

		AEROCET INCORPORATED	Page	1
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR Quest KODIAK 100
Equipped with Aerocet Model 6750 Twin 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, markings and 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 6750 Seaplane floats in accordance with Supplemental Type Certificate (STC) No. SA02452SE.

The information contained in this document supersedes the basic airplane markings, placards and 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 Flight Manual

FAA Approved:

for



Manager, Seattle Aircraft Certification Office

Federal Aviation Administration

Seattle, Washington


FAA Approved Date: NOV 29 2018

		AEROCET INCORPORATED	Page	2
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

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		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	3
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

Revision Record

REV	PAGES	DESCRIPTION	RELEASE DATE	FAA Approval & Date
I/R	All	Initial Release (revised based on FAA comments from 4/19/17 version, 6/20/17 version, and AEG comments on 6/19/2017 version, performance weights on 7/17 version)	7/21/2017	
A	3	Edited Revision History columns and headers to incorporate comments.	11/28/2018	 11-29-18
	7, 39, 40	Zero Fuel Weight WAS 6,490 lb; IS 7,071 lb.		
	9	Added missing verbiage "C.G." (WAS Aft Limit up to 7,255 lb; IS Aft C.G. Limit up to 7,255 lb.)		
	11, 12	Removed "... - Quest KODIAK Model 100 Seaplane" (Heading §II.G. & H.)		
	13	Added missing verbiage, "...compartments, centered on bottom of door" (1 ea. float). (Aft baggage)		
	22	Added: WARNING: DO NOT ATTEMPT TAKEOFF WITH KNOWN HULL LEAK OR STRUCTURAL DAMAGE. (§IV. Just prior to §IV.B.)		
	39	"All loading above maximum zero fuel weight (7,071 lb.) must be fuel." WAS: "All loading above 6490 LBS must be fuel (zero fuel weight)"		



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FAA Approved Date: NOV 29 2018

		AEROCET INCORPORATED	Page	4
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

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		 AEROCET <small>INCORPORATED</small>	Page	5
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

Table of Contents

Revision Record.....	3
Table of Contents.....	5
I. GENERAL.....	7
II. LIMITATIONS.....	9
A. Center of Gravity Limits.....	9
B. Kinds of Operations Limits.....	9
C. Maximum Altitude.....	9
D. Icing Limitations.....	10
E. Takeoff Flaps Limitation.....	10
F. Landing Flaps Limitation.....	10
G. Takeoff Limits - Maximum Takeoff Weights from water.....	11
H. Maximum landing Weights on Water.....	12
I. Placards.....	13
III. EMERGENCY PROCEDURES.....	15
A. Airspeeds for Emergency Operation.....	15
B. Engine Failure During Takeoff Run In Water.....	16
C. Engine Failure Immediately Following Takeoff.....	16
D. Catastrophic Engine Failure During Flight.....	16
E. Emergency Descent (High Altitude).....	17
F. Glide.....	17
G. Maximum Glide.....	17
H. Emergency Landing On Water Without Engine Power.....	18
I. Flap Failure.....	18
J. Aileron Failure.....	18
K. Spins - (Typical Recovery from an Unintentional Spin).....	19
L. Amplified Procedures.....	19
IV. NORMAL PROCEDURES:.....	21
A. Airspeeds for Normal operation.....	21
B. Before Entering Float Plane.....	22
C. Before Master Switch is Turned On.....	22
D. Water Taxing.....	22
E. Demonstrated Wave Height.....	23
F. Takeoff on Water.....	23
H. Crosswind Water Takeoff.....	24

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT	Page 6
Issue Date	7/21/2017	Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.: A-33134
Revision Date	11/28/2018		Revision: A

- I. Before Landing on Water.....24
- J. Landing on Water24
- K. Balked Landing.....24
- L. Securing Airplane24
- V. PERFORMANCE.....25**
 - A. Use of Performance Charts25
 - B. Altitude Calibration25
 - C. Stall Speeds.....25
 - D. Obstacle Takeoff Distance.....25
 - E. Obstacle Landing Distance26
 - F. Rate of Climb – Takeoff – Flaps 20°26
 - G. Climb Gradient– Takeoff – Flaps 20°.....26
 - H. Enroute Rate of Climb – Flaps 0°26
 - I. Enroute Climb Gradient – Flaps 0°26
 - J. Rate of Climb – Balked Landing – Flaps 35°26
 - K. Climb Gradient – Balked Landing – Flaps 35°27
 - L. Cruise Performance.....27
 - M. Altitude Calibration27
 - N. Wind Components27
 - O. Obstacle Takeoff Distance from Water28
 - P. Obstacle Landing Distance on Water30
 - Q. Rate of Climb - Takeoff – Flaps 20°32
 - R. Climb Gradient – Takeoff – Flaps 20°33
 - S. Rate of Climb – Enroute – Flaps 0°34
 - T. Climb Gradient – Enroute – Flaps 0°35
 - U. Rate of Climb– Balked Landing – Flaps 35°36
 - V. Climb Gradient– Balked Landing – Flaps 35°37
- VI. WEIGHT AND BALANCE:.....39**
- VII. AIRPLANE HANDLING, SERVICE & MAINTENANCE:41**
 - A. Mooring.....41
 - B. Forklifting Under the Spreader Bars.....41
 - C. Jacking41
 - D. Servicing.....41

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	7
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

I. GENERAL

The information contained herein supplements or supersedes the basic Quest KODIAK Model 100 POH/AFM only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic POH/AFM as applicable.

WARNING!!

This supplement is not intended to be a guide for basic airmanship or training. It is not a substitute for competent flight instruction and pilot knowledge.

This STC installs Aerocet Model 6750 Twin Seaplane Floats on the Quest KODIAK including water rudders attached to the air rudder, a retraction system for the water rudders, and ventral vertical surfaces. Also installed is a weight on water detection system in lieu of the weight on wheels switch. The floats include 3 compartments each for the stowage of gear with water tight hatches.

GENERAL INFORMATION

MAXIMUM ENROUTE RATE OF CLIMB AT SEA LEVEL

7,255 Pounds..... 993 ft./min

MAXIMUM OPERATING ALTITUDE20,000 ft.

TAKEOFF PERFORMANCE AT SEA LEVEL 7,255 Pounds (Water).....

Water Run (Vr = 50 KIAS) 1,735 ft.
 Total distance Over 50 ft. Obstacle 2,332 ft.

LANDING PERFORMANCE AT SEA LEVEL 7,200 Pounds (Water)

Water Run 1,314 ft.
 Total Distance Over 50 ft. Obstacle..... 3,061 ft.

STALL SPEED

Flaps Up, Flight Idle, 7,255 Pounds 76 KCAS
 Flaps Down, Flight Idle, 7,255 Pounds 60 KCAS

MAXIMUM WEIGHT

Dock Weight 7,305 lb.
 Takeoff from Water 7,255 lb.
 Landing on Water 7,200 lb.
 Zero Fuel Weight* 7,071 lb.

STANDARD EMPTY WEIGHT 4,150 lb.

USEFUL LOAD 3,155 lb.

*NOTE: All weight above this amount must be in fuel.

		AEROCET INCORPORATED	Page	8
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

A three-view of the airplane is shown below in Figure 1.

