

Airworthiness Directive Schedule

Aeroplanes

Aerostar AS600 Series

27 November 2003

The date above indicates the amendment date of this schedule.

New or amended ADs are shown with an asterisk *

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DCA/AS600/1 Electrical System Load Limitations - Modification

Applicability: All model 600 aircraft with electrical attitude and directional gyros and 70 amp alternators installed

Requirement: FAA AD 74-25-02

Compliance: By 31 January 1975

Note: A copy of the reference document may be obtained from the Director

DCA/AS600/2 Inboard Flap Track - Inspection and Modification

Applicability: Model 600 S/N 60-0001-XXXX through 60-0056-XXXX and 60-XXXX-057 through 60-XXXX-087

Requirement: Aerostar SB 600-45

Compliance: 1. Item I of SB 600-45 before further flight
2. Item II of SB 600-45 within the next 100 hours TIS

Effective Date: 21 April 1975

Note: Requirement notified to registered owners on effective date

DCA/AS600/3A Main Cabin Door Latch Assembly - Modification

Applicability: All model 600

Requirement: Modify per Aerostar SB 600-35 and SB 600-61 (FAA AD 79-18-10 refers)

Compliance: By 12 November 1979

Effective Date: DCA/AS600/3 - 1 February 1977
DCA/AS600/3A - 12 October 1979

DCA/AS600/4 Main Wheel Brake Disc Assembly - Inspection

Applicability: Model 600 series with Cleveland brake discs P/N 164-50 or P/N 164-50F

Requirement: Inspect, and if necessary replace, in accordance with Aerostar SB 600-68

Compliance: At next periodic inspection and thereafter at intervals not exceeding 50 hours TIS

Effective Date: 31 October 1977

DCA/AS600/5 Low Fuel Warning - Modification

Applicability: Model 600 series up to and including airframe sequence number 0474

Requirement: Aerostar SB 600-71 (FAA AD 77-26-04 refers)

Compliance: Within the next 100 hours TIS or 90 days, whichever is the sooner

Effective Date: 17 February 1978

DCA/AS600/6 Aileron Hinge - Modification

Applicability: Model 600 series up to and including airframe sequence number 0499

Requirement: Modify per Piper Aerostar SB 600-73

Compliance: Within the next 100 hours TIS

Effective Date: 9 June 1978

DCA/AS600/7 Fuel Quantity Selector Switch - Inspection

- Applicability:** Model 600 series with airframe sequence number 0150 through 0520
- Requirement:** Inspect fuel indicating system for improper wiring or indexing per Piper Aerostar SB 600-76 (FAA AD 78-18-05 refers)
- Compliance:** Within the next 10 hours TIS
- Effective Date:** 19 July 1978

DCA/AS600/8D MLG Torque Links - Inspection and Replacement

- Applicability:** Model 600 S/N 60-0001-003 through 60-0933-8161262 not fitted with improved design MLG torque links per Aerostar Aircraft Corporation SB 746C.
- Requirement:** To prevent loss of directional control during ground operation due to torque link failure, accomplish either of the following:-
1. Replace the existing MLG torque links with improved design torque links per SB 746C Part 2.
 2. Dye penetrant inspect the MLG torque links per SB 746C, Part 1. If cracks are found replace the cracked torque links with improved design torque links per SB 746C Part 2, before further flight.
- (FAA AD 93-13-08 refers)
- Compliance:**
1. Within next 100 hours TIS.
 2. Within next 100 hours TIS and thereafter at intervals not to exceed 100 hours TIS.
- Effective Date:** DCA/AS600/8C 24 July 1992
DCA/AS600/8D 3 September 1993

DCA/AS600/9 Fuel Caps - Inspection and Leak Test

- Applicability:** All model 600 series
- Requirement:**
1. Inspect fuel filler cap installation per Piper Aerostar SB 600-77 Part 1.
 2. Accomplish leak test per Piper Aerostar SB 600-77 Part II
- (FAA AD 79-01-05 refers)
- Compliance:** Inspection - Within next 10 days, unless already accomplished
Test - Within next 30 days and thereafter at intervals not exceeding one year
- Effective Date:** 26 January 1979

