blade tips at the rotor assembly in accordance with the Accomplishment Instructions of PW SB No. PW4ENG–72–484, Revision 3, dated July 1, 1997, concurrently with the requirements of paragraph (a)(4) of this AD.

(2) Modify HPC 8th–14th stage stators in accordance with the Accomplishment Instructions of PW SB No. PW4ENG–72–486, Revision 1, dated November 23, 1994.

(3) Modify the 1st stage high pressure turbine (HPT) cooling duct (TOBI Duct), install a metering plug in the Number 2 bearing thrust balance vent tube, and incorporate 1st stage HPT vanes with increased airflow area in accordance with the Accomplishment Instructions of PW SB No. PW4ENG–72–514, Revision 1, dated August 2, 1996.

(4) Incorporate HPC 13th–15th stage zirconium oxide blade tips in accordance with the Accomplishment Instructions of PW SB No. PW4ENG–72–575, Revision 1, dated June 30, 1997.

(5) If at any time prior to the compliance time of this AD incorporation of the requirements of any one of the SBs, identified in items (4), (5), and (6) in the applicability section of this AD is accomplished on any engine, then such an engine will not be subject to the requirements of this AD and no further action is required.

(b) 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, Engine Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(d) The actions required by this AD shall be done in accordance with the following PW SBs:

Document No.	Pages	Revision	Date
PW4ENG–72–484	1–16	3	July 1, 1997.
	17–78	1	November 8, 1994.
	79	2	March 10, 1995.
	80, 81	3	July 1, 1997.
Total Pages: 81.			
PW4ENG–72–486	1–31	1	November 23, 1994.
Total Pages: 31.			
PW4ENG–72–514	1–6	1	August 2, 1996.
	7	Original	June 23, 1994.
	8–35	1	August 2, 1996.
Total Pages: 35.			
PW4ENG–72–575	1–43	1	June 30, 1997.
Total Pages: 43.			

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 Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565–6600, fax (860) 565–4503. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street NW., suite 700, Washington, DC.

(e) This amendment becomes effective on January 12, 1999.

Issued in Burlington, Massachusetts, on November 5, 1998.

Mark C. Fulmer,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 98–30320 Filed 11–12–98; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98–ANE–21–AD; Amendment 39–10872; AD 98–23–07]

RIN 2120–AA64

Airworthiness Directives; Pratt & Whitney JT9D Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Pratt & Whitney (PW) JT9D series turbofan engines, that requires a one-time acid etch inspection of the turbine exhaust case (TEC) wall between and on either side of the ''R'' and ''S'' rails in the engine mount lug area (top quadrant of the case) for the presence of weld material, and if weld material is detected, removal from service and replacement with serviceable parts. This amendment is prompted by reports of weld rework performed in the outer case wall of the TEC, in the mount lug fillet area, during original production to address local under minimum wall thickness conditions which have left the TEC's structural capability compromised. The actions specified by this AD are intended to prevent TEC structural failure under abnormal operating conditions, which could result in reduced main mount load capability, engine separation from the wing and subsequent loss of control of the aircraft.

DATES: Effective January 12, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 12, 1999.

ADDRESSES: The service information referenced in this AD may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565–6600, fax (860) 565–4503. This information may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tara Goodman, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803–5299; telephone (781) 238–7130, fax (781) 238–7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Pratt & Whitney (PW) Models JT9D–7, –7A, –7H, –7AH, –7F, –7J, –20, –20J, –7Q, –7Q3, –59A, –70A, and –7R4D turbofan engines was published in the **Federal Register** on May 7, 1998 (63 FR 25179). That action proposed to require at the next removal of the TEC from the low pressure turbine case ''P'' flange for maintenance after the effective date of this AD, a one-time acid etch inspection of TEC wall between and on either side of the ''R'' and ''S'' rails in the engine mount lug area (top quadrant of the case) for the presence of weld material, and if that material is detected, removal from service and replacement with serviceable parts.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Risk Assessment

Several commenters question the risk assessment used to generate the proposed rule. The FAA will address each comment individually and provide responses.

Two commenters state that a Continued Airworthiness Assessment Methodology (C.A.A.M.) analysis needs to be performed to validate the risk analysis submitted by the manufacturer for this rulemaking. The FAA does not concur. C.A.A.M. is a system of assessing and managing risk that includes the use of quantitative risk analysis models. The risk analysis submitted by the manufacturer to evaluate the subject unsafe condition followed the C.A.A.M. procedure.

Two commenters indicate that utilizing data from one operator is insufficient to establish an appropriate risk factor. The FAA does not concur. The database of the one operator in question is extensive, since it represents a substantial portion of the engine fleet and includes detailed records of all inspections, and has been validated repeatedly against full-fleet experience.

Two commenters object to the use of data from one operator based on that operator's hour-to-cycle mission profile. The FAA does not concur. Cracking in the mount lug area of the TEC is a function of high stress and temperature operation on a cyclic basis, and is independent of hours, time in service (TIS).

