

Date: 17 April 2018
To: Thai Aviation Services Limited
Attention: Grant Robinson
Regarding: WOW DISCR During Switch From Gen or Gnd Pwr To A/C Batt
Technical Case #: C0089200

Grant Robinson,

TAS D60 WOW TROUBLESHOOTING GUIDE	
1	Confirm Struts are serviced per MM on D60
2	Confirm S28 and S33 prox switches have the correct gap to the strut
	Wire Checks
3	Remove NO.1 Autopilot computer from E-bay
4	<p>Perform below test as a baseline going forward. Confirm CM1 WOW disappears for 500 msec and returns with below sequence</p> <p>Monitor wire at J1A-G06 of autopilot rack to ground)</p> <hr/> <p>The following steps, with no omissions, cause WOW DISCREPANCY to come on.</p> <p>A) Ground power on and battery on. B) After boot up, pull and reset either, or both, circuit breaker LDG CTRL 1, LDG CTRL 2, or operate left or right WOW prox switch. C) Switch external power off.</p> <p>After a few seconds WOW DISCREPANCY comes on.</p> <p>Switch external power back and on WOW DISCREPANCY remains until AP 1 fail light on AP controller goes out (about 20 seconds).</p> <p>Repeat steps A, B, C with the circuit breakers pulled for FCM1 and no fault occurs.</p> <p>Repeat steps A, B, C with DC1 ESS BUS CTRL pulled (puts K10 in battery PDU in the de-energize position, #1 DC ESS Bus permanently connected to #2 DC ESS Bus), and no fault occurs</p> <p>The WOW DISCR error appears to be originating from FCM 1. If the CB's for FCM 1 are pulled before ground power is placed OFF, there is no message.</p> <p>A latched message can be cleared by cycling A/C power.</p> <p>Troubleshooting in the hangar with ground power applied and a Fluke meter on the WOW 1 input to FCM 1 shows ground (Weight ON Wheels). When ground power is switched OFF, the ground goes away for about 500mS and comes back (caused by the bus switching for WOW 1 power from Generator/Ground power to main battery).</p>

5	Disconnect P105 from NO.1 relay panel. A-Verify P105-61 reads < .5 ohms to ground B-Verify P105-59 reads < .5 ohms to ground C-Perform a continuity between P105-60 to J1A-G06 Verify resistance is < .5 ohm. Also check to make sure wire is not connected to ground.
6	Replace K110, K117 relays, do not swap, replace relays
7	Reinstall autopilot computer, reconnect P105
8	Perform Step 4 again and see if 500 msec delay is still present
9	Disconnect LH MAIN landing Gear harness from J331
10	Verify J331-12 reads < .5 ohm to ground. Flex harness going to TJ block to confirm TJ527-B has a good ground connection
11	Temporarily install a jumper across J331- 4,12 (bypass the proximity sensor)
12	Repeat step 4 to see if there is a 500 msec lag at the autopilot computer
13	Reconnect P331
14	Disconnect P306 from Battery PDU. Remove VMM1 and VMM2 from rack. Confirm P306-P reads ground (< .5 ohms). Flex harness near TJ BATT confirm ground is not intermittent.
	Check continuity between P306-F to VMM1 P101B-J05. P306-F to VMM2 P100B-J05. Confirm <.5 ohm for wire continuity and wire is not shorted to ground.
14	With Ext power on, check P306-B for 28 VDC
15	Reconnect removed plugs and equipment
16	Battery PDU Post E3 (NO.1 DC ESS)
17	Monitor voltage while performing Step 4 Test. Confirm 500 msec lag
18	Open up cb panel and locate NO.1 LNDG GR CONT 1 CB. Monitor 28 VDC voltage and confirm 500 msec interrupt by performing step 4 again
19	Replace K103 and K104 in NO.1 relay box. Repeat step 4

Regards,

M. Brandon Knepp

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