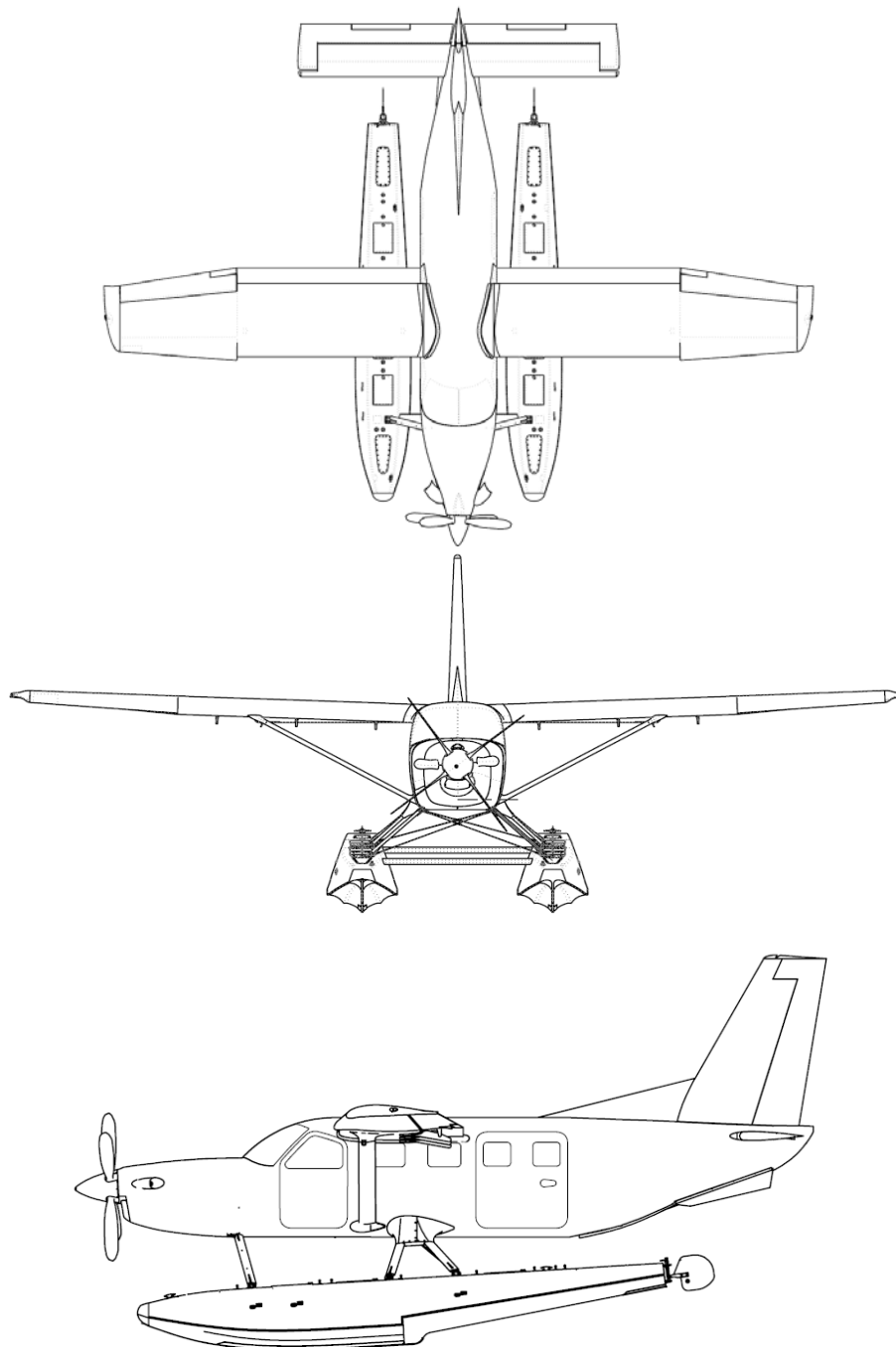


Figure 1 - KODIAK 100 Airplane with Aerocet 6750 Floats (three view)

		 AEROCET <small>INCORPORATED</small>	Page	9
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

II. LIMITATIONS

The Quest KODIAK 100 Seaplane is FAA certificated in the Normal Category.

The Limitations in this section apply only to the operations of the Quest KODIAK 100 equipped with Aerocet Model 6750 Seaplane floats and supplement or supersede the basic Quest KODIAK Model 100 POH/AFM for those areas listed. Consult the basic AFM for other limitations.

A. CENTER OF GRAVITY LIMITS

Forward C. G. Limit (5,900 lb. or less)	67.50 inches aft of datum 19.0 % MAC
Forward C.G. Limit (7,050 lb.)	72.10 inches aft of datum 26.6% MAC
Forward C.G. Limit (7,255 lb.)	74.5 inches aft of datum 30.3% MAC
Aft C.G. Limit up to 7,255 lb.	78.5 inches aft of datum 36.5% MAC

B. KINDS OF OPERATIONS LIMITS

Basic Aircraft Unchanged – Refer to Aircraft POH/AFM.

FAA equipment requirements may not apply outside the USA. The aircraft must be equipped in accordance with national requirements.

Table 1 summarizes the equipment required by 14 CFR part 23 for airworthiness for the particular kind of operation. Those minimum items of equipment necessary under the operating rules is defined in 14 CFR part 91 and 14 CFR part 135 as applicable.

Table 1 – Kinds of Operation Equipment List

Instrument, System, or Equipment	Kinds of operation			
	VFR, Day	VFR, Night	IFR, Day	IFR, Night
KODIAK 100 POH/AFM - Basic Aircraft	1	1	1	1
Approved Aerocet 6750 AFMS	1	1	1	1

C. MAXIMUM ALTITUDE

20,000 ft.

		AEROCET INCORPORATED	Page	10
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

D. ICING LIMITATIONS

Flight into known icing prohibited.

E. TAKEOFF FLAPS LIMITATION

Flaps set to 20 degrees is only approved position.

F. LANDING FLAPS LIMITATION

Flaps set to 35 degrees is only approved normal landing position.

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	11
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

G. TAKEOFF LIMITS - MAXIMUM TAKEOFF WEIGHTS FROM WATER

See §5 for Performance Details

Conditions: Max Takeoff Power, Flaps 20°, Rotation Below 55 KIAS and Climbout 83 KIAS at S.L. to 82 KIAS at 10,000 ft

1. These weights assure the availability of a steady gradient of climb of at least 243 ft./nm.
2. Dashed entries correspond to outside air temperatures beyond aircraft limits.
3. Takeoff is prohibited when water altitude and temperature fall in the shaded areas shown in Table 2 below at weights above those shown.

Table 2 - Maximum Takeoff Weights – Water – Pounds

OAT (°C)	OAT (°F)	PRESSURE ALTITUDE (FEET)										
		0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
-3	26.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
-1	30.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
1	33.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
3	37.4	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
5	41.0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
7	44.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
9	48.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
11	51.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
13	55.4	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
15	59.0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
17	62.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
19	66.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
21	69.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
23	73.4	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
25	77.0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7045
27	80.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	6935
29	84.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7145	6790
31	87.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	6995	6645
33	91.4	7200	7200	7200	7200	7200	7200	7200	7200	7185	6845	---
35	95.0	7200	7200	7200	7200	7200	7200	7200	7200	6995	---	---
37	98.6	7200	7200	7200	7200	7200	7200	7200	7155	---	---	---
39	102.2	7200	7200	7200	7200	7200	7200	7200	---	---	---	---
41	105.8	7200	7200	7200	7200	7200	7200	---	---	---	---	---
43	109.4	7200	7200	7200	7200	7200	---	---	---	---	---	---
45	113.0	7200	7200	7200	7200	---	---	---	---	---	---	---
47	116.6	7200	7200	7200	---	---	---	---	---	---	---	---
49	120.2	7200	7200	---	---	---	---	---	---	---	---	---

NOTE: Weight in Kilograms = weight in pounds (X) 0.4536

H. MAXIMUM LANDING WEIGHTS ON WATER

See §5 for Performance Details

Conditions for Aborted Landing: Max Takeoff Power, Flaps 35°, 73 KIAS

1. These weights assure the availability of a steady gradient of climb of at least 152 ft/nm.
2. Dashed entries correspond to outside air temperatures beyond aircraft limits.
3. Landings are prohibited when water altitude and temperature fall in the shaded areas shown in Table 2 below at weights above those shown.

Table 3 - Maximum Landing Weights – Water – Pounds

OAT (°C)	OAT (°F)	PRESSURE ALTITUDE (FEET)										
		0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
		-3	26.6	7200	7200	7200	7200	7200	7200	7200	7200	7200
-1	30.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
1	33.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
3	37.4	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
5	41.0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
7	44.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
9	48.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
11	51.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
13	55.4	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
15	59.0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
17	62.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
19	66.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
21	69.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
23	73.4	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
25	77.0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7045
27	80.6	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	6935
29	84.2	7200	7200	7200	7200	7200	7200	7200	7200	7200	7145	6790
31	87.8	7200	7200	7200	7200	7200	7200	7200	7200	7200	6995	6645
33	91.4	7200	7200	7200	7200	7200	7200	7200	7200	7185	6845	---
35	95.0	7200	7200	7200	7200	7200	7200	7200	7200	6995	---	---
37	98.6	7200	7200	7200	7200	7200	7200	7200	7155	---	---	---
39	102.2	7200	7200	7200	7200	7200	7200	7200	---	---	---	---
41	105.8	7200	7200	7200	7200	7200	7200	---	---	---	---	---
43	109.4	7200	7200	7200	7200	7200	---	---	---	---	---	---
45	113.0	7200	7200	7200	7200	---	---	---	---	---	---	---
47	116.6	7200	7200	7200	---	---	---	---	---	---	---	---
49	120.2	7200	7200	---	---	---	---	---	---	---	---	---

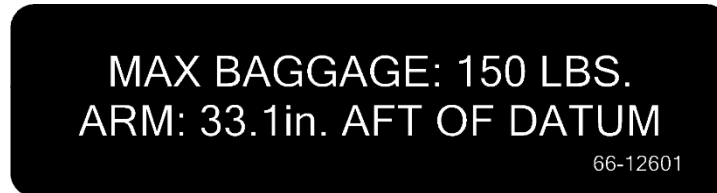
NOTE: Weight in Kilograms = weight in pounds (X) 0.4536

