1/26/06

Revision Date:



FAA Approved Supplemental Airplane Flight Manual For Cessna 206 Series Floatplanes Equipped with AEROCET 3500 or 3500L Seaplane Floats

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#### **FAA APPROVED**

## FOR CESSNA 206 SERIES FLOATPLANES

Equipped with AEROCET 3500 or 3500L Seaplane Floats

Registration No	•
Serial No	

The information contained in this document is FAA approved material which must be applied together with the basic FAA approved airplane placards and markings and/or FAA approved Airplane Flight Manual. This supplemental manual must be carried in the airplane when it is modified by the installation of the Aerocet Model 3500 or 3500L seaplane floats in accordance with Supplemental Type Certificate (STC) No. SA00003SE. The information contained in this document supersedes the basic airplane markings and placards and/or Flight Manual covered in the items contained herein. For Limitations, Procedures, and Performance information not contained in this supplement, consult the basic airplane markings and placards, and/or Flight Manual.

FAA Approved:

Manager, Special Certification Branch Seattle Aircraft Certification Office

Date: 2 Ft 2006

Aerocet, Inc. PO Box 2119 265 Shannon Lane Priest River ID 83856 Phone: 208-448-0400

Fax: 208-448-1644



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#### **LOG OF REVISIONS PAGE**

REV.	PAGES AFFECTED	DESCRIPTION	FAA APPROVED
1	All	Added Model "or 3500L" references to all places that only Model 3500 Floats	_
	All	Replaced Old Aerocet address in Header with document title. Address has been added to the title page.	MST
	3-End	Removed "FAA Approved" from	2 128 2006
	5	footers, And ADD-10 170 H2/NOWL. 35-70008 & 35-70009 Changed to 36-70008 & 36-70009	2 1813 2
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#### SECTION 1. GENERAL

This supplemental manual, applicable to those Cessna Model 206 Series airplanes equipped with Aerocet Model 3500 or 3500L Seaplane Floats, provides information and limitations not included in the basic FAA approved markings and placards, and/or Airplane Flight Manual. Whenever the words "Not Applicable" (NA) appear in this supplemental manual, they are used to indicate that the related information may not be the same as that shown in the Cessna markings and placards, and/or Flight Manual, are not required by the airplane certification basis and, therefore, should not be referenced. The aircraft is to be operated under the "NORMAL CATEGORY" only.

#### **PERFORMANCE - SPECIFICATIONS**

SPEED:

NA

CRUISE:

NA

RATE OF CLIMB AT SEA LEVEL:

EXCEEDS 644 FPM (CAR 3.85a)

SERVICE CEILING: NA

TAKEOFF PERFORMANCE:

NA

LANDING PERFORMANCE:

NA

STALL SPEED (POWER OFF, FORWARD CG):

FLAPS UP:

61 KCAS

FLAPS DOWN:

55 KCAS

MAXIMUM WEIGHT:

RAMP (DOCK):

3600 LBS.

TAKE-OFF & LANDING:

3600 LBS.

TAKE-OFF & LANDIN

SEE ACTUAL WEIGHT & BALANCE FORM FOR AIRCRAFT

EMPTY WEIGHT: SEE ACTU

MAXIMUM USEFUL LOAD: REF. ACTUAL WEIGHT & BALANCE FORM FOR AIRCRAFT

**BAGGAGE ALLOWANCE:** 

IN AIRPLANE:

NO CHANGE

IN EACH FLOAT:

100 LBS.

(CAUTION: ASSURE CG RANGE IS PROPER WHEN LOADING)

WING LOADING:

NA

POWER LOADING:

NA

RANGE:

NA

FUEL CAPACITY: OIL CAPACITY:

NO CHANGE

ENGINE:

NO CHANGE NO CHANGE

PROPELLER:

NO CHANGE



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#### SECTION 2. LIMITATIONS

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#### **CENTER OF GRAVITY LIMITS:**

Center of Gravity Range: (Inches aft of reference datum)

(+41.5) to (+47.4) at 3600 lbs. Max. G.W.

(+36.5) to (+47.4) at 2600 lbs. or less with a straight line variation between points given

#### **WEIGHT LIMITS:**

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Maximum Ramp (Dock) Weight: 3600 lbs.

Maximum Takeoff Weight: 3600 lbs.

Maximum Landing Weight: 3600 lbs.

Maximum Weight in Baggage Compartment: NO CHANGE

Maximum Weight in Float Baggage Compartment: 100 lbs. each

#### AIRSPEED LIMITS:

	KIAS
Never Exceed Speed (Vne)	183
Max. Structural Cruising (Vno)	149
Max. Maneuvering Speed (Va)	120
Max. Speed with Flaps (Vfe)	100

#### AIRSPEED INDICATOR MARKINGS:

The airspeed indicator shall be marked with a red radial line at 183 knts.

