Beechcraft 300 Series Aeroplanes

# AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD)AD/BEECH 300/15 and issues the following AD under subregulation 39.1 (1) of CAR 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.

## AD/BEECH 300/15 Amdt 1 — Aircraft Flight Manual, Flight into Icing Conditions — 7/2000

Applicability: Models 300 and B300 all serial numbers.

Requirement: Revise:

1. the **Limitations Section** of the aircraft's Aircraft Flight Manual (AFM) by incorporating the following:

**"WARNING"**

Severe icing may result from environmental conditions outside of those for which the aircraft is certificated.

Flight in freezing rain, freezing drizzle, or mixed icing conditions (super cooled liquid water and ice crystals) may result in:

- ice build-up on protected surfaces and exceed the capability of the ice protection system, or
- ice forming aft of the protected surfaces.

This ice may not be shed using the ice protection systems, and may seriously degrade the performance and controllability of the aircraft.

During flight, severe icing conditions that exceed those for which the aircraft is certificated shall be determined by the visual cues described below. If one or more of these visual cues exists, immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the icing conditions. The cues are:

- unusually extensive ice accumulation on the airframe and windscreen in areas not normally observed to collect ice, and/or
- accumulation of ice on the upper surface of the wing aft of the protected area, and/or
- accumulation of ice on the engine nacelles and propeller spinners farther aft than normally observed.

Since the auto-pilot, when installed and operating, may mask tactile cues that indicate adverse changes in handling characteristics, use of the auto-pilot is prohibited when any of the visual cues specified above exist, or when unusual lateral trim requirements or auto-pilot trim warnings are encountered while the aircraft is in icing conditions.

All wing icing inspection lights must be operative prior to flight into known or forecast icing conditions at night. **This direction supersedes any relief provided by any Minimum Equipment List**

2. the **Normal Procedures Section** of the approved AFM by incorporating the following:

## THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCIVE TO SEVERE IN-FLIGHT ICING:

- Visible rain at temperatures below 0 degrees Celsius ambient air temperature;
- Droplets that splash or splatter on impact at temperatures below 0 degrees Celsius ambient air temperature.

## PROCEDURES FOR EXITING A SEVERE ICING ENVIRONMENT: *(These procedures are applicable to all flight phases from take-off to landing.)*

Monitor the ambient air temperature.

While severe icing may form at temperatures as cold as -18 degrees Celsius, increased vigilance is warranted at temperatures around freezing when visible moisture is present.

If the visual cues which are specified in the Limitations Section of the AFM for identifying severe icing conditions are observed, accomplish the following:

- Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the aircraft has been certificated.

- Avoid abrupt and excessive manoeuvring that may exacerbate control difficulties.

- Do not engage the autopilot.

- If the autopilot had previously been engaged, hold the control wheel firmly and disengage the autopilot.

- If an unusual roll response or un-commanded roll control movement is observed, reduce the angle-of-attack.

- Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.

- If the flaps are extended, do not retract them until the airframe is clear of ice.

- Report these weather conditions to Air Traffic Control.

*Note 1: Certificate of Registration holders should initiate action to ensure notification of this change is conveyed to any person who may operate their aircraft as pilot in command.*

*Note 2: FAA AD 98-04-24 refers.*

Certification for accomplishment of this Directive may be carried out:

a. after a copy of this Directive is included in the appropriate sections of the aircraft's AFM; and

b. may be carried out at a minimum, by the holder of a private pilot's licence.

Compliance: Within 30 days after the effective date of this Amendment.

This Amendment becomes effective on 13 July 2000.

Background: This Directive is issued to minimise the potential hazards associated with operating the aircraft in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions.

Amendment 1 is raised to correct a word processing error in the initial issue.

The original issue of this Airworthiness Directive became effective on 23 March 2000.

Bernard Malcolm Hole
Delegate of the Civil Aviation Safety Authority

31 May 2000

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The above AD is notified in the *Commonwealth of Australia Gazette* on 14 June 2000.