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	13
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

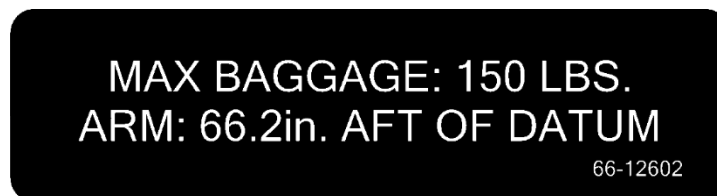
I. PLACARDS

The following information on placards pertaining to flight and Operating Limitations must be displayed:

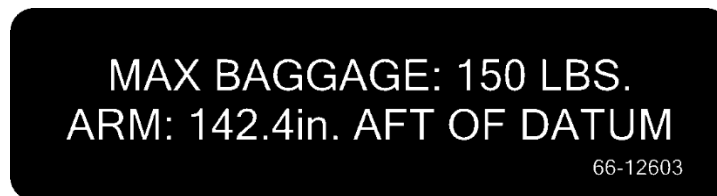
1. In forward baggage compartments, centered on bottom of door (1 each float):



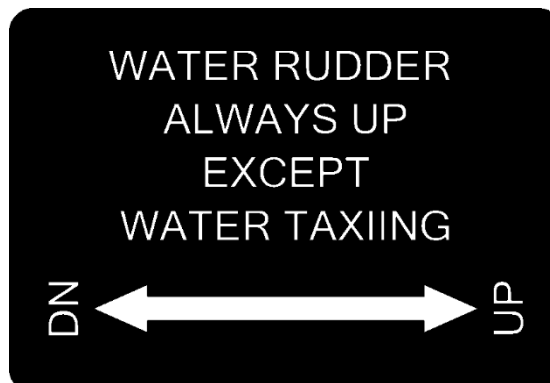
2. In middle baggage compartments, centered on bottom of door (1 each float):



3. In aft baggage compartments, centered on bottom of door (1 each float):



4. In full view of pilot, near water rudder control.



		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page 14 Doc No.: A-33134 Revision: A
Issue Date	7/21/2017		
Revision Date	11/28/2018		

5. In full view of the pilot:

This airplane is certified in the Normal Category. The markings and placards installed in this airplane must be complied with when operating this airplane. This airplane must be operated in accordance with the FAA Approved Flight Manual and Pilot's Operating Handbook, and FAA Approved Airplane Flight Manual Supplement when equipped with Aerocet Model 6750 floats.

Aerobatic maneuvers, including spins are PROHIBITED. Flight into known icing is PROHIBITED.

This airplane is certified for the following flight operations as of the date of issuance of the original airworthiness certificate:

DAY - NIGHT - VFR - IFR

66-11052

6. Locate above 1 amp breaker:

**Wt. On
Water**

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	15
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

III. EMERGENCY PROCEDURES

§III of this supplement describes the recommended procedures for the KODIAK Seaplane emergency situations which may occur. Emergencies caused by the airplane or engine malfunctions are quite rare if properly maintained and preflight inspections are conducted. However, should an emergency condition arise, the basic procedures included in the section should be considered and applied as necessary to resolve the problem.

WARNING!!

There is no substitute for proper and complete preflight planning habits and their continual review in minimizing emergencies. Be thoroughly knowledgeable of hazards and conditions that represent potential dangers, and be aware of the capabilities and limitations of the airplane.

A. AIRSPEDS FOR EMERGENCY OPERATION

ENGINE FAILURE AFTER TAKEOFF:

Wing Flaps 20°, 7,255 lbs. 85 KIAS

MANEUVERING SPEED

7,255 lb. 141 KIAS
 6,000 lb. 128 KIAS
 5,000 lb. 117 KIAS

RECOMMENDED GLIDE:

7,255 lb. Flaps 0° 97 KIAS

PRECAUTIONARY LANDING WITH ENGINE POWER:

7,200 lb. Flaps 35°, Approach Speed 80 KIAS
 Touchdown as slow as possible

APPROACH TO LANDING WITHOUT ENGINE POWER

7,200 lb. Flaps 0° 100 KIAS
 7,200 lb. Flaps 35°, Approach Speed 85 KIAS
 Touchdown as slow as possible

		AEROCET INCORPORATED	Page	16
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

B. ENGINE FAILURE DURING TAKEOFF RUN IN WATER

1. Power Lever – IDLE
2. Elevator – CONTROL YOKE – FULL AFT
3. Power Lever – BETA RANGE

If the airplane cannot be stopped on the remaining length of waterway:

4. Water Rudders – DOWN
5. Fuel Condition Lever – CUTOFF
6. Firewall Fuel Shutoff – FUEL OFF (Pull Out)
7. Fuel Selector Valves – OFF (Red LED warning light will be shown on panel)
8. Master Switch - OFF

C. ENGINE FAILURE IMMEDIATELY FOLLOWING TAKEOFF

1. Control Yoke forward to maintain safe flying speed
2. Airspeed – 85 KIAS with 20° of Flaps – if time permits
3. Power Lever – IDLE
4. Propeller Control Lever – FEATHER
5. Wing Flaps – FULL DOWN
6. Fuel Condition Lever – CUTOFF
7. Firewall Fuel Shutoff – FUEL OFF (Pull Out)
8. Fuel Selector Valves – OFF (Red LED warning light will be shown on panel)
9. Master Switch - OFF
10. Landing – MAKE AS STRAIGHT AHEAD AS POSSIBLE
11. Water Rudders – DOWN as needed on Water

D. CATASTROPHIC ENGINE FAILURE DURING FLIGHT

1. Airspeed – 97 KIAS
2. Power Lever – IDLE
3. Propeller Control Lever – FEATHER
4. Fuel Condition Lever – CUTOFF
5. Wing Flaps - UP
6. Auxiliary Fuel Pump - OFF
7. Firewall Fuel Shutoff – FUEL OFF (Pull Out)
8. Ignition Switch - OFF
9. Standby Alternator - OFF
10. Electrical Load - REDUCE
11. Landing – Refer to the Engine Out Emergency Landing Checklist

		 AEROCET <small>INCORPORATED</small>	Page	17
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

E. EMERGENCY DESCENT (HIGH ALTITUDE)

1. Propeller – MAX RPM
2. Power Lever – IDLE
3. Flaps – 0°
4. Airspeed – 172 KIAS

F. GLIDE

1. Propeller Lever – FEATHER
2. Flaps – UP
3. Airspeed – 97 KIAS

G. MAXIMUM GLIDE KODIAK 100 SEAPLANE ON AEROCET FLOATS AT 97 KIAS

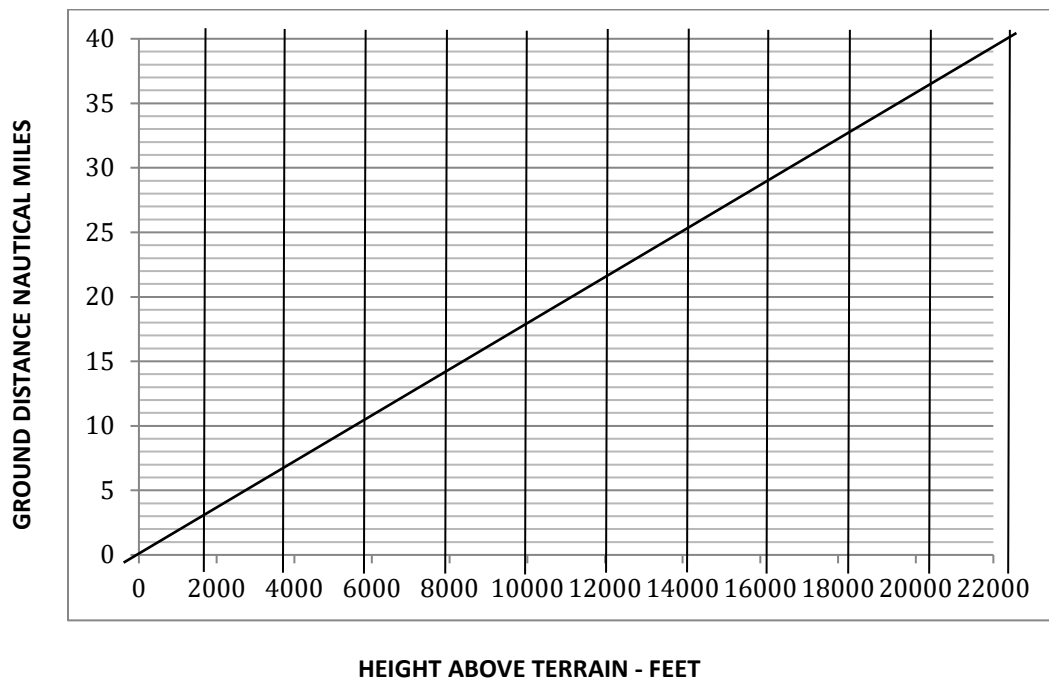


Figure 2 - Glide Performance (0° Flaps)

