

Weight and Balance Info

Make: Experimental (Zubair Khan)
Registration: N79ZR

Model: Raven Serial: 001
Computed on 1/30/13

Datum	113.9 in forward of wing leading edge
Design CG Range	95" - 99.5"
Wing L.E.	113.9" aft of datum
Pilot & Front Seat Passenger	51" aft of datum
Fuel	103" aft of datum
Rear Seat Passengers	93" aft of datum
Baggage	101" aft of datum
Aircraft Gross Wt.	2200 lbs.
Actual Empty Wt. (no Oil)	1373lb

Aircraft weighed in level flight attitude. (includes unusable oil, no fuel)

Main wheel, right	108.44" aft of datum
Main wheel, left	108.36" aft of datum
Nose Wheel	14.4" aft of datum

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Right Wheel	694	108.44	75257.36
Left Wheel	690	108.36	74768.4
Ballast	-11	-9	99
<u>Nose Wheel</u>	<u>0</u>	<u>14.4</u>	<u>0</u>
Total	1373	109.34	150124.76
adding 9 qts oil	0	60	0
ready for flight	1373	109.34	150124.76
All Scenarios assume 10qts oil in sump		C.G. Must be between 95 - 99.5	

Gross Weight

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Aircraft with oil	1373	109.34	150124.76
Sump Tanks 14 Gal	84	75.00	6300
Fuel in Main Tanks: 30 gal	176	103	18128
Pilot	166	51	8466
Front Seat Passenger	155	51	7905
Rear Seat Passenger	100	93	9300
Rear Seat Passenger	131	93	12183
Baggage	15	101	1515
Gross Weight	2200	Total Moment	213921.76

Total Moment	Weight	In aft of Datum
213921.76	2200	97.24
Inside of CG limit.		

Most Forward C.G.

	Weight	Arm	Moment
Aircraft	1373	109.34	150124.76
Fuel 14 gal In Sump Tanks	84	75	6300
Fuel in Main Tanks:12 Gal	72	103	7461
Pilot	196	51	8466
Front Seat Passenger	192	51	9792
Rear Seat Passenger	0	93	0
Rear Seat Passenger	0	93	0
Baggage	0	101	0
Gross Weight	1917	Total Moment	182143.76

	Total Moment	Weight	Inches aft of Datum
C.G. =	182143.76	1917	95.02
		Inside of CG limit.	

Most Aft C.G.

	Weight	Arm	Moment
Aircraft	1373	109.34	150124.76
Fuel 12 gal In Sump Tanks	84	75	6300
Fuel in Main Tanks: 30 gal	176	103	18128
Pilot	166	51	8466
Front Seat Passenger	38	51	1938
Rear Seat Passenger	135	93	12555
Rear Seat Passenger	192	93	17856
Baggage	35	101	3535
Gross Weight	2199		218902.76

	Total Moment	Weight	Inches aft of Datum
C.G. =	218902.76	2199	99.55
		inside of rear CG limit.	

Aircraft Information:		
Aircraft Idet: N79ZR	Aircraft Type: Raven	Plans Serial #:

