



Corrections to Volume I of the Report

ERRATA FOR VOLUME I

Volume I of the Columbia Accident Investigation Board report contained several minor errors, but none of them affected the substance of the report.

The following errors were in the original copies released on 26 August 2003; these were corrected prior to the public printing by NASA and the Government Printing Office. The original electronic copies distributed on www.caib.us and www.nasa.gov also contained these errors; revised files were uploaded the week of 9 September 2003.

- Page 11: In the last full paragraph on the page, the altitude was listed as 65,500 feet. It more accurately should have been 65,820 feet.
- Page 12: In the next to last paragraph, “culture” was misspelled.
- Page 25: The caption for Figure 1.5-1 should have read: “... in the right Solid Rocket Booster.”
- Page 39: The caption for the photograph at the top of the page should have read: “*Columbia* streaking over the Owens Valley Radio Observatory in Big Pine, California.”
- Page 223: Observation 10.12-1 should have an “O” in front of the number (O10.12-1).

The following errors were noted after the public printing of the report by NASA and the GPO, and have not been corrected in either the electronic copies or any current (12 September 2003) printing:

- Page 34: In the Debris Strike paragraph, the report states, “Further photographic analysis conducted the day after launch revealed that the large foam piece ...” The numbers cited represent the final analysis,

so the sentence should have read, “Further photographic analysis conducted after launch revealed that the large foam piece ...”

- Page 37: In the second paragraph of the Debris Strike Analysis and Request for Imagery section, the report states, “A large object from the left bipod area of the External Tank struck the Orbiter, apparently impacting the underside of the left wing near RCC panels 5 through 9.” Initially, the analysis did not limit the possible strike area to the RCC panels (it extended under the Orbiter as far as the main landing gear door), so the sentence should have read, “A large object from the left bipod area of the External Tank struck the Orbiter, apparently impacting the underside of the left wing.
- Page 62: In the first full paragraph, the report states, “Appendix D.8 contains an independent analysis conducted by the Board to confirm that the estimated range of ballistic coefficients of the foam in Figure 3.4-6 ...” The correct figure reference should be 3.4-7.
- Page 64: A reference to Appendix D.19 was inadvertently omitted from Section 3.6. The first sentence should read, “For a complete compilation of all re-entry data, see the CAIB/NAIT Working Scenario (Appendix D.7), Qualification and Interpretation of Sensor Data from STS-107 (Appendix D.19), and the Re-entry Timeline (Appendix D.9).”
- Page 79: Figure 3.8.1 incorrectly refers to a “30 foot gun barrel” when the actual barrel length was 35 feet.
- Page 83: Citation 17 should be on Finding F3.8-5, not F3.8-3.

- Page 87: The bottom paragraph in the first column, the report states that “In one test, a bolt catcher failed at 44,000 pounds, which was two percent below the 46,000 pounds generated by a fired separation bolt.” The percentage is actually approximately four percent.
- Page 102: First column, first partial paragraph “the exceptional quality of the its workforce” should read “of its workforce” (no “the”).
- Page 105: The title of the sidebar should read “Shuttle Budget Reductions” instead of “Congressional Budget Reductions.”
- Page 109 Upper right: “... and the Marshall Space Center-managed contracts” should read “... and the Marshall Space Flight Center-managed contracts.”
- Page 110: Figure 5.4-2. The x-axis scale was inadvertently changed when two graphics were merged into one. The numbers are correct, but the increments change at the midpoint. This is the corrected graph:

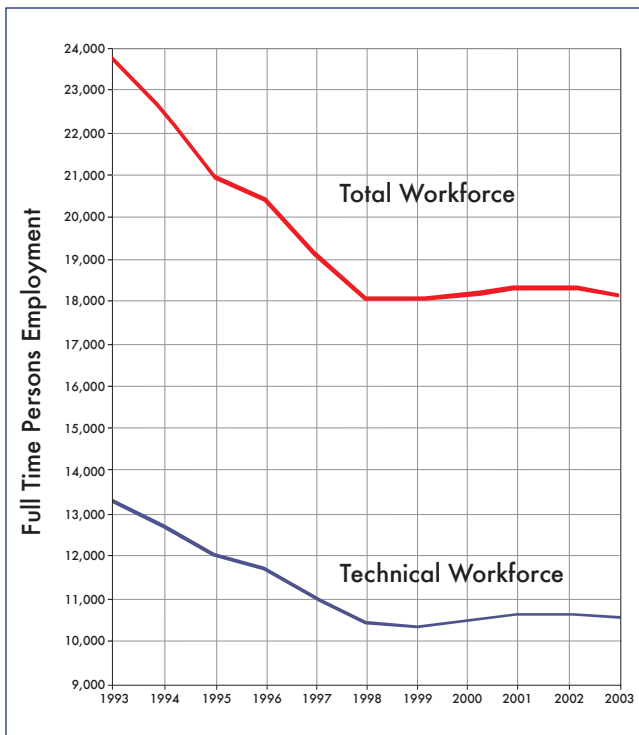


Figure 5.4-2. Downsizing of the overall NASA workforce and the NASA technical workforce.

- Page 112: The text before the Past Reports table contains two mistakes. The first is a typographical error: “was to note what factors *that* reports examined” should read “what factors *those* reports examined.” The second is a factual error on the last line: “... plus the full text of the reports ...” should be deleted, since the full text is not in-

cluded in Appendix D.18, only selected Findings and Recommendations.

- Page 120: In endnote 54, the citation should read: (New York: Bantam Books, 1986).
- Page 120: In endnote 55, the citation should read: (Washington; Government Printing Office, 1982-1991).
- Page 120: In endnote 56, the citation should read: (Washington; Government Printing Office, 1999).
- Page 144: The 0.45 term in the Crater Model formula should be an exponent for the length-to-diameter [(L/d)] term rather than a multiplicative factor [i.e. “0.0195(L/d)0.45(d) ...” should read “0.0195(L/d)^{0.45}(d) ...”]
- Page 156: Trish Petete was incorrectly spelled Petite.
- Page 178: At the bottom of the left column, “In January 1967, *months* before the scheduled launch” should read “In January 1967, *weeks* before the scheduled launch”.
- Page 241: Dr. Ride’s middle initial is “K” not “T”.
- Page 243: Dr. Bagian’s middle initial is “P” not “B”.
- Page 243: CAPT Fraser’s middle initial is “R” not “T”.
- Page 244: Add the following under Group II:
“Col. Donald W. Pitts, Consultant, Air Force Safety Center”
- Page 245: CDR (Select) Wolfe’s middle initial is “P” not “R”.
- Page 245: Lt. Col. Woodyard should be listed as Lt. Col. Tyrone M. Woodyard.
- Page 246: The correct company name for Mr. Feldman is Press Conference/Hearing Support Federal Networks, Inc.
- Page 246: Mr. Gazarek’s middle initial should be “G.”
- Page 246: Mr. Griffin’s name should be Douglas S. Griffin.
- Page 246: The correct spelling should be “Liaison” in Colonel Anthony’s title.
- Page 247: Add under Advisors and Consultants:
“Tina L. Panontin, Ph.D., P.E., Advisor, NASA Ames Research Center”
- Page 248: Vicci Biondo was incorrectly spelled.
- Page 248: Mario Loundermon was incorrectly spelled.