DOCKET NO. SA-510

EXHIBIT NO. 11D

NATIONAL TRANSPORTATION SAFETY BOARD

RUDDER PCU AIRWORTHINESS DIRECTIVE

AIRWORTHINESS DIRECTIVE

FLIGHT STANDARDS SERVICE
REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460

RECEIVED
FEB 17 1994
AIRWORTHINESS

U.S. Department
of Transportation
Federal Aviation
Administration

94-01-07 BOEING: Amendment 39-8789. Docket 93-NM-79-AD.

Applicability: Model 737 series airplanes; line positions 1 through 2453, inclusive; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent the rudder actuator piston and the rudder to operate with reduced force capability or to move in a direction opposite to the intended direction, which could result in reduced controllability of the airplane, accomplish the following:

(a) Within 750 flight hours after the effective date of this AD, perform a test of the main rudder power control unit (PCU), part number 65-44861-2/-3/-4/-5/-6/-7/-8/-9, to detect internal leakage of hydraulic fluid, in accordance with Boeing Service Letter 737-SL-27-82-B, dated July 13, 1993.

(1) If no discrepancy, as described in paragraph 3.B. of the Service Letter, is detected, repeat the test at intervals not to exceed 750 flight hours.

(2) If any discrepancy, as described in paragraph 3.B. of the Service Letter, is detected during any check, prior to further flight, accomplish either paragraph (a)(2)(i) or (a)(2)(ii) of this AD:

(i) Replace the main rudder PCU with a serviceable PCU in accordance with the Model 737 Overhaul Manual. After such replacement, repeat the test at intervals not to exceed 750 flight hours.

(ii) Replace the main rudder PCU with a new main rudder PCU having part number 65-44861-11 or 65C37052-2/-3/-4/-5/-6/-7/-8/-9, in accordance with Boeing Service Bulletin 737-27-1185, dated April 15, 1993. Such replacement constitutes terminating action for the tests required by this AD.

(b) Within 5 years after the effective date of this AD, replace the main rudder PCU, part number 65-44861-( ), with a new main rudder PCU having part number 65-44861-11 or 65C37052-2/-3/-4/-5/-6/-7/-8/-9, in accordance with Boeing Service Bulletin 737-27-1185, dated April 15, 1993. Such replacement constitutes terminating action for the tests required by this AD.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(d) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a location where the requirements of this AD can be accomplished, provided that the airplane has not failed the internal leakage test required by this AD.

(e) The tests shall be done in accordance with Boeing Service Letter 737-SL-27-82-B, dated July 13, 1993. The replacement shall be done in accordance with Boeing Service Bulletin 737-27-1185, dated April 15, 1993. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on March 3, 1994.

FOR FURTHER INFORMATION CONTACT:

Kenneth W. Frey, Aerospace Engineer, Seattle Aircraft Certification Office, Systems & Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (206) 227-2673; fax (206) 227-1181.

USAir QUALITY ASSURANCE DEPARTMENT
AD REPORT EXPLANATION OF FIELDS

AD NUMBER: AIRWORTHINESS DIRECTIVE NUMBER.

AD FUNCTION CDS: TYPE OF AIRWORTHINESS DIRECTIVE.

X = REPETITIVE ACTION REQUIRED.

T = TERMINATING ACTION / ONE-TIME ACCOMPLISHMENT.

XT = REPETITIVE, WITH REQUIRED OR OPTIONAL TERMINATING ACTION.

DESCRIPTION: TITLE ASSIGNED TO THE AIRWORTHINESS DIRECTIVE ALONG WITH A BRIEF LISTING OF THE AD INTERVALS.

INITIAL THRESHOLD.

REPETITIVE THRESHOLD(S), IF REQUIRED.

MODIFICATION/REPAIR THRESHOLD(S), IF REQUIRED.

DOC FUNCTION: FUNCTION OF THE METHOD OF COMPLIANCE DOCUMENT AS IT RELATES TO THE AD PROJECT.

INITIAL = INITIAL COMPLIANCE DOCUMENT.

REPETITIVE = REPETITIVE ACTION DOCUMENT

TERMINATE = TERMINATING ACTION DOCUMENT.

NOTE: THIS MAY ONLY TERMINATE A PORTION OF THE AD AS IN THE CASE OF MULTIPLE REQUIREMENTS.

VERIFY = SURVEY OR VERIFICATION DOCUMENT.

REVISED = SUBJECT DOCUMENT HAS BEEN REVISED OR SUPERSEDED BY ANOTHER DOCUMENT.

