

(c) The total value of production to count from all insurable acreage on the unit will include:

- (1) Not less than the amount of insurance per acre for the stage for any acreage:
 - (i) That is abandoned;
 - (ii) Put to another use without our consent;
 - (iii) That is damaged solely by uninsured causes; or

(iv) For which you fail to provide acceptable production records;

(2) The value of the following appraised production will not be less than the dollar amount obtained by multiplying the number of boxes of appraised peppers times the minimum value per box shown in the Special Provisions for the planting period:

- (i) Potential production on any acreage that has not been harvested the third time;
- (ii) Unharvested mature bell peppers (unharvested production that is damaged or defective due to insurable causes and is not marketable will not be counted as production to count);
- (iii) Production lost due to uninsured causes; and

(iv) Potential production on insured acreage that you intend to put to another use or abandon, if you and we agree on the appraised amount of production. Upon such agreement, the insurance period for that acreage will end when you put the acreage to another use or abandon the crop. If agreement on the appraised amount of production is not reached:

(A) We may require you to continue to care for the crop so that a subsequent appraisal may be made or the crop harvested to determine actual production (If we require you to continue to care for the crop and you do not do so, the original appraisal will be used); or

(B) You may elect to continue to care for the crop, in which case the amount of production to count for the acreage will be the harvested production, or our reappraisal if the crop is not harvested.

(3) The total value of all harvested production from the insurable acreage will be the dollar amount obtained by subtracting the allowable cost contained in the Special Provisions from the price received for each box of peppers (this result may not be less than the minimum value shown in the Special Provisions for any box of peppers), and multiplying this result by the number of boxes of peppers harvested. Harvested production that is damaged or defective due to insurable causes and is not marketable, will not be counted as production to count.

15. Written Agreements.

Designated terms of this policy may be altered by written agreement in accordance with the following:

(a) You must apply in writing for each written agreement no later than the sales closing date, except as provided in section 15(e);

(b) The application for a written agreement must contain all variable terms of the contract between you and us that will be in effect if the written agreement is not approved;

(c) If approved, the written agreement will include all variable terms of the contract, including, but not limited to, crop type or variety, and premium rate;

(d) Each written agreement will only be valid for one year (If the written agreement is not specifically renewed the following year, insurance coverage for subsequent crop years will be in accordance with the printed policy); and

(e) An application for a written agreement submitted after the sales closing date may be approved if, after a physical inspection of the acreage, it is determined that no loss has occurred and the crop is insurable in accordance with the policy and written agreement provisions.

16. Minimum Value Option.

(a) The provisions of this option are continuous and will be attached to and made a part of your insurance policy, if:

(1) You elect *either* Option I or Option II of the Minimum Value Option on your application, or on a form approved by us, on or before the sales closing date for the initial crop year in which you wish to insure fresh market peppers under this option, and pay the additional premium indicated in the Actuarial Table for this optional coverage; and

(2) You have not elected coverage under the Catastrophic Risk Protection Endorsement.

(b) In lieu of the provisions contained in section 14(c)(3), the total value of harvested production will be determined as follows:

(1) If you selected Option I of the Minimum Value Option, the total value of harvested production will be as follows:

(i) For sold production, the dollar amount obtained by subtracting the allowable cost contained in the Special Provisions from the price received for each box of peppers (this result may not be less than \$2.75 for any box of peppers), and multiplying this result by the number of boxes of peppers sold; and

(ii) For marketable production that is not sold, the dollar amount obtained by multiplying the number of boxes of such peppers on the unit by the minimum value shown in the Special Provisions for the planting period (harvested production that is damaged or defective due to insurable causes and is not marketable will not be counted as production).

(2) If you selected Option II of the Minimum Value Option, the total value of harvested production will be as provided in section 16(b)(1), except that the dollar amount specified in section 16(b)(1)(i) may not be less than zero.

