

including a member or participant of an LLC;

(2) The term "director" includes a manager, director, or other person with substantially similar authority, of an LLC;

(3) The terms "voting stock" and "voting securities" each includes certificates or other evidence of ownership interests in an LLC; and

(4) The term "officer" includes an officer, or other person with substantially similar authority, of an LLC.

By order of the Board of Directors.

Dated at Washington, DC, this 12th day of July, 2002.

Federal Deposit Insurance Corporation.

**Valerie J. Best,**

*Assistant Executive Secretary/Supervisory Counsel.*

[FR Doc. 02-18467 Filed 7-22-02; 8:45 am]

**BILLING CODE 6714-01-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 2000-NE-47-AD]

RIN 2120-AA64

#### **Airworthiness Directives; Pratt and Whitney PW4000 Series Turbofan Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The Federal Aviation Administration (FAA) proposes to supersede an existing airworthiness directive (AD), that is applicable to Pratt and Whitney (PW) model PW4000 series turbofan engines. That AD currently requires the number of PW4000 engines with potentially reduced stability margin to be limited to no more than one engine on each airplane, and removing engines that exceed high pressure compressor (HPC) cycles-since-overhaul (CSO) or cycles-since-new (CSN) from service based on the engine's configuration and category. That AD also requires establishing a minimum build standard for engines that are returned to service, and performing cool-engine fuel spike testing (Testing-21) on engines to be returned to service after having exceeded HPC cyclic limits or after shop maintenance.

This proposal would establish requirements similar to those in the existing AD, and would introduce a

rules-based criterion to determine the engine category classification for engines installed on Airbus A300 airplanes. This proposal would also add new requirements to manage the engine configurations installed on Boeing 747 airplanes, and would require repetitive Testing-21 to be performed on certain configuration engines. This proposal would also establish criteria which would require Testing-21 on certain engines with Phase 0 or Phase 1, FB2T or FB2B fan blade configurations. In addition, this proposal would re-establish high pressure compressor (HPC)-to-high pressure turbine (HPT) cycles-since-overhaul (CSO) cyclic mismatch criteria, and add criteria to address engine installation changes, engine transfers, and thrust rating changes. Also, this proposal would establish criteria to allow engine stagger without performing Testing-21 for engines over their respective limits. This proposal is prompted by investigation and evaluation of PW4000 series turbofan engines surge data, and continuing reports of surges in the PW4000 fleet. The actions specified by this AD are intended to prevent engine takeoff power losses due to HPC surge.

**DATES:** Comments must be received by August 22, 2002.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-NE-47-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: "*9-ane-adcomment@faa.gov*". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in the proposed rule 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, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

#### **FOR FURTHER INFORMATION CONTACT:**

Diane Cook, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park; telephone (781) 238-7133; fax (781) 238-7199.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2000-NE-47-AD." The postcard will be date stamped and returned to the commenter.

### **Availability of NPRM's**

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-NE-47-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

### **Discussion**

On December 12, 2001, the Federal Aviation Administration (FAA) issued AD 2001-25-11, Amendment 39-12564 (67 FR 1, January 2, 2002) which applies to PW model PW4000 series turbofan engines. That AD was issued as an interim action to address the engine takeoff power loss events while investigation continued. AD 2001-25-11 requires:

- Limiting the number of engines with the HPC cut-back stator (CBS) configuration to one on each airplane before further flight after the effective date of that AD.
- Limiting the number of PW4000 engines with potentially reduced stability margin, to no more than one engine on each airplane.

- Removing engines that exceed HPC cycles-since-overhaul or cycles-since-new (CSN) from service based on the engine's configuration.

- Performing a cool-engine fuel spike test (Testing-21) on engines that experience a certain type of surge.

- Establishing a minimum build standard for engines that are returned to service.

- Performing Testing-21 on engines to be returned to service after having exceeded HPC cyclic limits or after shop maintenance.

- AD 2001-25-11 also establishes reporting requirements for Testing-21 data. That AD was prompted by reports of surges during takeoff on airplanes equipped with PW4000 series turbofan engines.

