Revision: 1 Date: 10/28/09

## **SECTION IV**

### **WEIGHT & BALANCE**

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### **GENERAL**

It is the pilot's responsibility to ensure that the aircraft is loaded properly and within the weight and balance limitations. All flight performance, procedures and characteristics are based on this prerequisite.

The actual licensed empty weight and CG of a specific aircraft can be found on the Weight and Balance Form and the Operating Limitations Card, both of which are a permanent part of the aircraft's file. All additional changes to the aircraft's empty weight and CG after the time of manufacture must also be attached to or indicated on both forms. From this information and the following instructions, the pilot can easily determine the useful load and proper loading distribution for the aircraft.

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# **INSTALLED EQUIPMENT LIST**

ITEM	WEIGHT	LOCATION	MOMENT
11 = 101	lb	in	in-lb
DYNON	10	56.62	111 10
D-180		00.02	
GARMIN		55.3	
GTX 327		00.0	
GTX 327		53.71	
TRAY			
GARMIN		53.86	
GTX 328			
GTX 328		53.88	
TRAY			
GARMIN		53.76	
SL-40			
SL-40 TRAY		47.69	
GARMIN		58.08	
X95/6			
FLIGHTCOM		56.48	
FC 403			
ARTEX		96.18	
ME-406			
DYNON		147.73	
EDC-10A			
ODYSSEY		43.56	
PC-680			
TOTAL			
TOTAL			

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## SAMPLE LOADING PROBLEM

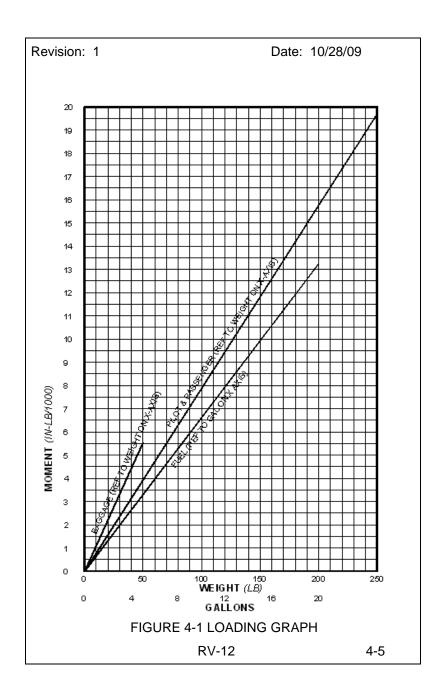
ITEM	ARM	SAMPLE AIRPLANE	
	(IN.) (LIMITS 80.49- 85.39)	WEIGHT (LB)	MOMENT (IN-LB)
EMPTY WEIGHT WITH OIL & COOLANT	81.93	738	60468
PILOT	78.85	190	14982
PASSENGER	78.85	190	14982
BAGGAGE	110.81	50	5541
FUEL (6 LB/GAL)	110.28	119	13101
TAKEOFF WEIGHT & MOMENT	84.76	1287	109073

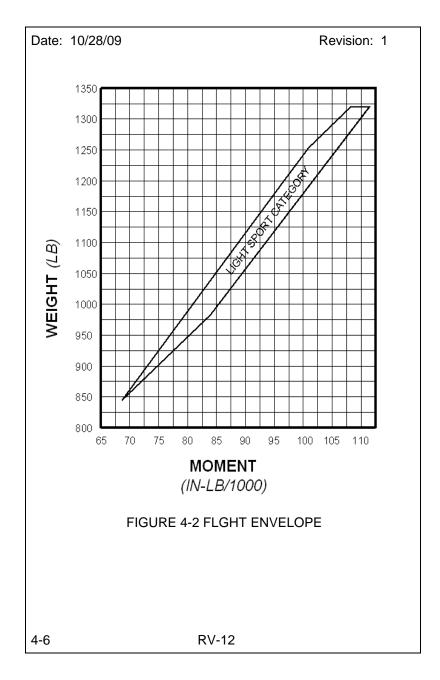
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YOUR AIRPLANE				
ITEM	ARM (IN.) (LIMITS 80.49- 85.39)	WEIGHT (LB)	MOMENT (IN-LB)	
EMPTY WEIGHT WITH OIL & COOLANT	00.00)			
PILOT	78.85			
PASSENGER	78.85			
BAGGAGE	110.81			
FUEL (6 LB/GAL)	110.28			
TAKEOFF WEIGHT & MOMENT				

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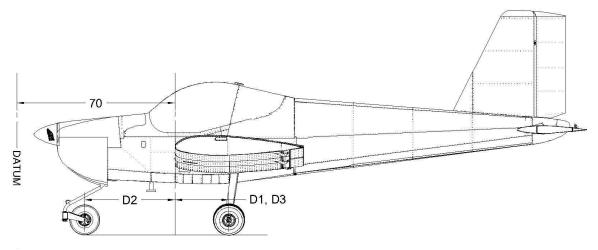
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## RV-12 WEIGHT & BALANCE WORKSHEET

AIRCRAFT:\_\_\_\_\_(registration) \_\_\_\_(serial number)

**DATE:**\_\_\_\_\_

Date: 07/10/09



## TABLE 1

IADLLI			
	LEFT WHEEL	NOSE WHEEL	RIGHT WHEEL
WEIGHT	lb	lb	lb
DISTANCE FROM AXLE CENTER TO LEADING EDGE	inches	inches	inches

## TABLE 2

	WEIGHT	ARM	MOMENT
LEFT WHEEL	lb	(70+) =inches	$(\frac{1}{(W1)})^*(\frac{1}{(A1)}) = \frac{1}{(M1)}$ in-lb
NOSE WHEEL	lb	(70) =inches	$(\frac{1}{(W2)})^*(\frac{1}{(A2)}) = \frac{1}{(M2)}$ in-lb
RIGHT WHEEL	lb	(70+) =inches	$(\frac{1}{(W3)})^*(\frac{1}{(A3)}) = \frac{1}{(M3)}$ in-lb

EMPTY WEIGHT = _		_ lb	EMPTY ARM = _	inches
	(W1 + W2 + W3)		(Emp	ty Moment / Empty Weight)

$$\mathsf{EMPTY}\;\mathsf{MOMENT} = \underbrace{\qquad \qquad \mathsf{in-lb}}_{\qquad \ } \mathsf{in-lb}$$

Aircraft measured, weighed, and worksheet filled-out by:	
-	printed name
Signature:	