If the radial line is on the indicator glass, the glass and bezel should also have a white slippage mark.

Apart from the redline mark, the airspeed indicator markings are the same as shown in the basic markings/Flight Manual. Due to differences in airspeed calibration and speeds with floats installed, the indicated stall speeds and maximum structural cruising speed vary slightly from airspeed indicator markings.



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#### PLACARDS:

Aerocet P/N 35-70006 Placard is located near water rudder control:

WATER RUDDER **ALWAYS UP EXCEPT** WATER TAXIING

2. Aerocet P/N 36-70008 Placard is installed on the left side of cabin in full view of the pilot:

**FLOATPLANE WITH AEROCET 3500 OR 3500L FLOATS** 

**NEVER EXCEED SPEED:** 

183 KNTS. (210 MPH) (IAS)

MAX. MANEUVERING SPEED:

120 KNTS. (138 MPH) (IAS)

MAX. GROSS WEIGHT:

3600 LBS.

CG RANGE

(+41.5) TO (+47.4) AT 3600 LBS. MAX. GROSS WT.

(+36.5) TO (+47.4) AT 2600 LBS. OR LESS WITH A STRAIGHT LINE VARIATION BETWEEN POINTS GIVEN FOR WT. & BAL.

SEE LOADING SCHEDULE

3. Aerocet P/N 36-70009 is located under wing flap switch and position indicator:

#### FLOATPLANE MAX FLAPS 30°

4. Aerocet P/N 35-70010 is located near the airspeed indicator:

**FLOATPLANE** STALL SPEEDS ARE APPROX. 4 KIAS LOWER THAN INDICATOR MARKINGS.

5. Aerocet P/N 35-70011 is located near the pilot's control column:

AVOID TAIL-LOW TAKEOFFS AND LANDINGS WITH FLOATPLANE STINGER INSTALLED DURING OPERATIONS AS A LANDPLANE.

6. Aerocet P/N 35-70012 is located near inboard fuel tank filler cap (when long range fuel tanks are installed):

TO FILL TANKS TO MAX. CAPACITY USE OUTBOARD FILLERS

SERVICE THIS AIRPLANE WITH 100LL/100 MIN. AVIATION GRADE GASOLINE-CAPACITY 35.0 GAL.



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#### SECTION 3. EMERGENCY PROCEDURES

Emergency procedures in the FAA approved airplane placards and/or Flight Manual generally apply except for airspeeds which may be different. Emergency landings on water should be done with water rudders up, aircraft slightly tail low on touchdown, and control wheel held full aft as the floatplane decelerates on the water. Emergency landings on land should be done with water rudders up, aircraft in a level attitude on touchdown, and the control wheel full aft after contact. If damage occurs to the floats causing compartments to flood, aggressively shift the weight (people and baggage) in the opposite direction of damage in order to balance the aircraft over the buoyant compartments.

### <u>SECTION 4. NORMAL PROCEDURES</u> (NOTE: THESE ITEMS SUPPLEMENT THE CESSNA NORMAL PROCEDURES – BE SURE AND FOLLOW THE CESSNA PROCEDURES EXCEPT AS NOTED BELOW)

#### BEFORE ENTERING THE FLOATPLANE

- 1. Inspect the floats and attachment for dents, cracks, punctures, etc.
- 2. Remove rubber plugs (which serve as stoppers on the standpipe in each float compartment) and pump out any accumulation of water. Reinstall rubber stoppers with enough pressure for a snug fit. (If there is an excess of water, investigate the leakage.)
- 3. Check water rudders for freedom of movement and security.

#### **BEFORE STARTING ENGINE**

- Water Rudder Operation "CHECK VISUALLY"
- 2. Water Rudders "DOWN FOR TAXIING"

#### **TAKEOFF**

- 1. Water Rudders "UP" (retraction handle aft)
- 2. Wing Flaps "20 DEGREES" (second notch)
- Control Wheel "HOLD FAR AFT INITIALLY"
- 4. Power "FULL THROTTLE & MAX RPM" (advance slowly)
- 5. Control Wheel "MOVE FORWARD TO ATTAIN PLANING ATTITUDE"
- 6. Control Wheel "APPLY LIGHT BACK PRESSURE TO LIFT OFF"
- 7. Wing Flaps "UP AFTER OBSTACLES ARE CLEARED"



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#### **BEFORE LANDING**

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- Water Rudders "UP"
- 2. Wing Flaps "DOWN"

#### **LANDING**

1. Touchdown - "SLIGHTLY TAIL LOW"

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2. Control Wheel - "HOLD FULL AFT THROUGH DECELERATION"

#### **BALKED LANDING**

"RETRACT FLAPS TO 20 DEG. IMMEDIATELY AFTER APPLYING FULL POWER FOR GO-AROUND"

#### AFTER LANDING

"WATER RUDDERS DOWN"

#### SECURING AIRCRAFT

"FUEL SELECTOR TO RIGHT OR LEFT TANK POSITION TO PREVENT CROSSFEEDING"

#### SECTION 5. PERFORMANCE

Airspeed Calibration - Essentially unchanged

#### STALL SPEEDS

POWER OFF, FORWARD CG, 3600 LBS.