(c) This option may be canceled by either you or us for any succeeding crop year by giving written notice on or before the cancellation date preceding the crop year for which the cancellation of this option is to be effective.

Signed in Washington, D.C., on December 24, 1996.

Kenneth D. Ackerman,

Manager, Federal Crop Insurance.

[FR Doc. 97-61 Filed 1-2-97; 8:45 am]

BILLING CODE 3410-FA-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 94-ANE-44]

RIN 2120-AA64

Airworthiness Directives; Certain Textron Lycoming 320 and 360 Series Reciprocating Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: This notice revises an earlier proposed airworthiness directive (AD), which would have been applicable to all Textron Lycoming 235 series and 290 series, and certain 320 and 360 series reciprocating engines, that would have required initial and repetitive inspections of the crankshaft inner diameter (ID) for corrosion and cracks, and replacement of cracked crankshafts with a serviceable part. In addition, that proposed AD would have permitted operation of engines with crankshafts that were found to have corrosion pits but were free of cracks, provided repetitive inspections were performed by only certain qualified individuals until the next engine overhaul or 5 years after the initial inspection, whichever occurred first, at which time the proposed AD would have required those crankshafts with corrosion pits but no cracks to be replaced with serviceable crankshafts. That proposal was prompted by reports of crankshaft breakage originating from corrosion pits on the inside wall. This action revises the proposal by limiting the applicability of the proposed AD to only certain Textron Lycoming 320 and 360 series reciprocating engines, excluding additional engines installed in helicopters; permitting any certificated mechanic holding an airframe or powerplant rating to perform the Fluorescent Penetrant Inspection (FPI); permitting continued use of a pitted crankshaft as long as repetitive FPI inspections are performed; and deleting the five year limit on the use of crankshafts that are pitted but not cracked. Also, the FAA has received new cost information, and has revised the economic analysis with respect to the initial inspection time, the time to remove and replace crankshafts, the cost of the replacement crankshafts, and the cost for repetitive FPI inspections. Finally, this revised proposal introduces a public reporting survey to provide the FAA with a broader database on the

condition of crankshafts when observed during the initial inspections. The actions specified by this proposed AD are intended to prevent crankshaft failure, which can result in engine failure, propeller separation, forced landing, and possible damage to the aircraft.

DATES: Comments must be received by April 3, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-ANE-44, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Textron Lycoming, 652 Oliver St., Williamsport, PA 17701; telephone (717) 327-7080, fax (717) 327-7100. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Raymond Reinhardt or Pat Perrotta, Aerospace Engineers, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 10 Fifth St., Valley Stream, NY 11581-1200; telephone (516) 256-7532 or (516) 256-7534, fax (516) 568-2716.

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 notice 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 notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 94-ANE-44." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-ANE-44, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

On October 18, 1993, the Civil Aviation Authority (CAA), which is the airworthiness authority of the United Kingdom, received a report that a Piper PA-28-161 aircraft, with a Textron Lycoming O-320-D3G reciprocating engine installed, executed a forced landing due to an engine crankshaft failure which caused the propeller to separate from the aircraft. The cause of the crankshaft failure was determined to be due to a high cycle fatigue mechanism that had initiated from a number of corrosion pits in the crankshaft bore. After the cracks had progressed through a substantial proportion of the crankshaft section, the rate of advance had increased until the remaining unseparated portion had failed as a result of overload. The cracking occurred in high cycle fatigue and it had progressed over an extended period of service. At the time of the accident the engine had operated for 1,950 hours time in service (TIS) since overhaul and had accumulated 4,429 hours total time since new over a period of 16 years. In addition, the Federal Aviation Administration (FAA) has confirmed that four other failures in the United States and 10 in foreign countries were due to cracks initiating from corrosion pits in the crankshaft bore on certain Textron Lycoming 320 and 360 reciprocating engines with ratings of 160 horsepower or greater. Of the 10 failures in foreign countries, four resulted in the propeller separating from the aircraft inflight. Three of these four were from 1993 to 1996. The FAA utilized metallurgical failure analysis reports and other information to conclude that these failures were due to cracks originating from corrosion pits. This condition, if not corrected, could result in crankshaft failure, which can result in engine failure, propeller

separation, forced landing, and possible damage to the aircraft.

