

# RV-8A WEIGHT AND BALANCE DATA QUICK REFERENCE

**NOTE:** this quick reference chart is NOT a substitute for the complete Weight and Balance information contained in Section 14 of the Builder's Manual.

**CAUTION:** the Gross Weight is established by the builder, who is considered the manufacturer.

**CAUTION:** The Aerobatic Gross Weight is set by structural limits. AEROBATIC FLIGHT SHOULD NOT BE CONDUCTED AT WEIGHTS GREATER THAN 1600 LBS nor AT CG LOCATIONS OUTSIDE THE AEROBATIC CG LIMIT

DATUM.....70 inches forward of the wing leading edge

LIMITS

Design C.G. Range..... 15%-29% of wing chord OR 78.7- 86.82 inches aft of datum.

Recommended Gross Weight ..... 1800 lbs

Aerobatic Gross Weight..... 1600 lbs if equipped with Dash-One wing, 1550 lbs without Dash-One wing

Aerobatic Aft CG Limit.....26.5% of chord OR 85.3" aft of datum

ARMS

Fwd Baggage.....58.51" aft of datum

Fuel .....80.00" aft of datum

Pilot .....91.78" aft of datum

Passenger ..... 119.12" aft of datum

Aft Baggage Floor..... 138.00" aft of datum

Aft Baggage Shelf..... 152.91" aft of datum

DETERMINING EMPTY CG

Level the aircraft longitudinally and laterally using the longerons in the cabin area as the level reference. Weigh the airplane with the canopy closed, full oil and the fuel tanks empty. Enter the weights and distances from the datum (arm) in the chart below. Multiply weight by arm to obtain moment. Divide the total moment by the weight to determine the empty CG.

	Weight	Arm	Moment
Right Wheel			
Left Wheel			
Nose/Tail Wheel			
Total			
CG (moment divided by weight)			

