

DOCKET NO.: SA-517
EXHIBIT NO. 9D

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

SYSTEMS GROUP CHAIRMAN'S FACTUAL REPORT
ATTACHMENT 3
GPWS SUMMARY TEST DATA
(EXCERPTS)

By: Gregory Phillips
(4 pages)

Attachment 3
GPWS Summary Test Data (Excerpts)

AT Easy Test Log

Company . . . : AlliedSignal Aerospace
User name. : AT Easy
Program... :M7DIAG.PRG
Version... :3.10 (Wed Oct 01 13:48:43 1997)
UUT : MK7 GPWS

GSE Self Test PASS
Initializing the UUT PASS
Getting UUT Configuration
Checking PVM Module Version PASS (version # 2.05)
Checking ADD ASoftware Version . : PASS (version # 1.01)
Checking Data Module Version PASS (version # 2.08)

UUT Failure Counter Information
NO FAILURES RECORDED

Last UUT Configuration
PROGRAM PINS FOOO 0000

UUT Warning Counter Information

7 SINKRATE WARNINGS	0	MODE 1 PULLUP WARNINGS
9 MODE 2 PULLUP WARNINGS	5	TERRAIN-TERRAIN WARNINGS
3 DON'T SINK WARNINGS	1	MODE 4A/B TOO LOW TERRAIN
0 TOO LOW GEAR	14	TOO LOW FLAPS
7 MODE 4C TOO LOW TERRAIN	23	GLIDESLOPE CAUTION
7 GLIDESLOPE WARNING	3	WINDSHEAR CAUTION
0 WINDSHEAR WARNING	3	BANK ANGLE WARNING
0 UNDEFINE D	0	UNDEFINED
0 GLIDESLOPE CANCEL	859	AIR TO GROUND TRANSITION
0 ADDA UNINTENDED INTERRUPT	0	PVM UNINTENDED INTERRUPT
73 HOURS INOPERATIVE		
2751 HOURS IN-FLIGHT		
5442 HOURS OPERATING TIME		

UUT Flight History Information

THERE ARE 64 FLIGHTS STORED IN FLIGHT HISTORY

SINKRATE WARNING

FLIGHT 1

GLIDESLOPE CAUTION

FLIGHTS 15,47

BANK ANGLE WARNING

FLIGHT 1

GROUND HISTORY:

PITCH #1 FAULT

ROLL #1 FAULT

GSE Serial Number 209

GSE Part Number 951-6517-004

GSE MOD 4

Part Number., 965-0876-030 B05 B08 M 2

Serial Number.. D 1949

Start time 10/03/9 709:17:24

Failure Log (79 Failures out of 396 Tests Analyzed)

- 1 Task #1 1.01 ARINC 429. ARINC 429 BIT Test
- 2 Task #1 1.04 ARINC 429. ARINC 429 Input Test #1 Ch #O
- 3 Task #1 1.08 ARINC 429, ARINC 429 Input Test #2 Ch #0
- 4 Task #12.01 2-Wire #1 Positive Gain Test
- 5 Task #12.02 2-Wire #1 Negative Gain Test
- 6 Task #13.01 2-Wire #2. Positive Gain Test (no offset)
- 7 Task #13.02 2-Wire #2. Positive Gain Test (5V offset)
- 8 Task #13.03 2-Wire #2. Negative Gain Test
- 9 Task #14.01 2-Wire #3 High Level: Positive Gain Test
- 10 Task #14.02 2-Wire #3 High Level: Negative Gain Test
- 11 Task #14.03 2-Wire #3 High Level: Positive Filter Test
- 12 Task #14.04 2-Wire #3 High Level: Negative Filter Test
- 13 Task #14.05 2-Wire #3 Low Level: Positive Gain Test
- 14 Task #14.06 2-Wire #3 Low Level: Negative Gain Test
- 15 Task #14.07 2-Wire #3 Low Level: Positive Filter Test
- 16 Task #14.08 2-Wire #3 Low Level: Negative Filter Test
- 17 Task #14.09 2-Wire #3 Low Level: Positive Open Wire
- 18 Task #14.10 2-Wire #3 Low Level: Negative Open Wire
- 19 Task #15.01 2-Wire #4. Positive Gain Test
- 20 Task #15.02 2-Wire #4. Negative Gain Test
- 21 Task #16.01 2-Wire #5. Positive Gain Test
- 22 Task #16.02 2-Wire #5, Negative Gain Test
- 23 Task #16.03 2-Wire #5. Positive Filter Test

