Verification Procedure & Results

Test Procedure Document No.:	Test Procedure Rev.:
3166-70104	1-01

Test Case Name:	Test Plan Document #	Test Plan Rev.:	Test End Date:
Instrument and Sensor Data Quality Test	3166-70000	1-01	

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DOORS Verification Procedure ID Ver-CG-264	**DOORS Verification Event ID** CG-VE-3023	**Test Results Reviewed**	**QA:**	Date
			Test Dir.	Date

Test Description

This test will be performed to ensure the sensor elements are functional. The test will also ensure that the sensors report reasonable measurements based on the environmental test conditions.

Requirements Addressed

L3-CG-RQ-163 CGSN platforms shall transmit data to shore.

L3-CG-RQ-890 CGSN platforms without a CI presence and without sufficient bandwidth for real-time transfer of raw data, shall compress or decimate data.

Test Environment

- Main controller is located in load cage at burn-in site.
- Secondary controller is located in 64" sphere cage insert assembly at burn-in site.
- DOSTA, PHSEN, and FLORT are connected to secondary controller in 64" sphere cage insert, located at burn-in site.
- Inductive bypass cables are connected through cages and inductive instruments, all located at burn-in site.
- TWR glider simulator is located at burn in site, with acoustic transducer located next to acoustic modem located in load cage.

Test Setup

Pre-Conditions:

- TC002 has been completed and passed.
- 64" sphere assembled with cage insert and secondary controller
- Load cage assembled: main controller, remote acoustic modem
- Instruments and controllers are ready to be setup for test deployment mode
- All inductive bypass cables at the MFM are connected
- Secondary controller, CTDMO instruments, ADCPS instrument and main controller are connected through inductive loop
- TWR glider simulator acoustic transducer is positioned next to acoustic modem in load cage, which is connected to main controller.
- TWR glider simulator iridium antenna is located with clear view to the sky for transmitting data to shore server.

Hardware Preparation

- Computer, printer, screen.

Software Preparation:

- Appropriate data processing and visualization software.

Test Artifacts

Test Artifacts consist of the Pass/Fail results for steps contained within this procedure as well as various log files.

Test Procedure 3166-70104 Rev 1-01				Test Results		
Step#	Instructions	Expected Results	Requirement ID	Observed Results	Pass/Fail	Notes
1	Connect serial communications cable from PC to main controller communications port. Start a terminal program and save the log file as follows: ***sn*_controller_*yyyymmdd*_tc004.log**					
2	Press the **<space>** key to show ">" prompt. If you do not see a ">" command prompt, then press **<ctrl>+x** to exit sleep mode. The controller will now show a ">" command prompt					
3	Follow the menu and download data from the main controller.					
4	Save and stop the log file.					
5	Connect serial communications cable from PC to secondary controller communications port. Start a terminal program and save the log file as follows: ***sn*_controller_*yyyymmdd*_tc004.log**					
6	Press the **<space>** key to show ">" prompt. If you do not see a ">" command prompt, then press **<ctrl>+x** to exit sleep mode. The controller will now show a ">" command prompt					
7	Follow the menu and download data from the secondary controller.					
8	Save and stop the log file.					
9	Use TWR glider simulator to acoustically download mooring data from load cage acoustic modem and transmit to shore server.	Confirmation that data was successfully sent to shore server.	L3-CG-RQ-163			
10	Analyze data downloaded from main and secondary controller and compare to that of the transmitted data to shore.	- Sensors report reasonable measurements based on the environmental test conditions.	L3-CG-RQ-163 L3-CG-RQ-890			