

16. ARGO Profiling Floats

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Four Webb Corporation APEX and six Martek PROVOR profiling ARGO floats were deployed during Crozex I, D285 with a further 2 Apex and 2 PROVOR deployed on D286. The floats were "park and profile"; that is to say that they would float at a set park pressure (1000 dbar for the APEX floats and 2000 dbar for the PROVOR floats), then surface if a PROVOR float or sink to the maximum profile pressure (2000 dbar) before surfacing if an APEX float. All the floats had been programmed to resurface every 10 days, although we set the PROVOR floats to make their first profile after just two days. Time at the surface was set to 6 hours to minimise transportation by surface currents, but to allow time for full data transmission by Argos satellite communication.

All deployments were carried out from the port corner of the stern of the ship. Initially they were lowered gently into the water as the ship steamed into the wind at 1 knot. However, after problems nearly entangling a rope with both the damper ring and sensors on a PROVOR float, we began deploying them whilst getting underway, or underway, by launching them from a cardboard launching tube (PROVOR, provided by Martek) or launching the lighter APEX floats clear of the ship by hand, as vertically as possible, into the water.

The floats were tested and launch details recorded as instructed in a comprehensive "manual" compiled by Brian King immediately prior to D285.

Float launches are shown in Table 16.1.

Table 16.1 Details of ARGO float deployments

Launch time Jday/hhmm	Float No./ A P E X (A) PROVOR(P)	Argos ID	Latitude	Longitude
309/1530	02-F2-09/(P)	60C2700	36° 11.66' S	23° 22.37' E
314/1456	02-F2-06/(P)	57A0800	42° 00.10' S	48° 01.42' E
317/0040	03-F3-01/(P)	5D81600	43° 54.50' S	50° 13.75' E
318/1418	1816/(A)	713746A	46° 04.00' S	51° 44.00' E
325/1233	03-F3-03/(P)	5DBC200	47° 40.85' S	52° 55.21' E
333/2252	03-F3-04/(P)	643DB00	45° 29.40' S	47° 38.33' E
340/1618	1817/(A)	7137479	42° 01.50' S	43° 59.19' E
341/1324	1812/(A)	7137426	40° 22.61' S	40° 13.72' E
342/1644	03-F3-06	6B8C700	38° 06.47' S	35° 05.75' E
344/0518	1813/(A)	7137435	35° 12.63' S	28° 48.11' E
363/1738	03-F3-05	6603B00	46° 00.93' S	56° 08.92' E
018/1238	1814	713744C	37° 26.04' S	41° 15.76' E
019/0547	1815	713745F	35° 05.78' S	38° 45.62' E
020/0653	03-F3-02	5D84500	32° 13.57' S	34° 30.64' E