



Test Procedure Name: Coastal Endurance Inshore Surface Mooring Health & Status Monitoring Validation Test Procedure

Document Control Number: 1158-02031 Rev: 0-02

Test Plan Document Control Number: 1158-02000	Test Plan Revision Number: 1-01	Test Date(s): <YYYY-MM-DD>
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Test Procedure Approval Signature Block (signed before the test procedure is executed; signature indicates approval of the procedure content)				
Approval Authority (role)	Print Name	Signature	Date (yyyy-mm-dd)	Revision
Chief Systems Engineer	John Pesaturo		2015-mm-dd	1-00

Test Type(s) (select all applicable)
 Requirements Verification
 Developmental
 Integration
 Interface
 Stability
 Performance
 Validation
 Acceptance
 Other

Test Procedure Description

This procedure contributes to the Validation Testing of the Endurance Inshore Surface Mooring, which is required for Commissioning. It applies to Endurance Inshore Surface Moorings, which are deployed at the CE01 (Oregon Inshore) and CE06 (Washington Inshore) sites of the Coastal Endurance Array.

This procedure is the Health & Status Monitoring Scenario (Section 4.3.1, Validation Test Plan for OOI Coastal Endurance Array – 1158-02000).

- Confirm functionality of telemetry paths (platform-to-ship, platform-to-shore)
- Confirm that platform status is transmitted to shore (OMC) and engineering data are reasonable
- Confirm operations of platform components (platform controller components, power system components, engineering sensors, science instruments)
- Confirm error indications/alerts in the OMC are functional

Test Location

Platforms will be deployed in their defined locations within the Coastal Endurance Array. Testers will be located where they have access (directly, via internet, or via WebEx) to the Endurance Array data, command and control software, and monitoring displays (e.g., the WHOI OMC).

Test Equipment				
Equipment ID or Serial Number	Calibration Due Date (yyyy-mm-dd)	Equipment Technician (print name)	Certification Signature (indicates that calibration has not expired)	Date (yyyy-mm-dd)
N/A				

Test Software (Including custom and COTS)	
Software Product Name	Software Version
CGSN Platform Shore Server software	<to be filled in at time of test>
CGSN Mooring Platform software	<to be filled in at time of test>

Input Data



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Dataset Name	Dataset Description	Dataset Source (e.g., IOOS, CTD sensor)	Dataset Location (e.g., complete file path and name)	Data Volume	Procedure Step(s) (Where Data is used)

Output Data				
Dataset Name	Dataset Description	Dataset Source (e.g., IOOS, CTD sensor)	Data Storage Location (e.g., complete file path and name)	Comments (e.g., explain any naming conventions used)

Test Safety
 Tests shall be conducted in accordance with the OOI Environmental Health and Safety Plan (1006-00000), and in accordance with institutional operational safety policies.

Preconditions	Test Reports
The platform(s) to undergo Validation Testing must be deployed. The OMC must be operational and have the Platform Shore Server operational. Test operator must be comfortable operating from the Linux command line using standard utilities to view data directories and files.	<i><Identify the document numbers of any test reports produced from the execution of this procedure></i>



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Test Procedure				Test Results				
Step No.	Instructions	Requirement ID (If applicable)	Expected Results	Actual Results (If different than Expected)	Step Completed By (Enter initials, unless test is automated)	Pass/Fail	Notes	Redmine Issues (Identify issues found in this step)
A	At-Sea Status/Functionality							
A-1	Pull together deployment documentation (e.g., cruise report, deployment logs).	N/A					Alternately, run during deployment testing	
A-2	Review documents to confirm successful WiFi line-of-sight communications during deployment Record document, date/time of WiFi comms		Successful WiFi comms between mooring and ship					
A-3	Review documents to confirm successful RF line-of-sight communications during deployment Record document, date/time of RF comms		Successful RF comms between mooring and ship					
B	Sea-to-Shore Status/Functionality							
B-1	Review status on OMC Platform Shore Server: e.g. ssh ooiuser@ooi-cgpss1.ceoas.oregonstate.edu cd /home/ce01lissm/DNNNNN	N/A						
B-2	View cpm_status log for deployed Surface Mooring: cd irid2shore view most recent cpm_status.<date>.txt log file	N/A						
B-3	Download a copy of the status log file	N/A						
B-4	Record time of latest CPM1 status	N/A						
B-5	Record CPM1 Temp values	N/A	Temps between ~2 and 20°C					



