ones released the previous month near Nantasket Beach. That evening we anchored 4½ miles east of Nantasket Beach and made water casts, BT's, and temperature profiles through the night. The next day (August 13) we headed back for Woods Hole, arriving there at 1645. The cruise was cut one day short because of a malfunctioning of gear (current meter and hydrophone).

42.75N
42.25S
-70.75W
-70E