

inspection program required by this paragraph terminates the requirements of paragraphs (g) and (i) of this AD.

(p) Exceptions to EASA AD 2022–0085 and to EASA AD 2023–0008

(1) The requirements specified in paragraphs (1) and (2) of EASA AD 2022–0085 and of EASA AD 2023–0008 do not apply to this AD.

(2) Paragraph (3) of EASA AD 2022–0085 and of EASA AD 2023–0008 specifies revising “the approved AMP” within 12 months after its effective date, but this AD requires revising the existing maintenance or inspection program, as applicable, within 90 days after the effective date of this AD.

(3) The initial compliance time for doing the tasks specified in paragraph (3) of EASA AD 2022–0085 and of EASA AD 2023–0008 is at the applicable “thresholds” as incorporated by the requirements of paragraph (3) of EASA AD 2022–0085 and of EASA AD 2023–0008, respectively, or within 90 days after the effective date of this AD, whichever occurs later. Where EASA AD 2023–0008 affects the same airworthiness limitations as those in EASA AD 2022–0085, the airworthiness limitations referenced in EASA AD 2023–0008 prevail.

(4) The provisions specified in paragraphs (4) and (5) of EASA AD 2022–0085 and of EASA AD 2023–0008 do not apply to this AD.

(5) This AD does not adopt the “Remarks” section of EASA AD 2022–0085 and of EASA AD 2023–0008.

(q) New Provisions for Alternative Actions and Intervals

After the existing maintenance or inspection program has been revised as required by paragraph (o) of this AD, no alternative actions (e.g., inspections) and intervals are allowed unless they are approved as specified in the provisions of the “Ref. Publications” section of EASA AD 2022–0085 or EASA AD 2023–0008, as applicable.

(r) Additional FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (s) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved previously for AD 2022–09–16 are approved as AMOCs for the corresponding provisions of EASA AD 2021–0140 that are required by paragraph (i) of this AD.

(iii) AMOCs approved previously for AD 2020–20–05 are approved as AMOCs for the

corresponding provisions of EASA AD 2020–0036R1 that are required by paragraph (g) of this AD.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(s) Additional Information

For more information about this AD, contact Dan Rodina, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206–231–3225; email dan.rodina@faa.gov.

(t) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on September 5, 2023.

(i) European Union Aviation Safety Agency (EASA) AD 2022–0085, dated May 12, 2022.

(ii) European Union Aviation Safety Agency (EASA) AD 2023–0008, dated January 16, 2023.

(4) The following service information was approved for IBR on June 30, 2022 (87 FR 31943, May 26, 2022).

(i) European Union Aviation Safety Agency (EASA) AD 2021–0140, dated June 14, 2021.

(ii) [Reserved]

(5) The following service information was approved for IBR on November 19, 2020 (85 FR 65197, October 15, 2020).

(i) European Union Aviation Safety Agency (EASA) AD 2020–0036R1, dated June 24, 2020.

(ii) [Reserved]

(6) For the EASA ADs identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find these EASA ADs on the EASA website at ad.easa.europa.eu.

(7) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(8) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on July 25, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–16166 Filed 7–31–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–0656; Project Identifier MCAI–2022–01433–T; Amendment 39–22498; AD 2023–13–13]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A350–941 and –1041 airplanes. This AD was prompted by reports of a non-full life clearance in the low-pressure hydraulic pipes of the nose landing gear return line, due to two quality escapes. This AD requires replacing the affected aluminum pipes with titanium pipes, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. This AD also prohibits the installation of affected parts. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 5, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 5, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA–2023–0656; 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, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For material incorporated by reference in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this material on the EASA website ad.easa.europa.eu.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For

information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0656.

FOR FURTHER INFORMATION CONTACT: Dat Le, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A350-941 and -1041 airplanes. The NPRM published in the **Federal Register** on March 30, 2023 (88 FR 19021). The NPRM was prompted by AD 2022-0217R1, dated March 1, 2023, issued by EASA, which is the Technical Agent for the Member States of the European Union (EASA AD 2022-0217R1) (also referred to as the MCAI). The MCAI states Airbus received reports from the manufacturer of a non-full life clearance in the low-pressure hydraulic pipes of the nose landing gear return line, due to two separate quality escapes. One quality escape occurred after alodine process application on aluminum pipes, when black spots and stains caused by corrosion pitting were found on inner and outer diameters. In a second quality escape, aluminum pipes were identified with an average ovality value (which measures the maximum and minimum outer diameter of the pipe) above the admissible value. This condition, if not corrected, could lead to a premature rupture in the yellow hydraulic line, which, in case of additional independent system failures, could result in reduced airplane controllability.

