

June 9, 1995
B-U01B-15280-ASI

BY FACSIMILE: (202) 382-6576

Mr. Thomas Haueter, AS-10
National Transportation Safety Board
490 L'Enfant Plaza SW
Washington, D.C. 20594

BOEING

Subject: Field Notes USAir 737-300 N513AU Accident Near Pittsburgh -
September 8, 1994

Reference: a) Telecon Howes/ Haueter, June 8, 1995
b) *Structures Group Chairman's Factual Report of Investigation*,
dated December 13, 1995

Dear Mr. Haueter:

Per the reference (a) telephone conversation, please find enclosed field notes from Rick Howes providing his observations of the crew oxygen bottle and positions of crew seat track found during a visit to the reconstruction site on last Tuesday and Wednesday.

As discussed with you before, the 737-300 forward outflow valve is normally closed when the cabin air recirculation system is operating in flight. The valve will open if the recirculation system is inoperative or if the crew elects to turn off the system in flight. The forward outflow valve on the 737-200 airplane, which has no cabin air recirculation system, is normally open in flight as indicated in flagnote 5 on page 21 of reference (b) report. Therefore we would not expect soot deposits on the forward outflow valve for the subject airplane if there was a pre-impact fire under the floor in the pressurized area forward and outside of the forward cargo compartment. We believe that the crew oxygen bottle would be the only potential fire source in this area that could impact controlled flight from the time of the upset to airplane impact. There is no indication of a fire warning or crew comments of a fire on the CVR. Also, from Rick's observations of the lack of sooting and charring on the oxygen bottle, we believe that the oxygen bottle was not a source of fire in this area forward of the forward cargo compartment.

Rick's observations for the crew seat track segments may be useful to determine a crew seat position, but we believe that more information can be gathered by an engineering examination of the actual hardware. We also believe that a further attempt should be made to locate more crew seat track components before or while the wreckage is relocated by USAir. These seat

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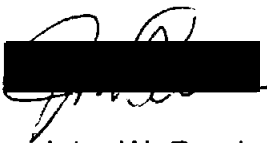
tracks were requested from the beginning of this investigation to determine the actual seat position of both crew members prior to impact. This information will also be useful in establishing the rudder pedal position prior to impact.

If you have any questions, please contact me.

Very truly yours,

BOEING

FLIGHT TEST



John W. Purvis
Director, Air Safety Investigation
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Telex 32-9430, STA DIR PURVIS



Enclosure:

Rick Howes Field Notes on Crew Oxygen Bottle and Seat Track Sectors
found at the reconstruction site on June 6 and June 7, 1995

6/7/95.

CREW OXYGEN BOTTLE DOCUMENTATION

- THE BOTTLE WAS EMBOSSED WITH THE FOLLOWING INFORMATION:

REE 108.7

1-89

5 C6 93
63

- PLACARD WITH S/N 0055

- THERE IS IMPACT DAMAGE (DENT AND SCRAPES) TO THE TANK BODY.

THE REGULATOR IS BROKEN OF FLUSH WITH THE TOP OF THE TANK. THERE IS NO SIGN OF FIRE (SOOTING OR CHARRING) ON THE TANK BODY.

- THE FRACTURE SURFACE OF THE REGULATOR SHANK (LEFT IN THE TANK) HAS ONE HOLE (≈ 0.15 INCHES ^{DIA.}) IN THE CENTER OF THE SHANK WITH TWO SURROUNDING HOLES (≈ 0.10 INCH DIA.).

- THE BOTTLE IS DE-PRESSURIZED.

6/6/95.

CREW SEAT TRACK DOCUMENTATION

1. - LABELED "CAPTAIN'S SEAT TRACK ASSEMBLY"
FOUND NEAR THE COCKPIT LAYOUT
ON THE A1 HANGER FLOOR.
 - 12" LONG SECTION OF TRACK MOUNTED
TO FLOOR STRUCTURE. WEB OF
TRACK IS TORN APPROXIMATELY HALF
THE LENGTH OF THE LOWER FLANGE.
 - "IPECO" SLIDING BRACKET COMMON
TO THE UPPER FLANGE WAS FOUND
LOCATED 3.3 INCHES ^{MEASURED} FROM THE
CENTERLINE OF THE STOP TO THE
EDGE OF THE BRACKET CLOSEST TO
THE STOP. THE BRACKET IS TRAPPED ON THE TRACK.
 - ON THE FAY SURFACE ^{OF THE TRACK} TO FLOOR
STRUCTURE THE FOLLOWING MARKING
IS PRESENT:

2A 059 0171 ISS 3 DIG

A 48697 IPECO 6 PT

S 232 N 302 - 2005

(THE LAST ~~NUMBER~~ NUMBER IS THE
BOEING PART NUMBER FOR THIS
TRACK.)

2. - A PAIR OF SEAT TRACKS WERE FOUND ON THE AI HANGER FLOOR STILL MOUNTED TO FLOOR STRUCTURE NEAR THE FLIGHT CONTROLS LAYOUT AREA.
- BOTH TRACKS ARE "BROKEN-OUT" AT THE THIRD HOLE FROM THE END OF THE ~~STOP~~^{TRACK}. THE THIRD HOLE IS LOCATED APPROXIMATELY 4.5 INCHES FROM THE CENTER-LINE (ϕ) OF THE HOLE TO THE CENTERLINE OF THE STOP.