One commenter takes issue with the assumption of constant fleet size and utilization. The FAA does not concur. The future rate of utilization is subject to a variety of factors, including resale and continued use of engines. The assumption of constant fleet size and utilization has been consistently used in previous risk analyses, therefore, this assumption allows comparison of this risk with other unsafe conditions.

One commenter takes issue with the use of linear interpolation to predict failures instead of using Weibull analysis. The FAA does not concur. Weibull analysis was used to develop the failure distribution.

One commenter notes it is not apparent that an assessment for incorrectly reading the acid etch is accounted for in the risk analysis. The FAA does not concur. The probability of correctly interpreting the macroetch results for the weld condition is high. This factor does not significantly affect the results of the risk analysis.

One commenter postulates a lower risk of fan blade release coupled with a TEC with welds or cracks. The FAA does not concur. The FAA finds this calculation inaccurate because it: (1) includes only past occurrences for its estimate of the percent of the fleet with TEC cracks or welds and (2) it does not use the standard statistical practice for calculating mean time between failure.

One commenter states that since there has never been a failure of the TEC from a full blade out or rotor seizure, the risk analysis is in question. The FAA does not concur. Corrective action does not need to occur as a result of a serious event. The FAA has determined that an unsafe condition exists and therefore this rulemaking is necessary as a proactive approach to continued airworthiness.

Two commenters request the FAA direct PW to partner with the operators to develop a risk assessment, which takes into consideration specific data elements from the major affected operators to determine a logical and true safety risk and to postpone rulemaking until such time that this risk analysis can be reviewed. The FAA does not concur. The FAA has determined that the risk assessment evaluated for this rulemaking is appropriate. Since an unsafe condition has been determined to exist and is likely to develop on other products of the same type design, it is appropriate to issue this AD without further delay.

Other Comments

Two commenters cite concerns about consistency for inspecting the primary mount locations on the TEC for the JT9D–7A/7F/7J models and the JT9D–20/20J models. The FAA concurs. Revision 1 of the SBs, referenced in this final rule, have corrected the inconsistency among engine models for the primary mount locations.

Two commenters request that the economic impact of the proposal be revised to reflect case repairs and acquisition of new cases. The FAA concurs. There are 1,125 engines installed on aircraft of U.S. registry that would be affected by the inspection requirements of this AD. The average labor rate is $60 per work hour and it would take approximately 1.4 work hours per engine to accomplish the acid etch inspection. For the inspection, then, the estimated impact is $94,500. The cost of replacement of a TEC found with welding in the primary mount lug area is approximately $495,000 per TEC. Since this AD addresses 23 TECs that are unaccounted for in the field, the estimated impact is $11,385,000. Therefore the total estimated cost impact of this AD is $11,479,000.

One commenter notes that the proposed rule states the required actions must be taken at the next removal of the TEC from the low pressure turbine case ''P'' flange. If the phrase ''when the engine is in the shop,'' were added it would provide for exchanging a TEC in the hangar during an aircraft service. Normally when a TEC is replaced in the hangar, an overhauled case is obtained from a vendor. However, on occasion, a TEC is obtained from another engine and a small airline needs this flexibility. The FAA concurs. The FAA has revised the shop visit definition in the compliance section of this final rule to induction of the engine into the shop for scheduled maintenance.

One commenter states that they are currently inspecting the TECs to the original SB and the Internal Engineering Notice (IEN) noted in PW All Operators Wire (AOW). The commenter requests the AD indicate the original of SB 6322, A72–546 and IEN 97ECO56C as compliance with the AD. The FAA concurs. In the interest of time to alert operators of the need to conduct the inspection, PW issued an AOW citing the IEN number 97ECO56C which is used within PW to issue the original SB. The IEN for Revision 1 to SB 6322 and A72–546 were issued before the NPRM was released and provided better etching agents the operator can use for the inspection and referenced acid etch inspection for only the primary mount lug locations. Since complying with the original SBs is more restrictive than Revision 1, this final rule has been revised to reference the original issue of the affected SBs.

One commenter concurs with the rule as proposed.

Additional Technical Concerns

The following technical concerns were raised in comments to the proposed rule, but do not request any specific changes to the rule as proposed, however the FAA will answer these technical concerns.

One commenter asks if the full fan blade out test data was not required for SB 4853 why is a full fan blade out test required to evaluate welds in mount areas? The commenter also asks why is the static deflection load test data presented to the FAA for welds in the mount areas not admissible as substantiation, when PW considered static load test data admissible for mount lug area modifications? The FAA does not concur. The objective of SB 4853 is to address cracking in the TEC struts and rails and does not address the case wall. Also, PW did not submit data to substantiate weld repairs in the primary mount lug areas, and no other design approvals allowing for weld repairs in the primary mount lug areas have been issued by the FAA.