Based on continued investigation and evaluation of the PW4000 HPC surge data, the field management plan has been refined to better address engine takeoff surges and minimize the risk of dual engine surges. The FAA has also reviewed the comments received in response to AD 2001-25-11. This proposal would require similar requirements as compared to AD 2001-25-11, and would also:

- Use a rules-based criterion to determine the engine category classification for engines installed on Airbus A300 airplanes instead of the list of engine serial numbers used in AD 2001-25-11.

- Add new requirements to manage the engine configurations installed on Boeing 747 airplanes. This engine and airplane combination would allow, for certain engine configurations, one of the four installed engines to remain on-wing until the HPC has accumulated up to 2,600 CSN or CSO before Testing-21 or an HPC overhaul is required.

- Require configuration F engines to repeat Testing-21 every 800 HPC cycles since passing Testing-21 (CST).

- Establish criteria, based on the requirements of AD 2001-01-10, AD 2001-09-05, and AD 2001-09-10, which would require Testing-21 on engines with Phase 0 or Phase 1, FB2T or FB2B fan blade configurations.

- Re-establish the HPC-to-HPT CSO cyclic mismatch criteria and would add new criteria to address engine installation changes, engine transfers, and thrust rating changes.

- Establish criteria to allow an engine to be removed from service and reinstalled on an airplane, without requiring Testing 21, if this engine is the unmanaged engine for that airplane.

The actions specified by the proposed AD are intended to prevent engine takeoff power losses due to HPC surge.

### Manufacturer's Service Information

The FAA has reviewed and approved the technical contents of the following Pratt & Whitney service information:

- Service Bulletin PW4ENG72-714, Revision 1, dated November 8, 2001.

- Internal Engineering Notice IEN 96KC973D, dated October 12, 2001.

- Temporary Revision (TR) TR 71-0018, dated November 14, 2001.

- TR 71-0026, dated November 14, 2001.

- TR 71 71-0035, dated November 14, 2001.

- Cleaning, Inspection, and Repair (CIR) procedure CIR 51A357, Section 72-35-68, Inspection/Check-04, Indexes 8-11, dated September 15, 2001.

- CIR 51A357, Section 72-35-68, Repair 16, dated June 15, 1996.

- PW4000 PW engine manual (EM) 50A443, 71-00-00, TESTING-21, dated November 14, 2001.

- PW4000 PW EM 50A822, 71-00-00, TESTING-21, dated November 14, 2001.

- PW 4000 PW EM 50A605, 71-00-00, TESTING-21, dated November 14, 2001.

This service information describes procedures for inspections required by the proposed AD.

### FAA's Determination of an Unsafe Condition and Proposed Actions

Since an unsafe condition has been identified that is likely to exist or develop on other Pratt & Whitney PW4000 series turbofan engines of this same type design, the proposed AD would be issued to prevent engine takeoff power losses due to HPC surges, and would supersede AD 2001-25-11 to require:

- Establishing requirements similar to those in the existing AD, and use of a rules-based criterion to determine the engine category classification for engines installed on Airbus A300 airplanes.

- Adding new requirements to manage the engine configurations installed on Boeing 747 airplanes. This engine and airplane combination would allow, for certain engine configurations, one of the four installed engines to remain on-wing until the HPC has accumulated up to 2,600 CSN or CSO before Testing-21 or until an HPC overhaul is required.

- Configuration F engines to repeat Testing-21 every 800 CST.

- Establishing criteria which would require Testing-21 on engines with Phase 0 or Phase 1, FB2T or FB2B fan blade configurations complying with the requirements of AD 2001-09-05, (66 FR 22908, May 7, 2001); AD 2001-09-10, (66 FR 21853, May 2, 2001), or AD

2001-01-10, (66 FR 6449, January 22, 2001).

- Re-establishing HPC-to-HPT CSO cyclic mismatch criteria.

- Establishing criteria to address engine installation changes, engine transfers, and thrust rating changes.

