

Air Research Technology Inc.

Flight / Operating Manual Supplement NO:210

Cessna models 210-5, 210-5A, 210, 210A, B, C, D, E, F
and T210F as listed in Accordance with Transport Canada
STC # SA 01-33 and or FAA issued STC # SA _____
when Fitted with ART "Wing Extensions"
Models R1582, R1582-1, R1582-SS, R1582-1-CS

The information contained in this supplement supersedes that contained in the basic flight / operating manual for the airplane, otherwise the basic flight manual and other applicable supplements are applicable to the modified airplane. Compliance with Limitations Section 2 is mandatory.

This supplement is to be attached to the approved Flight / Operating manual applicable to the specific airplane model .

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Transport Canada Aviation

1

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Date _____

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| CANADA DEPARTMENT OF TRANSPORT AERONAUTICAL ENGINEERING DIVISION |
| MAR 1 2001 |
| APPROVED BY: <i>[Signature]</i> |
| APPROVAL No. SA01-33 |

New issue 02-27-01

Flight Manual supplement Log of Amendments
for Cessna models 210-5, 210-5A, 210, 210A, B, C, D, E, F and T210F
with A.R.T. "*Wing Extensions*" installed
Models R1582, R1582-1, R1582-SS, R1582-1-CS

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New issue 02-27-01

Section 1

GENERAL

Wing extensions are approved on all the models and series of airplanes listed in this Supplement. This modification permits an increase of the following limitations on some models; Maximum Gross Take Off Weight (MGTOW) and Maximum Landing Weight (MLW).

Installation of the spar reinforcement kit is **MANDATORY** on all aircraft.

The GTOW / MLW increase applies only to airplanes which have been modified or previously fitted with greater HP engine and propeller such as the IO-520 type engine and McCauley propeller# D2A34C49/90A-8.

A.R.T. "*Wing Extensions*" increase the wingspan 37.75 inches providing a span of 39 ft. 7 inches and adding 12.4 square feet to the total wing area.

The all aluminum wing extension kit and spar reinforcement, increases the basic weight of the aircraft by 17 lbs. at an average ARM of 52" in. aft of datum.

Section 2

LIMITATIONS (Compliance is Mandatory)

Weight Limits

Cessna models 210-5, 210-5A.

MGTOW / MLW for aircraft fitted with the IO-520 engine and McCauley propeller# D2A34C49/90A-8 is 3,525 lbs.

Cessna 210, 210A

MGTOW / MLW for aircraft fitted with the IO-520 engine and McCauley propeller# D2A34C49/90A-8 is 3,100 lbs.

Cessna 210B, C.

MGTOW / MLW for aircraft fitted with the IO-520 engine and McCauley propeller# D2A34C49/90A-8 is 3,200 lbs.

Cessna 210D, E.

MGTOW / MLW for aircraft fitted with the IO-520 engine and McCauley propeller# D2A34C49/90A-8 is 3,300 lbs.

Cessna 210F and T210F

MGTOW / MLW for aircraft fitted with the IO-520 engine and McCauley propeller# D2A34C49/90A-8 is 3,525 lbs.

NOTE: The above specified weight limits also apply to aircraft equipped with an engine rated at 300 HP or greater.

Section 2 (continued)

LIMITATIONS (Compliance is Mandatory)

Center of Gravity Limits

Note : Fwd. CG limit moves aft linearly as weight increases.

Cessna models 210-5, 210-5A.

FWD CG : Moves aft of datum linearly at all weights above 3,300 lbs.
to a limit of 42.7 inches at Gross weight of 3,525 Lb.

AFT CG: No change

Cessna 210. (Landing Gear Extended)

FWD CG : Moves aft of datum linearly at all weights above 2,900 lbs.
to a limit of 40.7 inches at Gross weight of 3,100 Lb.

AFT CG: No change

Cessna 210A. (Landing Gear Extended)

FWD CG : Moves aft of datum linearly at all weights above 2,900 lbs.
to a limit of 40.0 inches at Gross weight of 3,100 Lb.

AFT CG: No change

Cessna 210B, C. (Landing Gear Extended)

FWD CG : Moves aft of datum linearly at all weights above 3,000 lbs.
to a limit of 40.7 inches at Gross weight of 3,200 Lb.

AFT CG: No change

Cessna 210D, E. (Landing Gear Extended)

FWD CG : Moves aft of datum linearly at all weights above 3,100 lbs.
to a limit of 40.5 inches at Gross weight of 3,300 Lb.

AFT CG: No change

Cessna 210F and T210F (Landing Gear Extended)

FWD CG : Moves aft of datum linearly at all weights above 3,300 lbs.
to a limit of 42.7 inches at Gross weight of 3,525 Lb.

AFT CG: No change

Section 2 (continued)

LIMITATIONS (Compliance is Mandatory)

Airspeed Limits

Cessna 210B, C, D, E, F and T210F

With the Wing extensions installed Vne is reduced 182 KIAS or 210 Mph

Flap Limitations

When operating at increased gross weights maximum flap 30°

Placards

Cessna 210 B, C, D, E, F and T210F

Near the airspeed indicator in full view of the pilot “ with wing extensions installed, Vne = 182 KIAS or 210 Mph IAS”

All models and series Cessna 210 with wing extensions installed :

“WHEN OPERATING AT INCREASED GROSS WEIGHT, MAXIMUM FLAP 30°”

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6

New issue 02-27-01

Section 3
EMERGENCY PROCEDURES

-No change

Section 4
NORMAL PROCEDURES

-When operating at increased gross weight maximum flap 30°

Section 5
PERFORMANCE

Cruise Speeds

Cruise performance (non regulatory) was not assessed.

Stall Speeds

With the wing extensions installed, the stalling speeds at the higher approved gross weights are approximately the same as the basic aircraft stall speeds. Refer to the applicable Pilot Operating Handbook for each aircraft model.

7

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New issue 02-27-01

Section 5

PERFORMANCE (continued)

Maximum Performance Take-off

Follow procedures as denoted in the applicable Pilot Operating Handbook
Use flaps 20°--
Climb speed at the higher gross weight - 85 MPH until all obstacles are clear then set up climb speed and configuration as shown in "Maximum Performance Climb"

Maximum Performance Climb

Follow procedures as denoted in the applicable Pilot Operating Handbook
Use flaps UP "0"
Climb speed at the higher gross weight - 100 MPH

Balked landing

Follow procedures as denoted in the applicable Pilot Operating Handbook
Climb speed at the higher gross weight refer to "maximum performance climb speeds"

Flaps --20° 85 MPH
Flaps UP-- 0° 100 MPH

END