United States of America

Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate

Number SA1943WE

This certificate, issued to Madras Air Service

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 *of the* Civil Air *Regulations.* (See T. C. Data Sheet 5A6)

Original Product — Type Certificate Number: 5A6

Make: Cessna

Model: 180 through 180K

Description of Type Design Change:
Installation of Madras Air Service wing tips in accordance with Drawing No. 102, Sheet 1, Revision A, dated October 12, 1972, and Sheet 2, Revision B, dated July 11, 1972.

Madras Air Service FAA Approved AFM Supplement dated February 21, 1973 is required for the Models 180, 180A and 180B. In addition, FAA approved AFM Supplement dated July 21, 1987 is required for Model 180K for S/N 18053001 and on.

Limitations and Conditions: This approval should not be extended to other specific airplanes of these models on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of that airplane. Supplemental Type Certificate Addendum Number SA1943WE limits the airspeeds and is a part of this STC. A copy of this Certificate, Addendum No. SA1943WE, and the appropriate FAA approved Airplane Flight Manual are required to be maintained as part of the modified aircraft's permanent records.

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 4, 1969

Date reissued:

Date of issuance: June 18, 1969

Date amended August 11, 1972; February 21, 1973
November 17, 1975; July 21, 1987

By direction of the Administrator

D. L. Riggs

(Signature)

Assistant Manager, Seattle
Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

FAA Form 8110-2 (10-68)

United States of America
Department of Transportation—Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA1943WE

The conditions and limitations of Type Certificate Data Sheet No. 5A6 apply except as follows:

This STC Addendum, which is a part of Supplemental Type Certificate No. SA1943WE prescribes conditions and limitations under which the product for which the STC was issued meets the airworthiness requirements of the Civil Air Regulations. A copy of this STC Addendum is required to be maintained as part of the modified aircraft's permanent records.

Supplemental Type Certificate Holder: Madras Air Service

I, II, & III: Models 180, 180A, 180B, 180C, 180D, 180E, 180F as modified by STC SA1943WE

Airspeed Limits * (Landplane and Seaplane) **

Never exceed	175 mph (152 kts)	TIAS
Maneuvering	116 mph (101 kts)	
Maximum structural cruising	152 mph (132 kts)	

Required Equipment:

Madras Air Service AFM Supplement dated February 21, 1973, required for Models 180, 180A, and 180B.

IV: Models 180G and 180H, as modified by STC SA1943WE.

Airspeed Limits * (Landplane and Seaplane) **

Never exceed	182 mph (158 kts)	CAS
Maneuvering	122 mph (106 kts)	
Maximum structural cruising	152 mph (132 kts)	

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

FAA FORM 8110-2-1 (10-69)

This certificate may be transferred in accordance with FAR 21.47.

V. Models 180J (Landplane and Seaplane) **

Never exceed	182 mph (158 kts)	CAS
Maneuvering	117 mph (102 kts)	
Maximum structural cruising	152 mph (132 kts)	

VI. Model 180K (Landplane & Seaplane)

Airspeed Limits * (Landplane & Seaplane) **

Never exceed	184 mph (160 kts)	IAS
Maneuvering	119 mph (103 kts)	
Maximum structural cruising	152 mph (132 kts)	

* These Airspeed Limitations may be used in lieu of gross weight reductions imposed by the original STC and Addendum dated June 18, 1969.

** Amphibians modified by STC SA1943WE use TC Data Sheet No. 5A6 Airspeeds.

NOTE 1. Conformity to Madras Air Service Drawing No. 102, Sheet 1, Revision A, dated October 12, 1972, and Sheet 2, Revision B dated July 11, 1972, must be established prior to release of the modified aircraft to Normal Category operations.

NOTE 2. In addition to the changes required above, the aircraft Weight and Balance Report must be revised as follows at the time of modification.

Weight of wing tips 9.5 lb total; deduct weight of the tip being removed and add the difference to the aircraft empty weight. The moment change is negligible.

NOTE 3. The placards required by Type Certificate Data Sheet 5A6, Note 2, A must be revised as follows:

(1) & (2) On Models 180 and 180A through F

Maximum Maneuvering Speed - 116 mph TIAS (101 kts)

(3) (a) On Models 180G, 180H

Maximum Maneuvering Speed - 122 mph CAS (106 kts)

(4) (a) On Model 180J

Maximum Maneuvering Speed - 117 mph CAS (102 kts)

(5) (a) On Model 180K

Maximum Maneuvering Speed - 119 mph IAS (103 kts)