- Establishing criteria to allow an engine to be removed from service and reinstalled on an airplane, without requiring Testing-21, if this engine is the unmanaged engine for that airplane.

The actions are required to be done in accordance with the service information described previously. This proposal has been coordinated with the Transport Airplane Directorate.

### Economic Analysis

There are approximately 2,100 engines of the affected design in the worldwide fleet. The FAA estimates that 625 engines installed on airplanes of U.S. registry would be affected by this proposed AD. The FAA also estimates that, on average, approximately 100 test cell stability tests and 36 HPC overhauls will be required annually. It is estimated that the cost to industry of a test cell stability test will average \$15,000 and an HPC overhaul will cost approximately \$400,000. Based on these figures, the total average annual cost of the proposed AD to U.S. operators is estimated to be \$15,900,000.

### Regulatory Analysis

This proposed rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Safety.

**The Proposed Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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 removing Amendment 39–12564, (67 FR

1, January 2, 2002), and by adding a new airworthiness directive:

**Pratt & Whitney:** Docket No. 2000-NE-47-AD. Supersedes AD 2001-25-11, Amendment 39–12564.

**Applicability**

This airworthiness directive (AD) is applicable to Pratt and Whitney (PW) model PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan engines. These engines are installed on, but not limited to, certain models of Airbus Industrie A300, Airbus Industrie A310, Boeing 747, Boeing 767, and McDonnell Douglas MD-11 series airplanes.

**Note 1:** This 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 (t) 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**

Compliance with this AD is required as indicated, unless already done.

To prevent engine takeoff power losses due to HPC surges, do the following:

(a) When complying with this AD, determine the configuration of each engine on each airplane using the following Table 1:

TABLE 1.—ENGINE CONFIGURATION LISTING

Configuration	Configuration Designator	Description
(1) Phase 1 without high pressure turbine (HPT) 1st turbine vane cut back (1TVCB)	A	Engines that did not incorporate the Phase 3 configuration at the time they were originally manufactured, or have not been converted to Phase 3 configuration; and have not incorporated HPT 1TVCB using any revision of service bulletin (SB) PW4ENG 72-514.
(2) Phase 1 with 1TVCB	B	Same as configuration designator (A) except that HPT 1TVCB has been incorporated using any revision of SB PW4ENG 72-514.
(3) Phase 3, 2nd Run	C	Engines that incorporated the Phase 3 configuration at the time they were originally manufactured, or have been converted to the Phase 3 configuration during service; and that have had at least one high pressure compressor (HPC) overhaul since new.
(4) Phase 3, 1st Run	D	Same as configuration designator (C) except that the engine has not had an HPC overhaul since new.
(5) HPC Cut-back Stator Configuration Engines	E	Engines that currently incorporate any revision of SB's PW4ENG72-706, PW4ENG72-704, or PW4ENG72-711.
(6) Engines that have passed Testing-21	F	Engines which have successfully passed that have passed Testing-21 performed in accordance with paragraph (h) of this AD. Once an engine has passed a Testing-21, it will remain a Configuration F engine until the HPC is overhauled, or is replaced with a new or overhauled HPC.

**Engines Installed on Boeing 767 and MD-11 Airplanes**

(b) For engines installed on Boeing 767 and MD-11 airplanes, except as provided in paragraph (c) of this AD, within 50 airplane cycles after the effective date of this AD, limit

the number of engines that exceed the HPC cycles-since-new (CSN), HPC cycles-since-overhaul (CSO), or HPC cycles since passing Testing-21 (CST) limits listed in the following Table 2, to not more than one engine per airplane. Thereafter, ensure that

no more than one engine per airplane exceeds the HPC CSN, CSO, or CST limit listed in Table 2 of this AD. See paragraph (h) of this AD for return to service requirements.

