
Sektion 2. Utlandstillverkad flygmateriel

TITEL: Ändring av flyghandbok (AFM)

GÄLLER: Modellerna T210N S/N 21063641 t o m 21064897, P210N S/N 21000386 t o m P21000834, och P210R alla S/N

ÅTGÄRD: Utför åtgärder angivna i bifogad kopia av FAA AD 98-05-14R1

TID FÖR ÅTGÄRD: Inom 30 dagar räknat från 30 april 1998

UNDERLAG: FAA AD 98-05-14R1

REFERENS: FAA AD 98-05-14R1

BESLUTSDATUM: 1998-09-28

LFS 1998:22

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.

Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

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[4910-13-U]

Bilaga till LVD 2855R1

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [63 FR 49819 No. 181 09/18/98]

Docket No. 97-CE-62-AD; Amendment 39-10773; AD 98-05-14
R1

RIN 2120-AA64

Airworthiness Directives; Cessna Aircraft Company Models
T210N, P210N, and P210R Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; correction.

SUMMARY: This amendment clarifies information contained in Airworthiness Directive (AD) 98-05-14, which currently requires revising the FAA-approved Airplane Flight Manual (AFM) to specify procedures that would prohibit flight in severe icing conditions (as determined by certain visual cues), limit or prohibit the use of various flight control devices while in severe icing conditions, and provide the flight crew with recognition cues for, and procedures for exiting from, severe icing conditions on certain Cessna Aircraft Company (Cessna) Models T210N, P210N, and P210R airplanes. That publication incorrectly references the possibility of certain ice accumulation on the "lower" surface of the wing, instead of the "upper" surface of the wing while operating with the flaps extended. This incorrect statement may result in pilot misinterpretation of the icing effects with the flaps extended, and lead to an incorrect action. This document replaces the word "lower" with "upper" in this sentence. The actions specified in this AD are intended to continue to minimize the potential hazards associated with operating these airplanes in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions.

EFFECTIVE DATE: September 22, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-62-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT: Mr. John P. Dow, Sr., Aerospace Engineer, FAA, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone: (816) 426-6932, facsimile: (816) 426-2169.

SUPPLEMENTARY INFORMATION:

Discussion

On February 24, 1998, the FAA issued AD 98-05-14, Amendment 39-10375 (63 FR 10519, March 4, 1998), which

applies to Cessna Models T210N, P210N, and P210R airplanes. AD 98-05-14 was the result of a review of the requirements for certification of these airplanes in icing conditions, new information on the icing environment, and icing data provided currently to the flight crew.

AD 98-05-14 requires revising the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) to specify procedures that would:

- Require flight crews to immediately request priority handling from Air Traffic Control to exit severe icing conditions (as determined by certain visual cues);
- Prohibit flight in severe icing conditions (as determined by certain visual cues);
- Prohibit use of the autopilot when ice is formed aft of the protected surfaces of the wing, or when an unusual lateral trim condition exists; and
- Require that all icing wing inspection lights be operative prior to flight into known or forecast icing conditions at night.

That action also requires revising the Normal Procedures Section of the FAA-approved AFM to specify procedures that would:

- Limit the use of the flaps and prohibit the use of the autopilot when ice is observed forming aft of the protected surfaces of the wing, or if unusual lateral trim requirements or autopilot trim warnings are encountered; and
 - Provide the flight crew with recognition cues for, and procedures for exiting from, severe icing conditions.
- Need for the Correction

The AD incorrectly states in paragraph (a)(2) of AD 98-05-14 that:

"Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the lower surface further aft on the wing than normal, possibly aft of the protected area." The word "lower" in this sentence should be "upper."

This incorrect statement may result in pilot misinterpretation of the icing effects with the flaps extended and lead to an incorrect action. The pilot of the affected airplanes can only see the lower wing surface. However, ice accretion on the upper surface of the wing, which the pilot cannot observe, is usually accompanied by ice accretion on the lower surface. As stated earlier, the pilot can observe ice accretion on the lower surface.

Extension of flaps that results in a reduced angle-of-attack can change the relationship of the extent of ice on the upper and lower surfaces of the wing. For example, ice will tend to accrete more on the upper surface than on the lower surface at a reduced angle-of-attack. However, when flaps are extended in certain icing conditions, the reduction of ice further aft on the lower surface of the wing may lead the pilot to conclude incorrectly that there is a reduction of ice further aft on the upper surface. This is not correct;

as stated earlier, the tendency is for more ice accretion on the upper surface. Usually, ice on the upper surface of the wing is more adverse to the aerodynamic characteristics of the airplane than is ice on the lower surface of the wing.