OTHER = ANY DOCUMENT ISSUED FOR COMPLIANCE THAT DOES NOT FIT INTO ONE OF THE ABOVE CATEGORIES. EXAMPLE: AN E.O. ISSUED FOR A TEMPORARY REPAIR.

AC ST: AIRCRAFT STATUS. THIS REFLECTS THE STATUS OF THE METHOD OF COMPLIANCE FOR THE AIRCRAFT REPORTED.

A = ACCOMPLISHED. PAPERWORK NOT PROCESSED.
C = COMPLIED WITH.
H = HOLD. APPLICABLE, ON HOLD. USED IN CONJUNCTION WITH PARKED / RETIRED AIRCRAFT.
I = INACTIVE. NO LONGER APPLICABLE.
N = NOT APPLICABLE.
O = OPEN. APPLICABLE, NOT SCHEDULED.
R = REVISED.
S = SCHEDULED.
T = TERMINATED. USED FOR REPETITIVE DOCUMENTS THAT HAVE BEEN TERMINATED BY ANOTHER DOCUMENT.
W = COMPLIED WITH BY AN EARLIER REVISION OF THE REPORTED DOCUMENT OR BY ANOTHER DOCUMENT THAT FULLFILLS THE INTENT OF THE REPORTED DOCUMENT.

AD REPORT EXPLANATION OF FIELDS (Cont'd.)

DATE OF ACCOM:

DATE OF ACCOMPLISHMENT OF CORRESPONDING METHOD OF COMPLIANCE DOCUMENT.

NOTE: IF AN AD DOES NOT APPLY TO THE AIRCRAFT BEING REPORTED, OR HAS BEEN COMPLIED WITH IN PRODUCTION, ONE OF THE FOLLOWING MESSAGES WILL APPEAR IN THIS COLUMN:

N/A PER AD EFF.
N/A PER S/B EFF.
N/A PER SERIES.
N/A - EQUIP INST.
C/W IN PROD.

METHOD OF COMP DOCUMENT:

ENGINEERING DOCUMENT OR OTHER RELATED DOCUMENTS USED FOR COMPLIANCE WITH AN AD OR PORTION OF AN AD.

D = CAMPAIGN DIRECTIVE.
E = ENGINEERING ORDER.
F = FLEET CAMPAIGN DIRECTIVE.
J = NON-ROUTINE JOB PROCEDURE CARD. (SCHEDULING CONTROLLED BY PCI).
P = MAINTENANCE PROGRAM JOB CARD. (A-CHECK, B-CHECK, C-CHECK, ETC.).
M = MISCELLANEOUS DOCUMENT (FLT. MANUAL, FAA FORM 337, ETC.).
S = SERVICE BULLETIN.
PCI = PRODUCTION CONTROL ITEM (COMPUTER TRACKING DEVICE).

DOC REV:

DOCUMENT REVISION. REVISION LEVEL OF THE REPORTED.

A 94-01-07	XT	737 MAIN RUDDER PCU TIME 0:00/CYCLES 0/DAYS 0 INITIAL THRESHOLD(S): WITHIN 750 HOURS FROM 03-03-94 REPETITIVE THRESHOLD(S): 750 HOUR INTERVALS MODIFICATION/REPAIR THRESHOLD(S): WITHIN 5 YEARS FROM 03-03-94					
			REPETITIVE			J J227-00-2	
						PCI 1735	
				C	06-14-94 -00	LAST ACCOMP:	13994 CYC 23100 HRS
						NEXT DUE:	27700 HRS
			REPETITIVE			J J227-00-3	
						PCI 1863	
				C	08-08-94 -00	LAST ACCOMP:	14298 CYC 23572 HRS
						NEXT DUE:	24172 HRS
			INITIAL	R	03-21-94	D 27X00663	E

AD NUMBER	AD FUNCTION	DESCRIPTION	DOC FUNCTION	AC ST	DOC DATE OF ACCOMP.	MTHOD OF COMP DOCUMENT	DOC REV
						LAST ACCOMP:	13511 CYC 22368 HRS
						PCI 1734	
				C	03-21-94 -00	LAST ACCOMP:	13511 CYC 22368 HRS
						NEXT DUE:	N/A
			TERMINATE	0	OPEN	E 2793X175 LAST ACCOMP: UNAVAILABLE	A
						PCI 1742	
				0	OPEN -00	LAST ACCOMP: NEXT DUE:	N/A 03/03/99
94-02-02	T	DME-700 DISTANCE MEASURING EQUIPMENT TIME 0:00/CYCLES 0/DAYS 0 INITIAL THRESHOLD(S): 12 MONTH REPETITIVE THRESHOLD(S): N/A MODIFICATION/REPAIR THRESHOLD(S): N/A				N/A-EQUIP INSTD	