**Table 2 follows:**

TABLE 2.—ENGINE STAGGER LIMITS FOR BOEING AIRPLANES

Configuration designator	B747—PW4056	B767—PW4052	B767—PW4056	B767—PW4060, PW4060A, PW4060C, PW4062	MD-11, PW4460, PW4462
A	1,400 CSN or CSO	3,000 CSN or CSO .....	1,600 CSN or CSO .....	900 CSN or CSO .....	800 CSN or CSO.
B	2,100 CSN or CSO	4,400 CSN or CSO .....	2,800 CSN or CSO .....	2,000 CSN or CSO .....	1,200 CSN or CSO.
C	2,100 CSO	4,400 CSO	2,800 CSO	2,000 CSO	1,300 CSO.
D	2,600 CSN .....	4,400 CSN	3,000 CSN	2,200 CSN	2,000 CSN.
E	750 CSN or CSO	750 CSN or CSO	750 CSN or CSO .....	750 CSN or CSO .....	750 CSN or CSO.
F	800 CST .....	800 CST	800 CST	800 CST	800 CST.

#### Configuration E Engines Installed on Boeing 747, 767, and MD-11 Airplanes

(c) For configuration E engines, do the following:

(1) Before further flight, limit the number of engines with configuration E as described in Table 1 of this AD, to one on each airplane.

(2) Remove all engines with configuration E from service before accumulating 1,300 CSN or cycles-since-conversion to configuration E, whichever is later.

#### Engines Installed on Boeing 747 Airplanes

(d) Except as provided in paragraph (c) of this AD, within 50 airplane cycles after the

effective date of this AD, and thereafter, manage the engine configurations installed on Boeing 747 airplanes as follows:

(1) Limit the number of configuration A, B, C, or E engines that exceed the HPC CSN or HPC CSO limits listed in Table 2 of this AD, to not more than one engine per airplane.

(2) The one configuration A, B, C, or E engine per airplane that exceeds the HPC CSN or CSO limits listed in Table 2 of this AD, must be limited to 2,600 HPC CSN or CSO for configuration A, B or C engines, or 1,300 HPC CSN or cycles-since-conversion to configuration E, whichever is later, for configuration E engines.

(3) Remove from service configuration D engines before accumulating 2,600 CSN.

(4) Remove from service configuration F engines before accumulating 800 CST.

(5) Configuration A, B, C, D, and F engines may be returned to service after completing paragraph (h) of this AD.

#### Engines Installed on Airbus A300 and A310 Airplanes

(e) Use the following paragraphs (e)(1) through (e)(9) to determine which Airbus A300 PW4158 engine category 1, 2, or 3 limits of the following Table 3 of this AD apply to your engine fleet:

TABLE 3.—ENGINE STAGGER LIMITS FOR AIRBUS AIRPLANES

Configuration designator	A300 PW4158 category 1, and A310 PW4156 and PW4156A	A300 PW4158 A300 PW4158 category 2, and A310 PW4152	A300 PW4158 category 3
A .....	900 CSN or CSO .....	1,850 CSN or CSO .....	500 CSN or CSO.
B .....	2,200 CSN or CSO .....	4,400 CSN or CSO .....	1,600 CSN or CSO.
C .....	2,200 CSO .....	4,400 CSO .....	1,600 CSO.
D .....	4,400 CSN .....	4,400 CSN .....	4,400 CSN.
E .....	Not Applicable .....	Not Applicable .....	Not Applicable.
F .....	800 CST .....	800 CST .....	800 CST.

(1) Determine the number of Group 3 takeoff surges experienced by engines in your fleet before April 13, 2001. Count surge events for engines that had an HPC overhaul and incorporated either SB PW 4ENG 72-484 or SB PW4ENG 72-575 at the time of overhaul. Do not count surge events for engines that did not have the HPC overhauled (i.e. 1st run engine) or had the HPC overhauled but did not incorporate either SB PW4ENG 72-484 or SB PW4ENG 72-575. See paragraph (s)(5) of this AD for a definition of a Group 3 takeoff surge.

