

# Airworthiness Directive Schedule

## Aeroplanes

### Cessna 425

27 April 2006

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- Notes**
1. This AD schedule is applicable to Cessna 425 series aircraft manufactured under FAA Type Certificate No. A7CE.
  2. The Federal Aviation Administration (FAA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these aircraft.  
  
State of Design ADs can be obtained directly from the FAA website at: [Dynamic Regulatory System \(faa.gov\)](http://www.faa.gov)
  3. The date above indicates the amendment date of this schedule.
  4. New or amended ADs are shown with an asterisk \*

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**\* DCA/CESS425/1 Windshield Installation - Inspection**

**Applicability:** Model 425 aircraft, S/Ns 425-0002 through 425-0177

**Requirement:** To prevent cracking and possible loss of the windshield inspect the windshield attachment bolt holes and rework as necessary per Cessna Service Information Letters ME83-33 dated 30 September 1983 & ME83-33 revision 1, dated 2 December 1983, or PJ83-18 dated 30 September 1983 and PJ83-18 revision 1, dated 23 November 1983.

(FAA AD 84-03-04 refers)

**Compliance:** Within the next 50 hours TIS unless already accomplished.

**Effective Date:** 27 April 2006

**\* DCA/CESS425/2 Nose Landing Gear Actuator Rod - Replacement**

**Applicability:** Model 425 aircraft, S/Ns 425-0002 through 425-0190.

**Requirement:** To prevent collapse of the nose landing gear replace per Cessna Service Information Letter PJ84-10, dated 2 March 1984.

(FAA AD 84-20-02 refers)

**Compliance:** Within the next 200 hours TIS, unless already accomplished.

**Effective Date:** 27 April 2006

**\* DCA/CESS425/3 Spar Attach Bolt Retaining Nuts - Replacement**

**Applicability:** Models 425 aircraft, S/Ns 425-0002 through 425-0236.

**Requirement:** To prevent failure of the horizontal stabilizer front spar attachments, replace the left and right horizontal stabilizer front spar attach bolt retaining nuts P/N NAS1291-8, per the instructions in Cessna Service Bulletin No. CQB85-25 revision 1.

(FAA AD 85-25-11 refers)

**Compliance:** Within the next 10 hours TIS, unless already accomplished.

**Effective Date:** 27 April 2006

**\* DCA/CESS425/4 Spar Upper Cap – Inspection and Modification**

**Applicability:** Model 425 aircraft, S/Ns 425-0002 through 425-0236.

**Requirement:** To prevent wing failure caused by excessive wing spar cracking, fluorescent penetrant inspect both the left and right wing front spar upper caps for cracks between the main landing gear actuating cylinder attachment and the front spar wing attach fittings, per Cessna Service Bulletin CQB91-8R1 or Cessna Service Bulletin MEB91-7R1, as applicable.

If a crack is found (regardless of length) that is not parallel (inboard - outboard) to the top of the spar cap, obtain a repair scheme from the manufacturer and incorporate this repair scheme, prior to further flight.

If a crack is found that is parallel (inboard - outboard) to the top of the spar cap, determine the length of the crack. Install the applicable service kit SK421-142 or SK425-44 (-1 for left spar cap and -2 for right spar cap) at the compliance times specified in this AD per the instructions in SB CQB91-8R1 or SB MEB91-7R1, as applicable.

(FAA AD 91-25-08R1 refers)

**Compliance:** Initially fluorescent penetrant inspect within 3000 hours TTIS or the next 50 hours TIS, whichever occurs later, unless already accomplished within the last 300 hours TIS.

With no cracks found and the applicable service kit not installed, reinspect thereafter at intervals not to exceed 300 hours TIS.

With no cracks found and the applicable service kit installed, no repetitive inspections required.

If the crack is 2.5 or more inches in length, install the applicable service kit prior to further flight, and reinspect thereafter at intervals not to exceed at 600 hours TIS.

If the crack is more than 2.0 inches and less than 2.5 inches in length, install the applicable service kit within the next 50 hours TIS, and reinspect thereafter at intervals not to exceed at 600 hours TIS.

If the crack is equal to or less than 2.0 inches in length, inspect at intervals not to exceed 50 hours TIS until the applicable service kit is installed within 200 hours TIS, and reinspect thereafter at intervals not to exceed 600 hours TIS.

**Effective Date:** 27 April 2006

**\* DCA/CESS425/5 Fuel, Oil or Hydraulic Hose - Replacement**

**Applicability:** Model 425 aircraft, all S/Ns.

**Requirement:** To prevent fuel, oil or hydraulic system failures caused by a collapsed hose, check the aircraft maintenance records for any fuel, oil or hydraulic hoses Cessna P/N S51-10, that have been replaced between March 1995 and 14 March 1997.

