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13. Abstract *(Maximum 200 words).*

The Navy is developing sonobuoy-sized (36" long, 4.75" diameter cylinder), air-developed, satellite-tracked, drifting data buoys. The buoys relay 10-min averages of air pressure, air temperature, and water temperatures over the international weather networks. Water temperatures are at 0, 5, 10, 20, 30, 50, and 100m below the surface.

The buoys have two purposes. First, they collect and relay data from remote or violent-weather areas. Second, they help interpret near-surface current patterns by their drift tracks.

Tracks from three of these buoys for December in the Gulf of Mexico are shown in the figure. The buoys were dropped together from an aircraft on 11 December 1990. The circle shows the launch site south of the Mississippi delta. Initially the buoys idled around at about 0.1 kts. After a few days, they took off at 1.0 kt. As the buoys drifted northeastward, the tracks diverged. Two buoys got caught in a clockwise eddy to the south, whereas the northern buoy stalled.

Surface temperatures started around 24 C, then dropped about a degree near the end of the month. (A severe cold front passed through at Christmas). The temperatures at 100 m stayed about a degree cooler than the surface.

Progress on the buoy deployment activities will be reported periodically in the future.

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National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
National Ocean Service
National Weather Service

NAVY DRIFTING BUOYS

Robert L. Pickett
Naval Ocean and Atmospheric Research Laboratory
Stennis Space Center, MS 39529

DECEMBER 1990

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