

# Airworthiness Directive Schedule

## Aeroplanes

### Cessna 421 Series

31 May 2018

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- Notes:**
1. This AD schedule is applicable to Cessna 421B and 421C series aircraft manufactured under FAA Type Certificate No. A7CE.
  2. The 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 web site at [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgAD.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet)
  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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### Contents

DCA/CESS421/1	Landing Gear, Emergency Extension System - Modification .....	2	
DCA/CESS421/2	Windshield Installation - Inspection .....	2	
DCA/CESS421/3A	Main Landing Gear Scissor Assembly - Modification .....	2	
DCA/CESS421/4	Nose Landing Gear Actuator Rod - Modification .....	2	
DCA/CESS421/5	Cancelled – DCA/CESS421/13 now refers .....	2	
DCA/CESS421/6A	Passenger Seats - Modification .....	2	
DCA/CESS421/7	Auxiliary Fuel Pump Wiring - Modification .....	3	
DCA/CESS421/8	MLG Inner Bearing - Inspection .....	3	
DCA/CESS421/9A	Fuel Inlet Float Valve - Inspection and Replacement .....	3	
DCA/CESS421/10	Flexible Fuel Tanks - Inspection .....	4	
DCA/CESS421/11	Fuel, Oil or Hydraulic Hose - Removal.....	4	
DCA/CESS421/12	Severe Icing Conditions - Flight Manual Revision .....	4	
DCA/CESS421/13	Exhaust System – Inspection.....	6	
<b>From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and can be obtained directly from the National Airworthiness Authority (NAA) web site. The link to the NAA web site is available on the CAA web site at <a href="http://www.caa.govt.nz/airworthiness-directives/states-of-design/">http://www.caa.govt.nz/airworthiness-directives/states-of-design/</a> If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ they will be added to the list below.</b> .....			7
2005-20-25	Avionics Bus Circuit Breaker Switches – Inspection and Life Limitation.....	7	
2014-03-03	Flight Limitations – AFM Amendment, Maintenance Records and Placards .....	7	
2016-07-24	Cancelled – FAA AD 2016-17-08 refers .....	7	
2016-17-08	Elevator Trim Push-pull Rod – Inspection.....	7	
* 2018-03-03R1	Carry Through Spars – Inspection .....	7	

**DCA/CESS421/1          Landing Gear, Emergency Extension System - Modification****Applicability:** Model 421C All S/N's**Requirement:** To preclude possible emergency extension system malfunction, embody an end fitting on operating cable which, when inner cable is operated, fully restrains cable outer conduit and positively locates clamp assembly**Compliance:** By 31 January 1981**Effective Date:** 19 December 1980**DCA/CESS421/2          Windshield Installation - Inspection****Applicability:** Model 421C S/N 421C0273 through 421C1257**Requirement:** Inspect windshield attachment bolt holes and rework as necessary per Cessna SIL ME 83-33 & Rev. 1.  
(FAA AD 84-03-04 refers)**Compliance:** Within the next 50 hours TIS unless already accomplished**Effective Date:** 6 April 1984**DCA/CESS421/3A        Main Landing Gear Scissor Assembly - Modification****Applicability:** Model 421 Series S/N 421-0001 through 421C0715**Requirement:** To preclude possible loss of wheel alignment due to failure of scissor assembly washer allowing migration of connecting bolt, modify per Cessna SIL ME 83-37**Compliance:** Within the next 100 hours TIS**Effective Date:** DCA/CESS421/3 - 29 June  
DCA/CESS421/3A - 27 July 1984**DCA/CESS421/4        Nose Landing Gear Actuator Rod - Modification****Applicability:** Model 421C S/N 421C0001 through 421C1402**Requirement:** To preclude collapse of nose landing gear modify per Cessna SIL ME 84-10  
(FAA AD 84-20-02 refers)**Compliance:** Within the next 200 hours TIS**Effective Date:** 16 November 1984**DCA/CESS421/5        Cancelled – DCA/CESS421/13 now refers****DCA/CESS421/6A       Passenger Seats - Modification****Applicability:** All model 421 Series All S/N's  
fitted with Enviroform seats**Requirement:** To assure structural integrity of affected seats, modify per Cessna Service Kit SK 421-135A or SK 421-78A as applicable  
(FAA AD 92-16-18 refers)**Compliance:** Upon installation of any Enviroform seat or within next 100 hours TIS, unless already accomplished**Effective Date:** DCA/CESS421/6 - 2 December 1988  
DCA/CESS421/6A - 2 October 1992

**DCA/CESS421/7      Auxiliary Fuel Pump Wiring - Modification**

- Applicability:** All model 421 Series which have been modified per Cessna MEB 88-3
- Requirement:** To overcome unsatisfactory features introduced by Cessna MEB 88-3, modify per Cessna MEB 88-3 Rev. 1
- Compliance:** Within the next 100 hours TIS unless already accomplished
- Effective Date:** 16 February 1990

**DCA/CESS421/8      MLG Inner Bearing - Inspection**

- Applicability:** Model 421 Series S/N 421-0001 through 421C0715.  
Aircraft fitted with P/N 5141109-1 bearing in each MLG are not affected
- Requirement:** To prevent jamming of the MLG inner and outer barrels, inspect per Cessna MEB 88-7. Rectify defective assemblies before further flight (FAA AD 90-02-13 refers)
- Compliance:** At 1300 hours TTIS or within next 300 hours TIS whichever is the later and thereafter at intervals not exceeding 1000 hours TIS
- Effective Date:** 25 May 1990

