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Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 55891 9/15/2000]

Docket No. 99-CE-84-AD; Amendment 39-11897; AD 2000-18-12

RIN 2120-AA64

Airworthiness Directives; Polskie Zakłady Lotnicze Spółka z o.o. Models PZL M18, PZL M18A, and PZL M18B Airplanes

PDF Copy (If Available):

▼ Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule; request for comments

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to all Polskie Zakłady Lotnicze Spółka z o.o. (PZL-Mielac) Models PZL M18, PZL M18A, and PZL M18B airplanes. This AD requires you to repetitively inspect the centerwing-to-outboard wing attach joints for cracks in the lugs, corrosion in the main holes, and ovalization of the main holes; repair corrosion and apply anti-corrosion protection; replace the wing attach joints, as necessary; and eliminate any ovalization of the wing main joint holes. This AD is the result two instances of in-flight wing separation on Model PZL M18A airplanes where severe corrosion and pitting led to high stress concentrations on the wing attachment joints. The actions specified by this AD are intended to detect and correct cracks in the lugs, corrosion in the main holes, and ovalization of the main holes, in the centerwing-to-outboard wing attach joints. Such damage could result in failure of the joints with consequent in-flight wing separation.

DATES: This amendment becomes effective on September 27, 2000. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of September 27, 2000. The FAA must receive any comments on this rule on or before 10/17/00.

ADDRESSES: Submit comments in triplicate to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-84-AD, 901 Locust, Room 506, Kansas City, Missouri 64106.

You may get the service information referenced in this AD from Polskie Zaklady Lotnicze Spolka zo.o., Wojska Polskiego 3, 39-300 Mielec, Poland; telephone: 48 17 788 7818; e-mail: pzlservice@ptc.pl. You may examine this information at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-84-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Brian Hancock, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4143; facsimile: (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? The FAA has received reports of two instances of in-flight wing separation on Model PZL M18A airplanes.

Investigation of the occurrences reveals that severe corrosion and pitting led to high stress concentrations on the centerwing-to-outboard wing attach joints. This resulted in cracks that ran radially from the bore of the fitting. The cracking consequently caused the in-flight separation of the wing on the two airplanes.

The Models PZL M18, PZL M18A, and PZL M18B incorporate a similar type design.

What are the consequences if the condition is not corrected? Cracked or corroded centerwing-to-outboard wing attach joints could result in failure of the joints with consequent in-flight wing separation.

Relevant Service Information

Is there service information that applies to this subject? Polskie Zaklady Lotnicze Co. Ltd. has issued Service Bulletin No. E/02.170/2000, dated August 3, 2000. What are the provisions of this service bulletin? This service bulletin includes procedures for:

- inspecting the centerwing-to-outboard wing attach joints for cracks in the lugs, corrosion in the main holes, and ovalization of the main holes;
- repairing corrosion and applying anti-corrosion protection;
- replacing the wing attach joints; and
- eliminating ovalization of the wing main joint holes.

The FAA's Determination and an Explanation of the Provisions of the AD

What has FAA decided? After examining the circumstances and reviewing all available information related to the incidents described above, FAA has determined that:

- an unsafe condition exists or could develop on PZL-Mielac Models PZL M18, PZL M18A, and PZL M18B airplanes of the same type design to those referenced above;
- the actions specified in the above service bulletin should be incorporated on the affected airplanes; and
- AD action should be taken to detect and correct cracks in the lugs, corrosion in the main holes, and ovalization of the main holes, in the centerwing-to-outboard wing attach joints. Such damage could result in failure of the joints with consequent in-flight wing separation.

What does this AD require? This AD requires you to:

- repetitively inspect the centerwing-to-outboard wing attach joints for cracks in the lugs, corrosion in the main holes, and ovalization of the main holes;
- repair corrosion and apply anti-corrosion protection;
- replace the wing attach joints, as necessary; and
- eliminate any ovalization of the wing main joint holes.

You must use magnetic particle methods to accomplish the inspection, and use the procedures included in the maintenance manual. All other procedures to accomplish this AD are included in Polskie Zakłady Lotnicze Co. Ltd. Service Bulletin No. E/02.170/2000, dated August 3, 2000.

We will give initial inspection credit to any owner/operator where the centerwing-to-outboard attach joints were inspected within the last 9 months using magnetic particle methods as specified in the maintenance manual.

What is the compliance time of this AD? The initial inspection compliance time of this AD is "Upon accumulating 3,000 hours time-in-service (TIS) on the airplane or within 30 calendar days after the effective date of this AD, whichever occurs later." The repetitive compliance time of this AD is "Within 500 hours TIS or 12 calendar months after the initial inspection, whichever occurs first; and thereafter at intervals not to exceed 500 hours or 12 calendar months, whichever occurs first."

Why is the compliance presented in both calendar time and hours time-in-service (TIS)? Unless you accomplished the initial inspection within the last 9 calendar months from the effective date of the AD, you must accomplish the initial inspection when the airplane has accumulated 3,000 hours TIS or 30 days,

whichever occurs later.

Since most of the affected airplanes have accumulated more than 3,000 hours TIS, the 30 days allows a grace period of 30 days for those airplanes. This will assure that:

- the high TIS airplanes have the inspection accomplished within 30 days;
- the low TIS airplanes will have the inspection accomplished at 3,000 hours total TIS; and
- none of the affected airplanes will be unnecessarily grounded as a result of this action.

The repetitive compliance time assures that cracks and corrosion do not go undetected on all airplanes by:

- requiring inspection within 500 hours TIS on the high-usage airplanes; and
- requiring inspection within 12 calendar months on the low-usage airplanes.