Consequently, the FAA saw a need to clarify AD 98-05-14 to assure that this visual cue can be followed and that the appropriate cause and effect relationship is described.

Correction of Publication

This document clarifies the intent of the previously discussed visual cue in paragraph (a)(2) of AD 98-05-14. This document also adds the amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13).

Since this action only clarifies the description of a visual cue in AD 98-05-14, it has no adverse economic impact and imposes no additional burden on any person than would have been necessary by the existing AD. Therefore, the FAA has determined that prior notice and opportunity for public comment are unnecessary.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.
Adoption of the Amendment

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

PART 39 - AIRWORTHINESS DIRECTIVES

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

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

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Airworthiness Directive (AD) 98-05-14, Amendment 39-10375 (63 FR 10519, March 4, 1998), and by adding a new AD to read as follows:

Revision issued September 1998.

98-05-14 R1 CESSNA AIRCRAFT COMPANY: Amendment 39-10773; Docket No. 97-CE-62-AD; Revises AD 98-05-14, Amendment 39-10375.

Applicability: Models T210N (serial numbers 21063641 through 21064897), P210N (serial numbers P21000386 through P21000834), and P210R (all serial numbers) airplanes; certificated in any category.

NOTE 1: This AD applies to each airplane 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 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 (d) 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 in the body of this AD, unless already accomplished.

To minimize the potential hazards associated with operating the airplane in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions, accomplish the following:

(a) Within 30 days after April 30, 1998 (the effective date AD 98-05-14), accomplish the requirements of paragraphs (a)(1) and (a)(2) of this AD.

NOTE 2: Operators should initiate action to notify and ensure that flight crewmembers are apprised of this change.

(1) Revise the FAA-approved Airplane Flight M (AFM) by incorporating the following into the Limitations Section of the AFM. This may be accomplished by inserting a copy of this AD in the AFM.

"WARNING

Severe icing may result from environmental conditions outside of those for which the airplane is certificated. Flight in freezing rain, freezing drizzle, or mixed icing conditions (supercooled liquid water and ice crystals) may result in ice build-up on protected surfaces exceeding the capability of the ice protection system, or may result in ice forming aft of the protected surfaces. This ice may not be shed using the ice protection systems, and may seriously degrade the performance and controllability of the airplane.

- During flight, severe icing conditions that exceed those for which the airplane is certificated shall be determined by the following visual cues. If one or more of these visual cues exists, immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the icing conditions.

Unusually extensive ice accumulation on the airframe and windshield in areas not normally observed to collect ice.

Accumulation of ice on the lower surface of the wing aft of the protected area.

- Since the autopilot, when installed and operating, may mask tactile cues that indicate adverse changes in handling characteristics, use of the autopilot is prohibited when any of the visual cues specified above exist, or when unusual lateral trim requirements or autopilot trim warnings are encountered while the airplane is in icing conditions.

- All wing icing inspection lights must be operative prior to flight into known or forecast icing conditions at night. [NOTE: This supersedes any relief provided by the Master Minimum Equipment List (M MEL).]"

(2) Revise the FAA-approved AFM by incorporating the following into the Normal Procedures Section of the AFM. This may be accomplished by inserting a copy of this AD in the AFM.

"THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCTIVE TO SEVERE IN-FLIGHT ICING:

- Visible rain at temperatures below 0 degrees Celsius ambient air temperature.
- Droplets that splash or splatter on impact at temperatures below 0 degrees Celsius ambient air temperature.

PROCEDURES FOR EXITING THE SEVERE ICING ENVIRONMENT:

These procedures are applicable to all flight phases from takeoff to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18 degrees Celsius, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in the Limitations Section of the AFM for identifying severe icing conditions are observed, accomplish the following:

- Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the airplane has been certificated.
- Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.
- Do not engage the autopilot.
- If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
- If an unusual roll response or uncommanded roll control movement is observed, reduce the angle-of-attack.
- Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.
- If the flaps are extended, do not retract them until the airframe is clear of ice.
- Report these weather conditions to Air Traffic Control."

(b) Incorporating the AFM revisions, as required by this AD, may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

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

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Small Airplane Directorate, FAA, 1201 Walnut, suite 900, Kansas City, Missouri 64106. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the

Manager, Small Airplane Directorate.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Small Airplane Directorate.

(e) All persons affected by this directive may examine information related to this AD at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(f) This amendment revises AD 98-05-14, Amendment 39-10375.

(g) This amendment becomes effective on September 22, 1998.

FOR FURTHER INFORMATION CONTACT:

Mr. John P. Dow, Sr., Aerospace Engineer, FAA, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone: (816) 426-6932, facsimile: (816) 426-2169.