FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/

DATE: December 23, 2011
AD #: 2011-27-51

Emergency airworthiness directive (AD) 2011-27-51 is sent to owners and operators of Hawker Beechcraft Corporation Models 1900, 1900C, and 1900D airplanes.

Background

This emergency AD was prompted by the following reported problems of the elevator bob-weight (stabilizer weight) traveling past its stop bolt, which allowed the attaching linkage to move over-center, reducing nose down elevator control.

In one instance, a Model 1900C airplane experienced jammed elevators on take-off after a loud bang was heard in the cockpit shortly after rotation. The flight crew noticed that they were unable to move the control column to a nose down position. Elevator movement was only available between neutral to full deflection nose up. The airplane pitch was controlled with the elevator trim and the airplane returned to base, landing safely. Upon inspection, mechanics noticed that the bob-weight interconnect link, part number (p/n) 101-524112-1, was upside down and trailing FORWARD from the control column weld assembly instead of trailing AFT as it should. With the link travel over-center, the geometry of the bob-weight was completely changed relative to its stop. This condition made the bob-weight hit its stop mid-travel, where it should actually have positive clearance from its stop at the full nose down position. The elevator could now only move between nose full up and neutral.

In another instance, on a Model 1900D airplane, during the takeoff roll the elevator controls felt heavy and appeared to be jammed/sticking, requiring more force than usual to rotate. The crew then aborted the takeoff run. Subsequent investigation revealed that the elevator bob-weight attaching link assembly traveled over-center, thus preventing full nose down elevator control authority.

The Model 1900 airplanes have the same type design and thus are subject to this unsafe condition.

This condition, if not corrected, could result in reduced nose down elevator control and loss of airplane control.

Relevant Service Information

We reviewed Hawker Beechcraft Corporation Safety Communiqué #321, dated December 2011. The service information provides information to assist in doing the actions of this AD.

FAA's Determination

We are issuing this AD because we 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 inspecting the elevator bob-weight and attaching linkage for correct installation and for damage or deformation to the weight and/or weight bracket with corrective action as necessary.

Interim Action

We consider this AD interim action to address the immediate unsafe condition affecting these airplanes. We may take further AD action at a later date.

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.

We are 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.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2011-27-51 Hawker Beechcraft Corporation: Directorate Identifier 2011-CE-044-AD.

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following Hawker Beechcraft Corporation airplanes, certificated in any category:

	Models	**Serial Numbers**
(1)	1900	UA-3
(2)	1900C	UB-1 through UB-74 and UC-1 through UC-174
(3)	1900C (Military)	UD-1 through UD-6
(4)	1900D	UE-1 through UE-439

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Unsafe Condition

This AD was prompted by reports of the elevator bob-weight (stabilizer weight) traveling past its stop bolt, which allowed the attaching linkage to move over-center. We are issuing this AD to detect and correct conditions that could result in reduced nose down elevator control and loss of control of the airplane.

(f) Compliance

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

(g) Inspections

Within the next 10 hours time-in-service after receipt of this emergency AD, inspect the elevator bob-weight installation for the following conditions. Use Hawker Beechcraft Corporation Safety Communiqué #321, dated December 2011.

NOTE: The term "nose down" corresponds to the airplane nose down, down elevator, and control column forward position as used in this AD and Hawker Beechcraft Corporation Safety Communiqué # 321, dated December 2011.

(1) The correct positioning of the elevator control column link assembly, (part number (P/N) 101-524112-1 (1900/1900C) or P/N 101-524112-5 (1900D)). With the elevator control column in the full nose down position (control column forward), the link must form an angle between the link attachment point at the control column and the bell crank pivot point as shown in the Hawker Beechcraft Corporation Safety Communiqué photo labeled "Correct Link Orientation." The link should be trailing AFT from the control column assembly.

(2) The clearance of the bob-weight stop bolt. With the elevator control column in the full nose down position (control column forward), the stabilizer weight stop bolt must have positive clearance with the face of the stabilizer weight.

(3) The condition of the bob-weight and alignment with the stop bolt. Inspect for evidence of scraping along either side of the weight by the stop bolt. With side pressure applied by hand to the stabilizer weight, no part of the stop bolt should protrude beyond the face of the stabilizer weight on either edge.

(4) The condition of the bob-weight support bracket. Inspect for evidence of damage or deformation by contact with the weight assembly.

(h) Corrective Actions

If any discrepancies are found in the inspections required in paragraph (g) of this AD, before further flight, do the following:

(1) Contact Hawker Beechcraft Corporation Technical Support by telephone at (800) 429-5372 or (316) 676-3140 to obtain FAA-approved repair or replacement instructions.

(2) Incorporate the repair or replacement specified in the FAA-approved instructions.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita Aircraft Certification Office (ACO), 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 ACO, send it to the attention of the person identified in the Related Information section 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.

(j) Related Information

(1) For further information about this AD, contact one of the following:

(i) Paul DeVore, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4142; fax: (316) 946-4107; email: paul.devore@faa.gov; or

(ii) Don Ristow, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4120; fax: (316) 946-4107; email: donald.ristow@faa.gov.

(2) For copies of the service information referenced in this AD, contact Hawker Beechcraft Corporation at P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140; Internet: http://pubs.hawkerbeechcraft.com.

(3) You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on December 23, 2011.

John Colomy,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.