24 Task #16.04 2-Wire #5. Negative Filter Test
25 Task #1 6.05 2-Wire #5. Positive Open Wire Test
26 Task #17.01 2-Wire #6. Positive Gain Test
27 Task #17.02 2-Wire #6. Negative Gain Test
28 Task #18.01 2-Wire #7. Positive Gain Test (no offset)
29 Task # 18.02 2-Wire #7. Positive Gain Test (5V offset)
30 Task #18.03 2-Wire #7. Negative Gain Test
31 Task # 19.01 2-Wire #8. Positive Gain Test (no offset)
32 Task #19.03 2-Wire #8.Negative Gain Test
33 Task #20.01 2-Wire #9. Positive Gain Test
34 Task #20.02 2-Wire #9. Negative Gain Test
35 Task #21.01 2-Wire #10. Positive Gain Test (no offset)
36 Task #21.02 2-Wire # 10.Positive Gain Test (5V offset)
37 Task #21.03 2-Wire #10. Negative Gain Test
38 Task #22.01 2-Wire #11.Positive Gain Test (no offset)
39 Task #22.02 2-Wire #11.Positive Gain Test (5V offset)
40 Task #22.03 2-Wire #11.Negative Gain Test
41 Task #23.01 2-Wire #12. Positive Gain Test
42 Task #23,02 2-Wire # 12.Negative Gain Test
43 Task #23.03 2-Wire #12.Positive Filter Test
44 Task #23.04 2-Wire #12.Negative Filter Test
45 Task #24.01 2-Wire #13. Positive Gain Test
46 Task #24.02 2-Wire #13 .Negative Gain Test
47 Task #25.01 2-Wire # 14.Positive Gain Test
48 Task #25.02 2-Wire #14. Negative Gain Test
49 Task #25.04 2-Wire #14. Negative Filter Test
50 Task #26.01 2-Wire #15.Positive Gain Test
51 Task #26.02 2-Wire #15.Negative Gain Test
52 Task #27.02 2-Wire #16.Positive Gain Test (no offset)
53 Task #27.03 2-Wire #1 6.Negative Gain Test
54 Task #28.02 2-Wire #17.Positive Gain Test (no offset)
55 Task #28.03 2-Wire #17.Negative Gain Test
56 Task #29.02 2-Wire #1 8.Positive Gain Test (no offset)
57 Task #29.03 2-Wire #18.Negative Gain Test
58 Task #30.0 1 2-Wire #19.Positive Gain Test (5V offset)
59 Task #30.02 2-Wire #19.Positive Gain Test (no offset) L
60 Task #30.03 2-Wire# 19.Negative Gain Test
61 Task #30.04 2-Wire #19. Positive Filter Test
62 Task #31.01 2-Wire #20. Positive Gain Test
63 Task #31.02 2-Wire #20. Negative Gain Test
64 Task #32.01 2-Wire #21 .Positive Gain Test
65 Task #32.02 2-Wire #21.Negative Gain Test
66 Task #33.01 2-Wire #22. Positive Gain Test
67 Task #33.02 2-Wire #22. Negative Gain Test
68 Task #34.01 2-Wire #23. Positive Gain Test

69 Task #34.02 2-Wire #23.Negative Gain Test
70 Task #35.01 2-Wire #24.Positive Gain Test
71 Task #35.02 2-Wire #24.Negative Gain Test
72 Task #36.01 2-Wire #25.Positive Gain Test
73 Task #36.02 2-Wire #25.Negative Gain Test
74 Task #37.01 2-Wire #26.Positive Gain Test
75 Task #37.02 2-Wire #26.Negative Gain Test
76 Task #38.01 2-Wire #27.Positive Gain Test
77 Task #38.02 2-Wire #27.Negative Gain Test
78 Task #39.01 2-Wire #28.Positive Gain Test
79 Task #39.02 2-Wire #28.Negative Gain Test