

Technical Support Bulletin 2007-01

Paired Profiles with No ACM

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Alert Level: CRITICAL

Software Version: MMP firmware up to v4.05 Instrument: McLane Moored Profiler (MMP) Subject: Paired Profiles with no ACM

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Summary: An MMP without an Acoustic Current Meter (ACM) may power cycle the CTD too quickly in between paired profiles.

Potential Negative Effects: CTD data for the downward profile of a paired profile set may not be recorded in the CTD and the downward profile will terminate on "timer expired", not "deep pressure". The CTD will not respond to requests for pressure data and the Engineering file will have meaningless data in the pressure column.

Technical Details: If no ACM is installed, the firmware cycles the CTD power off and on immediately following the CTD data transfer of the "up" profile when the user has selected "paired profiles" in the deployment programming. Normally, the ACM data transfer occurs after the CTD data transfer, but since there is no ACM data to transfer, the MMP firmware continues to the next action – turn the CTD power on. Insufficient delay time between the power off and power on may not allow the CTD to boot properly and, hence, no CTD data will be logged internally or in the Engineering file.

Solution: To prevent missing CTD data on an MMP deployment without an ACM, do not use paired profiles in the deployment programming.

Alternate Solution: Use profile burst programming to simulate paired profiles. Contact McLane Research Laboratories for additional information on using profile burst programming to simulate paired profiles.