

Factual Report – Attachment 16

Weight and Balance Information

OPERATIONAL FACTORS

ANC21FA069



DHC-2
N1249K
S/N 1594

Description	Weight	Arm	Moment
Aircraft on floats	3417	90.04	307666.68
removed old vinyl and aluminum interior	0	0	0
Installed new Kydex interior	0	0	0
0 fuel in tanks	0	0	0
Full oil tank	0	0	0
Ranger ADSB	0.98	-92	-90.16
Uat antennas (2)	1	-97	-97
GPS antenna	0.5	-96	-48
TC978 control head	0.1	68	6.8
ICOM 2300	2.6	69	179.4
Tare weight	-45	-242	10890
WIFI unit	0.2	71	14.2
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
			0
			0
			0
Totals	3377.38	94.31035892	318521.92

CAS scale 5,000 Lb unit mod. 2THB
calibration due 11/2019 by Sperle scales inc.
A/C weighed with 0 fuel, full oil, all seats installed and hangar doors closed

Gross Weight	5090
Empty Weight	3377.38
Useful Load	1712.62
EWCG	94.31036

A&P

2/5/2018

N1249K Weight and Balance.¹

¹ Source: N1249 AFM recovery from wreckage.

ection IV

ake-off and climb to 5,000 ft. altitude, and reserve fuel for 45 minutes flying time at cruising power.

4.7.4 WEIGHT AND BALANCE REPORT

This report defines the equipment that was in the aircraft "as weighed" and "as delivered" and gives weights, arms and movements as well as the Tare and Basic Moment. It may be found in the envelope on the inside of the rear cover of this Flight Manual.

If the equipment is changed, the Basic Weight changes too. Changes should be recorded in the "Basic Weight Change Record", which must be kept up-to-date at all times.

The "Equipment Check List" should be ticked off.

If the configuration of the aircraft is altered at any time, e.g. changing from floats to skis, such alterations must be duly recorded in the "Basic Weight Change Record".

The obligation that all changes must be recorded, applies also to modifications of all sorts, e.g. repair of damages suffered in the field, in which case all parts removed from, or added to, the aircraft must be separ-

ately weighed and their Moment Arms measured so that the "Weight and Balance Report" may be properly brought up to date.

The Balance Diagram (Figure 4-2), may be used to determine the Arms of any equipment not yet listed.

4.7.5 PREPARATION FOR FLIGHT

The A.U.W. and Total Moment (i.e. C.G. position) should be checked for conditions at the beginning and at the end of the flight by using the current Basic Weight found in the "Basic Weight Change Record" and the Operational Load Diagram.

The A.U.W. maximum must not exceed 5,100 lbs. for the landplane and skiplane; 5,090 for the seaplane.

The sum total of all moment values must conform to the safe moment limits given for different All-Up Weights in the Safe Moment Table.

For establishing conditions at the beginning of the flight, use A.U.W.

To arrive at conditions prevailing at the end of flight, subtract from A.U.W. and total moment, the moments and weights of fuel and oil consumed during flight if such changes in weights and moments may cause the C.G. position to fall beyond the permitted limits.

4.7.6 CENTRE OF GRAVITY

The C.G. datum lies 17.45 inches behind the wing leading edge. See Balance Diagram Figure 4-2.

	Landplane & Skiplane	Seaplane
Extreme forward C.G. position at 3,800 lb.		
Extreme forward C.G. position at 5,090 lb.	Station + 6.6	Station + 6.6
Extreme forward C.G. position at 5,100 lb.		Station - 1.25
Extreme Aft C.G. position at 5,090 lb.	Station - 1.25	
Extreme Aft C.G. position at 5,100 lb.		Station - 6.1

Station - 7.7
(Refer to Note facing
Appendix VII)

N1249K center of gravity information.³

³ Source: AFM recovered in wreckage.

4.7.6 CENTRE OF GRAVITY (Cont'd)

Landplane
& Skiplane

Seaplane

Extreme Aft C.G. position at 5,100 lb.

Station - 8.8
(Refer to Note facing
Appendix VII)

For safe Moment Limits refer to table on page VII in Appendix

4.7.7 CARGO LOAD CONSIDERATIONS

Refer to:

- (a) Balance Diagram.
- (b) Operational Loads Diagram.
- (c) Freight Moments Table.
- (d) Safe Moment Limits Table.

4.8

MINIMUM FLIGHT CREW

One Pilot.

4.9

MISCELLANEOUS

Smoking is authorized for cockpit and cabin.

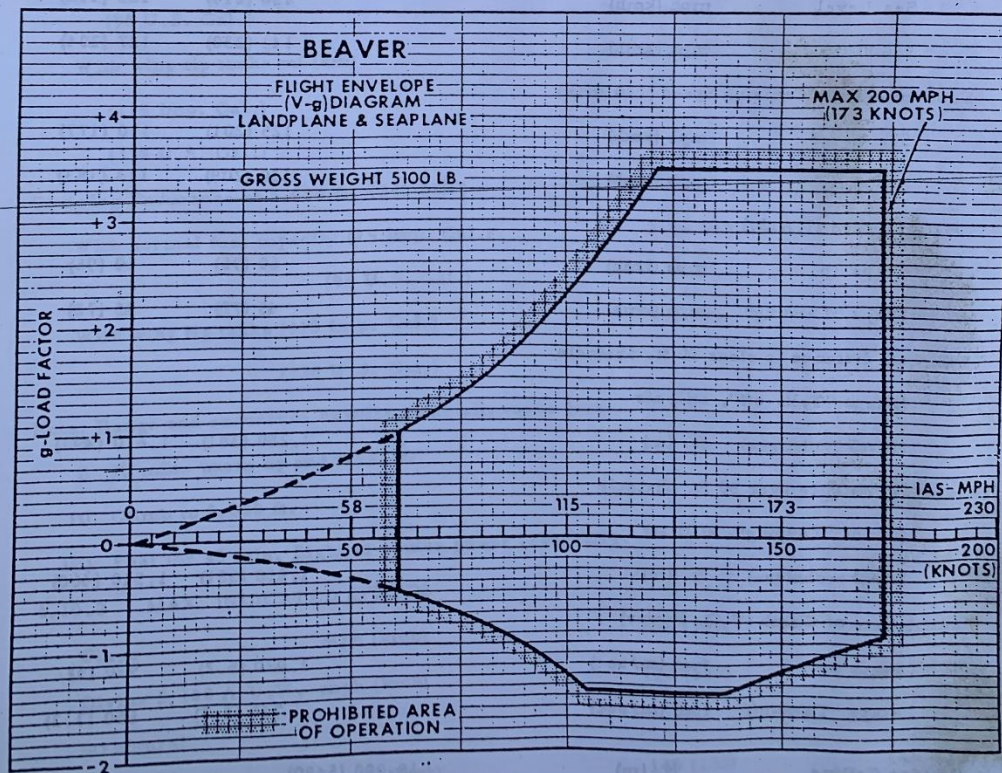


FIG 4-3 OPERATING FLIGHT STRENGTH DIAGRAM

Center of gravity envelope information.⁴⁴ Source: AFM recovered in wreckage.