

Sherman, Alana

From: Smith, Ken
Sent: Wednesday, June 13, 2007 7:40 AM
To: McGill, Paul
Cc: Sherman, Alana; Hobson, Brett; Henthorn, Richard; Ferreira, John
Subject: RE: Rover notes from Pulse 52

Paul,

My input.

1. Try cutting brush bristles shorter and move closer to tread. Should add stiffness.
2. Poly-pro line on lift line needs to be replaced with spectra line of sufficient strength to lift Rover out of water on rolling ship (breaking strength 2 to 3 times above static air weight of vehicle). It can be same length as the existing poly-pro line.
3. If vibrator is used, it should be activated prior to pulling chambers from mud. Might dislodge any potential cohesive sediment prior to extraction.
4. I will add the need for portable cleats in my crew letter.

Thanks for putting together this list. Ken.

-----Original Message-----

From: McGill, Paul
Sent: Tuesday, June 12, 2007 10:00 AM
To: Sherman, Alana; Hobson, Brett; Henthorn, Richard; Smith, Ken; Ferreira, John
Subject: Rover notes from Pulse 52

Gang,

Here are my Rover notes from the cruise for our collective memory. Additions/corrections are welcome. Let's not let any of this stuff fall through the cracks.

Paul

Notes from Rover deployment on Western Flyer, 7 thru 10 June 2007

Mechanical

- * The Tread-Cleaning Brushes need to be stiffer. Too much mud is being carried to measurement area.
- * The Rover Lift Line needs to be checked before each cruise to make sure it's correct for the ship. The Lift Line for this cruise was a bit short, making it more difficult for the Flyer to recover the vehicle.
- * The Cleaning Pumps are still not removing much of the clinging mud from the chambers. We need a more effective method - perhaps a chamber vibrator?
- * The topside Acoustic Modem Transducer cable and lift line need to be on cable reels to make them easier to handle.
- * The W. Flyer needs to have small cleats on the rails for tying off lines with small loads such as the Modem Transducer. We should ask Darrell about this.

Software

- * The Acoustic Current Meter is being queried too often (2 Hz), resulting in bad samples, and there is jitter and cumulative error in the sampling time. We need to sample at 1 Hz without accumulating time error.
- * The Current Meter data needs to be recorded for the whole deployment. We could record it

once every 15 min when the optode data are taken.

- * The quality of the images from the two Chamber Cameras needs to be evaluated. The stbd Chamber Camera light is almost too bright, yielding a poorer image than the port Camera.
- * The Axis video server needs to be set up to make both images the same. The port Camera image has a time and date stamp, but the stbd image doesn't. The images are also different sizes.
- * The port Respirometer Chamber trapped air, not releasing it until the valves were opened at 3950 m depth. We should consider opening the chamber valves for a short time during descent to bleed this air, since it may contaminate the optode measurements.

Electrical

- * The stbd Camera cable may be damaged and needs to be checked. We need right-angle connectors and guards to protect the connectors.
- * The spar buoy Strobe Light was damaged on recovery and needs to be sent back for repair. Should we put a guard on the lens?
- * The port Optode gave strange oxygen readings. This may have been due to trapped air, but it needs to be checked.
- * The temperature readings from the Optodes are anomalously low, reading 1.5 degC instead of the expected 1.8 degC. All three agree, but we need to check how these were calibrated.
- * The Argos Beacon on/off switch needs to be checked. The Beacon was transmitting even though the key was in the off (horizontal) position.