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	18
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

FORCED LANDINGS

H. EMERGENCY LANDING ON WATER WITHOUT ENGINE POWER

1. Prop Control Lever – FEATHER

NOTE: Significantly improved glide performance will be available with the propeller feathered

2. Airspeed – 100 KIAS (Flaps Up) or 85 KIAS (Flaps Down)
3. Heavy Objects in Cabin – SECURE
4. Seatbelt and Shoulder Harness – SECURE
5. Inertial Reel Levers – LOCKED
6. Radio – TRANSMIT MAYDAY ON 121.5 MHZ OR WITH ATC
7. Power Lever – IDLE
8. Fuel Condition Lever – CUTOFF
9. Auxiliary Fuel Pump – OFF
10. Ignition Switch – OFF
11. AUX BUS – OFF
12. Firewall Fuel Shutoff – OFF
13. Flaps – FULL DOWN
14. Crew Doors – UNLATCH
15. Generator - OFF
16. Standby Alternator – OFF
17. Airspeed – 85 KIAS on final, below 55 KIAS at landing
18. Master – OFF (when landing is assured)
19. Touchdown – SLIGHTLY TAIL LOW
20. After Touchdown – CONTROL YOKE – FULL AFT
21. Water Rudders – DOWN as needed

NOTE: In rough water, landing at a level attitude is preferred to cut through the waves.

I. FLAP FAILURE

1. Follow POH for troubleshooting.
2. Follow normal procedures except Approach Airspeed – 100 KIAS (Flaps Up)

J. AILERON FAILURE

1. Immediately Reduce Flaps to 20° or less (With flaps deflected to 35° there is a lack of roll control using the rudder without ailerons.)
2. Use Rudder for directional/roll control – keep bank angles under 15°
3. Use aileron trim as needed
4. Land with Flaps 20° 80 KIAS on final and as much into the wind as possible

CAUTION: Select a landing area that has low crosswinds and calm water. Roll control with the rudder is not effective below 72 KIAS.

		 AEROCET <small>INCORPORATED</small>	Page	19
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

K. SPINS - (TYPICAL RECOVERY FROM AN UNINTENTIONAL SPIN)

1. Power Lever - IDLE
2. Ailerons - NEUTRAL
3. Rudder – FULL OPPOSITE SPIN DIRECTION
4. Control Yoke – BRISKLY FORWARD until spin motion stops
5. Controls – NEUTRALIZE and recover from resulting dive
6. Flaps – RETRACT if extended

L. AMPLIFIED PROCEDURES

Ditching

For ditching the aircraft in heavy seas landings should be made parallel to swells, if possible. Heavy objects should be secured or jettisoned. Transmit Mayday message on 121.5 MHz providing the location and intentions and squawk 7700. At night, landing flares should be avoided because of possible difficulty in judging the aircraft's height above water surfaces.

		AEROCET INCORPORATED	Page	20
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

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		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	21
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

IV. NORMAL PROCEDURES:

**(NOTE: THESE ITEMS SUPPLEMENT THE
KODIAK 100 NORMAL PROCEDURES)**

WARNING!!

There is no substitute for proper and complete preflight planning habits and their continual review in minimizing emergencies. A pilot must be thoroughly knowledgeable of hazards and conditions, which represent potential dangers, and be aware of the capabilities and limitations of the airplane.

A. AIRSPEEDS FOR NORMAL OPERATION

TAKEOFF (FLAPS 20°):

Rotation Speed (Max)..... 50 KIAS
 Normal Climb Out (with progressive flap retraction)..... 85-95 KIAS
 Short Distance Takeoff Climb out, Flaps 20° 73 KIAS

ENROUTE CLIMBS (FLAPS UP)

Cruise Climb..... 105-115 KIAS
 Vy (S.L.) 93 KIAS
 Vy (10,000 ft.) 90 KIAS

APPROACH TO LANDING:

Normal Approach, Flaps 35° 80 KIAS
 Normal Approach, Flaps 20° (prior to setting flaps at 35°) 85 KIAS
 Short Distance Approach, Flaps 35° (V-REF)..... 76 KIAS
 Glassy Water Landing, Flaps 35°, 100-150 FPM descent rate 70-72 KIAS

BALKED LANDING/GO-AROUND:

Takeoff Power, Flaps 20° 73 KIAS

MAXIMUM TURBULENT AIR PENETRATION SPEED

7,255 Pounds 142 KIAS
 6,000 Pounds 129 KIAS
 5,000 Pounds 118 KIAS

MAXIMUM DEMONSTRATED CROSSWIND VELOCITY:

Takeoff/Landing - Water12 Knots

		AEROCET INCORPORATED	Page	22
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

WARNING:
DO NOT ATTEMPT TAKEOFF WITH KNOWN HULL LEAK OR STRUCTURAL DAMAGE.

B. BEFORE ENTERING FLOAT PLANE

1. Inspect the floats and attachment for dents, cracks, punctures, ETC.
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
2. Inspect Water Rudder System – INSPECT for worn cables, Pulleys, ETC.
3. Inspect the Tie Rod Assemblies assuring that they are taught and attachment of Struts.
4. Inspect locker door latches – DETENTS ENGAGED, LATCHES TURNED CLOCKWISE TO STOPS.

C. BEFORE MASTER SWITCH IS TURNED ON

1. Water Rudder Operation – CHECK VISUALLY
2. Water Rudders – DOWN FOR TAXIING
3. Water Rudders – CHECK FREEDOM OF MOVEMENT & SECURITY
4. Verify Flight Hobbs – VERIFY THAT FLIGHT TIME HAS NOT BEEN ACCUMULATED SINCE LAST FLIGHT (this assures that the weight on water switch is working)

D. WATER TAXING

Taxi with water rudders down. It is best to place the fuel condition lever in low idle and use BETA with the power lever as needed to keep the float bow as high as possible at forward CG conditions. During all low speed taxi operations, the elevator should be positioned to keep the float bows out of the water as far as possible.

In taxiing on the water in high winds, use of BETA will sometimes aid in a turn to downwind, especially to the left. BETA / REVERSE can be used on water, taking care to avoid excessive spray ingestion. (Bows up.)

Although taxiing is very simple with the water rudders, it is sometimes necessary to sail the floatplane under high wind conditions. In addition to the normal flight controls, the wing flaps and cabin doors will aid in sailing. Water rudders should be retracted during sailing.

To taxi great distances on calm water, it may be advisable to taxi on the step with the water rudders retracted. Turns while on the step from an upwind heading to a downwind heading may be made with safety providing they are not too sharp and if ailerons are used to counteract any overturning tendency.

		AEROCET INCORPORATED	Page	23
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

E. DEMONSTRATED WAVE HEIGHT

The KODIAK Seaplane has been demonstrated to operate satisfactorily in wave heights (trough to crest) of 16 inches. This is not considered to be a limitation. Rough water conditions are best addressed with landing relatively level to allow the bows to better cut through the waves.

F. TAKEOFF ON WATER

1. Water Rudders – UP (retraction handle aft)
2. Wing Flaps – 20° (second notch and only allowable takeoff flap position)
3. Control Yoke – HOLD FAR AFT INITIALLY
4. Fuel Condition Lever – HIGH IDLE
5. Power – SET FOR TAKEOFF (Observe Takeoff Torque, ITT and Ng Limits)
6. Control Yoke – MOVE FORWARD TO REDUCE BACKPRESSURE TO ATTAIN PLANING ATTITUDE

NOTE:

If porpoising is encountered while on the step, apply an amount of control wheel back pressure to correct the excessively nose-low attitude. If this does not correct the porpoising, reduce power to idle and allow the seaplane to slow to taxi speed, at which time the takeoff can be restarted.

7. Control Yoke – HOLD THE CONTROL YOKE IN THE OPTIMIZED POSITION, FORWARD OR AFT, FOR MAXIMUM ACCELERATION ON THE STEP.
8. Control Yoke – APPLY LIGHT BACK PRESSURE UNTIL AIRCRAFT LEAVES WATER TO LIFT OFF AT APPROXIMATELY 50 KIAS.

Caution

Rotation off the water at excessive speeds introduces high loads to the aircraft and float equipment. In rough water a more level attitude will lower the airframe allowing the bows to cut through the waves. Initiating rotation early on rough water leads to high pitch attitudes increasing loading on the floats and airframe.

