

Air Research Technology Inc.

Flight / Operating Manual Supplement

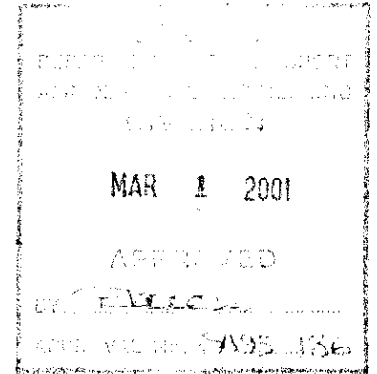
Cessna 185 Series aircraft Fitted with ART "Wing Extensions"
Models R1582, R1582-1, R1582-SS, R1582-1-CS in Accordance with
Transport Canada STC # SA 93-136 or FAA STC # SA 00276NY

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 Section 2 is mandatory.

This supplement is to be attached to the approved Flight / Operating manual for the airplane.


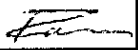
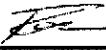

DOT Approved May 1996
Date

(stamp)



Transport Canada Aviation

Log of Amendments to
 Flight Manual supplement for Cessna 185
 with
 ART "Wing Extensions " installed
 Models R 1582, R 1582-1, R 1582-SS, R 1582-1-CS

Number	Date inserted	Signature	Effected pages	Approved by
#1	27 MAY 96		3-4-5	
#2	17 JAN 01		3-4-5	

Section 1 GENERAL

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

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

This modification also permits Gross Take- Off Weight (GTOW) increases for all Cessna 185 models fitted with Continental IO-520D engine, or other engine rated at 300 HP or greater.

The ART R 1582 “ *Wing Extensions* ” increase the wingspan of the aircraft by 37.75 inches, to 39 ft. 1.75 inches, thereby adding 12.4 Sq. ft to the total wing area.

The all aluminum wing extension kit, including paint 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)

Airspeed Limits

With the Wing extensions installed Vne is reduced to 165 KIAS.

Weight Limits

The MGTOW and MLW for aircraft fitted with the IO-520 D engine or other engines rated at 300 HP or more is 3,525 lbs. in all configurations or the maximum weight as limited by the buoyancy of the installed floats (whichever is lower).

NOTE: The original certified weight limits apply for aircraft fitted with engine rated at less than 300 HP. or the maximum weight as limited by the buoyancy of the installed floats (whichever is lower).

**To determine the max . allowable take off weight for specific floats.
< Divide the float size or rated buoyancy by 0.9 >**

Example model EDO 3430 Floats:

Float size / rated buoyancy = 3430 lb

Max. limit Weight on floats (3,430 divided by .9) = 3811 Lbs.

Max limit weight with wing extensions = 3525 Lbs.

To establish Max. takeoff weight, use the lower limit 3525 Lbs.

Example model CAP 3000 Floats:

Float size / rated buoyancy = 3000 lb

Max. limit Weight on floats (3,000 divided by .9) = 3333 Lbs.

Max limit weight with wing extensions = 3525 Lbs.

To establish Max. takeoff weight, use the lower limit 3333 Lbs.

Section 2 (continued)

LIMITATIONS (Compliance is Mandatory)

Center of Gravity Limits

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

Cessna 185

FWD CG : Moves aft of datum linearly at all weights above 3,350 lbs.
to a limit of 41.9 inches at Gross weight of 3,525 Lb.

AFT CG: No change

Placards

Near the airspeed indicator in full view of the pilot “ with wing extensions installed, Vne = 165 KIAS ”

**Section 3
EMERGENCY PROCEDURES**

-No change

**Section 4
NORMAL PROCEDURES**

-No change

**Section 5
PERFORMANCE**

Stall Speeds

With the wing extensions installed, the Stalling speeds at 3525 lbs. are approximately the same as the basic aircraft at 3350 lbs.

END

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Revision #2 JAN. 17,2001