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B-6	Record CPM1 Humidity values	N/A	Humidity between ~0 and 50%					
B-7	Record CPM1 Pressure values	N/A	Pressure ~5-15 psi				Buoy well has a small vacuum applied before deployment.	
B-8	Confirm all components are functional: MPIC Main Voltage MPIC Main Current (Ma) Temperature (degC) Humidity (%) CPM Ldet Enable Ldet mV Gflt Detect (uA)	N/A	Reasonable environmental values displayed in the plots					
B-9	Verify main bus voltage: Vmain		Battery voltage between 30.5+/-2.5 Volts					
-10	Verify system current draw		Between 2-4 Amperes, load dependent					
B-11	View Iridium SBD log See oicg.moorings@gmail.com inbox sorted by Deployment, mooring and source of SBD messages.		transfers at 2 hour intervals					
C	Review data on OMC Platform Shore Server (128.193.86.202)							
C-1	View data for deployed Surface Mooring: e.g. ssh ooiuser@ooi-cgps1.ceoas.oregonstate.edu cd /home/ce01issm/DNNNNN	N/A						



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	Buoy Components							
C-2	View superv engineering data Is superv/ Confirm data is present		Data present					
C-3	View VELPT1 data Is dcl17/velpt1/ Confirm data is present		Data present					
C-4	View CTDBP3 data Is dcl17/ctdbp3 Confirm data is present		Data present				Only relevant for EA winter deployments. In summer, no CTDBP3 is on the buoy	
C-5	View FLORT2 data Data is recorded by CTDBP3. Review above data files to confirm presence of DOSTA1 data. Confirm data is present		Data present				Only relevant for EA winter deployments. In summer, no FLORT2 is on the buoy	
C-6	View ACOMM data Is dcl17/ucsp Confirm data is present		Data present					
	NSIF Instruments							
C-7	View superv engineering data Is dcl16/superv Confirm data is present		Data present					
C-8	View CTDBP1 data Is dcl16/ctdbp1 Confirm data is present		Data present					
C-9	View DOSTA1 data Data is recorded by CTDBP1. Review above data files to confirm presence of DOSTA1 data. Confirm data is present		Data present					
C-10	View FLORT data Is dcl16/flort Confirm data is present		Data present					
C-11	View NUTNR data Is dcl16/nutnr Confirm data is present		Data present					



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C-12	View OPTAA1 data Is dcl16/optaa1 Confirm data is present		Data present					
C-13	View PC02W1 data Is dcl16/pc02w1 Confirm data is present		Data present					
C-14	View SPKIR data Is dcl16/spkir Confirm data is present		Data present					
C-15	View VELPT2 data Is dcl16/velpt2 Confirm data is present		Data present					
C-16	View PHSEN1 data Is dcl16/phsen1 Confirm data is present		Data present					
Multifunction Node Instruments								
C-17	View ADCPT data Is dcl35/adcpt Confirm data is present		Data present					
C-18	View CTDBP2 data Is dcl37/ctdbp2 Confirm data is present		Data present					
C-19	View PRESF data Is dcl35/presf Confirm data is present		Data present					
C-20	View OPTAA2 data Is dcl37/optaa2 Confirm data is present		Data present					
C-21	View PHSEN2 data Is dcl35/phsen2 Confirm data is present		Data present					
C-22	View PCO2W2 data Is dcl35/pco2w2 Confirm data is present		Data present					



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