DCA/AS600/10 Fuel Quantity - Placards

- Applicability:** All model 600 series
- Requirement:** Install fuel system placards per Piper Aerostar SB 600-79 (FAA AD 79-01-05 refers)
- Compliance:** Within next 30 days
- Effective Date:** 26 January 1979

DCA/AS600/11 Engine Nacelle - Inspection and Modification

- Applicability:** All model 600 series up to and including airframe sequence number 0659
- Requirement:** Inspect and modify per Piper Aerostar SB 600-80 Parts I and II respectively (FAA AD 79-08-05 refers)
- Compliance:** Inspection - within next 10 hours TIS and thereafter prior to each flight, until modified
Modification - By 31 August 1979
- Effective Date:** 30 April 1979
- Note: Requirement notified to registered owners on effective date*

DCA/AS600/12 Fuel Gauges - Modification

- Applicability:** All model 600 series with airframe sequence number 0001 through 0674
- Requirement:** Embody fuel gauge installation per Piper SB 600-81 (FAA AD 79-01-05 refers)
- Compliance:** By 31 December 1979
- Effective Date:** 9 November 1979

DCA/AS600/13B Empennage Attach Fittings - Inspection and Replacement

- Applicability:** All model 600
- Requirement:** 1. Inspect horizontal and vertical stabiliser attach fittings per Part 1A of Piper SB 600-88A
2. Replace fittings per Piper kit SB 600-88 and embody new fasteners per Piper kit SB 600-88A (FAA AD 809-19-14 refers)
- Compliance:** 1. Inspection - Within the next 100 hours TIS unless already accomplished and thereafter at intervals not exceeding 12 months until Piper Kits SB 600-88 and -88A embodied
2. Replacement -
(a) Before further flight if any crack found extends into web area, or if more than three cracks found in flange area.
(b) Within next 200 hours TIS or 180 days whichever is the sooner following discovery of three or less cracks in flanges but not extending into web area of any one fitting
- Effective Date:** DCA/AS600/13A - 24 October 1980
DCA/AS600/13B - 13 December 1985

DCA/AS600/14 Engine Nacelle - Modification

- Applicability:** All model 600 series with airframe sequence number 0001 through 0799
- Requirement:** Modify nacelle fairings per Piper SB 600-83 (FAA AD 80-12-14 refers)
- Compliance:** Within the next 300 hours TIS or by 30 November 1980 whichever is the sooner
- Effective Date:** 15 August 1980

- DCA/AS600/15A Operating Limitations - Aft CG and Placard**
- Applicability:** All model 600
- Requirement:** To ensure controllability during power-on stalls, accomplish the following:
1. Limit aft CG to 166.00 inches and operate aircraft per following placard which is to be installed in full view of pilot and reads in 0.10 inch minimum height letters:
`USE OF FLAPS PROHIBITED FOR ALL OPERATIONS. TAKE-OFF AND LANDING DISTANCES WILL BE INCREASED WITHOUT FLAPS. REFER TO FLIGHT MANUAL FOR PERFORMANCE INFORMATION AND APPROACH SPEEDS', or
 2. Limit aft CG to 163.00 inches, or
 3. Install Piper kit 764 969V per Piper SB 770
(FAA AD 83-14-07 R1 refers)
- Compliance:** Within the next 25 hours TIS
- Effective Date:** DCA/AS600/15 - 5 August 1983
DCA/AS600/15A - 7 October 1983
- DCA/AS600/16 Engine Exhaust System - Inspection**
- Applicability:** Model 600, S/N 60-0001-003 through 60-0933-8161262
- Requirement:** To prevent exhaust system failure inspect per Piper SB 818. Renew defective parts before further flight
(FAA AD 87-07-09 refers)
- Compliance:** Within the next 50 hours TIS
- Effective Date:** 22 May 1987
- DCA/AS600/17 Cabin Door - Inspection and Modification**
- Applicability:** All model 600
- Requirement:** To prevent upper cabin door opening in flight, accomplish the following:
1. Inspect door for correct rigging per Piper Maintenance Manual (P/N 761 732) Rev. IR 860920. Rectify discrepancies before further flight
 2. Modify latching system per Piper SL 980
 3. Install placards per Piper SB 600-74
(FAA AD 89-03-04 refers)
- Compliance:** Within the next 100 hours TIS
- Effective Date:** 16 June 1989
- DCA/AS600/18 Structure - Inspection**
- Applicability:** Model 600, S/N 60-0130-057 through 60-0941-8161263
- Requirement:** To preclude possible loss of designed structural integrity due to corrosion inspect per Piper SB 903. Any rectification required to be accomplished as prescribed before further flight
- Compliance:** Within next two months and thereafter at intervals not to exceed twelve months
- Effective Date:** 11 August 1989

