## R/V Kilo Moana - Load Handling System Update

The Kilo Moana's Caley overboarding system is currently operational and in routine use, with a recent upgrade and several known defects. Last fall the level-wind system was replaced with a custom fabrication. As a result the level-wind works much better, though it still lays wire under the bottom of the reel instead of over the top. As a result the crane winch operator cannot see how the cable is laying and a second deckhand must monitor the winch at all times. This results in three people (doghouse, winch and on-deck technician) being involved in any operation requiring the Caley.

Other concerns with the Caley include: 1) a propensity to degrade the .322" cable over time causing twisting and hockling through repeated use and requiring frequent cable retermination, 2) a poorly designed docking head that requires the operator continually be adjusting the head's orientation to keep the cable from rubbing, 3) lack of any support from the vendor, and 4) many delicate components exposed to the weather, which requires continual maintenance.

We anticipate that in FY12 or 13 NSF will provide funds to replace the control system and operator interface and docking head, with funds potentially available past that to support weatherproofing and other concerns.