**DCA/CESS421/9A      Fuel Inlet Float Valve - Inspection and Replacement**

- Applicability:** Model 421C, S/N 421C0001 through 421C1807.
- Requirement:** To prevent possible loss of engine power caused by failure of a fuel inlet float valve, accomplish the following:-
1. For aircraft fitted with fuel inlet float valve P/N 9910242-1, -4, -5, -6, -7, -8, -205, -206, -207 and -208:
    - (a) Perform the appropriate valve test per paragraph 2 or 3 of Cessna MEB93-10R1. Any valve which fails the tests, must be replaced with a P/N 9910242-11 or -12 valve before further flight.
    - (b) Replace the valve with a P/N 9910242-11 or -12 valve per MEB93-10R1.
  2. For aircraft fitted with fuel inlet float valve P/N 9910242-9 or -10:
    - (a) Perform the appropriate valve test per paragraph 2 or 3 of Cessna MEB93-10R1. Any valve which fails the tests, must be replaced with a P/N 9910242-11 or -12 valve before further flight.
    - (b) Install the K74D retainer kit per MEB93-10R1.
- (FAA AD 95-09-13 refers)
- Compliance:**
1. (a) Test within next 200 hours TIS and thereafter at intervals not to exceed 200 hours TIS until valve replacement per 1(b), then test at intervals not to exceed 600 hours TIS.
  - (b) At 1800 hours TTIS or within next 12 months, whichever is the later.
  2. (a) Test within next 200 hours TIS and thereafter at intervals not to exceed 200 hours TIS until valve modification per 2(b), then test at intervals not to exceed 600 hours TIS.
  - (b) Within next 12 months.
- Effective Date:** DCA/CESS421/9 13 April 1993  
DCA/CESS421/9A 7 July 1995

**DCA/CESS421/10 Flexible Fuel Tanks - Inspection**

**Applicability:** All model 421 Series with Goodyear BTC-39 series fuel tanks

**Requirement:** Accomplish the following:

1. Visual inspection per Cessna MESL ME 78-7 & Supl. 1.
2. Detailed inspection and pressure test per Cessna MESL ME 78-7 & Supl. 1.  
(Goodyear SB FT-77-1 and FAA AD 78-05-06 also refer)

**Compliance:**

1. Within the next 25 hours TIS or 30 days whichever is the sooner.
2. Within the next 100 hours TIS or 6 months whichever is the sooner and thereafter at intervals not exceeding 12 months.

**Effective Date:** 20 December 1996

**DCA/CESS421/11 Fuel, Oil or Hydraulic Hose - Removal**

**Applicability:** All model 421 series, all S/Ns.

**Requirement:** To prevent fuel, oil or hydraulic systems failure caused by a collapsed hose, check the aircraft maintenance records for any fuel, oil or hydraulic hose, Cessna P/N S51-10, replaced between March 1995 and 14 March 1997. If any fuel, oil or hydraulic hose, Cessna P/N S51-10, has been replaced between March 1995 and 14 March 1997, accomplish the following:-

Before further flight physically check for a diagonal or spiral external reinforcement wrap per Cessna SB MEB96-10. 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 MEB96-10.  
(FAA AD 97-01-13 refers)

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

**Effective Date:** 14 March 1997

**DCA/CESS421/12 Severe Icing Conditions - Flight Manual Revision**

**Applicability:** Models 421B and 421C

**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 98-04-28 refers)

**Compliance:** By 10 May 1998

**Effective Date:** 10 April 1998

**DCA/CESS421/13 Exhaust System – Inspection**

**Applicability:** All model 421, 421A, 421B and 421C.

**Requirement:** To detect and correct cracks and corrosion in the exhaust system, which could result in exhaust system failure and a possible uncontrollable in-flight fire, accomplish FAA AD 2000-01-16.

A copy of FAA AD 2000-01-16 will be provided free of charge to aircraft owners and maintenance engineers. A copy may be obtained from:

The Library  
Civil Aviation Authority  
PO Box 31441  
Lower Hutt

**Compliance:** Compliance is required at the times specified within FAA AD 2000-01-16.

**Effective Date:** 24 February 2000

From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and can be obtained directly from the National Airworthiness Authority (NAA) web site. The link to the NAA web site is available on the CAA web site at <http://www.caa.govt.nz/airworthiness-directives/states-of-design/>

If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ they will be added to the list below.

**2005-20-25 Avionics Bus Circuit Breaker Switches – Inspection and Life Limitation**

**Applicability:** Cessna aircraft models and S/N listed in FAA AD 2005-20-25 fitted with an avionics bus circuit breaker switch P/N CM3589-50, 593-250-101, 593-250-102, W31-X2M5A-50, or W31-X1000-50.

**Effective Date:** 9 November 2005

**2014-03-03 Flight Limitations – AFM Amendment, Maintenance Records and Placards**

**Applicability:** Cessna models 310, 320, 340, 401, 402, 411, 414, and 421 aircraft identified in Cessna Aircraft Company Service Bulletin MEB97-4, dated 24 March 1997, or later approved revision.

**Effective Date:** 7 April 2014

**2016-07-24 Cancelled – FAA AD 2016-17-08 refers**

**Effective Date:** 12 September 2016

**2016-17-08 Elevator Trim Push-pull Rod – Inspection**

**Applicability:** Cessna models 310 through to 310R, E310H, E310J, T310P through to T310R, 310J-1, 320 through to 320F, 320-1, 335, 340, 340A, 401 through to 401B, 402 through to 402C, 411, 411A, 414, 414A, and 421 through to 421C, all S/N.

**Effective Date:** 12 September 2016

**\* 2018-03-03R1 Carry Through Spars – Inspection**

**Applicability:** Refer to the applicability section of FAA AD 2018-03-03R1.

**Effective Date:** FAA AD 2018-03-03 - 28 February 2018  
FAA AD 2018-03-03R1 - 31 May 2018