DCA/AS600/19A Engine Tail Pipe Installation - Inspection and Modification

Applicability: Model 600, S/N 60-0001-003 through 60-0933-8161262

Requirement: To preclude possible heat damage to structure, systems and controls, or in flight fire, inspect and modify installation per Piper SB 920 Parts I and II (FAA AD 90-01-02 refers)

Compliance: Inspection - At intervals not exceeding 25 hours TIS until modified and thereafter at intervals not exceeding 50 hours TIS
Modification - Within the next 100 hours TIS or by 31 March 1990 whichever is the sooner

Effective Date: DCA/AS600/19 - 15 December 1989
DCA/AS600/19A - 2 March 1990

DCA/AS600/20A NLG Drag Brace Link Assembly - Replacement

Applicability: Model 600 S/N 60-0001-003 through 60-0608-7961195 converted to Wiebel NLG, and S/N 60-0614-7961196 through 60-0933-8164262.

Requirement: To prevent failure of the NLG caused by frozen moisture in the over-centre release system cylinder, replace the existing NLG drag link assembly per Aerostar SB 600-128. (FAA AD 94-15-13 refers)

Compliance: Within next 100 hours TIS.

Effective Date: DCA/AS600/20 - 28 August 1992
DCA/AS600/20A - 30 September 1994

DCA/AS600/21 Fuselage Horizontal Stabiliser Attach Fittings - Inspection

Applicability: Model 600 S/N 60-0001-003 through 60-0933-8161262.

Requirement: To prevent the fuselage horizontal stabiliser from separating from the aircraft because of cracked attach fittings, accomplish the following:-

Inspect the stabiliser attach fittings per Aerostar SB 600-130. Replace any fitting found cracked before further flight. (FAA AD 95-23-11 refers)

Compliance: Within next 25 hours TIS or 2 months, whichever is the sooner, and thereafter at intervals not to exceed 12 months.

Effective Date: 19 January 1996

DCA/AS600/22 Severe Icing Conditions - Flight Manual Revision

Applicability: Models PA-60-600 (Aerostar Model 600), PA-60-601, PA-60-601P, PA-60-602P, and PA-60-700P.

Requirement: 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), incorporate the following into the Aircraft Flight Manual (AFM):-

1. Limitations Section of the Aircraft Flight Manual

“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 (supercooled liquid water and ice crystals) may result in ice build-up on protected surfaces exceeding the capability of the ice protection system, or may result in 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 following visual cues. 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.
 - Unusually extensive ice accumulation on the airframe and windshield in areas not normally observed to collect ice.
 - Accumulation of ice on the upper surface of the wing aft of the protected area.
 - Accumulation of ice on the engine nacelles and propeller spinners farther aft than normally observed.
- Since the autopilot, when installed and operating, may mask tactile cues that indicate adverse changes in handling characteristics, use of the autopilot is prohibited when any of the visual cues specified above exist, or when unusual lateral trim requirements or autopilot 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 supersedes any relief provided by the Master Minimum Equipment List (MMEL).”