9. Control Yoke – RELEASE BACKPRESSURE TO MAINTAIN LEVEL FLIGHT UNTIL 60 KIAS. (Accelerate just above the water.)
10. Climb – ADJUST PITCH ATTITUDE TO CAPTURE AND CLIMB AT 73 KIAS UNTIL CLEAR OF OBSTACLES
11. Wing Flaps – UP AFTER OBSTACLES ARE CLEARED
(Retract to 10° at 85 KIAS and retract to 0° at 95 KIAS)

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	24
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

H. CROSSWIND WATER TAKEOFF

1. Wing Flaps – 20°
2. Water Rudders – LEAVE DOWN
3. Control Yoke – FULL AFT (NOSE UP)
4. Fuel Condition Lever – HIGH IDLE
5. Power – SET FOR TAKEOFF (Observe Takeoff Torque, ITT and Ng Limits)

WARNING!!

During crosswind takeoffs power must be added carefully to address torque issues from propulsion. A nose high plowing attitude must be held until sufficient airspeed is obtained to maintain directional control. At that time the nose can be lowered and the aircraft brought onto the step.

6. Controls – AS REQUIRED TO MAINTAIN DIRECTIONAL CONTROL
7. Water Rudders – RETRACT ON STEP IF SAFELY ABLE
8. Wing Flaps – UP AFTER OBSTACLES ARE CLEARED

I. BEFORE LANDING ON WATER

1. Water Rudders – UP
2. Wing Flaps – 35°

J. LANDING ON WATER

1. Touchdown – SLIGHTLY TAIL LOW
2. Control Yoke – HOLD FULL AFT as seaplane decelerates to taxi speed
3. After Landing – WATER RUDDERS DOWN
4. Fuel Condition Lever – LOW IDLE
5. Propeller Position – FOR APPROPRIATE SPEED (use Beta including reverse if necessary)

K. BALKED LANDING

RETRACT FLAPS TO 20° IMMEDIATELY AFTER APPLYING TAKEOFF POWER FOR GO-AROUND. AIRSPEED TO 73 KIAS.

L. SECURING AIRPLANE

1. Fuel Selector – TO RIGHT OR LEFT TANK POSITION TO PREVENT CROSS-FEEDING.
2. Verify Flight Hobbs – VERIFY THAT FLIGHT TIME HAS BEEN ACCUMULATED SINCE START OF FLIGHT (this assures that the weight on wheels/floats switch is working)

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	25
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

V. PERFORMANCE

The data presented have been compiled from actual flight tests with the airplane and engine in good condition using average pilot techniques.

Warning!!

To ensure that performance in this section can be duplicated, the airplane and engine must be maintained in good condition.

A. USE OF PERFORMANCE CHARTS

Performance data is presented in tabular or graphical form to illustrate the effects or trends of several variables and to allow conservative approximation of operational performance.

B. ALTITUDE CALIBRATION

This chart determines altitude correction in feet for a given altitude, flap position and indicated airspeed. Add or subtract the correction from the desired altitude to get the altitude to fly at. Shaded areas correspond to speeds above the approved operating limits for that aircraft configuration.

C. STALL SPEEDS

Stall speeds are the same as the KODIAK 100 landplane and pertain to the forward CG limits of the approved loading envelope for an airplane gross weight of 7,255 Pounds (3291 Kilograms). It should be noted that indicated airspeed values at the stall are sensitive to minor variations in the pilot/static probes and the corresponding indicated values may not be completely accurate.

D. OBSTACLE TAKEOFF DISTANCE

Takeoff distances for the worst-case condition for a water takeoff at 7,255 lb. (3291 Kilograms) gross weight, as well as for lighter weights of 6,000 lb. and 5,000 lb. are provided. Only a flap setting of 20 degrees is approved for takeoff on water. These charts may be used as a guide for predicting takeoff distances for a particular flight. Normally, the next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of performance needs. Water takeoffs contain many variables associated with water conditions and pilot technique. Water takeoffs distances should be used as a rough guide only. Obstacle takeoff charts for water use the procedure in section 4. Company Testing has shown takeoff distances can be 20% shorter.

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	26
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

E. OBSTACLE LANDING DISTANCE

Landing distances for the worst-case condition for a landing at 7,200 lbs. (3291 Kilograms) as well as for lighter weights of 6,000 lb. and 5,000 lb. are provided. These charts may be used as a guide for predicting landing distances for a particular flight. Normally, the next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of performance needs. Water landings contain many variables associated with water conditions and pilot technique. Water landing distances should be used as a rough guide only.

F. RATE OF CLIMB – TAKEOFF – FLAPS 20°

This chart provides rate of climb performance data for the takeoff flap setting of 20°. Data is provided for 7,255 lb. 6,200 lb. 5,200 lb. gross weights. The next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of climb performance available.

G. CLIMB GRADIENT- TAKEOFF – FLAPS 20°

This chart provides rate of climb gradient data for the takeoff flap setting of 20°. Data is provided for 7,255 lb. 6,200 lb. 5,200 lb. gross weights. The next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of climb gradient available.

H. ENROUTE RATE OF CLIMB – FLAPS 0°

This chart provides rate of climb performance data for the enroute configuration. Data is provided for 7,255 lb. 6,200 lb. 5,200 lb. gross weights. The next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of climb performance available.

I. ENROUTE CLIMB GRADIENT – FLAPS 0°

This chart provides rate of climb gradient data for the enroute configuration. Data is provided for 7,255 lb. (3291 Kilogram), 6,200 lb. 5,200 lb. gross weights. The next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of climb gradient available.

J. RATE OF CLIMB – BALKED LANDING – FLAPS 35°

This chart provides rate of climb performance data for the maximum landing flap setting (35°). Data is provided for 7,200 lb. 6,200 lb. 5,200 lb. landing weights. The next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of climb performance available.

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	27
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

K. CLIMB GRADIENT – BALKED LANDING – FLAPS 35°

This chart provides rate of climb gradient data for the maximum landing flap setting (35°). Data is provided for 7,200 lb. 6,200 lb. 5,200 lb. landing weights. The next higher temperature and altitude in the chart compared with actual conditions will yield a conservative approximation of climb gradient available.

L. CRUISE PERFORMANCE

Cruise performance when equipped with Aerocet 6750 Seaplane floats is generally 7-8% lower than that published in the KODIAK 100 POH. Lines used for docking attached to various places on the aircraft introduce performance variables.

M. ALTITUDE CALIBRATION

Table 4 – Altitude Calibration

FLAPS	PRESS ALT(FT)	CORRECTION TO BE ADDED						
		NORMAL STATIC SOURCE - KIAS						
		60	80	100	120	140	160	180
0°	S.L.		+7	-9	+1	+8	+2	-24
	10000		+10	-11	+2	+10	+3	-38
	20000		+18	-20	+3	+18	+4	-62
10°	S.L.		+7	+1	+3	+7		
	10000		+8	+1	+3	+8		
	20000		+9	+1	+4	+9		
20°	S.L.		+11	-2	0			
	10000		+13	-2	0			
	20000		+17	-3	0			
35°	S.L.	+12	+10	+8				
	10000	+14	+12	+9				
	20000	+18	+15	+10				

N. WIND COMPONENTS

Note: Maximum demonstrated crosswind velocity on water is 12 kts (not a limitation)

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	28
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

O. OBSTACLE TAKEOFF DISTANCE FROM WATER

- Distances are from point where takeoff power is reached.
- Decrease distances 10% for each 11 knots headwind. For operation in tail winds up to 10 knots, increase distances by 10% for each 2 knots.
- Increase both the water run and total distances by 1% for the inertial separator system in bypass.
- For operation on glassy water, expect distances to increase by at least 50% or more of the water run distance.
- For operation in air colder than this table provides, use the coldest (leftmost) data for takeoff distances. Be alert for icy/frozen water conditions.
- For operation in air warmer than this table provides, use extreme caution and be very conservative regarding obstacle clearance distances.
- Dashed entries indicate atmospheric temperatures above limitations on airplane.
- Due to the difficulty of determining altitude effects on water performance and the many variables associated with water conditions and pilot technique, these distances should be used as a rough guide only, particularly as altitude and temperature increase.

CONDITIONS:

Flaps 20°

2200 Prop RPM, Torque Set Per Quest KODIAK 100 POH

Heater Off

Zero Wind

Rotation Speed

off the water: 50 KIAS (approx.)