In the NPRM, the FAA proposed to require replacing the affected aluminum pipes with titanium pipes, as specified in EASA AD 2022-0217R1. The NPRM also proposed to prohibit the installation of affected parts. The FAA is issuing this AD to address the unsafe condition on these products. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0656.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from an individual and Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

The FAA received an additional comment from Delta Air Lines (Delta). The following presents the comment received on the NPRM and the FAA's response to the comment.

Request for Change in Compliance Time

Delta requested a change to the compliance time for airplanes having an affected part listed in the A350-941 Service Bulletin A350-29-P020, dated July 28, 2022, modification of low pressure tubes S11-12, from before exceeding 6 years since airplane date of manufacture, or within 10 months after the effective date of this revised [EASA] AD to 7,600 flight cycles. Delta expressed Airbus Engineering has determined the impacted pipes, based on test results and analytical calculation, have a maximum life limitation of 7,600 flight cycles. Delta stated that Airbus developed a compliance time to ensure the affected parts were replaced at their 6 year check. However, due to a materials shortage, some affected aircraft did not embody Service Bulletin A350-29-P020, dated July 28, 2022, at their 6 year check and instead, would need to use the 10 months after the effective date timeline. Delta expressed that 10 months after the effective date would likely not align with a required aircraft check and does not follow the Airbus calculated flight-cycle limit. Therefore, Delta stated that a flight-cycle limit of 7,600 flight cycles should either replace the calendar-driven compliance time; or for affected aircraft that already completed the 6 year check the compliance time should be 7,600 flight cycles since date of manufacture.

The FAA considered the recommendations of the manufacturer, the availability of parts and the safety implications, and determined that accomplishing the applicable action prior to the accumulation of 7,000 total

flight cycles, will provide an adequate level of safety. The FAA determined that 7,000 flight cycles is more appropriate than 7,600 flight cycles based on an average fleet usage of 600 to 700 flight cycles a year; this revised compliance time will ensure the unsafe condition is addressed in a timely manner. The FAA has changed this AD to include an additional exception to the EASA AD that will allow for accomplishing the actions at the latest of before exceeding 6 years since airplane date of manufacture, within 10 months after the effective date of this AD or prior to the accumulation of 7,000 flight cycles.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 14 CFR Part 51

EASA AD 2022-0217R1 specifies procedures for replacing the affected aluminum pipes with titanium pipes. EASA AD 2022-0217R1 also prohibits the installation of affected parts.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Costs of Compliance

The FAA estimates that this AD affects 24 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 130 work-hours × \$85 per hour = \$11,050	Up to \$16,500	Up to \$27,550	Up to \$661,200.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) 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.

List of Subjects in 14 CFR Part 39

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

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:

2023–13–13 Airbus SAS: Amendment 39–22498; Docket No. FAA–2023–0656; Project Identifier MCAI–2022–01433–T.

(a) Effective Date

This airworthiness directive (AD) is effective September 5, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies all Airbus SAS Model A350–941 and –1041 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code: 29, Hydraulic Power.

(e) Unsafe Condition

This AD was prompted by reports of a non-life clearance in the low-pressure hydraulic pipes of the nose landing gear return line within the yellow hydraulic line system, due to two quality escapes. The FAA is issuing this AD to address the quality escapes in the manufacture of these pipes. The unsafe condition, if not addressed, could result in premature rupture in the yellow hydraulic line, which, in case of additional independent system failures, could result in reduced airplane controllability.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022–0217R1, dated March 1, 2023 (EASA AD 2022–0217R1).

(h) Exceptions to EASA AD 2022–0217R1

- (1) Where EASA AD 2022–0217R1 refers to its effective date, this AD requires using the effective date of this AD.
- (2) This AD does not adopt the "Remarks" section of EASA AD 2022–0217R1.
- (3) Where EASA AD 2022–0217R1 refers to November 18, 2022 (the effective date of EASA AD 2022–0217), this AD requires using the effective date of this AD.
- (4) Where table (2) of EASA AD 2022–0217R specifies a compliance time of "Before exceeding 6 years since aeroplane date of manufacture, or within 10 months after the effective date of this revised AD, whichever occurs later", this AD requires using "Before exceeding 6 years since airplane date of manufacture, within 10 months after the effective date of this AD, or prior to the accumulation of 7,000 total flight cycles, whichever occurs latest."