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to Textron Lycoming 235 Series and 290 Series, and certain 320 and 360 series reciprocating engines was published in the Federal Register on November 28, 1995 (60 FR 58580); the comment period was reopened in a reprinting of the original proposal on April 8, 1996 (61 FR 15430). That action proposed to require initial and repetitive inspections of the crankshaft inner diameter (ID) for corrosion and cracks, and replacement of cracked crankshafts with a serviceable part. In addition, the proposed AD would have permitted operation of engines with crankshafts that were found to have corrosion pits but were free of cracks provided repetitive inspections were performed until the next engine overhaul or 5 years after the initial inspection, whichever occurred first, at which time the proposed AD would have required those crankshafts with corrosion pits but no cracks to be replaced with serviceable crankshafts. Those proposed actions would be performed in accordance with Textron Lycoming Mandatory Service Bulletin (MSB) No. 505A, dated October 18, 1994.

The FAA had determined that Fluorescent Penetrant Inspections (FPI) were warranted if corrosion pits were found. The FPI inspection was developed due to reports from Textron Lycoming and other approved repair stations that most of the crankshafts that are pitted do not contain cracks. The FAA determined that visual inspections alone were not sufficient to detect a crack. The FPI inspection was based on crack propagation data developed by the FAA in conjunction with Textron Lycoming and with consideration of the technical base in the U.S. for performing Non-Destructive Inspections. The FPI process was shown to be reliable for detection of cracks down to 0.050 inches deep and 0.100 inches in length. The FPI inspection interval was based on the crack propagation data such that a crack could be reliably be detected before the crankshaft failed. If an installed engine was found to have a pitted crankshaft, the FAA did not propose to allow the removal of metal to remove the corrosion pits due to possible contamination of the engine oil supply with metal filings and to ensure that the concentricity of the crankshaft would not be compromised.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Over 200

comments were received in response to the initial NPRM. The following comment groups comprise the information received from the various commenters from around the U.S. and overseas:

A group of commenters state that the Textron Lycoming Model 0-360-A4A and other models that incorporate solid crankshafts should be exempted from the proposed rule's applicability. Also, the commenters state that the Textron Lycoming Model 0-360-J2A engine, installed in the Robinson helicopter, should also be exempted from the proposed rule's applicability, as the -J2A model was not specifically designed as a helicopter engine. The FAA concurs. All these engines have been deleted from the applicability of the revised proposal.

Another group of commenters state that inspections are too costly, that there are not enough failures to justify an AD, and not enough data and studies were developed before issuance of the NPRM. The FAA does not concur. The FAA received data and studies which substantiated the need for an AD. These data confirm the crankshaft fracture occurred at a stress concentration caused by a corrosion pit on the inside of the crankshaft. In addition, since the NPRM was issued, six additional crankshaft failures on 160 horsepower Textron Lycoming engines are being investigated. The FAA has, however, performed additional analysis to limit the population of engines impacted by this proposed AD and has deleted the five year life limit on pitted crankshafts undergoing repetitive FPI inspections. These measures will decrease the cost of this AD to the public.

Another group of commenters state that the 5-year limit on the fluorescent penetrant inspection (FPI) after which the pitted crankshaft must be removed from service should be deleted from the AD. The FAA concurs, and the proposal AD has been revised to delete the 5-year life limit on pitted crankshafts undergoing repetitive FPI inspections.

Another group of commenters state that the crankshaft failures used to justify the proposed AD occurred after a propeller strike, and that the propeller strike history is the main reason for crankshaft failures. The commenters recommend inspecting crankshafts only after a propeller strike. The FAA does not concur. There is insufficient evidence to show that propeller strikes were the primary cause or even a major contributing factor in the investigated crankshaft failures. Severe propeller strikes are normally associated with stress rupture or low cycle fatigue failures, whereas the corrosion failures

addressed in this proposal are associated with high cycle fatigue.

