





Verification Procedure & Results

		Test Procedure Document No.: 3166-50105		Test Procedure Rev.: 1-00		
Test Case Name: Mooring Inspections			Test Plan Document # 3166-50000	Test Plan Rev.: 1-03	Test End Date:	
Test Conductor (Print Name)		Signature	Design Engineer (Print Name) N/A		Approval Signature	Date
Test Director (Print Name)		Signature	System Engineer (Print Name) Sheri N. White		Approval Signature 	Date 2015-03-03
Witnessed by (Print name)		Signature	QA/QC Engineer (Print Name) Gary Cook		Approval Signature 	Date 2/26/2015
DOORS Verification Procedure ID Ver-CG-87		DOORS Verification Event ID CG-VE-3018		Test Results Reviewed		QA: Test Dir.
						Date

Test Description

This Test Case will include inspection of the mooring assembly to verify the presence and location of items called out in the requirements.

Requirements Addressed

L3-CG-RQ-489: CGSN Platforms shall include a satellite based recovery beacon.

L3-CG-RQ-949: CGSN Platforms with a constant surface expression shall include aids to navigation such as flashers or radar target enhancers.

L3-CG-RQ-490: CGSN Platforms with an occasional or constant surface expression shall include a GPS receiver.

L3-CG-RQ-445: Components of the CGSN shall be shared between the regional, coastal and global infrastructure.

L3-CG-RQ-763: Wind Velocity instruments on Surface moorings shall be mounted in locations that are not obstructed by the mooring structure or other instruments.

L3-CG-RQ-764: Downwelling Shortwave Irradiance instruments on Surface moorings shall be mounted in locations that are not obstructed vertically by the mooring structure or other instruments.

L3-CG-RQ-765: Downwelling Longwave Irradiance instruments on Surface moorings shall be mounted in locations that are not obstructed vertically by the mooring structure or other instruments.

L3-CG-RQ-766: Precipitation instruments on Surface moorings shall be mounted in locations that are not obstructed by the mooring structure or other instruments.

L3-CG-RQ-767: Turbulent Wind Velocity instruments on Surface moorings shall be mounted in locations that are not obstructed by the mooring structure or other instruments.

L3-CG-RQ-953: Surface Mooring Flux Relative Humidity sensors shall be located within 10 cm of Turbulent Wind Velocity sensors.

L3-CG-RQ-957: Surface mooring Flux measurements of Platform Motion shall be located within 1 m of Turbulent Wind Velocity measurements.

L3-CG-RQ-768: Surface wave instruments on Surface moorings shall be mounted in a location that is close to the center of rotation of the surface buoy.

L3-CG-RQ-762: Wind Velocity instruments shall be mounted on Global surface moorings no less than 5 m above the mean sea surface.

L3-CG-RQ-771: Wind Velocity instruments shall be mounted on Coastal Surface Buoys no less than 3 m above the mean sea surface.

L3-CG-RQ-239: Coastal Surface Moorings shall utilize an EM connection between the Surface Buoy and an MFN on the seabed.

L4-CG-IP-RQ-456: Air-sea interface instruments shall be capable of being mounted on surface buoys.

L4-CG-IP-RQ-458: Instruments shall be capable of being mounted on mooring riser instrument frames.

L4-CG-IP-RQ-661: Instruments shall be capable of clamping onto inductive wire rope segments.

L4-CG-IP-RQ-460: Instruments shall be capable of being mounted on MFNs.

L4-CG-PS-RQ-83: The power system shall prevent accidental contact by deployment technicians with high voltage circuits.

L4-CG-PS-RQ-299: The PSC shall be mounted within the surface buoy instrument well.

L4-CG-PS-RQ-300: The Fuel Cell and associated fuel shall be mounted within the Surface Buoy.

L4-CG-PS-RQ-302: Wind Turbines shall be mounted on the surface buoy mast.

L4-CG-PS-RQ-308: Rechargeable batteries shall be mounted within the surface buoy instrument well.

L4-CG-PS-RQ-312: Underwater Power System electronic enclosures shall be capable of being mounted on an MFN.

L4-CG-PS-RQ-315: The Power System shall interface to the AUV Dock per ICD 3102-10006.

L4-CG-SB-RQ-140: Surface Buoys shall be marked, colored, illuminated and include acoustic signaling in accordance with 33 C.F.R. Part 62, 66 and the International Association of Lighthouse Authorities (IALA) Maritime Buoyage System for Ocean Data Acquisition Systems (ODAS).

L4-CG-SB-RQ-138: Surface buoys shall be equipped with self-powered, satellite-based radio/GPS emergency beacons.

L4-CG-SB-RQ-333: Surface Buoys shall be equipped with redundant pairs of watch circle beacons.

L4-CG-SB-RQ-303: Surface buoys that are bi-stable shall be equipped with orientation sensing, rotation-triggered emergency beacons.

L4-CG-SB-RQ-324: Surface buoys that are bi-stable shall be equipped with orientation sensing, rotation-triggered emergency flashers.

L4-CG-SB-RQ-152: Surface buoy towers shall provide cable runways to protect the wiring runs of tower mounted components.

L4-CG-SB-RQ-273: Coastal Surface buoys shall include provisions to mount features to deter semiaquatic marine mammals, including Sea Lions and Seals, access to the buoy deck.

L4-CG-SB-RQ-360: Surface buoys and Submersible Surface Buoys shall provide accommodations to facilitate the mounting of platform control components inside the instrument well.

L4-CG-SB-RQ-165: Surface buoys shall incorporate and support wind powered generators.

L4-CG-SB-RQ-166: Surface buoys shall incorporate and support solar power panels.

L4-CG-SB-RQ-290: Surface Buoys shall provide accommodations to facilitate the mounting of telemetry antennas, at multiple locations, to enable line-of-sight communications paths to satellites or ships in the vicinity.

Test Setup

Test Artifacts

Test Procedure 3166-50105 Rev 1-00				Test Results		
Step#	Instructions	Expected Results	Requirement ID	Observed Results	Pass/Fail	Notes
1	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-489			
2	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-949			
3	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-490			
4	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-445			
5	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-763			
6	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-764			
7	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-765			
8	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-766			
9	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-767			
10	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-953			
11	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-957			
12	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-768			
13	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-762			
14	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-771			
15	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L3-CG-RQ-239			
16	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-IP-RQ-456			
17	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-IP-RQ-458			
18	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-IP-RQ-661			
19	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-IP-RQ-460			
20	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-83			
21	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-299			
22	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-300			
23	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-302			
24	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-308			
25	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-312			

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Step#	Instructions	Expected Results	Requirement ID	Observed Results	Pass/Fail	Notes
26	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-PS-RQ-315			
27	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-140			
28	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-138			
29	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-333			
30	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-303			
31	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-324			
32	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-152			
33	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-273			
34	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-360			
35	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-165			
36	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-166			
37	Inspect the mooring and confirm the presence of the item or capability called out in the requirement.		L4-CG-SB-RQ-290			