DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0794; Project Identifier AD-2020-01232-Q; Amendment 39-21249; AD 2020-18-51]

RIN 2120-AA64

Airworthiness Directives; Sandia Attitude Indicators

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Sandia attitude indicators (attitude indicators). This AD was sent previously to all known U.S. owners and operators of aircraft with these attitude indicators installed. This AD requires revising the existing Airplane Flight Manual (AFM) for your airplane to prohibit operation under instrument flight rules (IFR) or night visual flight rules (VFR) and prohibit coupling the autopilot with an affected attitude indicator. This AD was prompted by reports of 54 failed attitude indicators. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] to all persons except those persons to whom it was made immediately effective by Emergency AD 2020-18-51, issued on August 28, 2020, which contains the requirements of this AD.
The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0794; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** John Felton, Aerospace Engineer, Fort Worth ACO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5171; email john.felton@faa.gov.
SUPPLEMENTARY INFORMATION:

Discussion

On August, 28, 2020, the FAA issued Emergency AD 2020-18-51 (Emergency AD 2020-18-51) for attitude indicator part number (P/N) 306171-10 or 306171-20. Emergency AD 2020-18-51 requires revising the existing AFM for your airplane to prohibit operation under IFR or night VFR and prohibit coupling the autopilot with an affected attitude indicator. These part-numbered attitude indicators may be marked as BendixKing Model KI-300 or Sandia Model SAI-340A.

Emergency AD 2020-18-51 was prompted by a report of three failed attitude indicator P/N 306171-10 units. Following the initial report, an investigation revealed a total of 54 failed attitude indicator P/N 306171-10 units. Attitude indicator P/N 306171-20 is affected by the same unsafe condition because it is identical to P/N 306171-10. The effect of the failure was erroneous attitude data provided to the pilot and autopilot, if equipped. In some instances, the pilot is unaware that the data is erroneous or unreliable. In other instances, where the aircraft is equipped with multiple displays, the pilot may be provided with conflicting information, but will have no way to determine which display contains the correct data.

This condition, if not addressed, could result in aeronautical decision-making based on erroneous attitude information, which may result in loss of control of the aircraft.
FAA’s Determination

The FAA is issuing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires, before further flight, revising the existing AFM for your airplane to prohibit operation under IFR or night VFR and prohibit coupling the autopilot with an affected attitude indicator.

Revising the existing AFM for your airplane may be performed by the owner/operator (pilot) holding at least a private pilot certificate. This authorization is an exception to our standard maintenance regulations. The pilot must record compliance with this AD in the aircraft maintenance records in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417. This authority is not applicable to aircraft being operated under 14 CFR part 119.

Interim Action

The FAA considers this AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

FAA’s Justification and Determination of the Effective Date

An unsafe condition exists that required the immediate adoption of Emergency AD 2020-18-51, issued on August 28, 2020, to all known U.S. owners and operators of aircraft with attitude indicator P/N 306171-10 or 306171-20 installed. The FAA found that the risk to the flying public justified waiving notice and comment prior to adoption
of this rule because the required corrective actions must be completed before further flight. These conditions still exist and the AD is hereby published in the Federal Register as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective to all persons. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason stated above, the FAA finds that good cause exists for making this amendment effective in less than 30 days.

**Comments Invited**

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the Docket Number FAA-2020-0794 and Project Identifier AD-2020-01232-Q at the beginning of your comments. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this final rule.

**Confidential Business Information**

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom
of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this final rule contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this final rule, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this final rule. Submissions containing CBI should be sent to John Felton, Aerospace Engineer, Fort Worth ACO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5171; email john.felton@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Regulatory Flexibility Act**

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

**Costs of Compliance**

The FAA estimates that this AD affects 1,211 units installed on aircraft of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.
Revising the existing AFM for your airplane takes about 0.5 work-hour for an estimated cost of $43 per aircraft and $52,073 for the U.S. fleet.

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction.
List of Subjects in 14 CFR Part 39

Air transportation, Airplane, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020-18-51 Sandia Attitude Indicator: Amendment 39-21249; Docket No. FAA-2020-0794; Project Identifier AD-2020-01232-Q.

(a) Effective Date

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] to all persons except those persons to whom it was made immediately effective by Emergency AD 2020-18-51, issued on August 28, 2020, which contains the requirements of this AD.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Sandia attitude indicator (attitude indicator) part number 306171-10 and 306171-20. These attitude indicators may be marked as BendixKing
Model KI-300 or Sandia Model SAI-340A. They may be installed on airplanes certificated in any category.

(d) Subject

Joint Airplane Service Component (JASC) Code: 3420, Attitude and Direction Data System.

(e) Unsafe Condition

This AD was prompted by reports of 54 failed attitude indicators, which produced erroneous attitude data to the pilot and autopilot, if equipped. The FAA is issuing this AD to prevent aeronautical decision-making based on erroneous attitude information, which may result in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Before further flight, revise the limitations section of the existing Airplane Flight Manual for your airplane by inserting a copy of this AD or by making pen and ink changes to add:

   (i) “Operation under Instrument Flight Rules or night Visual Flight Rules is prohibited.”

   (ii) “Coupling the autopilot with Sandia attitude indicator part number 306171-10 or 306171-20 is prohibited. These attitude indicators may be marked as BendixKing Model KI 300 or Sandia Model SAI 340A.”

(2) The action required by paragraph (g)(1) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into
the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417. This authority is not applicable to aircraft being operated under 14 CFR part 119.

(h) Special Flight Permits

Special flight permits are prohibited.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Fort Worth ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-ASWFWACO@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

For further information about this AD, contact: John Felton, Aerospace Engineer, Fort Worth ACO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5171; email john.felton@faa.gov.

Issued on September 4, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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