Another group of commenters state that any AD should allow airframe or powerplant rated mechanics to perform the required FPI inspections, not just specially rated individuals. The FAA concurs and the proposed AD has been revised accordingly.

Another group of commenters state that instead of the proposed initial and repetitive inspections, the inspections should be required at the next overhaul or 2000 hours TIS since last overhaul, and reinspection accomplished at reasonable TIS intervals. The FAA does not concur. Most overhauls do not include a detailed examination of the crankshaft internal bore for corrosion and cracks. The proposed initial inspection at 1,000 hours TIS since remanufacture or overhaul is necessary due to service failures which have occurred shortly after 1,000 hours TIS since new or overhaul. With regard to the repetitive inspection intervals, the 100 hours TIS interval is based on the crack propagation rate when the crack, detectable by FPI, exists in the internal bore.

Another group of commenters state that the proposed inspections may cause more problems by, for example, improper plug replacement, a rag left in the shaft bore, improper torque on propeller bolts, or metal particles falling into the oil system. The FAA concurs. The NPRM and Textron Lycoming's Mandatory SB cautioned operators about some of these conditions, and the proposed AD has been revised to require, for example, removal of cloths used during the FPI inspections.

Another group of commenters state that all new crankshafts should be exempt from the inspections required by the proposed AD for 10 years. The FAA concurs in part. The original proposal recognized this issue and already incorporates this provision. Paragraph (b) of the current proposal allows initial inspection within 10 years of the original ship date, or 6 months from the effective date of the AD, whichever occurs later. However, there are other events that may require crankshaft inspection prior to reaching 10 years, for example, an overhaul or engine disassembly as specified in Paragraph (b) of the proposed AD.

Another group of commenters state that FPI inspection chemicals may interfere with corrosion prevention treatments being initiated. The commenters recommend delaying FPI inspection for 1 year. The FAA does not concur. When corrosion protection treatments are available, the FAA will evaluate the need for future rulemaking.

In addition, the FAA has removed from the proposed AD's applicability engines with less than 160 maximum rated horsepower (hp) because the lower power engines, which utilize the same size crankshaft, develop lower stress levels at the location of the corrosion pitting. The lower stress levels result in predicted fatigue life which will not initiate cracking from the stress concentrations associated with the corrosion pitting. In addition, service history of cracks developing from the location of corrosion pitting has been limited to the higher rated power (160 hp and above) engines.

Also, the FAA has determined the need to acquire more data on the extent of crankshaft corrosion. A crankshaft inspection survey has been included as an appendix to this proposed AD. The inspection survey will be utilized by the FAA to determine: the number of engines under repetitive FPI inspections, the number of crankshafts that are found to be cracked, if another failure mechanism is contributing to the crankshaft failures, and possible adjustment of the repetitive inspection interval. The information obtained by this survey may lead to future rulemaking.

Finally, the economic analysis of this proposed AD is revised to address the changes in the scope of the proposal. The total number of engines impacted worldwide has dropped from 77,100 to 16,357 (11,000, 160 hp, 320 series; and 5,357, 360 Series). The FAA estimates that 60% of that number, 9,814 engines are installed on aircraft of U.S. registry, and would be affected by this proposed AD. The FAA estimates that it would take approximately 8 work hours per engine to accomplish the proposed initial visual inspection, and that the average labor rate is \$60 per work hour; therefore the estimated cost impact for the proposed initial visual inspections would be \$4,710,720. The FAA also estimates, based on information received from the UK CAA regarding the number of engines undergoing repetitive inspections in the UK due to the UK CAA AD on the same subject, that 12%, or 1,178, of the affected engines would contain crankshafts that require FPI. The FAA estimates that each FPI would take approximately 8 hours, and that operators with corroded crankshafts would perform one FPI per year. The estimated cost for the repetitive FPI, therefore, is \$565,286 annually. Lastly, the FAA estimates that 5 crankshafts will require replacement per year due to cracks, and that it would take 38 work hours per engine to replace cracked crankshafts. Assuming that a replacement crankshaft would cost

approximately \$6,000 per engine, the estimated cost for replacement of 5 crankshafts would be \$41,400 annually. Therefore, the total estimated cost impact of this proposal is \$5,317,406 for the first year, and \$606,686 each year thereafter.

