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Honorable John H. Shaffer
Administrator
Federal Aviation Administration
Washington, D. C. 20590

Dear Mr. Shaffer:

The Board's preliminary investigation of the August 17th failure of the Air France Boeing 747, F-105D, No. 3 position JT3D-3A engine, 2nd-stage turbine assembly and associated fire disclosed a turbine rim separation.

While the investigation is presently still in progress, no conclusive findings have at this time been made to pinpoint the exact source of the problem. We are sorry and are appreciative of the deep involvement of your Flight Standards Propulsion Systems Staff in efforts to resolve this most serious matter.

It is, however, known that the engine had been retrofitted with a late configuration turbine module approximately 250 flight hours prior to the incident.

In view of the known potential results of a turbine failure, such as was experienced in this case, and the incomplete findings of the investigation, the Board feels the need for immediate steps toward eliminating some of the possible factors that may have been instrumental in precipitating the subject failure.

Since rebuilding and reinstallation of the turbine module was involved in the subject engine, as well as approximately 250 other JT3D engines, the Board recommends that the Administrator initiate the following immediate actions:

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1. Review all assembly records and written procedures as they relate to critical fits, clearances, and dimensional checks covering the assembly of affected turbine module assemblies reworked to the 1-test configuration.
2. Review all installation records covering installation of reworked turbine module assemblies relative to fits, clearances, dimensional checks, and written installation procedures.
3. Effect immediate inspection of all JTSD engines whose records indicate questionable fits, clearances, installation procedures or material specifications, and effect immediate removal from service of any engine which discloses such discrepancies.

Sincerely yours,

Original signed by
John H. Reed

John H. Reed
Chairman

RK apustin:gam:NA-86b:8/21/70
cc: NC-1(2), NM-2, NM-3, NM-4, NM-5,
NE-1, NG-1, NP-1, NE-51, NE-513,
NA-87c, NE-515(3), HA-80(2), HA-81,
NA-87, NA-88, NA-86(3), NA-86b,
Sec. Volpe(5), Mr. Kemp-FAA-PS-50,
Mr. Bardach-BOB, 1 each Field Office,
NA-86(MAALS)

NOTATION 491
Approved by Board 8/21/70