This would allow the airplane owners/operators to schedule the inspections at regularly scheduled maintenance activities.

Will I have the opportunity to comment prior to the issuance of the rule?

Because the unsafe condition described in this document could result in an in-flight separation of the wing, FAA finds that notice and opportunity for public prior comment are impracticable. Therefore, good cause exists for making this amendment effective in less than 30 days.

Comments Invited

How do I comment on this AD? Although this action is in the form of a final rule and was not preceded by notice and opportunity for public comment, we invite your comments on the rule. You may submit whatever written data, views, or arguments you choose. You need to include the rule's docket number and submit your comments in triplicate to the address specified under the caption "ADDRESSES." We will consider all comments received on or before the closing date specified above. We may amend this rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether we need to take additional rulemaking action.

Are there any specific portions of the AD I should pay attention to? The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. You may examine all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that summarizes each FAA contact with the public that concerns the substantive parts of this AD.

The FAA is reviewing the writing style we currently use in regulatory documents,

in response to the Presidential memorandum of June 1, 1998. That memorandum requires federal agencies to communicate more clearly with the public. We are interested in your comments on whether the style of this document is clearer, and any other suggestions you might have to improve the clarity of FAA communications that affect you. You can get more information about the Presidential memorandum and the plain language initiative at <http://www.plainlanguage.gov>.

How can I be sure FAA receives my comment? If you want us to acknowledge the receipt of your comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 99-CE-84-AD." We will date stamp and mail the postcard back to you.

Regulatory Impact

Does this AD impact relations between Federal and State governments?

These regulations will 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. Therefore, FAA has determined that this final rule does not have federalism implications under Executive Order 13132.

Does this AD involve a significant rule or regulatory action? The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a significant regulatory action under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979).

If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket (otherwise, an evaluation is not required). A copy of it, if filed, may be obtained from the Rules Docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, FAA 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. FAA amends Section 39.13 by adding a new airworthiness directive (AD) to read as follows:

▼Regulatory Information

2000-18-12 POLSKIE ZAKLADY LOTNICZE SPOLKA ZO.O.: Amendment 39-11897; Docket No. 99-CE-84-AD.

(a) What airplanes are affected by this AD? This AD applies to Models PZL M18, PZL M18A, and PZL M18B airplanes, all serial numbers, certificated in any category.

(b) Who must comply with this AD? Anyone who wishes to operate any of the above airplanes on the U.S. Register must comply with this AD.

(c) What problem does this AD address? The actions specified by this AD are intended to detect and correct cracks in the lugs, corrosion in the main holes, and ovalization of the main holes, in the centerwing-to-outboard wing attach joints. Such damage could result in failure of the joints with consequent in-flight wing separation.

(d) What must I do to address this problem? To address this problem, you must accomplish the following:

<u>Action</u>	<u>Compliance Time</u>	<u>Procedures</u>
(1) Inspect, using magnetic particle methods, the centerwing-to-outboard wing attach joints for cracks in the lugs, corrosion in the main holes, and ovalization of the main holes.	(i) Initial inspection: Unless you have accomplished the required inspection since December 27, 1999 (9 months before the effective date of the AD), accomplish upon accumulating 3,000 hours time-in-service (TIS) on the airplane or within 30 days after September 27, 2000 (the effective date of this AD), whichever occurs later. (ii) Repetitive inspections: (A) For existing attach joints: Within 500 hours TIS or 12 calendar months, whichever occurs first, after the initial inspection; and thereafter at intervals not to exceed 500 hours TIS or 12 calendar months, whichever occurs first.	As specified in Polskie Zaklady Lotnicze Co. Ltd. Service Bulletin No. E/02.170/2000, dated August 3, 2000. Use the magnetic particle inspection procedures that are in the maintenance manual for these inspections.

	The first repetitive inspection starts at 12 calendar months after the last inspection for those airplanes that already had the initial inspection accomplished since December 27, 1999 (9 months before the effective date of this AD). (B) For new attach joints: Upon accumulating 3,000 hours TIS on the joint, and thereafter at intervals not to exceed 500 hours TIS or 12 calendar months, whichever occurs first.	
(2) Accomplish the following after each inspection: (i) Repair corrosion damage found to the extent allowed in the service bulletin and apply anti-corrosion protection; (ii) Replace the wing attach joints if found cracked or if the corrosion damage is more than is specified in the service bulletin; and (iii) Eliminate any ovalization of the wing main joint holes.	Prior to further flight after the inspection where the discrepancy was found.	In accordance with the procedures in Polskie Zaklady Lotnicze Co. Ltd. Service Bulletin No. E/02.170/2000, dated August 3, 2000.

(e) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Small Airplane Directorate, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

Note: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes 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 (e) 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 you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) Where can I get information about any already-approved alternative methods of compliance? Contact the Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4121; facsimile: (816) 329-4091.

(g) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) Are any service bulletins incorporated into this AD by reference? You must accomplish the actions required by this AD in accordance with Polskie Zakłady Lotnicze Co. Ltd. Service Bulletin No. E/02.170/2000, dated August 3, 2000. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from Polskie Zakłady Lotnicze Spolka zo.o., Wojska Polskiego 3, 39-300 Mielec, Poland. You may look at copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) When does this amendment become effective? This amendment becomes effective on September 27, 2000.

▼ Footer Information

Issued in Kansas City, Missouri, on September 5, 2000.
Michael Gallagher,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

▼ Comments

Readers & Viewers: PDF Reader | MS Word Viewer | MS PowerPoint Viewer | MS Excel Viewer | WinZip

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