Since these changes expand the scope of the originally proposed AD, the FAA has determined that it is necessary to publish this Supplemental Notice of Proposed Rulemaking to provide an opportunity for public comment on the revised proposal.

The regulations proposed herein would 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 proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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 USC 106(g), 40113, 44701.

§ 39.13 [Amended]

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

Textron Lycoming: Docket No. 94-ANE-44.

Applicability: Textron Lycoming 320 series limited to 160 horsepower, and 360 series, four-cylinder reciprocating engines with fixed pitch propellers; except for the following installed in helicopters or with solid crankshafts: HO-360 series, HIO-360 series, LHIO-360 series, VO-360 series, and IVO-360 series, and Models O-320-B2C, O-360-J2A, AEIO-360-B4A, O-360-A4A, -4G, -A4J, -A4K, -A4M, and -C4F. These engines are installed on but not limited to reciprocating engine powered aircraft manufactured by Cessna, Piper, Beech, American Aircraft Corporation, Grumman American Aviation, Mooney, Augustair Inc., Maule Aerospace Technology Corporation, Great Lakes Aircraft Co., and Commander Aircraft Co.

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 (g) 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 crankshaft failure, which can result in engine failure, propeller separation, forced landing, and possible damage to the aircraft, accomplish the following:

(a) For engines shipped new from Textron Lycoming prior to and including December 31, 1984, and that have never been overhauled, or any engine remanufactured or overhauled and that has accumulated 1,000 hours or more time in service (TIS) since remanufacture or overhaul, visually inspect the inner diameter (ID) of the crankshaft for corrosion pits within the next 100 hours TIS after the effective date of this AD, or 6 months after the effective date of this AD, whichever occurs first, in accordance with Textron Lycoming Mandatory Service Bulletin (MSB) No. 505A, dated October 18, 1994.

(1) The propeller must be removed in accordance with the aircraft manufacturer's procedures to perform this inspection.

(2) If corrosion pits are found during this inspection, prior to further flight perform a Fluorescent Penetrant Inspection (FPI) in accordance with paragraph (e) of this AD.

(3) Within 48 hours after these inspections, report the finding of the inspection in accordance with paragraph (f) of this AD.

(b) For engines shipped new from Textron Lycoming after December 31, 1984, and that have never been overhauled, or any engine remanufactured or overhauled and that has accumulated less than 1,000 hours TIS since remanufacture or overhaul, visually inspect the ID of the crankshaft for corrosion pits, at the earliest occurrence of any event specified in subparagraph (4) of this paragraph, and in

accordance with Textron Lycoming MSB No. 505A, dated October 18, 1994.

(1) The propeller must be removed in accordance with the aircraft manufacturer's procedures to perform this inspection.

(2) If corrosion pits are found during this inspection, prior to further flight perform an FPI in accordance with paragraph (e) of this AD.

(3) Within 48 hours after these inspections, report the finding of the inspection in accordance with paragraph (f) of this AD.

(4) Visually inspect the ID of the crankshaft for corrosion pits at the earliest of the following:

(i) The next engine overhaul or disassembly.

(ii) Within 10 years of the original shipping date or 6 months from the effective date of this AD, whichever occurs later.

(iii) Within 1,000 hours TIS since remanufacture or overhaul, or 6 months from the effective date of this AD, whichever occurs later.

