

Certificate of Test

EPIRB Hydrostatic Release



Certificate number: QINETIQ/D&TS/SES/TC0613291
 Date of issue: 18/10/2006
 Issue: 1.1

EMC Facility
 QinetiQ Farnborough
 Ively Road, Farnborough
 Hampshire. GU14 0LX, UK
 Telephone : 01252 394009
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Administrative Information

Customer: McMurdo Marine Ltd
 File Reference: Ref 06/189
 Equipment under test: EPIRB in hydrostatic housing
 Build Standard: Declared as Production units
 Test specifications: RTCM EPIRB Standard, Test A14.0 and
 BS EN 61097-2: 2000 Clause 3.1.8 (IEC 61996-2)
 Test Limits: Float Free at between 1 & 4 metre depth
 Test dates: 4 October 2006 & 6 October 2006
 Modes of operation: EPIRB in standby condition
 Test engineer: Nigel Vickers
 Location of Testing: Building A50, QinetiQ Farnborough.
 Test equipment used: Centre for Human science's Plunge Pool. Water
 temperature during testing, +27 degrees.
 EMC's Climatic chamber, Metal tape measure
 Uncertainty of measurement: Direct depth measurement $\pm 5\text{cm}$ Temperature $\pm 2^\circ\text{C}$

Test Item Details

Item No	Item	Type	Notes
1	McMurdo EPIRB Beacon	Smartfind G5	Also E5 (mechanically identical)
2	McMurdo Hydrostatic Release	Breakthru HRU	8 x disposable release

Test Summary

Test	Pre-condition Temperature	Position/Attitude of release housing during test.	Clear release and EPIRB float free?	Depth of release	Result
1	+70°C(Max	Vertical - Normal Attitude	Yes	3.0 M	Pass
2	Ambient	Vertical - Normal Attitude	Yes	3.0 M	Pass
3	Ambient	Rolling 90° to Port	Yes	3.1 M	Pass
4	Ambient	Vertical - Inverted (Upside down)	Slight agitation then float free.	3.0 M	Pass
5	Ambient	Rolling 90° to Starboard	Yes	2.7 M	Pass
6	Ambient	Horizontal.- Pitching Cover down	Slight agitation then float free.	3.0 M	Pass
7	Ambient	Horizontal –Pitching Cover up	Yes	3.0 M	Pass
8	-30°C(Min Stow)	Vertical – Normal Attitude	Yes	3.25 M	Pass

*** BSEN 61097-2 Specifies +65°C but +70°C is acceptable as worst case.**

Photographs of the EPIRB and test set-up can be found on the following pages.

IT IS CERTIFIED THAT THE TESTS DETAILED IN THIS CERTIFICATE HAVE BEEN CARRIED OUT AS SPECIFIED, WITH THE RESULTS AS SHOWN, TO THE REQUIREMENTS OF THE CONTRACT.

Signed (electronic) N.Vickers
 EMES Business Group, SES
 Farnborough

N. Vickers

Date 11th October 2006

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Photographs.



EPIRB mounted on the plunge pole ready test, Horizontal. - Pitching Cover down.



The release mechanism primed ready for the cover to be put on, McMurdo EPIRB Breakthru HRU release can be seen to the left and when hydrostatically triggered will cut through the black nylon post that holds the cover on. The coiled spring under the hinged release plate will then push up and away the G5 beacon. Note temporary HRU label due to new production at McMurdo, Portsmouth.

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Photographs (Continued).



Overall view of plunge pool and typical test set-up. (previous test)

Method of conduct of tests is to fix the EPIRB release housing onto the plunge pole in the required attitude, the pole would then be gently lowered into the plunge pool until release mechanism actuates and depth noted.