

Will the Navy's FLIP Fade Away, or Find a Forever Home?



Fifty-five feet remain visible after the crew of the Floating Instrument Platform, or FLIP, partially flood the ballast tanks causing the vessel to turn stern first into the ocean. The 355-foot research vessel, owned by the Office of Naval Research and operated by the Marine Physical Laboratory at Scripps Institution of Oceanography at University of California, conducts investigations in a number of fields, including acoustics, oceanography, meteorology and marine mammal observation. *U.S. NAVY / John F. Williams*

The U.S. Navy's unique 355-foot Floating Instrument Platform, or FLIP, used by researchers to gather persistent oceanic and atmospheric observations and conduct acoustic research for more than 50 years, is now inactive.

There isn't enough funded research to put FLIP through another refit so she has been removed from service. Rob Sparrock, the program officer overseeing ONR's research vessel program, thinks FLIP deserves to retire with dignity, and wants to find a fitting forever home where her accomplishments can be remembered and appreciated.

The U.S. Navy's Office of Naval Research (ONR) built the 355-foot to conduct acoustic research. The unpowered FLIP looked like a baseball bat. It was towed to a location in the ocean where it was going to work, and the 300-foot tank section was filled with seawater so that part sank, leaving the remaining 55-foot section to stand upright. It could be anchored to the bottom, but more often it was left to drift with the wind and currents.



The Department of the Navy's Floating Instrument Platform (FLIP) begins the process of transitioning from horizontal to vertical by filling ballast tanks in the stern during a cruise

commemorating 50 years of continuous service to the scientific community. *U.S. NAVY / John F. Williams*

When at sea, she carried a crew of five when at sea along with a research party of up to 11 scientists. FLIP could make its own electricity and water and carry supplies for about 35 days. Once a research mission was complete, high-pressure air stored in bottles in the ballast tanks was released into the tanks to force the seawater out return FLIP to the horizontal, and she would be towed back to port.

FLIP was designed by the naval architecture firm Glostien Associates; built by Gunderson Bros. Engineering Corporation; and entered service in 1962 under the auspices of the Marine Physical Laboratory of Scripps Institution of Oceanography in San Diego.

Over its illustrious career, FLIP permitted researchers to study sound waves at various depths in the ocean without the interference of ambient noise from a ship's propulsion system, but it also provided a platform to study wave height and air-sea interaction; water temperature and density; marine mammals; and gather meteorological data. FLIP has been used to examine ocean circulation, storm wave formation, and how thermal energy is transferred between the ocean and the atmosphere.

While FLIP's unique qualities made it the idea platform for many science missions, some of the research that used to require a platform like FLIP can now be conducted using other means, such as unmanned systems like floats and unmanned vehicles. As funding and therefor demand for FLIP from some of FLIPs regular customers was reduced, the business case for maintaining and upgrading FLIP changed.

"It would cost about \$8 million to make FLIP useable for another five or 10 years, but that funding could be better used elsewhere," said Sparrock. "We came up with lots of creative ideas, but there wasn't enough inertia or funding to

keep it going.”

While funding has fallen, nobody wants FLIP to just fade away.

“I’d like to see a naval base or maritime museum adopt FLIP, and install the 55-foot section in the upright position so people can see it and actually go on it,” Sparrock said. “The other 300 feet can be sunk as a reef for divers.”

So, Sparrock continues his efforts to find FLIP a fitting location for her forever home. “FLIP is so historic; it just doesn’t seem right to scrap her.”