(c) Thereafter, if no corrosion pits or cracks are found on the ID of the crankshaft during the initial visual inspection, perform a visual inspection at intervals not to exceed 5 years since last inspection, or at the next engine overhaul or disassembly, whichever occurs first, in accordance with Textron Lycoming MSB No. 505A, dated October 18, 1994. If corrosion pits but no cracks are found on the ID of the crankshaft during the initial visual inspection, repeat the FPI at intervals not to exceed 100 hours TIS since last FPI inspection until a serviceable crankshaft is installed in the engine.

(d) Prior to further flight, remove from service and replace with a serviceable part any crankshaft found cracked during FPI performed in accordance with paragraph (e) of this AD.

(e) An engine, installed in the aircraft having a corroded crankshaft, may be returned to service without disassembly provided an FPI confirms the bore to be crack free. The process and materials utilized for the FPI must comply with the classification contained in MIL-I-25135. The FPI must be fluorescent solvent removable (Method C) utilizing a Type 1 penetrant system with a penetrant sensitivity Level 3 or higher and a Form D-Nonaqueous Developer. Spray containers of the materials are acceptable for this inspection. An individual having a mechanic certificate with at least an Airframe or Powerplant Rating who has the capability to perform the FPI inspection method is authorized to perform the FPI inspection. This FPI process involves the removal of penetrant material from the inspection surface. To ensure that contaminants from the cleaning process and the FPI do not enter the engine oil supply, block off the area of the crankshaft bore that is aft of the area being inspected by using a clean, dry, lint-free cloth. When the FPI is completed remove the lint-free cloth from the crankshaft bore before installing the front crankshaft plug. The FPI must be performed using the following steps:

(1) Cleaning—The crankshaft bore surface must be cleaned of visible corrosion prior to the FPI process using Scotchbrite or an

equivalent material. Metal-removing processes must not be used for visible corrosion cleaning. In addition, clean all surfaces to be inspected utilizing a cleaner, such as Magnaflux Spot Check Cleaner/Remover SKC-NF or equivalent, on the ID of the crankshaft bore. Let the cleaner/remover dry for 5 minutes minimum. Wipe clean with a lint-free cloth.

(2) Penetrant Application—Spray penetrant, such as ZYGLO ZL-22A Magnaflux Corp. or equivalent Type 1 with a penetrant sensitivity Level 3 or higher, on the ID bore.

(3) Penetrant Dwell—Allow a minimum of 10 minutes dwell. For dwell times exceeding 60 minutes the penetrant shall be reapplied to prevent drying.

(4) Penetrant Removal—Remove all bulk surface penetrant by wiping with a clean, dry lint-free cloth. Make a single wipe and then fold the cloth to provide a clean surface for succeeding wipes.

(i) Solvent Wipe—After the bulk of the surface penetrant has been removed, lightly moisten a fresh lint-free cloth with cleaner/remover and again wipe the surface. The cloth must not be saturated and the inspection surface must not be flooded with solvent. Excessive solvent will wash penetrant from defects.

(ii) During wiping, the inspection surface shall be illuminated with black light. Repeat the solvent wipe as necessary until no residual trace of penetrant remains on the inspection surface.

(5) Nonaqueous Developer (solvent suspended)—Following the cleaner/remover wipe apply nonaqueous developer by spraying a developer, such as Magnaflux Spot Check Developer SKD-NF or Form D-Nonaqueous equivalent, on the ID bore. Apply a thin uniform layer to the bore surface. The optimum coating thickness is indicated by the visibility of the part surface. If the metallic luster cannot be seen the developer is too thick.

(6) Dwell—Developer dwell is required to allow the developer time to draw entrapped penetrant from any small defects. The minimum development time shall be 10 minutes. The maximum dwell time for nonaqueous developer shall be 60 minutes.

(7) Inspection shall be performed within the allotted dwell time. Components that are not inspected within the allotted dwell time must be reprocessed.

