DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
14 CFR Part 39
[Docket No. FAA-2020-0195; Product Identifier 2019-CE-052-AD; Amendment 39-21031; AD 2020-04-14]
RIN 2120-AA64
Airworthiness Directives; Honda Aircraft Company LLC

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Honda Aircraft Company LLC (Honda) Model HA-420 airplanes. This AD requires inspecting the wheel speed transducer (WST) wiring harness, replacing the wiring harness if necessary, installing wiring hardware, and rerouting the WST wiring harness on both the left and right brake assemblies. This AD also requires revising the Abnormal Procedures section of the airplane flight manual (AFM) and quick reference handbook (QRH). This AD was prompted by reports of damage to the wiring harness due to excessive slack in the wiring harness assembly that allows contact with the main landing gear tire and by the determination that the AFMs and QRHs contain incorrect procedures for anti-skid braking system failures. 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].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].
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.
- **Mail:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- **Hand Delivery:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Honda Aircraft Company LLC, 6430 Ballinger Road, Greensboro, North Carolina 27410; telephone (336) 662-0246; Internet: https://www.hondajet.com. You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0195.

**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-2020-0195; 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 regulatory evaluation, 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: Samuel Kovitch, Aerospace
ingineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia
30337; phone: (404) 474-5570; fax: (404) 474-5605; email: samuel.kovitch@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA received a report of a Honda Model HA-420 airplane losing normal braking during ground operations. Inspections revealed damage to a brake wiring harness for the WST, which was most likely caused by contact with the main landing gear tire. A review of manufacturer type design data and production line assembly instructions revealed that the wiring harness is installed with excessive slack that allows contact with the tire when pulled. Thus, the damage found may occur on all in-service Honda Model HA-420 airplanes.

Further investigation revealed that damage to the wiring harness results in loss of the WST signal, which is interpreted by the digital antiskid control unit (DACU) as either a WST failure or locked wheel condition. The DACU provides locked wheel protection, which commands a full release of normal brakes at speeds greater than 25 knots until the right and left wheel speeds are within 70 percent of each other. Thus, when a WST signal is lost, the DACU commands a full normal brake release until the airplane speed falls below 25 knots. In this scenario, unavailability of the normal brakes is not annunciated to the pilot, because WST signal loss does not trigger the NORMAL BRAKE FAIL red crew alerting system (CAS) message. The pilot is notified via an ANTI-SKID FAIL amber CAS message. Existing AFM procedures for ANTI-SKID FAIL instruct the pilot to apply normal brakes gradually to stop the airplane when the anti-skid system has failed. The current AFM procedures are incorrect and do not caution the pilot that normal
braking may be unavailable when the ANTI-SKID FAIL amber CAS message posts or instruct the pilot to use emergency braking.

This condition, if not addressed, could result in unannunciated loss of normal brakes, reduced directional control during landing deceleration and ground operations, and loss of control of the airplane when applying the brakes. The FAA is issuing this AD to address the unsafe condition on these products.

**Related Service Information under 1 CFR part 51**

The FAA reviewed Pages 3A-178 through 3A-180 from Section 3A—Abnormal Procedures in Honda Aircraft Company Airplane Flight Manual, HondaJet, Effectivity: 42000012 through 42000125, Model HA-420, Part No.: HJ1-29000-003-001, Revision D, dated December 12, 2019; and Pages 3A-178 through 3A-180 from Section 3A—Abnormal Procedures in Honda Aircraft Company Airplane Flight Manual, HondaJet ELITE, Effectivity: 42000011, 42000126 and after, HondaJet APMG, Effectivity: 42000012 through 42000125 with SB-420-55-001, Model HA-420, Part No.: HJ1-29001-003-001, Revision B1, dated December 12, 2019. For the specific airplane serial numbers specified on each document, these pages are revised pages to the AFMs that provide procedures for the flight crew when the braking anti-skid system fails.

The FAA also reviewed Page A-126 and Page A-127 from HondaJet, Model HA-420, HJ1-29000-007-001, Volume 1 of 2, Effectivity 42000012 through 42000125, Quick Reference Handbook, Normal Procedures, Revision D, dated December 12, 2019; Page A-124 and Page A-125 from HondaJet, Model HA-420, HJ1-29001-007-001, HondaJet ELITE, Effectivity: 42000011, 42000126 and after, HondaJet APMG, Effectivity: 42000012 through 42000125 with SB-420-55-001, Quick Reference Handbook, Revision B, dated December 12, 2019. For the specific airplane serial numbers specified on each document, these pages are revised pages to the QRHs that provide procedures for the flight crew when the braking anti-skid system fails.
The FAA also reviewed Honda Aircraft Company Service Bulletin Alert SB-420-32-008, Revision B, dated November 16, 2019 (Honda SB-420-32-008, Revision B). This service document contains procedures for inspecting the condition of the WST wiring harness, replacing the wiring harness if necessary, installing wiring hardware, and rerouting the WST wiring harness on both the left and right brake assemblies.

