United States of America

Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate

Number SA1778NM

This certificate, issued to Thompson Aeronautical Consultants

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 23 *of the* Federal Aviation *Regulations*, dated February 1, 1965.

Original Product — Type Certificate Number:	A13CE	A20CE
Make:	Cessna	Cessna
Model:	177, 177A and 177B	177RG

Description of Type Design Change:
Installation of a Descent Rate Control (DRC) System (Wing Spoilers and Speed Brakes) including a pneumatic actuating system in accordance with Precise Flight, Inc. DRC Installation Manual Report No. 107.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this Certificate, Addendum No. SA1778NM, Owner's Manual or Pilot's Operating Handbook for Descent Rate Control (DRC), and FAA Approved Flight Manual Supplement shall be maintained as part of the permanent records for the modified aircraft.

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: June 21, 1982 *Date reissued:* May 10, 1984

Date of issuance: January 28, 1983 *Date amended:*

By direction of the Administrator

Charles C Schroeder
(Signature)

for 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)

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(Continuation Sheet)

May 10, 1984 *Number* SA1778NM

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA1778NM

The conditions and limitations of the original Type Certificate Data Sheet apply except where superseded by the following:

This Supplemental Type Certificate Data Sheet, which is part of STC SA1778NM, prescribes the conditions and limitations under which the product for which the STC was issued meets the airworthiness requirements of the Civil Air Regulations:

SUPPLEMENTAL TYPE CERTIFICATE HOLDER: Precise Flight, Inc.

CESSNA MODEL 177, 177A, 177B, and 177RG (NORMAL CATEGORY) AS MODIFIED BY STC SA1778NM

Engine:	Same as Type Certificate Data Sheet A13CE or A20CE
Fuel:	Same as Type Certificate Data Sheet A13CE or A20CE
Engine Limits:	Same as Type Certificate Data Sheet A13CE or A20CE
Propeller and Propeller Limits:	Same as Type Certificate Data Sheet A13CE or A20CE
C. G. Range:	Same as Type Certificate Data Sheet A13CE or A20CE
Serial Numbers:	Refer to Type Certificate Data Sheet
Equipment:	Cessna Owner's Manual or Pilot's Operating Handbook and AFMS for DRC System must be maintained in the airplane at all times.

NOTE 1: Current weight and balance report including list of equipment in the certified empty weight must be in the aircraft.

NOTE 2: In addition to the Placards and Markings required by Type Certificate Data Sheet, Note 2, apply the following:

(a) The following placard is to be in front and in full view of the pilot:

MAXIMUM SPOILER DEPLOYED SPEED -
160 KNOTS (CAS)

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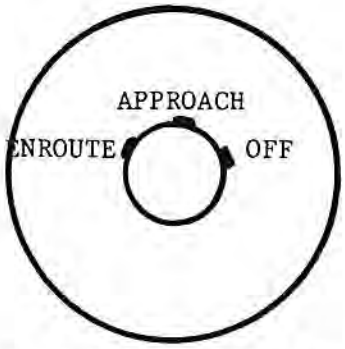
(b) The following placard is to be mounted on the throttle controller:



(c) The following placard is to be placed in front and in full view of the pilot:

DESCENT RATE CONTROL FOR OPERATING INSTRUCTIONS AND LIMITATIONS - SEE SUPPLEMENT IN OWNER'S MANUAL OR PILOT'S OPERATING HANDBOOK

NOTE 3: With the described DRC System Installation, performance will be at least equal to or better than that given in the Owner's Manual or Pilot's Operating Handbook for the Cessna 117 Series or the 177RG airplane.

- END -

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