AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Beechcraft 400 Series Aeroplanes

AD/BEECH 400/27 Generator Control Unit 10/2006

Applicability: Raytheon (Beech) Model aeroplanes as follows:

400 series, with serial numbers (S/N) RJ-1 through RJ-65 inclusive, on which kit part number (P/N) 128-3004-1 P or 128-3004-3 P has been incorporated (Lucas Aerospace/Goodrich Direct Current (DC) Starter Generator).

400A series, with S/N RK-1 through RK-23 inclusive, on which kit P/N 128-3004-1 P or 128-3004-3 P has been incorporated (Lucas Aerospace/Goodrich DC Starter Generator).

Requirement:

1. Review the aeroplane logbook, in accordance with the Accomplishment instructions of Raytheon Service Bulletin (SB) SB 24-3713, dated November 2005, to determine whether generator control unit (GCU) installation kit, P/N 128-3001-1 P or 128-3001-3 P, is installed.

2. If, as a result of the Requirement 1 determination, a GCU installation kit P/N 128-3001-1 P or 128-3001-3 P is not found to be installed or if the kit P/N cannot be conclusively determined, replace the Shinko GCUs with new Lucas Aerospace/Goodrich GCUs (installation kit P/N 128-3001-1 P or 128-3001-3 P), in accordance with SB 24-3713.

3. If, as a result of the Requirement 1 determination, any GCU installation kit, P/N 128-3001-1 P or 128-3001-3 P is found installed, inspect to determine the P/ N of both GCUs, in accordance with SB 24-3713 and carry out Requirement 4 or 5 as applicable.

4. **Both GCUs have P/N 45AS88801-19 or -25 -** Inspect to determine the P/N of both current sense transformers on the lower inboard quadrant of the left-hand and right-hand engine inlets, in accordance with SB 24-3713.

   a. If both current sense transformers have P/N 45AS88801-21, no further action is required by this Directive.

   b. If either current sense transformer is not identified with P/N 45AS88801-21, replace the current sense transformer with a new transformer, P/N 45AS88801-21, in accordance with SB 24-3713.

Beechcraft 400 Series Aeroplanes

AD/BEECH 400/27 (continued)

5. **Either GCU does not have P/N 45AS88801-19 or -25 -** Replace the GCU with a new GCU, P/N 45AS88801-19 or -25, and inspect to determine the P/N of both current sense transformers on the lower in-board quadrant of the left-hand and right-hand engine inlets, in accordance with SB 24-3713.

   a. If both current sense transformers have P/N 45AS88801-21, no further action is required by this Directive.

   b. If either current sense transformer is not identified with P/N 45AS88801-21, replace the current sense transformer with a new transformer, P/N 45AS88801-21, in accordance with SB 24-3713.

Later revisions of the above SB, approved by the United States Federal Aviation Administration (FAA) as an Alternate Method of Compliance (AMOC) to FAA AD 2006-15-16, are considered acceptable for compliance with the equivalent Requirements of this Directive.

Note: FAA AD 2006-15-16 Amdt 39-14697 refers.

Compliance: For Requirements 1, 2, 3, 4 and 5 - Within 200 hours time in service or 6 months after the effective date of this Directive, whichever occurs first.

This Airworthiness Directive becomes effective on 28 September 2006.

Background: The FAA has reports of over-voltage conditions of the direct current (DC) starter generator. This Directive requires, among other actions, reviewing the aeroplane logbook to determine whether certain generator control unit (GCU) installation kits are installed and, if necessary, replacing any incorrect GCU.

The Directive is issued to prevent such over-voltage conditions due to the incompatibility between certain GCUs, which could result in the loss of normal electrical power, damage to some electrical components, or blown fuses during flight, together with a possible unrecoverable loss of some or all essential equipment.

James Coyne
Delegate of the Civil Aviation Safety Authority

14 August 2006