

A-69-3

NATIONAL TRANSPORTATION SAFETY BOARD
DEPARTMENT OF TRANSPORTATION
WASHINGTON, D.C. 20591

Honorable William F. McKee
Administrator
Federal Aviation Administration
Department of Transportation
Washington, D. C. 20590

Dear General McKee:

A recent investigation of an accident involving an aircraft operated by a large air carrier has revealed water contamination in the hydraulic fluid and corrosion products within certain of the hydraulic components. The overhaul facility for some hydraulic components of this air carrier reported that this condition had been observed previously and that the air carrier was so advised.

The Board is concerned that the air carrier's maintenance practices did not effectively cope with the contamination problem since it continued to persist following advice from the carrier's overhaul agency. Moreover, the Board is concerned because maintenance procedures and practices permitted the development of environmental servicing conditions that were conducive to fluid contamination. A Safety Board investigator reported an observation from an earlier accident investigation involving the same carrier that showed a similar disregard for the care required in the labeling, storage, and handling of the hydraulic as well as the many other fluids used in aircraft operation. The earlier example involved particle concentration found in fluid samples taken from test stands. In that instance, the air carrier was repairing other aircraft components in an operation that emitted fine metal particles in an area adjacent to the hydraulic unit test stands.

With respect to the water-contamination case, a Federal Aviation Administration Inspector assigned to the air carrier involved was present with the Safety Board investigator when this condition was discovered. The FAA Inspector stated his intention to act immediately to insure that appropriate corrective measures would be taken.

The Safety Board is confident that the specific case noted and observed by your Inspector will be corrected in a timely manner. However, it is the broader aspect of procedural practices and exercise of management control to assure safe operations which the Board believes are in need of

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renewed emphasis. Specifically, in this instance, notwithstanding established maintenance procedures, aircraft fluids were allowed to become contaminated although the adverse effect such conditions can have on the safety of flight is commonly known throughout the industry.

The Safety Board therefore recommends that your air carrier and general aviation inspection personnel be alerted to the necessity of constant vigilance with respect to the operators' procedures and practices in all aspects of fluid handling.

If you or your staff desire more information on this problem, our Bureau of Aviation Safety staff is available to provide it.

Sincerely yours,

Joseph J. O'Connell, Jr.
Chairman