

Alert Level: **ADVISORY**

Instruments: MMP - Extended Model Only

Software Versions: N/A

Hardware Version: N/A

Subject: Extended MMP Skin

Summary: Excessive mooring drop speeds may apply high forces inside the single-sheet, low-density polyethylene (LDPE) skin on the Extended MMP. These high forces may cause the skin to deform around the nylon attachment hardware and separate from the MMP frame.

Technical Details: Normal drop speeds for an MMP mooring are expected to be in the 1 to 2 knot range. Drop speed above 2 knots (due to the taut mooring requirement in strong ocean currents) may drive water into the MMP interior and apply outward pressure on the single-sheet LDPE skin. This pressure may cause small deformation around the nylon screw heads and cause tears in the LDPE. In addition, accidental over tightening of the nylon screws may minimize the designed contact between the screw head and LDPE skin. One or both of these conditions may result in the LDPE skin becoming detached from the MMP frame.

Potential Negative Effects: The Extended Model MMP skin may be lost or partially attached, thus creating increased drag and exposing some critical cabling to potential damage from fish bite.

Action: Mooring deployments designed for high drop speeds should be avoided for Extended MMP units with LDPE skin. If this is not possible, the flat head nylon screws should be replaced with pan head screws and over-sized nylon washers to distribute the load away from the stress concentration at the hole in the LDPE skin. Alternatively, the LDPE skins can be replaced with two-part, high-density polyethylene (HDPE) skins expected to be available in May 2012.