



Verification Procedure & Results Document No.: 3167-20103 rev A

Test Case ID: 003, Ver-CG-70	Test Case Name: VE-CG-3100 Transit outbound	Test Plan Document No.: 3167-20000	Test Plan Rev.: 2-00	Test Date:
Test Director (Print Name) Ed Dever	Signature in lieu of electronic signature	Design Engineer	Approval Signature John S. Dingess in lieu of electronic signature	Date 10-11-2012
Test Conductor (Print Name) David Neiman	Signature 	System Engineer	Approval Signature Ed Dever (in lieu of electronic signature)	Date 10/15/2012
Witnessed by (Print name)	Signature	QA/QC Engineer	Approval Signature	Date

Test Class	<input checked="" type="checkbox"/> Performance	<input checked="" type="checkbox"/> Behavioral	<input type="checkbox"/> Reliability	<input type="checkbox"/> Endurance / Longevity	<input type="checkbox"/> Survivability	<input type="checkbox"/> Safety
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Test Description
 The glider will be deployed in the vicinity of the Southern California Bight. It will begin its navigation to the CORC01 and CORC02 moorings. Navigation conditions to achieve 20cm/s forward flight will be determined. The SM75 self-contained modem mooring will also be deployed with the glider, ideally in ~1500m deep water if needed for requirements verification.

Requirements Addressed
 L4-CG-GD-RQ-139 (L3-CG-RQ-226, L3-CG-RQ-819, L3-CG-RQ-824, L3-CG-RQ-827, L3-CG-RQ-538), L4-CG-GD-RQ-216, L4-CG-GD-RQ-86, L4-CG-GD-RQ-90

Test Setup	Test Artifacts
The glider will be deployed from an available vessel. After deployment, it will proceed autonomously toward programmed destinations following shore commands for flight characteristics (ballast pump setting, etc.).	This document Records of dives to 1000m Glider time/position chart correlated to dive parameters

Test Procedure				Test Results		
Step No.	Instructions	Expected Results (Accept Criteria)	Requirement ID	Test Data	Pass/Fail	Notes/Waiver No.
3.1	Deploy the glider from the available vessel. No special fittings are to be used (A-frames, glider deployment cart, standard ship winches are not considered 'special')	The glider will be launched with no difficulty.	L4-CG-GD-RQ-216	Dep. Lat: Dep Long: Dep time: Water depth:		



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Test Procedure				Test Results		
Step No.	Instructions	Expected Results (Accept Criteria)	Requirement ID	Test Data	Pass/Fail	Notes/Waiver No.
3.2	Use 1000m dives to navigate the glider. Navigate the glider past obstructions <1000m deep (e.g. Blake Knolls) before turning off altimeter	The glider will make repeated dives to 1000m depth without loss of functionality.	L4-CG-GD-RQ-139 L3-CG-RQ-226 L3-CG-RQ-819 L3-CG-RQ-824 L3-CG-RQ-827 L3-CG-RQ-538			
3.3	While using minimum-400m depth dives to navigate, establish ballast and trim conditions that give a 20cm/s forward speed. For each set of conditions, perform at least 1 2-yr segment to 1000m at some point during the deployment, although shallower dives can be used to evaluate dive parameters.	Dive conditions for efficient 20cm/s flight will be developed.	L4-CG-GD-RQ-86			The interest here is to find the relationship of ballast/trim conditions to give efficient flight at 20cm/s forward speed. Analysis of power usage during 20cm/s flight will be used to verify later requirements.
3.4	Compare glider actual power usage to that predicted by the mission planning spreadsheet	Agreement between spreadsheet and actual power usage will be considered adequate by the Endurance System Engineer	L4-CG-GD-RQ-90			