

31 January 2001
B-H200-17154-ASI

Mr. Richard Rodriguez, AS-10
National Transportation Safety Board
490 L'Enfant Plaza East SW
Washington, DC 20594

Via FAX: 202-314-6319

Subject: Public Hearing Testimony Transcript Review- Alaska Airlines
MD-83 N963AS Accident near Port Hueneme, California – 31
January 2000

Reference: Public Hearing Transcript, 13 – 16 December 2000

Dear Mr. Rodriguez:

During the subject hearing, the NTSB indicated that each witness who provided testimony should obtain and review a copy of the written transcript. The NTSB further indicated that written changes would be considered for incorporation into the record. The Boeing witnesses have reviewed their individual portions of the transcript. We request that the NTSB consider the following corrections, clarifications, and comments be incorporated into the reference transcript.

The first day of the hearing (13 December) consists of the testimony as given by Mr. Peter Kovacik, Mr. Jim Talay, and Mr. Ken Umeda. Please incorporate the following corrections:

- Page 32, line 22, "...Kadashi..." should be "...Tadashi..."
- Page 32, line 25, "...Kadashi..." should be "...Tadashi..."
- Page 35, line 17 & 18, "...for instance, DC-930, 50." should be "...for instance, DC-9-30, -50."
- Page 35, line 20, "...DC-980 series..." should be "...DC-9-80 series..."
- Page 40, lines 21 & 22, "...to alter the tail load's end pitch attitude..." should be "...to alter the tail loads and the pitch attitude..."
- Page 47, line 11, "...accommodate..." should be "...accomplish..."

- Page 48, line 21, "...into a mating stop phase at..." should be "...into a mating stop face at..."
- Page 51, line 9, "...slides previous." should be "...previous slides."
- Page 60, line 24, "...along with the silver round, what we call..." should be "...along with the sliver round parts, components called..."
- Page 91, line 5, "...scan..." should be "...span..."
- Page 91, line 10, "...the..." should be "...a..."
- Page 91, line 22, "...in the..." should be "...and..."
- Page 92, line 1, "...fully..." should be "...pulley..."
- Page 95, line 23, "...ping..." should be "...paint..."
- Page 95, line 24, "...ping..." should be "...paint..."
- Page 104, line 5, "...as..." should be "...its..."
- Page 106, line 11, "...an..." should be "...a..."
- Page 112, line 15, "...and..." should be "...at..."
- Page 113, line 5, "...in the..." should be "...under..."
- Page 123, line 22, "...lowers..." should be "...loads..."
- Page 124, line 23, "...path..." should be "... paths..."
- Page 125, line 15, "...thread's..." should be "... threads..."
- Page 127, line 10, "...the slow-in..." should be "...this loading..."
- Page 127, line 21, "...Abacus..." should be "...ABAQUS..."
- Page 128, line 17, "...closed..." should be "...quill..."
- Page 131, line 12, "...errors..." should be "...areas..."
- Page 184, line 16, "...ice scrapers and fog scrapers..." should be "...ice scrapers and FOD scrapers..."

- Page 200, line 7, "...I think the design button - -..." should be "...I think the design – but..."
- Page 210, line 7, "...crevice..." should be "...clevis..."
- Page 211, line 18, "... 10,00 of an inch..." should be "... 10,000 of an inch..."
- Page 224, line 16, "... 1994..." should be "... 1984..."
- Page 235, line 25, "...were below 45,000ths." should be "...were below .045."
- Page 238, line 10, "... 15,000ths..." should be "...0.015..."
- Page 241, line 1, "...bated..." should be "...mated..."
- Page 279, line 5, "... 30,000..." should be "... 38,000..."
- Page 289, line 21, "...interview..." should be "...intervention..."
- Page 303, line 15, "...when those OEMP documents..." should be "...when those OAMP documents..."
- Page 313, line 1, "Based on our... test-loading in our presentation..." should be "Based on our... testimony, in our presentation..."
- Page 315, line 8, "...we had a single thread going..." should be "...we had a single thing going on..."
- Page 328, line 20, "...kit..." should be "...tip..."

Additionally, for the first day of the reference transcript, please incorporate the following clarifications:

- Page 107, line 21: Mr. Umeda said "...lower..."; he meant to say "...upper..."
- Page 117, line 6: The last sentence is not a question. It is a continuation of the sentence above.
- Page 221, line 15: Mr. Talay is speaking; the transcript has Mr. Kovacik.

- Page 285, line 8: Mr. Umeda said, "...nut..."; he meant to say, "...screw..."

Finally, for the first day of the reference transcript, please incorporate the following comment:

- Page 321, line 2: Mr. Kovacik's testimony in the transcript reads "I guess I agree with you." Please expand this to "I guess I agree with you that it is conceivable that there may be other unknown failure modes out there." Mr. Kovacik is agreeing with Mr. Clark's statement that "there may be other unknown failure modes out there" (page 320, lines 20 and 21). Mr. Kovacik is not in agreement that there is a single failure that leads to a catastrophic failure of the system. The exchange between Mr. Clark and Mr. Kovacik as transcribed between pages 312 and 321 is a discussion regarding the redundancy and the idea of single failures. Mr. Kovacik testifies several times previous (example – page 315, lines 10 to 13) that "wear out" is a multiple event failure – not a singular thing.

The third day of the subject hearing (15 December) contains testimony as given by Mr. Dennis Jerome. Please incorporate the following corrections to the transcript:

- Page 610, line 24, "...inter-directional" should be "...uni-directional..."
- Page 612, lines 19 & 20, "...temperatures were not compatible." should be "...temperature capabilities were not comparable."
- Page 615, line 17, "...minus 200..." should be "...minus 100..."
- Page 623, line 16, "...switching greases or not because greased..." should be "...switching greases or not, because greases..."
- Page 624, line 13, "...incurrences..." should be "...occurrences..."
- Page 625, lines 11, 12, & 13, "It was prior to that - - only one of the procedures that is utilized in the AS - - the new procedure was utilized." should be "Prior to that time, only one of the procedures that is utilized in the ASTM, the new procedure, was utilized."
- Page 625, line 14, "...sheer stability..." should be "shear stability..."

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- Page 628, line 17, "...would have put more likely in the range of 90 percent..." should be "...would have put it, more likely, in the range of 90 percent..."
- Page 630, line 4, "...that greases different thickening systems, even though..." should be "...that greases with different thickening systems, even though..."
- Page 631, lines 17 & 18, "The result says the consistency or firmness of the grease can be changed." should be "The results are the consistency, or firmness, of the grease can be changed."
- Page 632, line 23, "...the bearing is spun with - - halfway immersed in..." should be "...the bearing is spun while halfway immersed in..."
- Page 635, lines 13, 14, & 15, "It could also be a plain journal bearing pinned at joint, which typically don't have seals." should be "It could also be a plain journal bearing at a pinned joint, which typically doesn't have seals."

Thank you for the opportunity to review and comment on this official record. If you have any questions, please do not hesitate to call.

Very truly yours,

Original Signed By
Richard Anderson (for)

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CC:

- Mr. Jeff Guzzetti, NTSB Systems Group Chairperson, ASA 261
- Ms. Lorenda Ward, NTSB Structures Group Chairperson, ASA 261
- Dr. Joseph Kolly, NTSB Grease Group Chairperson, ASA 261
- Mr. John Clark, NTSB Director of the Office of Aviation Safety