Speed at 50ft: 73 KIAS

Table 5 – 7255 Pounds Obstacle Takeoff Distance from Water

7255 POUNDS												
Press. Alt (ft)	0° C		10° C		20° C		30° C		40° C		50° C	
	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle
S.L.	1584	2144	1684	2269	1786	2396	2040	2736	2371	3184	2804	3774
1000	1685	2270	1791	2402	1949	2605	2242	2999	2615	3502	3103	4167
2000	1793	2404	1906	2544	2143	2858	2470	3295	2881	3849	---	---
3000	1909	2547	2063	2744	2361	3139	2725	3625	3182	4240	---	---
4000	2033	2700	2276	3018	2603	3452	3005	3987	3513	4669	---	---
5000	2217	2935	2511	3322	2868	3792	3311	4381	3877	5138	---	---
6000	2452	3238	2770	3655	3162	4170	3657	4826	---	---	---	---
7000	2706	3564	3058	4023	3495	4597	4051	5333	---	---	---	---
8000	2992	3930	3387	4445	3875	5085	4494	5901	---	---	---	---
9000	3381	4497	3833	5095	4387	5829	5082	6759	---	---	---	---
10000	3815	5138	4330	5826	4962	6676	5760	7757	---	---	---	---
11000	4315	5882	4916	6698	5622	7659	---	---	---	---	---	---
12000	4885	6741	5572	7685	6380	8798	---	---	---	---	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	29
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

Table 6 – 6000 Pounds Obstacle Takeoff Distance from Water

6000 POUNDS												
Press. Alt (ft)	0° C		10° C		20° C		30° C		40° C		50° C	
	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle
S.L.	967	1329	1028	1405	1090	1484	1245	1695	1447	1972	1711	2338
1000	1028	1406	1093	1488	1189	1614	1369	1858	1596	2169	1894	2581
2000	1094	1489	1163	1575	1308	1769	1507	2040	1758	2383	---	---
3000	1165	1577	1259	1699	1441	1943	1663	2245	1942	2625	---	---
4000	1240	1672	1389	1869	1588	2137	1834	2469	2144	2891	---	---
5000	1353	1817	1532	2056	1750	2348	2020	2712	2366	3181	---	---
6000	1496	2004	1691	2262	1930	2581	2232	2987	---	---	---	---
7000	1651	2206	1866	2490	2133	2845	2472	3301	---	---	---	---
8000	1826	2432	2067	2750	2365	3147	2742	3652	---	---	---	---
9000	2063	2782	2340	3152	2677	3606	3102	4181	---	---	---	---
10000	2329	3177	2642	3603	3028	4129	3515	4797	---	---	---	---
11000	2633	3637	3000	4141	3431	4735	---	---	---	---	---	---
12000	2981	4166	3400	4749	3894	5438	---	---	---	---	---	---

Table 7 – 5000 Pounds Obstacle Takeoff Distance from Water

5000 POUNDS												
Press. Alt (ft)	0° C		10° C		20° C		30° C		40° C		50° C	
	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Grnd Roll (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle
S.L.	602	840	640	888	679	938	775	1071	901	1246	1065	1477
1000	640	889	680	940	740	1019	852	1173	993	1370	1179	1631
2000	681	941	724	995	814	1118	938	1289	1094	1505	---	---
3000	725	996	784	1073	897	1227	1035	1418	1209	1658	---	---
4000	772	1056	865	1180	989	1349	1142	1559	1335	1826	---	---
5000	842	1147	954	1298	1089	1482	1258	1712	1473	2009	---	---
6000	931	1265	1052	1428	1201	1630	1389	1886	---	---	---	---
7000	1028	1392	1162	1572	1328	1796	1539	2084	---	---	---	---
8000	1136	1535	1287	1736	1472	1986	1707	2305	---	---	---	---
9000	1284	1755	1456	1989	1666	2275	1931	2638	---	---	---	---
10000	1449	2004	1645	2273	1885	2604	2188	3026	---	---	---	---
11000	1639	2293	1868	2611	2136	2986	---	---	---	---	---	---
12000	2981	4166	3400	4749	3894	5438	---	---	---	---	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	30
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

P. OBSTACLE LANDING DISTANCE ON WATER

CONDITIONS:
 Flaps 35°
 Propeller Lever - Maximum
 Zero Wind

Table 8 – 7200 Pounds Obstacle Landing Distance on Water (50 foot speed 76 KIAS)

7200 POUNDS												
Press. Alt (ft)	0° C		10° C		20° C		30° C		40° C		50° C	
	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle
S.L.	1246	2956	1291	3026	1337	3096	1382	3168	1428	3241	1474	3314
1000	1292	3026	1339	3100	1386	3174	1433	3249	1481	3326	1528	3403
2000	1340	3101	1389	3178	1438	3256	1487	3336	1536	3416	---	---
3000	1390	3180	1441	3261	1492	3343	1542	3427	1593	3511	---	---
4000	1442	3264	1495	3349	1548	3436	1601	3524	1653	3613	---	---
5000	1497	3352	1552	3442	1607	3534	1661	3626	1716	3720	---	---
6000	1554	3447	1611	3541	1668	3637	1725	3735	---	---	---	---
7000	1614	3546	1673	3646	1732	3747	1792	3850	---	---	---	---
8000	1677	3652	1738	3758	1800	3864	1861	3971	---	---	---	---
9000	1777	3840	1842	3953	1908	4067	1973	4183	---	---	---	---
10000	1884	4039	1953	4160	2022	4283	2091	4407	---	---	---	---
11000	1996	4251	2069	4381	2142	4512	---	---	---	---	---	---
12000	2115	4476	2193	4615	2270	4756	---	---	---	---	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	31
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

Table 9 – 6000 Pounds Obstacle Landing Distance on Water (50 foot speed 70 KIAS)

6000 POUNDS												
Press. Alt (ft)	0° C		10° C		20° C		30° C		40° C		50° C	
	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle
S.L.	823	2204	853	2249	883	2295	914	2342	944	2389	974	2437
1000	854	2249	885	2297	916	2345	947	2395	979	2445	1010	2496
2000	885	2298	918	2348	950	2399	983	2451	1015	2504	---	---
3000	918	2349	952	2402	986	2456	1019	2511	1053	2567	---	---
4000	953	2404	988	2460	1023	2517	1058	2575	1093	2634	---	---
5000	989	2462	1026	2521	1062	2582	1098	2643	1134	2704	---	---
6000	1027	2524	1065	2587	1102	2650	1140	2714	---	---	---	---
7000	1067	2590	1106	2656	1145	2723	1184	2791	---	---	---	---
8000	1108	2660	1149	2730	1189	2800	1230	2872	---	---	---	---
9000	1175	2789	1218	2864	1261	2940	1304	3017	---	---	---	---
10000	1245	2926	1290	3007	1336	3088	1382	3171	---	---	---	---
11000	1319	3071	1368	3158	1416	3246	---	---	---	---	---	---
12000	1398	3226	1449	3319	1500	3413	---	---	---	---	---	---

Table 10 – 5000 Pounds Obstacle Landing Distance from Water (50 foot speed 63 KIAS)

5000 POUNDS												
Press. Alt (ft)	0° C		10° C		20° C		30° C		40° C		50° C	
	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle	Water Run (ft)	Total ft to clear 50 ft Obstacle
S.L.	548	1705	568	1734	588	1765	608	1795	628	1827	648	1859
1000	568	1735	589	1766	609	1798	630	1831	651	1864	672	1898
2000	589	1766	611	1800	632	1834	654	1868	675	1903	---	---
3000	611	1800	633	1836	656	1872	678	1908	701	1945	---	---
4000	634	1837	657	1874	680	1912	704	1951	727	1990	---	---
5000	658	1875	682	1915	706	1955	730	1996	755	2038	---	---
6000	683	1917	708	1959	733	2001	758	2044	---	---	---	---
7000	710	1961	736	2005	762	2050	788	2096	---	---	---	---
8000	737	2008	764	2055	791	2102	818	2150	---	---	---	---
9000	781	2099	810	2149	839	2201	867	2253	---	---	---	---
10000	828	2196	858	2250	889	2305	919	2361	---	---	---	---
11000	878	2298	910	2357	942	2416	---	---	---	---	---	---
12000	930	2407	964	2470	998	2534	---	---	---	---	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	32
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

Q. RATE OF CLIMB - TAKEOFF - FLAPS 20°

Max Takeoff Power, Flaps 20°, gear dn, 2200 RPM, 1790 ft./lb. (observe ITT & Ng limits), Bypass Normal. Note: Dashed entries correspond to outside air temperatures beyond aircraft limits

Table 11 - 7255 Pounds Weight Rate of Climb - Takeoff Flaps 20°

7255 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB – FPM				
		-20°C	0°C	20°C	40°C	50°C
			0°C	20°C	40°C	
S.L.	79	1082	1047	1014	633	402
2000	79	1049	1010	854	460	232
4000	78	1009	972	679	290	---
6000	77	969	810	505	124	---
8000	76	881	660	365	---	---
10000	74	703	478	189	---	---