(2) Determine the number of cumulative HPC CSO accrued by engines in your fleet before April 13, 2001. Count HPC CSO for

engines that had an HPC overhaul and incorporated either SB PW4ENG 72-484 or SB PW4ENG 72-575 at the time of overhaul. Do not count HPC CSO accrued on your engines while operating outside your fleet.

(3) Calculate the surge rate by dividing the number of Group 3 takeoff surges determined in paragraph (e)(1) of this AD, by the number of cumulative HPC CSO determined in paragraph (e)(2) of this AD, and then multiply by 1,000.

(4) If the surge rate calculated in paragraph (e)(3) of this AD is less than 0.005, go to paragraph (e)(5) of this AD. If the surge rate calculated in paragraph (e)(3) of this AD is

greater than or equal to 0.005, go to paragraph (e)(6) of this AD.

(5) If the cumulative HPC CSO determined in paragraph (e)(2) of this AD is greater than or equal to 200,000 cycles, use A300 PW4158 Category 2 limits of Table 3 of this AD. If less than 200,000 cycles, go to paragraph (e)(7) of this AD.

(6) If the surge rate calculated in paragraph (e)(3) of this AD is greater than 0.035, use A300 PW 4158 Category 3 limits of Table 3 of this AD. If less than or equal to 0.035, go to paragraph (e)(7) of this AD.

(7) Determine the percent of takeoffs with greater than a 1.45 Takeoff engine pressure ratio (EPR) data for engines operating in your

fleet. Count takeoffs from a random sample of at least 700 airplane takeoffs that has occurred over at least a 3-month time period, for a period beginning no earlier than 23 months prior to the effective date of this AD. See paragraph (s)(6) of this AD for definition of Takeoff EPR data.

(8) If there is insufficient data to satisfy the criteria of paragraph (e)(7) of this AD, use A300 PW4158 Category 3 limits of Table 3 of this AD.

(9) If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (e)(7) of this AD is greater than 27%, use A300 PW 4158 Category 3 limits listed in Table 3 of this AD. If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (e)(7) of this AD is less than or equal to 27%, use A300 PW 4158 Category 1 limits listed in Table 3 of this AD.

(f) For engines installed on Airbus A300 or A310 airplanes, within 50 airplane cycles after the effective date of this AD, limit the number of engines that exceed the CSN, CSO, or CST limits listed in Table 3 of this AD, to no more than one engine per airplane. Thereafter, ensure that no more than one engine per airplane exceeds the HPC CSN, CSO, or CST limits listed in Table 3 of this AD. See paragraph (h) of this AD for return to service requirements.

(g) For Airbus A300 PW4158 engine operators, except those operators whose engine fleets are determined to be Category 3 classification based on surge rate in accordance with paragraph (e)(6) of this AD, re-evaluate your fleet category within 6 months from the effective date of this AD, and thereafter, at intervals not to exceed 6 months, using the following criteria:

(1) For operators whose engine fleets are initially classified as Category 1 or 3 in accordance with paragraph (e) of this AD, determine the percent of takeoffs with greater than a 1.45 Takeoff EPR data for engines operating in your fleet. Count takeoffs from a sample of at least 200 takeoffs that occurred over the most recent six month time period since the last categorization was determined, or the total number of takeoffs accumulated over 6 months if less than 200 takeoffs. See paragraph (s)(6) of this AD for definition of takeoff EPR data.

(i) If there is insufficient data to satisfy the criteria of paragraph (g)(1) of this AD, use A300 PW4158 Category 3 limits listed in Table 3 of this AD.

(ii) If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (g)(1) of this AD is greater than 27%, use A300 PW4158 Category 3 limits listed in Table 3 of this AD.

(iii) If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (g)(1) of this AD is less than or equal to 27%, use A300 PW4158 Category 1 limits listed in Table 3 of this AD.

(2) For operators whose engine fleets are initially classified as Category 2 in accordance with paragraph (e) of this AD, determine the percent of takeoffs with greater than a 1.45 Takeoff EPR data for engines operating in your fleet. Count takeoffs from a sample of at least 200 takeoffs that occurred over the most recent six month time period

since the last categorization was determined, or the total number of takeoffs accumulated over 6 months if less than 200 takeoffs. See paragraph (s)(6) of this AD for definition of takeoff EPR data.