FLAPS UP:

61 KCAS

70 MPH CAS

**FLAPS DOWN:** 

55 KCAS

63 MPH CAS

NOTE: ALTITUDE LOSS DURING STALL RECOVERY

MAY BE AS MUCH AS 240 FEET.

#### SECTION 6. WEIGHT AND BALANCE

The airplane equipped with Aerocet 3500 or 3500L Floats must be loaded in accordance with the limitations in Section 2. These are shown as an aircraft weight/moment envelope or an aircraft weight versus c.g. location chart on page 9. **Note:** It is the responsibility of the airplane owner to insure that the airplane is loaded properly.



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#### SECTION 7. AIRPLANE AND SYSTEMS DESCRIPTIONS

In addition to the Aerocet 3500 or 3500L Float installation, the aircraft must incorporate the Cessna approved seaplane kit. As a result of these installations, the floatplane is identical to the landplane with the following exceptions:

AEROCET MODIFICATIONS: Floats, incorporating a water rudder steering system, replace the landing gear. A water rudder retraction lever, connected to the water rudders by cables, is located on the cabin between the front seats.

#### **CESSNA MODIFICATIONS:**

- 1. An additional structural "V" brace is installed between the top of the front door posts and the cowl neck.
- 2. Additional fuselage structure is added to support the float installation (includes removable cover panels for the nose gear opening).
- 3. The stall sensor is relocated for floatplane operations.
- 4. The floatplane has additional corrosion proofing and stainless steel cables.
- 5. Hoisting provisions are added to the top of the fuselage.
- 6. The wing flap limit switch is adjusted to restrict the maximum flap travel to 30 degrees.
- 7. Fueling steps and assist handles are mounted on the forward fuselage, and steps are mounted on the wing struts to aid in refueling the floatplane. Inboard fuel fillers are added when long range fuel tanks are installed.

**NOTE:** A reduction of approximately five gallons of usable fuel in each tank will result if inboard fillers are used to fill the long range fuel tanks.

- 8. A rudder trim system bungee with a lighter spring replaces the standard bungee.
- 9. Floatplane placards are added.
- 10. An enlarged rudder, and a redesigned vertical fin, tailcone stinger, and flashing beacon installation replace the standard rudder, fin, stinger, and flashing beacon.
- 11. A ventral fin is installed on the bottom of the tailcone for additional directional stability.
- 12. The elevator trim tab rigging is changed to increase the maximum down travel.
- 13. Special cowl flap side extensions and cowl flap control linkage extensions are added to ensure proper engine cooling.

#### SECTION 8. AIRPLANE HANDLING, SERVICE, AND MAINTENANCE

Information not required.

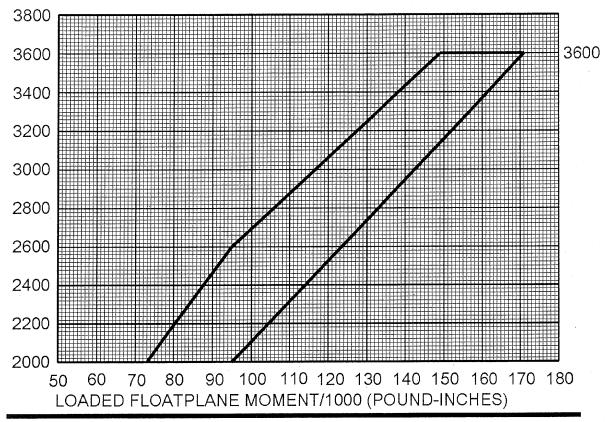
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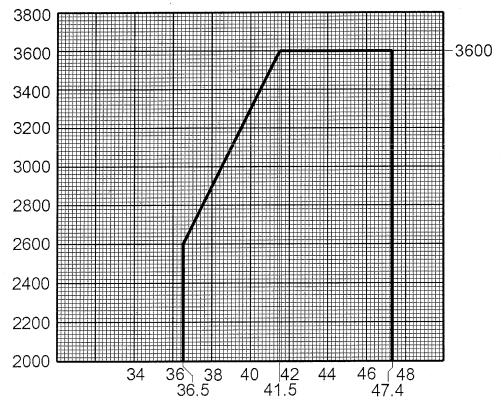
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FLOATPLANE C.G. LOCATION (INCHES AFT OF DATUM)