Table 12 - 6200 Pounds Weight Rate of Climb - Takeoff Flaps 20°

6200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB – FPM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	79	1474	1442	1411	973	706
2000	79	1445	1407	1233	780	516
4000	78	1409	1374	1040	594	---
6000	77	1374	1196	849	411	---
8000	76	1283	1035	699	---	---
10000	74	1089	835	507	---	---

Table 13 - 5200 Pounds Weight Rate of Climb - Takeoff Flaps 20°

5200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB – FPM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	79	1957	1926	1897	1382	1068
2000	79	1931	1894	1694	1162	851
4000	78	1898	1865	1474	951	---
6000	77	1867	1665	1259	745	---
8000	76	1772	1485	1094	---	---
10000	74	1553	1260	878	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	33
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

R. CLIMB GRADIENT – TAKEOFF – FLAPS 20°

Max Takeoff Power, Flaps 20°, gear dn, 2200 RPM, 1790 ft./lb. (observe ITT & Ng limits), Bypass Normal. Note: Dashed entries correspond to outside air temperatures beyond aircraft limits

Table 14 – 7255 Pounds Weight Climb Gradient - Takeoff Flaps 20°

7255 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	79	872	811	757	456	284
2000	79	819	758	617	321	159
4000	78	768	711	477	197	---
6000	77	718	576	346	82	---
8000	76	637	458	244	---	---
10000	74	495	323	123	---	---

Table 15 - 6200 Pounds Weight Climb Gradient - Takeoff Flaps 20°

6200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	79	1199	1126	1062	702	500
2000	79	1137	1064	896	545	354
4000	78	1080	1012	734	404	---
6000	77	1025	856	583	272	---
8000	76	934	721	469	---	---
10000	74	769	566	331	---	---

Table 16 - 5200 Pounds Weight Climb Gradient - Takeoff Flaps 20°

5200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	79	1615	1525	1445	1005	760
2000	79	1541	1450	1243	815	585
4000	78	1474	1390	1049	649	---
6000	77	1410	1202	870	495	---
8000	76	1303	1043	736	---	---
10000	74	1107	859	575	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	34
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

S. RATE OF CLIMB – ENROUTE – FLAPS 0°

Max Climb Power, Flaps 0°, 2200 RPM, gear up, 1674 ft./lb. (observe ITT and Ng limits), Bypass Normal. Note: Dashed entries correspond to outside air temperatures beyond aircraft limits.

Table 17 - 7255 Pounds Weight Rate of Climb– Enroute - Flaps 0°

7255 POUNDS WEIGHT							
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB – FPM					
		-40°C	-20°C	0°C	20°C	40°C	50°C
S.L.	94	1219	1191	1159	938	426	160
5000	94	1139	1113	923	504	19	---
10000	94	1010	771	453	55	---	---
15000	94	524	289	---	---	---	---
20000	94	95	---	---	---	---	---

Table 18 - 6200 Pounds Weight Rate of Climb– Enroute - Flaps 0°

6200 POUNDS WEIGHT							
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB – FPM					
		-40°C	-20°C	0°C	20°C	40°C	50°C
S.L.	94	1599	1574	1543	1292	699	390
5000	94	1521	1499	1284	801	240	---
10000	94	1389	1118	754	296	---	---
15000	94	841	576	213	---	---	---
20000	94	364	90	---	---	---	---

Table 19 - 5200 Pounds Weight Rate of Climb– Enroute - Flaps 0°

5200 POUNDS WEIGHT							
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB – FPM					
		-40°C	-20°C	0°C	20°C	40°C	50°C
S.L.	94	2087	2065	2036	1743	1043	679
5000	94	2012	1994	1746	1177	516	---
10000	94	1873	1559	1134	597	---	---
15000	94	1242	936	513	---	---	---
20000	94	698	383	---	---	---	---

On a standard day at Sea Level, the enroute rate of climb at 7255 pounds is 1060 ft/min.

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	35
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

T. CLIMB GRADIENT – ENROUTE – FLAPS 0°

Max Climb Power, Flaps 0°, 2200 RPM, gear up, 1674 ft./lb. (observe ITT and Ng limits), Bypass Normal. Note: Dashed entries correspond to outside air temperatures beyond aircraft limits.

Table 20 - 7255 Pounds Weight Climb Gradient– Enroute - Flaps 0°

7255 POUNDS WEIGHT							
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM					
		-40°C	-20°C	0°C	20°C	40°C	50°C
S.L.	94	872	817	764	595	261	96
5000	94	741	694	553	290	10	---
10000	94	596	436	246	29	---	---
15000	94	279	148	---	---	---	---
20000	94	46	---	---	---	---	---

Table 21 - 6200 Pounds Weight Climb Gradient– Enroute - Flaps 0°

6200 POUNDS WEIGHT							
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM					
		-40°C	-20°C	0°C	20°C	40°C	50°C
S.L.	94	1135	1070	1008	811	422	231
5000	94	981	926	761	456	132	---
10000	94	811	624	404	153	---	---
15000	94	442	290	103	---	---	---
20000	94	172	41	---	---	---	---

Table 22 - 5200 Pounds Weight Climb Gradient– Enroute - Flaps 0°

5200 POUNDS WEIGHT							
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM					
		-40°C	-20°C	0°C	20°C	40°C	50°C
S.L.	94	1500	1420	1344	1102	632	403
5000	94	1310	1243	1042	672	284	---
10000	94	1102	875	609	308	---	---
15000	94	655	472	248	---	---	---
20000	94	330	174	---	---	---	---

On a standard day at Sea Level, the enroute climb gradient at 7255 pounds is 680 ft/nm

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	36
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

U. RATE OF CLIMB- BALKED LANDING - FLAPS 35°

Max Takeoff Power, Flaps 35°, gear down, 2200 RPM, 1790 ft./lb. (observe ITT & Ng limits), Bypass Normal. Note: Dashed entries correspond to outside air temperatures beyond aircraft limits

Table 23 - 7200 Rate of Climb Balked Landing - Flaps 35°

7200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	73	930	891	848	476	252
2000	73	891	847	689	307	85
4000	73	850	804	512	136	---
6000	73	803	639	342	---	---
8000	73	713	489	189	---	---
10000	73	541	301	---	---	---

Table 24 - 6200 Rate of Climb Balked Landing - Flaps 35°

6200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	73	1305	1269	1227	803	547
2000	73	1268	1227	1051	616	363
4000	73	1229	1185	856	428	---
6000	73	1183	1003	667	231	---
8000	73	1088	839	500	---	---
10000	73	899	630	295	---	---

Table 25 - 5200 Rate of Climb Balked Landing - Flaps 35°

5200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	73	1784	1750	1709	1212	911
2000	73	1749	1708	1508	997	700
4000	73	1711	1668	1284	783	---
6000	73	1665	1461	1070	558	---
8000	73	1562	1275	881	---	---
10000	73	1346	1037	648	---	---

		 AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Page	37
Issue Date	7/21/2017		Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

V. CLIMB GRADIENT- BALKED LANDING - FLAPS 35°

Max Takeoff Power, Flaps 35°, gear down, 2200 RPM, 1790 ft./lb. (observe ITT & Ng limits), Bypass Normal

Note: Dashed entries correspond to outside air temperatures beyond aircraft limits

Table 26 - 7200 Pounds Weight Climb Gradient Balked Landing - Flaps 35°

7200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	73	813	750	688	372	194
2000	73	751	687	537	231	63
4000	73	689	627	385	99	---
6000	73	627	480	247	---	---
8000	73	535	353	131	---	---
10000	73	390	208	---	---	---

Table 27 - 6200 Pounds Weight Climb Gradient Balked Landing - Flaps 35°

6200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	73	1152	1076	1002	630	421
2000	73	1077	1001	824	464	269
4000	73	1004	931	644	310	---
6000	73	929	756	483	161	---
8000	73	821	607	348	---	---
10000	73	650	438	198	---	---

Table 28 - 5200 Pounds Weight Climb Gradient Balked Landing - Flaps 35°

5200 POUNDS WEIGHT						
PRESS ALT FT	CLIMB SPEED KIAS	CLIMB GRADIENT - FT/NM				
		-20°C	0°C	20°C	40°C	50°C
S.L.	73	1600	1506	1414	957	704
2000	73	1507	1412	1194	756	520
4000	73	1416	1325	974	570	---
6000	73	1324	1110	778	391	---
8000	73	1190	928	615	---	---
10000	73	981	723	434	---	---

		AEROCET INCORPORATED	Page	38
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

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VI. WEIGHT AND BALANCE:

The airplane equipped with Aerocet Model 6750 Seaplane floats must be loaded in accordance with the limitations in §2. These are shown as an aircraft weight/moment envelope or an aircraft weight versus c.g. location chart.

Weight limit – All Lockers 150 LB. maximum each.