(i) If there is insufficient data to satisfy the criteria of paragraph (g)(1) of this AD, use A300 PW4158 Category 3 limits listed in Table 3 of this AD.

(ii) If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (g)(1) of this AD is greater than 37%, use A300 PW4158 Category 3 limits listed in Table 3 of this AD.

(iii) If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (g)(1) of this AD is greater than or equal to 13% and less than or equal to 37%, use A300 PW4158 Category 1 limits listed in Table 3 of this AD.

(iv) If the percentage of takeoffs with greater than a 1.45 Takeoff EPR data determined in paragraph (g)(1) of this AD is less than 13%, use A300 PW4158 Category 2 limits listed in Table 3 of this AD.

#### **Return To Service Requirements for All Engines**

(h) Engines removed from service in accordance with paragraph (b), (d), or (f) of this AD may be returned to service under the following conditions:

(1) After passing a cool-engine fuel spike stability test (Testing-21) that has been done in accordance with one of the following PW4000 Engine Manuals (EM) as applicable, except for engines configured with Configuration E, or engines that have experienced a Group 3 takeoff surge:

(i) PW4000 PW EM 50A443, 71-00-00, TESTING-21, dated November 14, 2001.

(ii) PW4000 PW EM 50A822, 71-00-00, TESTING-21, dated November 14, 2001.

(iii) PW 4000 PW EM 50A605, 71-00-00, TESTING-21, dated November 14, 2001; or  
(2) Engines tested before the effective date of this AD, in accordance with any of the following PW4000 EM Temporary Revisions, meet the requirements of Testing-21:

(i) PW4000 EM 50A443, Temporary Revision No. 71-0026, dated November 14, 2001.

(ii) PW4000 EM50A822, Temporary Revision No. 71-0018, dated November 14, 2001.

(iii) PW4000 EM50A605, Temporary Revision No. 71-0035, dated November 14, 2001; or

(3) Engines tested before the effective date of this AD, in accordance with PW IEN 96KC973D, dated October 12, 2001, meet the requirements of Testing-21; or

(4) The engine HPC was replaced with an HPC that is new from production with no time in service; or

(5) The engine HPC has been overhauled, or the engine HPC replaced with an overhauled HPC with zero cycles since overhaul; or

(6) An engine that is either below or exceeding the limits of Table 2 or Table 3 of this AD may be removed and installed on another airplane without Testing-21 as long as the requirements of paragraph (b), (d) or (f) AD are met at the time of engine installation.

#### **Phase 0 or Phase 1, FB2T or FB2B Fan Blade Configurations**

(i) For engines with Phase 0 or Phase 1, FB2T or FB2B fan blade configurations complying with the requirements of AD 2001-09-05, (66 FR 22908, May 5, 2001), AD 2001-09-10, (66 FR 21853, May 2, 2001), or AD 2001-01-10, (66 FR 6449, January 22, 2001), do the following:

(1) Operators complying with the AD's listed in paragraph (i) of this AD using the weight restriction compliance method, must perform Testing-21 in accordance with paragraph (h)(1) of this AD whenever any quantity of fan blades are replaced with new fan blades, overhauled fan blades, or with fan blades having the leading edges recontoured after the effective date of this AD, if during the shop visit the HPC is not overhauled and separation of a major engine flange, located between "A" flange and "T" flange, does not occur.

(2) Testing-21 in accordance with paragraph (h)(1) of this AD is required if an operator changes from the weight restriction compliance method to the fan blade leading edge recontouring method, each time fan blade leading edge recontouring is done after the effective date of this AD, if the fan blades accumulate more than 450 cycles since new or since fan blade overhaul, or since the last time the fan blade leading edges were recontoured.