One commenter refers to AD 96–25–10 (Docket 95–ANE–57) that requires JT9D TEC modification to increase the containment capability and includes the option of welding doublers on the inside surface of the TEC or welding a thicker replacement flange onto the case, and then asks why is the FAA unconcerned about the TEC's ability to withstand a full fan blade out or rotor seizure for a case that has a 360 degree weld approximately 1.2'' away from the mount bosses? The FAA does not concur. Welds associated with the P flange replacement and containment shields are outside the high stress zone of the primary mount lug locations.

Two commenters request that the Chromalloy ''strongback'' repair be listed as a means for compliance with the AD. The FAA does not concur. The repair has not been approved by the FAA nor does it provide an alternate method of compliance to the AD as proposed. The AD method of compliance is to perform an acid etch and conduct an inspection, therefore the Chromalloy repair is considered outside the scope of this AD.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES.**

List of Subjects in 14 CFR Part 39

Air Transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

98–23–07 Pratt & Whitney: Amendment 39–10872. Docket 98–ANE–21–AD.

Applicability: Pratt & Whitney (PW) Models JT9D–7, –7A, –7H, –7AH, –7F, –7J, –20, –20J, –7Q, –7Q3, –59A, –70A, and –7R4D turbofan engines. These engines are installed on but not limited to Boeing 747 and 767 series, McDonnell Douglas DC–10 series, and Airbus A300 and A310 series aircraft.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent turbine exhaust case (TEC) structural failure under abnormal operating conditions, which could result in reduced main mount load capability, engine separation from the wing and subsequent loss of aircraft control, accomplish the following:

(a) At the next shop visit after the effective date of this AD, accomplish the following in accordance with PW Alert Service Bulletin (ASB) No. JT9D–A6322, Revision 1, dated August 13, 1998, or Original, dated March 19, 1998, or ASB No. JT9D–7R4–A72–546, Revision 1, dated August 13, 1998, or Original, dated March 19, 1998, as applicable:

(1) Perform a one-time acid etch inspection of TEC wall between and on either side of the ''R'' and ''S'' rails in the engine mount lug area (top quadrant of the case) for the presence of weld material.

(2) If weld material is found, remove from service the TEC and replace with a serviceable part.

(b) For the purpose of this AD, a shop visit is defined as the induction of an engine into a shop for the purpose of maintenance.

(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, Engine Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(e) The actions required by this AD shall be done in accordance with the following PW ASBs:

Document No.	Pages	Revision	Date
JT9D–7R4–A72–546	1–4	1	August 13, 1998.

Document No.	Pages	Revision	Date
	5	Original	March 19, 1998.
	6–9	1	August 13, 1998.
	10, 11	Original	March 19, 1998.
	12–19	1	August 13, 1998.
Total Pages: 19			
JT9D–7R4–A72–546	1–16	Original	March 19, 1998.
Total Pages: 16.			
A6322	1–4	1	August 13, 1998.
	5–22	Original	March 19, 1998.
	23–29	1	August 13, 1998.
	30, 31	Original	March 19, 1998.
	32–45	1	August 13, 1998.
Total Pages: 45.			
A6322	1–41	Original	March 19, 1998.
Total Pages: 41.			

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 Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565–6600, fax (860) 565–4503. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street NW., suite 700, Washington, DC.

(f) This amendment becomes effective on January 12, 1999.

Issued in Burlington, Massachusetts, on November 5, 1998.

David A. Downey,

Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 98–30332 Filed 11–12–98; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98–NM–195–AD; Amendment 39–10883; AD 98–23–15]

RIN 2120–AA64

Airworthiness Directives; Raytheon Model Hawker 800XP Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Raytheon Model Hawker 800XP series airplanes, that requires replacement of the fuel feed hose assemblies of the auxiliary power unit (APU) with new hose assemblies. This amendment is prompted by a report of the collapse of the inner casing of the fuel feed hose that supplies fuel to the APU. The actions specified by this AD are intended to prevent failure of the fuel feed hose assemblies, which could result in fuel leakage and consequent risk of fire in the aft equipment bay.

DATES: Effective December 18, 1998.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 18, 1998.

ADDRESSES: The service information referenced in this AD may be obtained from Raytheon Aircraft Company, Manager Service Engineering, Hawker Customer Support Department, P.O. Box 85, Wichita, Kansas 67201–0085. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Randy Griffith, Aerospace Engineer, Systems and Propulsion Branch, ACE–116W, FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946–4145; fax (316) 946–4407.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Raytheon Model Hawker 800XP series airplanes was published in the **Federal Register** on August 27, 1998 (63 FR 45773). That action proposed to require replacement of the fuel feed hose assemblies of the auxiliary power unit (APU) with new hose assemblies.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

Conclusion

The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Cost Impact

The FAA estimates that 11 airplanes of U.S. registry will be affected by this AD, that it will take approximately 5 work hours per airplane to accomplish the required replacement, and that the average labor rate is $60 per work hour. Required parts will be provided by the manufacturer at no cost to the operators. Based on these figures, the cost impact of the replacement required by this AD on U.S. operators is estimated to be $3,300, or $300 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a