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraph (i)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(j) Additional Information

For more information about this AD, contact Dat Le, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022–0217R1, dated March 1, 2023.

(ii) [Reserved]

(3) For EASA AD 2022–0217R1, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this EASA AD on the EASA website: ad.easa.europa.eu.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des

Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on July 7, 2023.

Michael Linegang,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–16235 Filed 7–31–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–0015; Project Identifier AD–2022–01281–T; Amendment 39–22496; AD 2023–13–11]

RIN 2120–AA64

Airworthiness Directives; AVOX Systems Inc. (Formerly Scott Aviation) Oxygen Cylinder and Valve Assemblies; and Oxygen Valve Assemblies

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2022–04–09, which applied to certain AVOX Systems Inc. (formerly Scott Aviation) oxygen cylinder and valve assemblies; and oxygen valve assemblies; installed on but not limited to various transport airplanes. AD 2022–04–09 required an inspection of the oxygen valve assemblies, and oxygen cylinder and valve assemblies, to determine the serial number; for certain assemblies and parts, a detailed inspection of the gap between the bottom of the packing retainer and top of the valve body on the assemblies; and replacement of assemblies having unacceptable gaps. This AD was prompted by a determination that additional assemblies and parts are affected by the unsafe condition. This AD requires an inspection of the oxygen valve assemblies, and oxygen cylinder and valve assemblies, to determine the serial number of the valve, cylinder, and entire assembly; for certain assemblies and parts, a detailed inspection for correct spacing of the gap between the bottom of the packing retainer and top of the valve body on the assemblies and

replacement of assemblies having unacceptable gaps. This AD also limits the installation of affected parts under certain conditions and reporting inspection results and returning certain assemblies to the manufacturer. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 5, 2023.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 5, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA–2023–0015; 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 address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact AVOX Systems Inc., 225 Erie Street, Lancaster, NY 14086; telephone 716–683–5100; website safranaerosystems.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available at regulations.gov under Docket No. FAA–2023–0015.

FOR FURTHER INFORMATION CONTACT: Elizabeth Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email g-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2022–04–09, Amendment 39–21951 (87 FR 10958, February 28, 2022) (AD 2022–04–09). AD 2022–04–09 applied to certain AVOX Systems Inc. (formerly Scott Aviation) oxygen cylinder and valve assemblies, and oxygen valve assemblies, installed on but not limited to various transport airplanes. AD 2022–04–09 was prompted by reports of cylinder and valve assemblies having oxygen leakage from the valve assembly vent hole, caused by the absence of a

guide that maintains appropriate spacing between certain parts. The NPRM published in the **Federal Register** on January 27, 2023 (88 FR 5278). The NPRM was prompted by a determination that additional assemblies and parts are affected by the unsafe condition. In the NPRM, the FAA proposed to continue to require an inspection of the oxygen valve assemblies, and oxygen cylinder and valve assemblies, to determine the serial number of the valve, cylinder, and entire assembly. For assemblies and parts with certain serial numbers, the FAA also proposed to continue to require a detailed inspection for correct spacing of the gap between the bottom of the packing retainer and top of the valve body on the assemblies, and replacement of assemblies having unacceptable gaps. The NPRM also proposed to limit the installation of affected parts under certain conditions and reporting inspection results and returning certain assemblies to the manufacturer. The FAA is issuing this AD to address oxygen leakage from the cylinder and valve assemblies, which could result in decreased or insufficient oxygen supply during a depressurization event; and heating or flow friction, which could cause an ignition event in the valve assembly.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from four commenters, including Atlas Air, Aviation Partners Boeing, FlyPersia Airlines, and SIA Engineering. The following presents the comments received on the NPRM and the FAA's response to each comment.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that the installation of winglets per Supplemental Type Certificate (STC) ST00830SE, STC ST01219SE, STC ST01518SE, and STC ST01920SE does not affect the accomplishment of the manufacturer's service instructions.

The FAA agrees with the commenter that STC ST00830SE, STC ST01219SE, STC ST01518SE, and STC ST01920SE do not affect the accomplishment of the manufacturer's service instructions. Therefore, the installation of STC ST00830SE, STC ST01219SE, STC ST01518SE, and STC ST01920SE do not affect the ability to accomplish the actions required by this AD. The FAA has not changed this AD in this regard.