If any fuel, oil or hydraulic hoses P/N S51-10, has been replaced between March 1995 and 14 March 1997, physically check for a diagonal or spiral external reinforcement wrap per Cessna SB CQB96-3 dated 18 October 1996, before further flight.

Replace any P/N S51-10 hose that has a diagonal or spiral pattern external reinforcement wrap with a P/N S51-10 hose that has a criss-cross pattern external wrap, per SB CQB96-3.

(FAA AD 97-01-13 refers)

**Note:** Do not install fuel, oil, or hydraulic hose having Cessna P/N S51-10 with a diagonal or spiral external reinforcement wrap.

**Compliance:** Within next 60 hours TIS or 60 days, whichever is the sooner, unless already accomplished.

**Effective Date:** 27 April 2006

**\* DCA/CESS425/6 Flight Idle Stop – AFM Amendment**

**Applicability:** Model 425 aircraft, All S/Ns.

**Requirement:** To prevent loss of aircraft control or engine overspeed with consequent loss of engine power caused by the power levers being positioned below the flight idle stop while the airplane is in flight, amend the Limitations Section of the aircraft flight manual (AFM) by inserting the following text:

"Positioning of power levers below the flight idle stop while the aircraft is in flight is prohibited. Such positioning may lead to loss of aircraft control or may result in an overspeed condition and consequent loss of engine power."

(FAA 97-25-04 refers)

**Note 1:** The requirement of this AD may be accomplished by incorporating a copy of this AD into the Limitations Section of the AFM.

**Note 2:** The AFM amendment may be accomplished by the pilot in accordance with CAR Part 43, Appendix A. The pilot must be trained and authorised (Part 43, Subpart B refers) and certification must be provided (Part 43, Subpart C refers).

**Compliance:** By 27 May 2006, unless already accomplished.

**Effective Date:** 27 April 2006

\* **DCA/CESS425/7 Severe Icing Conditions - Flight Manual Revision**

**Applicability:** Model 425 all S/Ns.

**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 1:** The requirement of this AD 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.

**Note 2:** Operators must ensure that flight crew are aware of the flight manual revision.  
(FAA AD 98-04-28 refers)

**Compliance:** By 27 May 2006, unless already accomplished.

**Effective Date:** 27 April 2006

**\* DCA/CESS425/8 Avionics Bus Circuit Breaker Switches – Inspection and Replacement**

**Applicability:** Model 425 aircraft, S/Ns 425–0001 through 425–0236 fitted with an avionics bus circuit breaker switch P/Ns CM3589-50, 593-250-101, 593-250-102, W31-X2M5A-50, or W31-X1000-50.

**Requirement:** To prevent failure of the avionics bus circuit breaker switch, which could result in smoke and a burning smell in the cockpit, which could lead to reduced ability to control the aircraft, inspect the avionics bus circuit breaker switch to determine the P/N and date code, per the procedures in Cessna Conquest Service Bulletin CQB05–2 dated 21 February 2005 and the applicable maintenance manual.

If the P/N is CM3589–50, 593–250–101, 593–250–102, W31–X2M5A–50, or W31–X1000–50, or W31–X1000–50 and the date code is earlier than 0434 the part has a safe life limit of 1000 hours TTIS and must be replaced within 1000 hours TIS with a P/N CM3589–50 that has a date code of 0434 or later, per the procedures in SB CQB05–2 and the applicable maintenance manual.

If the P/N is CM3589–50, 593–250–101, 593–250–102, W31–X2M5A–50, or W31–X1000–50 and there is no date code, replace the avionics bus circuit breaker switch with a P/N CM3589–50 that has a date code of 0434 or later, prior to further flight, per the procedures in SB CQB05–2 and the applicable maintenance manual.

If the P/N is CM3589–50, 593–250–101, 593–250–102, W31–X2M5A–50, or W31–X1000–50 and the date code is 0434 or later, no further action is required.

(FAA AD 2005-20-25 refers)

**Note 1:** Do not install circuit breaker switches with P/Ns CM3589–50, 593–250–101, 593–250–102, W31–X2M5A–50, or W31–X1000–50 that do not have a date code or have a date code earlier than 0434.

**Note 2:** Installing a P/N CM3589-50, 593-250-101, 593-250-102, W31-X2M5A-50, or W31-X1000-50 with a date code of 0434 or later, is a terminating action to the requirement of this AD.

**Compliance:** Within the next 200 hours TIS or by 27 April 2007 or at the next scheduled inspection, whichever is the sooner.

Replace avionics bus circuit breaker switches which have date codes earlier than 0434, with a date code of 0434 or later, within 1000 hours TTIS.

**Effective Date:** 27 April 2006