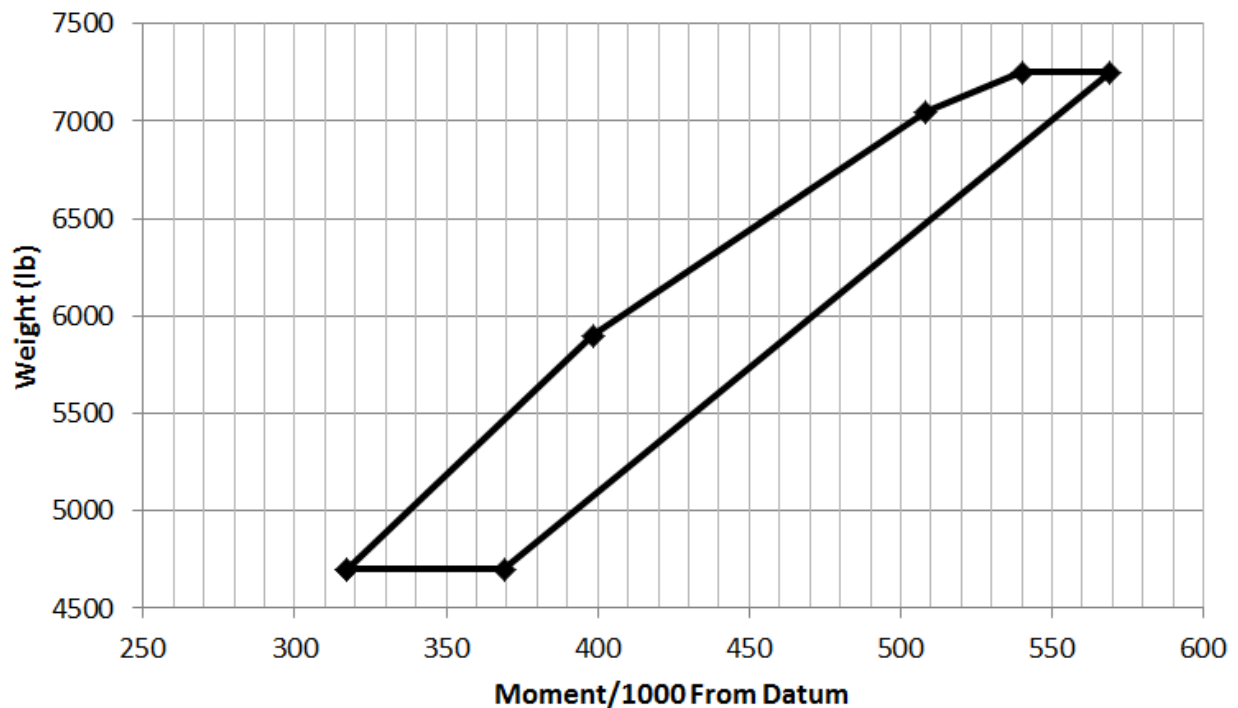
The reference datum for weight and balance calculations is the forward face of the firewall.

Locker central locations Aft of datum are:

Front Locker	33.1”
Middle Locker	66.2”
Aft Locker	142.4”

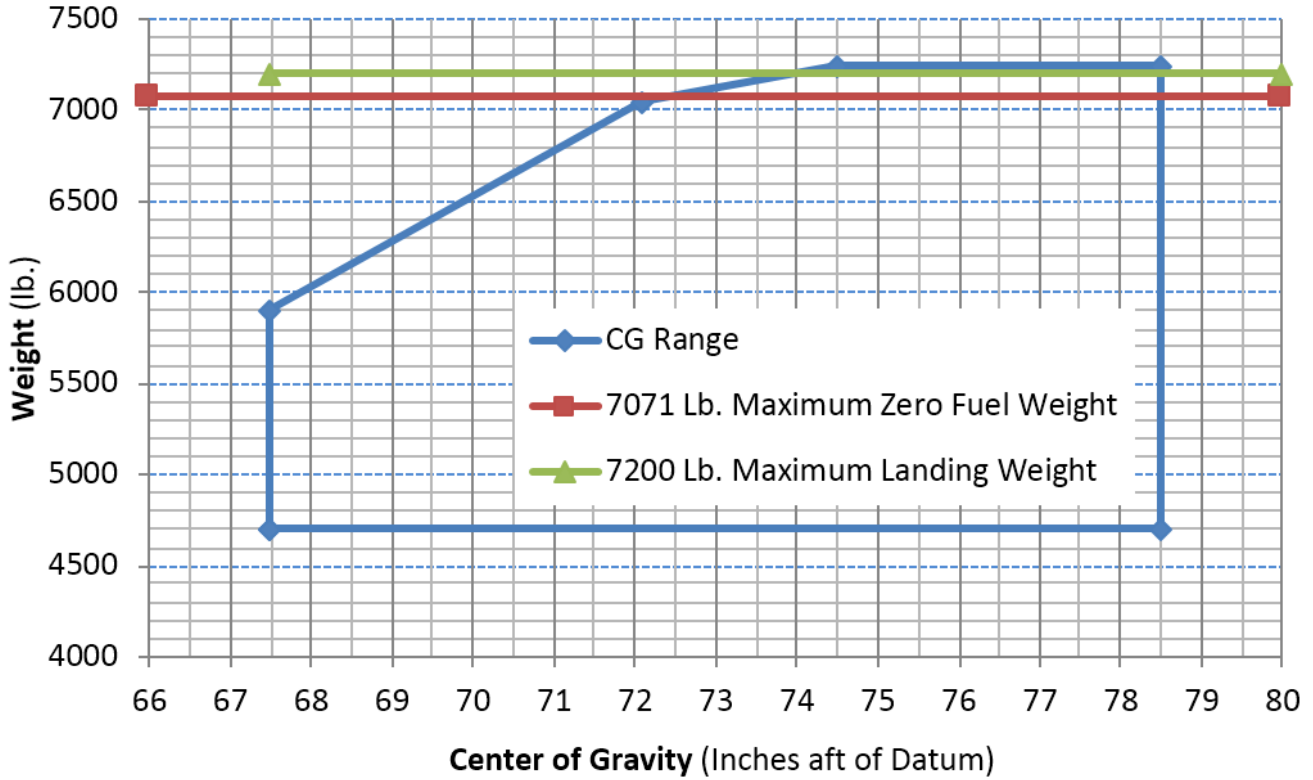
All loading above maximum zero fuel weight (7,071 lb.) must be fuel.

Figure 3 – Weight and Moment Limits Chart



		AEROCET INCORPORATED	Page	40
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT	Doc No.:	A-33134
Revision Date	11/28/2018	Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Revision:	A

Figure 4 – Approved Loading Envelope



		 AEROCET <small>INCORPORATED</small>	Page	41
Issue Date	7/21/2017	AIRPLANE FLIGHT MANUAL SUPPLEMENT Quest KODIAK 100 on Aerocet Model 6750 Seaplane Floats	Doc No.:	A-33134
Revision Date	11/28/2018		Revision:	A

VII. AIRPLANE HANDLING, SERVICE & MAINTENANCE:

A. MOORING

Proper securing of the seaplane can vary considerably, depending on the type of operation involved and the facilities available. Each operator should use the method most appropriate for his operation. Some of the most common mooring alternatives are as follows:

1. The seaplane can be moored to a buoy, using a yoke tied to the forward float cleats, so that it will freely weathervane into the wind.
2. The seaplane can be secured to a dock using the fore and aft cleats of one float, although this method is not generally recommended unless the water is calm and the seaplane is attended. Securing with lines around the base of the struts is preferred for windy conditions.
3. If conditions permit the seaplane can be beached. Ensure that the shoreline is free of rocks or abrasive material that may damage the float.

B. FORKLIFTING UNDER THE SPREADER BARS

The aircraft may be lifted by a modified forklift with wide forks or dolly. Maximum weight is 5,200 lb. (700 lb. fuel and seats installed.) Assure that the forks are spread as far apart as possible without contacting the sides of the float. Forks must be within 12” from inside of floats (no closer together).

C. JACKING

A floor jack may be used to jack up a float. Locate the jack 7” forward from the step of the float and use at least an 8” minimum 2x6 wood block. In order to get the float off the floor a few inches, the float may be lifted per above by using the normal plane jacking point or be jacked up under the chine with a 12” 2x4 wood block. Once raised, block the float to assure safety in case the jack fails and then jack the other float up in a similar manner. Additional support can be placed at 73” ahead of the step and 80” behind the step (locations below bulkheads).

D. SERVICING

Service the seaplane according to AEROCET Service Manual

Protective lubricants for metal components is advised, especially in salt water environments e.g. “Corrosion X”, ACF-50, Boeshield T-9.

-END-