

United States Of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SA00276NY

This Certificate issued to: Air Research Technology, Inc.
P.O. Box 71
Chute a Blondeau
ONTARIO, CN K0B 1B0

certifies that the change in the type design for the following product with the limitations and conditions hereafter as specified herein meets the airworthiness requirements of Part 3 of the Civil Air Regulations

Original Product - Type Certificate Number: 5A6, 3A13, 3A24

Model: (see attached FAA Approved Model List (AML) No. SA00276NY for list of applicable aircraft models and applicable airworthiness regulations)

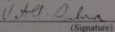
Description of Type Design Change:
Reinforcement of wing assemblies and installation of Air Research Technology Inc. wing tip extension in accordance with the FAA Approved Model List (AML) No. SA00276NY.

Limitations and Conditions:
1) Compatibility of this design change with previously approved modifications must be determined by the installer.

(See continuation sheet)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration

Date of application: February 17, 1995 *Date received:*
Date of issuance: March 31, 1995 *Date amended:* October 11, 1996

By direction of the Administrator

(Signature)
Vito A. Fulera
Manager
New York Aircraft Certification Office
(Title)

No alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 1 year, or both.

FAA Form 3122 (10-82) Page 1 of 2 This certificate may be transferred in accordance with FAR 21.47

United States Of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA00276NY

Date of Issuance: March 31, 1995
Date Amended: October 11, 1996

Limitations and Conditions (Continued):

2) Cessna 180 series:

(a) Page 5 of FAA approved Pilots Operating Handbook Supplement for Floatplane Model 180N dated October 1, 1978 is required for this installation.

(b) Max Gross take off weight (MGOW) is limited to 2550 lbs. except for those airplanes incorporating other approved modifications permitting operations beyond 2550 lbs.

3) Cessna 182 series:

(a) A cockpit placard near the air speed indicator (ASI) showing V_{NE} (never exceed speed) restricted to 180 MPH IAS is required, or as otherwise limited by the float installation.

(b) Max Gross take off weight (MGOW) is limited to 2950 lbs. except for those airplanes incorporating other approved modifications permitting operations beyond 2950 lbs.

4) Cessna 185 series:

(a) A cockpit placard near the air speed indicator (ASI) showing V_{NE} (never exceed speed) restricted to 165 KIAS is required for this installation.

(b) Transport Canada approved A.R.T. Inc. Flight/Operating Manual Supplement, Cessna 185 Series aircraft fitted with ART "Wing Extensions", Revision 1, dated May 27, 1994 is required for this installation.

(c) Max Gross take off weight (MGOW) is to be limited to 3525 lbs for aircraft modified in accordance with ART Drawing No. A.R.T. F1582-180-182-185, dated March 3, 1994 and A.R.T. Service Bulletin No. SB-1-84, dated January 16, 1994, except for Cessna 185 models incorporating other approved modifications limiting operation below 3525 lbs.

5) A.R.T. Service Bulletin SB-1-96 is applicable to:

(a) All Cessna 180 and 182 series aircraft with approved gross weights in excess of 3000 lbs equipped with A.R.T. "Wing extensions".

(b) All Cessna 185 series aircraft equipped with A.R.T. "Wing Extensions".

-End-

No alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 1 year, or both.

FAA Form 3122-1 (10-82) Page 2 of 2 This certificate may be transferred in accordance with FAR 21.47

Section 1 GENERAL

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 aluminium 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

Airspeed Limits

-With the Wing extensions installed Vne is reduced to 180 MPH IAS or as otherwise limited by the float installation.

Placards

Near the airspeed indicator in full view of the pilot "with wing extensions installed, Vne = 180 MPH IAS"

Weight Limits

Maximum take-off Weight for aircraft fitted with the O-470 type engine - 2,950 lbs. except for those Cessna 182 models incorporating other approved modifications permitting operations beyond 2,950 lbs. or as limited by the buoyancy of the installed floats. (whichever is lower).

To determine the maximum allowable take off weight for specific floats, divide the float size by .9

eg. Float size = 2870
Maximum Weight = $2,870 / .9 = 3188.88$ Lbs.