#### **Minimum Build Standard**

(j) After the effective date of this AD, do not install an engine with HPC and HPT modules where the CSO of the HPC is 1,500 cycles or greater than the CSN or CSO of the HPT.

(k) For any engine that undergoes an HPC overhaul after the effective date of this AD, do the following:

(1) Inspect the HPC mid hook and rear hook of the HPC inner case for wear in accordance with PW4000 Clean, Inspect and Repair (CIR) Manual PN 51A357, Section 72-35-68 Inspection/Check-04, Indexes 8-11, dated September 15, 2001. If the HPC rear hook is worn beyond serviceable limits, replace the HPC inner case rear hook with an improved durability hook in accordance with PW SB PW4ENG72-714, Revision 1, dated November 8, 2001, or Chromalloy Florida Repair Procedure 00-CFL-039-0. If the HPC inner case mid hook is worn beyond serviceable limits, repair the HPC inner case mid hook in accordance with PW4000 CIR PN 51A357 Section 72-35-68, Repair-16.

(2) After the effective date of this AD, any engine that undergoes an HPC overhaul may not be returned to service unless it meets the build standard of PW SB PW4ENG 72-484, PW4ENG 72-486, PW4ENG 72-514, and PW4ENG 72-575. Engines that incorporate the Phase 3 configuration already meet the build standard defined by PW SB PW4ENG 72-514.

(l) After the effective date of this AD, any engine that undergoes separation of the HPC and HPT modules must not be installed on an airplane unless it meets the build standard of PW SB PW4ENG 72-514. Engines that incorporate the Phase 3 configuration already meet the build standard defined by PW SB PW4ENG 72-514.

### Stability Testing Requirements

(m) After the effective date of this AD, Testing-21 must be performed in accordance with paragraph (h)(1) of this AD, before an engine can be returned to service after having undergone maintenance in the shop, except under any of the following conditions:

(1) The engine HPC was overhauled, or replaced with an overhauled HPC with zero cycles since overhaul; or

(2) The engine HPC was replaced with an HPC that is new from production with no time in service; or

(3) The shop visit did not result in the separation of a major engine flange located between "A" flange and "T" flange.

### Thrust Rating Changes, Installation Changes, and Engine Transfers

(n) When a thrust rating change has been made by using the Electronic Engine Control (EEC) programming plug, or an installation change has been made during an HPC overhaul period, use the lowest cyclic limit of Table 2 or Table 3 of this AD, associated with any engine thrust rating change or with any installation change made during the affected HPC overhaul period. See paragraph (s)(2) for definition of HPC overhaul period.

(o) When a PW4158 engine is transferred to another PW4158 engine operator whose engine fleet has a different category, use the lowest cyclic limit in Table 3 of this AD that was used or will be used during the affected HPC overhaul period.

(p) When a PW 4158 engine operator whose engine fleet changes category in accordance with paragraph (g) of this AD, use the lowest cyclic limits in Table 3 of this AD that were used during the affected HPC overhaul period.

(q) Engines with an HPC having zero CSN or CSO at the time of thrust rating change, or installation change, or engine transfer between PW4158 engine operators, or subsequent change in operator engine fleet category in accordance with paragraph (g) of this AD in the direction of lower to higher Table 3 limits, are exempt from the lowest cyclic limit requirement in paragraphs (n), (o), and (p) of this AD.

### Engines That Surge

(r) For engines that experience a surge, and after troubleshooting procedures are completed for airplane-level surge during forward or reverse thrust, do the following:

(1) For engines that experience a Group 3 takeoff surge, remove the engine from service before further flight and perform an HPC overhaul.

(2) For any engine that experiences a forward or reverse thrust surge at EPR's greater than 1.25 that is not a Group 3 takeoff surge, do the following:

(i) For configuration A, B, C, D, and F engines, remove engine from service within 25 CIs or before further flight if airplane-level troubleshooting procedures require immediate engine removal, and perform Testing-21 in accordance with paragraph (h)(1) of this AD.

(ii) For configuration E engines, remove engine from service within 25 CIs or before further flight if airplane-level troubleshooting procedures require immediate engine removal.