Date: September 8, 2015

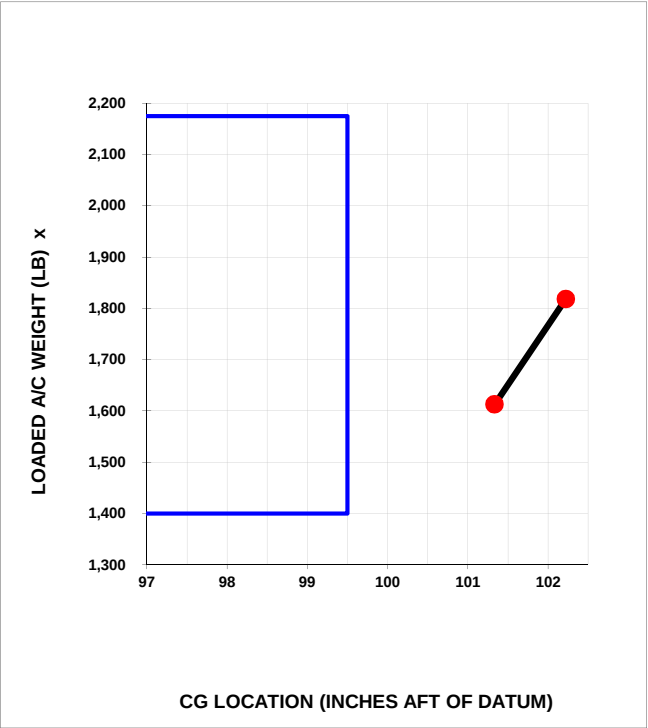
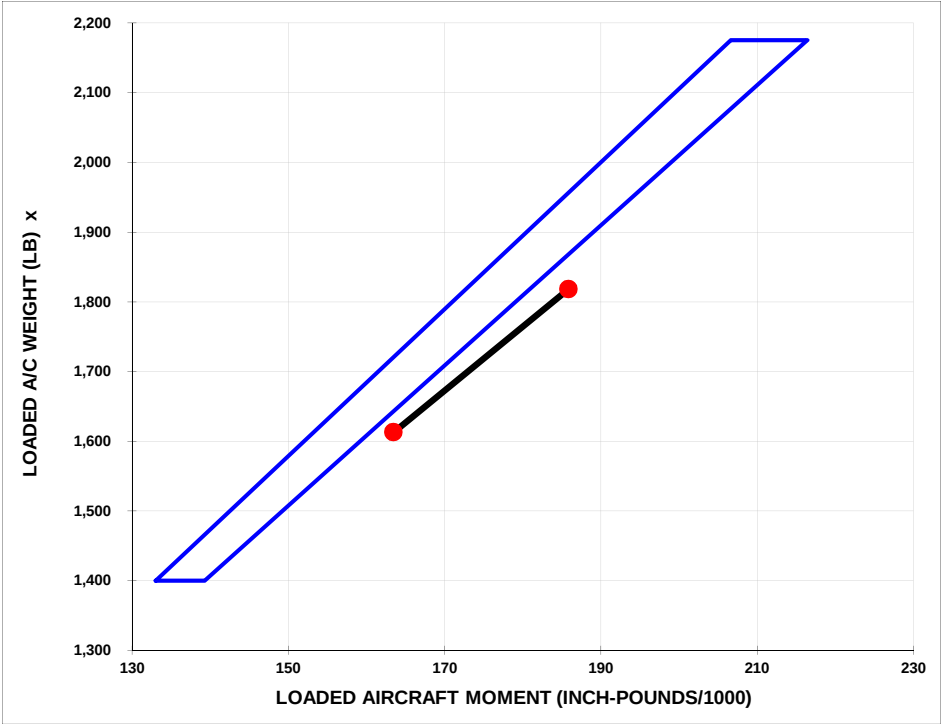
Weight and Balance at Departure			
Loads	Weight (lb)	Arm (in)	Moment /1000
Empty Aircraft (inc. oil):	1,373.0	108.2	148.6
Pilot:	160.0	57.0	9.1
Co-Pilot/Front Passenger:		57.0	
Rear Passengers:		101.0	
Baggage:	15.0	101.0	1.5
Front Nose Ballast:	11.0	-9.0	-0.1
Rear Nose Ballast:			
Fuel (Gal):	44.0	264.0	27.2
Grnd Ops (All):	0.8	-4.8	-0.5
Departure Weight:	1,818.2		185.9
Departure CG:		102.2	

Weight and Balance at Arrival			
Loads	Weight (lb)	Arm (in)	Moment /1000
Empty Aircraft (inc. oil):	1,373.0	108.2	148.6
Pilot:	166.0	51.0	8.5
Co-Pilot/Front Passenger:		51.0	
Rear Passengers:		93.0	
Baggage:	15.0	93.0	1.5
Front Nose Ballast:	11.0	-9.0	-0.1
Rear Nose Ballast:			
Reserve Fuel (Gal):	8.0	48.0	4.9
Arrival Weight:	1,613.0		163.5
Arrival CG:		101.3	

COZY MKIV Weight and Balance Envelope (Normal)		
CG Envelope		
CG Locn	Weight	Moment/1000
95.0	1,400	133.0
99.5	1,400	139.3
99.5	2,175	216.4
95.0	2,175	206.6
95.0	1,400	133.0
95.0	1,400	133.0

COZY MKIV Measured Weights & Arms / Calculated CG				
	Weight (lbs)	Moment Arm (in)	Moment (in-lb)	CG (in)
Right Main	694.0	108.4	75,257	
Left Main	690.0	108.4	74,768	
Nosewheel		14.4		
As Weighed (Battery Rear)				
BALLASTED TOTAL	1,384.0		150,026	108.4
Front Nose Ballast	11.0	(9.0)	(99)	
Rear Nose Ballast				
Fuel		103.0		
As Weighed				
EMPTY TOTAL	1,373.0		150,125	109.3

Battery Position:	Front
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COZY MKIV Weight & Balance

Estimated Changes Since Previous Weighing (For Future Use)				
	Weight (lbs)	Moment Arm (in)	Moment (in-lb)	CG (in)
Right Main (none)		108.4		
Left Main (none)		108.4		
Nosewheel (none)		14.4		
Rear)				
EMPTY TOTAL	1,373.0		150,125	109.3
Battery - Rear	(14.0)	122.0	(1,708)	
Battery - Front	14.0	15.0	210	
New Estimated (Battery Front)				
EMPTY TOTAL	1,373.0		148,627	108.2