

Project Name: Linear Chair

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Organizations/People Involved: FPO-1, CEL, Jeff Wilson, BUCM (MDV) Dave Thompson, LTJG Steve Duba,

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Project Summary: The purpose of Project Linear Chair was to examine methods of measuring the near field and far field magnetic, electric, and electro-magnetic signatures of various underwater platforms. Sensor strings had to be placed and maintained in the water column with a high degree of accuracy, in depths up to 3,000fsw. A sensor watch circle of 3 ft. radius was the desired goal. Sensor mooring design represented a significant technical challenge.

A magnetic range was designed by FPO-1 and installed for David Taylor in 60fsw off Dania Pier at Fort Lauderdale, FL in 1979. The installation method was devised by CEL and it was constructed by FPO-1, CEL and possibly some UCT diver support. Installation was carried out from OCP SEACON. The project's purpose was to determine if the newly designed Trident submarines would need degaussing coils or could get by with standard de-perming techniques. There was also a planned deep water array in St Croix, which was subsequently cancelled after USS OHIO ran the Linear Chair range and confirmed that degaussing coils were not needed.

Project Report Link: Four FPO-1 Technical Reports included in the Defense Information Technical Center database address various aspects of Linear Chair; ADA 163280, 165508, 165755, and 165801: