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.

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Arm</th>
<th>Moment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Wheel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left Wheel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nose/Tail Wheel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CG (moment divided by weight)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagram of RV-8A showing leading edge, datum, 70.00 inches, center of main wheel, and center of nose wheel.