### Definitions

(s) For the purposes of this AD, the following definitions apply:

(1) An HPC overhaul is defined as restoration of the HPC stages 5 through 15 blade tip clearances to the limits specified in the applicable fits and clearances section of the engine manual.

(2) An HPC overhaul period is defined as the time period between HPC overhauls.

(3) An HPT overhaul is defined as restoration of the HPT stage 1 and 2 blade tip clearances to the limits specified in the applicable fits and clearances section of the engine manual.

(4) A Phase 3 engine is identified by a (-3) suffix after the engine model number on the data plate if incorporated at original manufacture, or a "CN" suffix after the engine serial number if the engine was converted using PW SB's PW4ENG 72-490, PW4ENG 72-504, or PW4ENG 72-572 after original manufacture.

(5) A Group 3 takeoff surge is defined as the occurrence of any of the following engine symptoms during an attempted airplane takeoff operation (either at reduced, derated or full rated takeoff power setting) after takeoff power set, which can be attributed to no specific and correctable fault condition after following airplane-level surge during forward thrust troubleshooting procedures:

(i) Engine noises, including rumblings and loud "bang(s)."

(ii) Unstable engine parameters (EPR, N1, N2, and fuel flow) at a fixed thrust setting.

(iii) Exhaust gas temperature (EGT) increase.

(iv) Flames from the inlet, the exhaust, or both.

(6) Takeoff EPR data is defined as Maximum Takeoff EPR if takeoff with Takeoff-Go-Around (TOGA) is selected or Flex Takeoff EPR if takeoff with Flex Takeoff (FLXTO) is selected. Maximum Takeoff EPR or Flex Takeoff EPR may be recorded using any of the following methods:

(i) Manually recorded by the flight crew read from the Takeoff EPR power management table during flight preparation (see Aircraft Flight Manual (AFM) chapter 5.02.00 and 6.02.01, or Flight Crew Operation Manual (FCOM) chapter 2.09.20) and then adjusted by adding 0.010 to the EPR value recorded; or

(ii) Automatically recorded during Takeoff at 0.18 Mach Number (Mn) (between 0.15 and 0.20 Mn is acceptable) using an aircraft automatic data recording system and then adjusted by subtracting 0.010 from the EPR value recorded; or

(iii) Automatically recorded during takeoff at maximum EGT, which typically occurs at 0.25 " 0.30 Mn, using an aircraft automatic data recording system.

### Alternative Methods of Compliance

(t) 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 (ECO). Operators must submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

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

### Special Flight Permits

(u) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

### Testing-21 Reports

(v) Within 60 days of test date, report the results of the cool-engine fuel spike stability assessment tests (Testing-21) to the ANE-142 Branch Manager, Engine Certification Office, 12 New England Executive Park, Burlington, MA 01803-5299, or by electronic mail to 9-ane-surge-ad-reporting@faa.gov. Reporting requirements have been approved by the Office of Management and Budget and assigned OMB control number 2120-0056. Be sure to include the following information:

- (1) Engine serial number.
- (2) Engine configuration designation per Table 1 of this AD.
- (3) Date of the cool-engine fuel spike stability test.
- (4) HPC Serial Number, and HPC time and cycles-since-new and since-compressor-overhaul at the time of the test.
- (5) Results of the test (Pass or Fail).

Issued in Burlington Massachusetts, on July 15, 2002.

**Jay J. Pardee,**

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

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 71

[Airspace Docket No. 02-AWP-4]

### Proposed Establishment of Class D Airspace; Henderson Airport; Las Vegas, NV

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This notice proposes to establish a Class D surface area at Henderson Airport in Las Vegas, NV. A Federal Contract Tower provides air traffic control services at this location on a part-time basis. Henderson Airport routinely serves a large volume of air tour operator traffic to and from the Grand Canyon area, as well as considerable general aviation activity operating under visual flight rules. Henderson Tower controllers are certified by the National Weather Service (NWS) to provide surface