

Docket No. SA-533

Exhibit No. 7-O

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C.

Honeywell Testing

(6 Pages)

CEN09MA142 Section 4

Attachment 4.1 Honeywell Testing

Honeywell

Bill Gill
Air Safety Investigator
23500 West 105th Street, M/S 44
Olathe, Kansas 66061



Ms. Kristi Dunks
Air Safety Investigator
National Transportation Safety Board
Western Pacific Regional Office
19518 Pacific Highway South, Room 201
Seattle, Washington 98188

July 16, 2009

Re: NTSB ID: CEN09MA142, N902FX, ATR 42-320, Equipment examination at Honeywell (Wichita, Kansas)

Dear Ms. Dunks,

The equipment detailed below from N902FX was examined at our facility in Wichita, Kansas, on 6/26/2009. FAA inspectors Jim Hall and Albert Ma hand-carried the components to our facility, provided government oversight during the inspection, and retained custody of the accident hardware following the inspection.

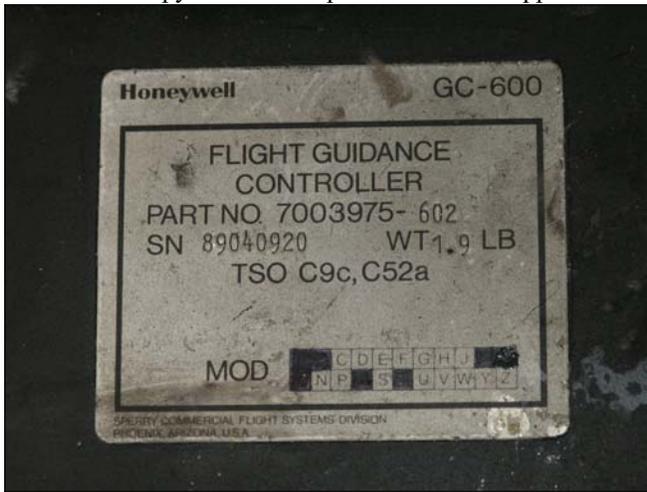
1. GC-600 Flight Guidance Controller, P/N 7003975-602, S/N 89040920
2. ID-802 Advisory Display, P/N 7003652-602, S/N 96022536



Equipment as received -- container was previously opened by the FAA

1. **GC-600 Flight Guidance Controller, P/N 7003975-602, S/N 89040920**

Unit is covered with a black-sooty substance consistent with smoke/fire exposure. The faceplate and button identification was not readable as a result of the soot/foreign material coverage. The unit was connected to test equipment and subjected to final acceptance testing. All lamps were good and the unit passed all acceptance tests. A copy of the test report is located in appendix A.



GC-600 dataplate: P/N 7003975-602, S/N 89040920



GC-600: top view, unit seals intact



GC-600: faceplate soot covered



GC-600: exemplar unit shown to illustrate button identification



FAA Inspector Jim Hall & FAA engineer Albert Ma (standing)



GC-600 final acceptance testing in process

2. ID-802 Advisory Display, P/N 7003652-602, S/N 9602253

Unit is covered with a black-sooty substance consistent with smoke/fire exposure. The faceplate and button identification was not readable as received. The faceplate and buttons were cleaned using isopropyl alcohol to allow viewing. The unit was subjected to final acceptance testing and the following non-conformances were noted:

- The screen calibration tests fail to meet specification (color/brightness/raster/alignment). However, the information presented on the display was very clear and readable.
- No backlighting present for the two left buttons (RESET, L SEL).
- Both lamps intermittent for the RESET annunciation (tapping button causes lamps to come on...or go off). Possible contact problem attributed to the soot and foreign material present.
- Logic test failed, Test 12.4 (Reset Strap Low). During this test, the RESET lamp failed to illuminate as a result of the intermittent lamp condition noted above.
- Logic test failed, Test 12.5 (Check Reset Low). During this test, the reset lamp was to extinguish and the message on the display was to change to dashes (message remained on the screen). Retesting yielded the same result.

The ID-802 Advisory Display provides the capability for the flight control system to request data from the pilot in addition to providing system mode and annunciation. The ID-802 has no impact on autopilot engage/disengage function. Therefore, the failures noted above would not inhibit the flight crew from engaging or disengaging the autopilot. As a result, determining the source of the failures was unwarranted at this time. A copy of the test report is located in appendix B.



ID-802 dataplate: P/N 7003652-602, S/N 96022536



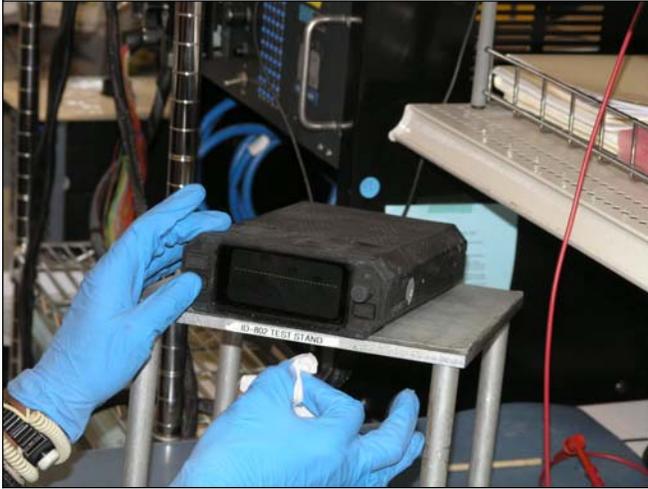
ID-802: front and top view



ID-802: rear view



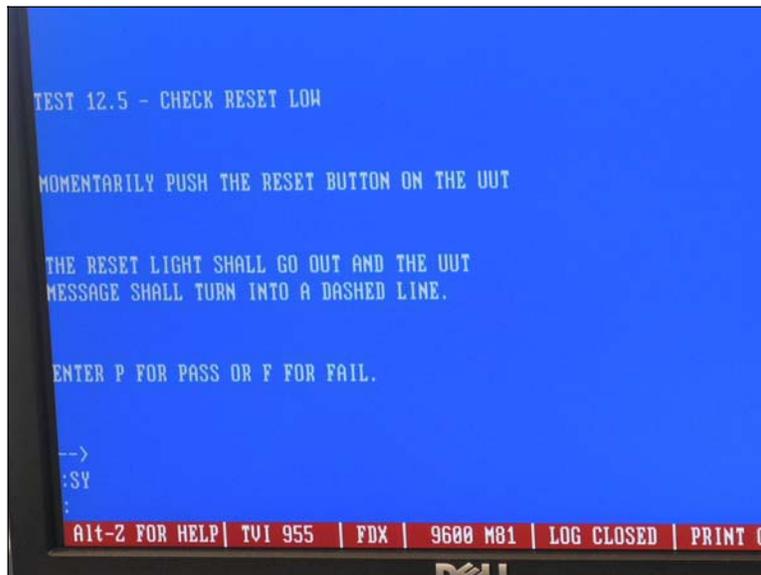
ID-802: seal intact



ID-802: cleaning screen and button faces using isopropyl alcohol



ID-802: final acceptance testing in process



ID-802: unit failed test 12.5

Thank you for allowing Honeywell to assist with your investigation. Please contact me if you have questions or comments regarding this report.

Sincerely,

~~Bill Gill~~

Bill Gill,
Air Safety Investigator
(913) 712-2919 office

Cc Mr. Jim Hall, FAA Aviation Safety Investigator, Wichita MIDO
N902FX accident file