2. Normal Procedures Section of the Aircraft Flight Manual

“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 THE SEVERE ICING ENVIRONMENT:

These procedures are applicable to all flight phases from takeoff 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 with visible moisture present. If the visual cues 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 is engaged, hold the control wheel firmly and disengage the autopilot.
- If an unusual roll response or uncommanded 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: This may be accomplished by inserting a copy of this AD in the AFM or by incorporating a manufacturer's flight manual revision that contains the wording per this AD.

3. Flight Crew Notification

Operators must ensure that flight crew are aware of the flight manual revision.
(FAA AD 98-04-23 refers)

Compliance: By 10 May 1998

Effective Date: 10 April 1998

DCA/AS600/23 Wing Upper Spar Cap - Inspection

Applicability: Models PA-60-600 (Aerostar Model 600), PA-60-601, PA-60-601P, PA-60-602P and PA-60-700P.

Requirement: To detect and correct fatigue cracking of the wing upper spar cap, which could result in structural failure of the wing spar to the point of failure, accomplish the following:-

Inspect the forward face of each wing's 55-percent upper spar cap for cracks above the main landing gear fitting in the top of the wheel well. Accomplish this inspection per Aerostar SB600-132. The initial inspection must be accomplished using dye penetrant methods and all subsequent inspections may be either visual or dye penetrant inspections.

If any crack(s) is/are found during, prior to further flight, accomplish either of the following:-

- (a) Replace the upper spar cap per the applicable maintenance manual, and continue to repetitively inspect as required by this AD; or
- (b) Obtain a repair scheme from the manufacturer, incorporate this scheme; and continue to repetitively inspect as required by this AD, unless specified differently in the instructions to the repair scheme.
(FAA AD 98-24-23 refers)

Compliance: Within next 100 hours TIS and thereafter at intervals not to exceed 100 hours TIS.

Effective Date: 12 March 1999

DCA/AS600/24 Main Landing Gear Lower Side Brace Assemblies - Replacement

Applicability: Models PA-60-600 (Aerostar 600), PA-60-601 (Aerostar 601), PA-60-601P (Aerostar 601P), PA-60-602P (Aerostar 602P), and PA-60-700P (Aerostar 700P), S/N 1 through 1026.

Requirement: To prevent failure of the main landing gear lower side brace, accomplish the following:-

1. Replace both main landing gear lower side brace assemblies with Aerostar P/N 400084-001 lower side brace assemblies per Aerostar SB600-134A and the Aerostar Maintenance Manual.
2. Do not install on any affected aircraft, main landing gear lower side brace assemblies that are not P/N 400084-001.
(FAA AD 2001-08-10 refers)

Compliance: 1. Within next 50 hours TIS.

2. From 31 May 2001

Effective Date: 31 May 2001

*** DCA/AS600/25 Auxiliary Fuel Tank Transfer Pumps - Inspection**

Applicability: Models PA-60-600, PA-60-601, PA-60-601P, PA-60-602P and PA-60-700P that have been modified to incorporate STC SA1608NM (Machen Inc. Kit No. 76-1, Auxiliary Fuel Tank).

Requirement: To detect and correct leaks in the auxiliary fuel transfer pumps, which could result in fire or explosion in the cargo/passenger compartment, accomplish the following:-

Inspect all auxiliary fuel tank transfer pumps for leaking, seeping, and any signs of staining per MACHEN SB 76-009, dated August 1, 2003. Replace before further flight, any auxiliary fuel transfer pump that is leaking, seeping, or has any signs of staining. (FAA AD 2003-22-01 refers)

Compliance: Within next 10 hours TIS and thereafter at intervals not to exceed 50 hours TIS.

Effective Date: 27 November 2003