This service information 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.

**FAA’s Determination**

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

**AD Requirements**

This AD requires replacing the revised pages in the AFMs and QRHs applicable to your airplane. This AD also requires accomplishing the actions specified in Honda SB-420-32-008, Revision B described previously.

**Interim Action**

The FAA considers this AD, which addresses anti-skid braking system failures, an interim action. Honda is developing software changes to revise the WST logic from the ANTI-SKID FAIL CAS to the NORMAL BRAKES FAIL CAS. Once this action is developed, approved, and available, the FAA may consider additional rulemaking.

**FAA’s Justification and Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the damage to WST wiring harness is possible on all
affected airplanes due to slack in the harness by type design and may worsen rapidly after each landing cycle and result in loss of normal braking if left uncorrected. Additionally, incorrect AFM and QRH procedures instruct the pilot to use normal braking when it is unavailable instead of using emergency braking. The FAA has determined that certain corrective action is necessary before further flight to address the wiring harness damage that results in loss of normal braking and to provide pilot notification and guidance on what to expect and how to react to the ANTI-SKID FAIL CAS message coupled with the loss of normal brakes. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reasons 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-2020-0195 and Product Identifier 2019-CE-052-AD at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

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 the FAA receives about this final rule.
Costs of Compliance

The FAA estimates that this AD affects 116 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

### Estimated costs

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revise the Abnormal Procedures section of the AFM.</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>Not applicable</td>
<td>$85</td>
<td>$9,860</td>
</tr>
<tr>
<td>Revise the QRH</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>Not applicable</td>
<td>$85</td>
<td>$9,860</td>
</tr>
<tr>
<td>Inspect WST wiring harness, install hardware and reroute the WST wiring harness</td>
<td>7.5 work-hours X $85 per hour = $637.50</td>
<td>Not applicable</td>
<td>$637.50</td>
<td>$73,950</td>
</tr>
</tbody>
</table>
The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the inspection. The FAA has no way of determining the number of aircraft that might need these replacements:

**On-condition costs**

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace the WST wiring harness</td>
<td>*See note below</td>
<td>$389</td>
<td>$389</td>
</tr>
</tbody>
</table>

*Note: Since all operators are required to install wiring hardware and reroute the WST wiring harness, there is no additional labor cost associated with replacing the WST wiring harness.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

**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: Aviati...
This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

**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.

**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.

**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, 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):

2020-04-14 Honda Aircraft Company LLC: Amendment 39-21031; Docket No. FAA-2020-0195; Product Identifier 2019-CE-052-AD.

(a) Effective Date

   This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

   None.

(c) Applicability

   This AD applies to Honda Aircraft Company LLC Model HA-420 airplanes, serial numbers (S/Ns) 42000011 through 42000184, certificated in any category.

(d) Subject

   Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Unsafe Condition

   This AD was prompted by reports of damage to the wheel speed transducer wiring harness due to excessive slack in the wiring harness assembly that allows contact with the main landing gear tire and the determination that the airplane flight manuals (AFMs) and quick reference handbooks (QRHs) contain incorrect procedures for anti-skid braking system failures. The FAA is issuing this AD to prevent un-annunciated loss
of normal brakes and reduced directional control during landing deceleration and ground operations, which could lead to a runway excursion.

(f) Compliance

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

(g) Revise the Airplane Flight Manuals and Quick Reference Handbooks

Before further flight after [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), revise your AFM and your QRH as specified below.

1) For airplanes with S/Ns 42000012 through 42000125 without SB-420-55-001:

2) For airplanes with S/Ns 42000012 through 42000125 without SB-420-55-001:

3) For airplanes with S/Ns 42000011, 42000012 through 42000125 with SB-420-55-001, and 42000126 through 42000184:

4) For airplanes with S/Ns 42000011, 42000012 through 42000125 with SB-420-55-001, and 42000126 through 42000184:
(h) Corrective Actions for the Wheel Speed Transducer Wiring Harness

Within 90 days after [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), do the actions specified in steps 1 through 7 of the Accomplishment Instructions in Honda Aircraft Company Service Bulletin Alert SB-420-32-008, Revision B, dated November 16, 2019.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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.

(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.

(3) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (i)(3)(i) and (ii) of this AD apply.

   (i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with this AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

   (ii) Steps not labeled 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 RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.
(j) Related Information

For more information about this AD, contact Samuel Kovitch, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5570; fax: (404) 474-5605; email: samuel.kovitch@faa.gov.

(k) 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 the AD specifies otherwise.


(3) For service information identified in this AD, contact Honda Aircraft Company LLC, 6430 Ballinger Road, Greensboro, North Carolina 27410; telephone (336) 662-0246; Internet: https://www.hondajet.com.

(4) You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view the 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: fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Kansas City, Missouri, on March 16, 2020.

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

[FR Doc. 2020-05891 Filed: 3/19/2020 8:45 am; Publication Date: 3/20/2020]