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

AUG 18 1968

Mr. David D. Thomas
Acting Administrator
Federal Aviation Administration
Department of Transportation
Washington, D. C.   20590

Dear Mr. Thomas:

During a Nassau-Miami flight on July 8, 1968, an Eastern Air
Lines Boeing 727, N8124N, experienced a separation of the 13th-
stage compressor disk rim in its No. 1 Pratt & Whitney JT8D engine.

Our investigation of this incident disclosed that the failure
was precipitated by multiple fatigue fractures of the No. 4 bearing
housing assembly, allowing axial shift of the compressor rotor
assembly and circumferential rubbing of the compressor disk rim.

The bearing housing involved was an early design configuration
which has a history of service difficulties. However, to our knowl-
edge, none of these service difficulties resulted in a major failure
such as experienced in this case.

Several greatly improved configurations of bearing housings
with more satisfactory service histories have been released for
service by the manufacturer during the past several years.

To preclude the possibility of a recurrence of such an incident,
it is recommended that regulatory action be initiated to provide for
expedited retrofit of affected Pratt & Whitney JT8D engines, prefer-
ably with the latest bearing housing assemblies outlined in Pratt &
Whitney JT8D Service Bulletin #1716.

It is further recommended, as an interim measure, that an appro-
priate maintenance alert bulletin be issued calling this matter to
the immediate attention of concerned operators and stressing the
critical nature of appropriate and timely inspections.

Mr. David D. Thomas   (2)

        This subject has been discussed with members of your EA-210
engineering staff by investigators of our Central Investigation
Division.

        Please do not hesitate to contact us if further information
is desired.

                                        Sincerely yours,

                                        Original Signed by
                                        Joseph J. O'Connell

                                        Joseph J. O'Connell, Jr.
                                        Chairman