SSVEO IFA List

Date:02/27/2003

STS - 105, OV - 103, Discovery (30)

Time:03:43:PM

Tracking No	Time	Classification	Documentation		Subsystem
MER - 14	**MET:** 010:20:52	Problem	**FIAR**	**IFA** STS-105-V-01	OMS/RCS
PROP-01	**GMT:** 233:18:03		**SPR** 105RF03	**UA**	**Manager:** Brian Werner
			IPR 118V-0009	**PR**	714-934-0542
					Engineer: Steve Arrieta
					281-853-1554

Title: LOMS Low Point Oxidizer Drain Line B Heater Stopped Cycling (ORB)

Summary: At approximately 233:18:03 G.m.t. (010:20:53 MET), the left OMS low-point oxidizer drain line temperature dropped below the expected heater turn-on temperature of 63 ?F. When the temperature dropped to 41 ?F, the crew switched the crossfeed line heaters from system B to system A at 233:19:43 G.m.t. (10:22:33 MET). Nominal heater operation was observed after the heater reconfiguration.

KSC will troubleshoot.

Tracking No	Time	Classification	Documentation		Subsystem
MER - 12	**MET:** 009:19:32	Problem	**FIAR**	**IFA** STS-105-V-02	EPD&C - Hardware
EGIL-01	**GMT:** 232:16:43		**SPR** 105RF04	**UA**	**Manager:** Laith Cotta
			IPR 118V-0007	**PR** DDC-3-31-0184	714-372-5845
					Engineer: Brian Kang
					281-853-1607

Title: Loss of AC2 Phase A During MPM Stow (ORB)

Summary: At 232:16:43 G.m.t. (09:19:32:46 MET) during the stowing of the RMS MPMs, the motors drove dual motor time; however, motor 2 had phase A missing. When the MPM was deployed, all three phases were present. The most probable cause of the phase A failure was a contaminated AC2 mid-motor controller assembly (MMCA) 2 circuit breaker contact, although a failed contact on one of the relays in the MMCA could not initially be ruled out. The affected 3 phase AC circuit breaker is

cb 7 on panel MA73C. The failed relays could have been on one of the two relays that forms the AC2 PBM MMC2 bus or the relay that provides power to the MPM stow motor 2. All of the motors powered by the AC2 MMCA 2 bus will operate on two phases. Since no operational capabilities were lost, the affected circuit breaker was not cycled in an attempt to clean the contacts.

The port payload bay door drive motor 2, starboard aft bulkhead latch motor 2, and centerline latch 13-16 motor 2 are also powered by AC2 MMCA2. During payload bay door closure, AC2 phase A current was missing from these motors. All payload bay door close and latch operations occurred in dual motor time. Additionally, the left vent door 3 motor 2 is powered by AC2 MMCA2. It too had AC2 phase A current missing during vent door operations. This performance eliminated a failed relay as a potential cause of the problem. Prior to payload bay door opening in the OPF, the cb was cycled one time. During payload bay door opening, phase A current was still missing from port payload bay door drive motor 2, starboard aft bulkhead latch motor 2, and centerline latch 13-16 motor 2. The cb was cycled a second time prior to a cycle of the left vent door 3 using motor 2. This second cycle of the cb recovered phase A current. The cb will be removed for failure analysis and replaced.