

FLINT AERO, INC.
1935 NORTH MARSHALL AVENUE
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**FAA Approved Pilot's Operating Handbook,
Airplane Flight Manual Supplement
and Supplemental Airplane Flight Manual
AMPHIBIAN SUPPLEMENT**

185.16

CESSNA MODEL A185F amphibian
Serial No. 18502300, 18503684 and on
Equipped with
EDO-AIRE MODEL 696-3500 Amphibious Floats

This document must be carried on board and attached to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the amphibian is modified by the installation of the Flint Aero Wing Tip Fuel Tanks in accordance with STC SA 8036NM.

The information contained herein Supplements or Supersedes the basic manual and the EDO-AIRE FLIGHT MANUAL SUPPLEMENT No. E-1 only in those areas listed herein. For limitations, procedures, and performance information not contained in this document, consult the basic placards, Pilot's Operating Handbook, Airplane Flight Manual, EDO-AIRE FLIGHT MANUAL SUPPLEMENT No. E-1, and FLINT AERO, INC. FAA APPROVED PILOT'S OPERATING HANDBOOK AIRPLANE FLIGHT MANUAL SUPPLEMENT NO. 185.14.



Manager, Flight Test Branch, ANM-160L
Federal Aviation Administration
Los Angeles Aircraft Certification Office
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STC SA8036NM	FLINT AERO, INC SUPPLEMENT AFM, P.O.H. AND AFM SUPPLEMENT TO CESSNA MODEL MODEL A185F AMPHIBIAN SUPPLEMENT EDO-AIRE MODEL 696-3500 AMPHIBIOUS FLOATS	Page P-1
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REVISIONS AND ADDITIONS

REV LEV	DATE	PAGES AFFECTED	REMARKS	APPROVED BY
IR	10/2/96	Title	Installation of wing tip fuel tanks	<i>Donald R. ...</i> Manager, Flt. Test Branch FAA Los Angeles ACO ANM160L Date 10-2-96
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EFFECTIVE PAGES

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P-1	IR	10/2/96						
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SECTION I

GENERAL
INTRODUCTION

This supplement provides information not found in the basic handbook which is required to be furnished to the pilot by FAR 21.5. It includes procedures and data required for the safe and efficient operation of the Cessna Model A185F equipped with EDO-AIRE Model 696-3500 amphibious floats installed per STC SA558NW, when modified by the installation of Flint Aero Wing Tip Fuel Tanks in accordance with STC SA8036NM.

Information contained in the Model A185F basic FAA approved Cessna Amphibian Supplement for the Model A185F equipped EDO-AIRE 696-3500 amphibious floats, which is the same as that for the amphibian, is generally not repeated in this supplement.

Information contained in the Flint Aero Supplemental AFM, POH, and AFM Supplement 185.14 for airplanes modified by the installation of Flint Aero Wing Tip Fuel Tanks in accordance with STC SA8036NM, which is the same as that for the amphibian, is generally not repeated in this supplement.

Wherever the words "Not Applicable" appear in this Supplement, they are used to indicate that information may not be the same as that shown in the Cessna Supplement and is not required by the airplane certification basis, and therefore should not be used.

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PERFORMANCE - SPECIFICATIONS

SPEED: NO CHANGE

CRUISE: Range increases in proportion to the amount of additional fuel carried in the wing tip extended tanks. There is no significant change in the specific range.

RATE OF CLIMB AT SEA LEVEL: NO CHANGE

SERVICE CEILING: NOT APPLICABLE

TAKEOFF PERFORMANCE: Increase takeoff ground and water run distances by 12 percent for each 100 pounds gross weight over the weight shown in the Cessna 185 Amphibian Owner's Manual Supplement.

LANDING PERFORMANCE: Increase landing ground and water run distances by 3 percent for each 100 pounds gross weight over the weight shown in the Cessna 185 Amphibian Owner's Manual Supplement.

STALL SPEED (CAS): SEE TABLE 1

MAXIMUM WEIGHT:

TAKEOFF: 3600 LB.

LANDING, WATER: 3600 LB.

LANDING, LAND: 3525 LB.

EMPTY WEIGHT:

See actual weight and balance form for airplane.

MAXIMUM USEFUL LOAD:

See actual weight and balance form for airplane.

BAGGAGE ALLOWANCE:

IN AIRPLANE: NO CHANGE

IN EACH FLOAT BAGGAGE COMPARTMENT: NO CHANGE

(CAUTION: See LIMITATIONS SECTION)

WING LOADING: POUNDS/SQ.FT. (@ 3600 LBS) = 19.35

POWER LOADING: POUNDS/HP (@ 3600 LBS) = 12.0

FUEL CAPACITY: SEE SECTION 2 OF FLINT AERO AFM SUPPLEMENT

OIL CAPACITY: SAME

ENGINE: SAME

PROPELLER: SAME

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SECTION 2

LIMITATIONS

1. Airspeed Limitations
All airspeed limitations remain unchanged.
2. Airspeed Indicator Markings
Airspeed indicator color code significance remains unchanged. The lower limit of the white arc of the indicator is increased for each model by 3 knots or 3 MPH as appropriate.

Gross Weight

For Cessna A185F airplanes with Edo-Aire 696-3500 Amphibious Floats installed per STC SA558NW incorporating Flint Aero STC SA8036NM, the maximum gross weight, in pounds, is limited as follows:

<u>Configuration</u>	<u>MTOGW, lb</u>	<u>MLGW, lb</u>
Amphibian, land	3600	3525
Amphibian, water	3600	3600

For installation of other modifications by STC, the maximum gross weight is limited to that which is authorized by each particular STC. The pilot is advised to determine this gross weight limit from each appropriate STC.

4. Center of Gravity Limits
-Center of gravity range, inches aft of datum

<u>Forward Limit</u>		<u>Aft Limit</u>		<u>Weight, lb.</u>
<u>Inches</u>	<u>Moment</u>	<u>Inches</u>	<u>Moment</u>	
43.4	156,240	44.0	158,400	3600
34.5	72,450	44.0	92,400	2100
34.5	62,100	44.0	79,200	1800

Straight line fairing between points.

5. Placards
No change.

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SECTION 3

EMERGENCY PROCEDURES

No change.

SECTION 4

NORMAL PROCEDURES

No change.

SECTION 5

PERFORMANCE

This supplement addresses the operation of an airplane incorporating STC SA8036NM at gross weights greater than previously certificated. The effect of this gross weight increase on airplane performance is effectively offset by the increase in wing area and aspect ratio. For stall speeds at a fixed gross weight, a four knot decrease in the flaps up stall speed, but no change in the flaps 20° and 40° can be expected. Rate of climb will increase at a fixed gross weight. Takeoff and landing distances will increase by 12% and 3% respectively for each 100 lbs. increase in gross weight. For weights equal to or less than the previously certificated gross weight, use the standard performance tables applicable to the basic unmodified airplane. For these weights, performance will be equal to or greater than the tables show.

The Flint Tip Fuel Tanks may be used in conjunction with other approved modifications provided it is determined that no interference exists. In this instance, the performance procedure in the paragraph above applies and in addition performance decrements must be applied as previously defined for that other installation.

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