(i) Examine crankshaft bore in a darkened enclosure under ultraviolet (black) light. Allow 1 minute for eyes to adapt to darkened environment prior to inspecting crankshaft bore. Use of photochromic lenses or permanent darkened lenses is prohibited.

(ii) During inspection make sure that the black light intensity is a minimum of 1200 microwatts/cm² at the bore surface. This can be accomplished by positioning the black light as close as necessary to the bore to achieve 1200 microwatts/cm². White light background shall not exceed 20 1×/m² (2 foot-candles). A photographic light meter may be used to determine the white light background reading.

(iii) Crankshaft bores having no crack indications are acceptable.

(iv) Magnification (10X maximum) and/or white light may be used to determine discontinuity type. Indications, on parts

exhibiting fluorescent background which interferes with evaluation of questionable indications, shall be evaluated as follows:

(A) Lightly wipe the area once with a soft brush or cotton swab applicator dampened with ethyl alcohol. Do not permit alcohol to flood the surface.

(B) After the alcohol evaporates from the surface, re-inspect. If an indication reappears, evaluate it immediately. If the indication does not reappear, reapply developer. The redevelopment time shall equal the original development time. Thereafter, re-inspect.

(8) After inspection, clean residual penetrants and developers from the crankshaft bore. Remove the lint-free cloth from the crankshaft bore prior to installing front crankshaft plug. Failure to do so may result in oil restriction within the engine and in turn cause engine failure. Reinstall the front crankshaft plug in accordance with Textron Lycoming MSB No. 505A, dated October 18, 1994. Failure to install the plug properly may result in engine oil loss and in turn cause engine failure.

(f) After accomplishing the initial visual inspection and, if necessary, the FPI, required by this AD, complete Appendix 1 of this AD and submit to the Manager, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 10 Fifth St., Valley Stream, NY 11581; fax (516) 568-2716. Reporting requirements have been approved by the Office of Management and Budget and assigned OMB control number 2120-0056.

Appendix 1

Textron Lycoming Crankshaft Inspection Survey

AD DOCKET NO. 94-ANE-44

Date of Inspection _____

Inspector's Information

Name _____

Address _____

State _____ Zip Code _____

Telephone No. _____

Facsimile No. _____

Engine Model Number _____

Engine Serial Number (S/N) _____

Date of Manufacture _____ (M/D/YR)

Total Time (TT) _____ hrs

Time Since Major Overhaul (SMOH) _____ hrs

Crankshaft Part Number (located on prop flange) _____ S/N _____

Aircraft Make and Model _____

Frequency of Flights _____ per month
(average) Duration _____ hrs per Flight

How was aircraft being utilized? _____

Training, _____ Personal, _____ Banner

Towing, _____ Glider Towing, _____

Agricultural, Other (please explain) _____

Q _____

Propeller Make and Model _____

Has the aircraft ever experienced a propeller strike during service? _____ Yes _____ No

Was propeller ever removed for servicing or overhaul? _____ Yes _____ No

If yes, describe reason for removal in detail.

What was the condition of the crankshaft internal bore?

Corroded _____ Yes _____ No

If corroded, how many pits? _____ 1 to 5, _____ 6 to 10, _____ More than 10

Was a crack found? _____ Yes _____ No

If crack was found, complete the following:

_____ Distance from crankshaft end (Inches)

_____ Crack Length (Inches)

Comments:

(g) 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, New York Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, New York Aircraft 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 New York Aircraft Certification Office.

(h) 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.

Issued in Burlington, Massachusetts, on December 26, 1996.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 97-32 Filed 1-2-97; 8:45 am]

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14 CFR Part 71

[Airspace Docket No. 96-AEA-16]

Proposed Establishment of Class E Airspace; Johnstown, NY

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This proposed rule would establish Class E Airspace at Johnstown, NY. The development of two new Standard Instrument Approach Procedures (SIAP) at Fulton County Airport based on the Global Positioning System (GPS) has made this proposal necessary. Additional controlled