



**RANS S-19**  
**WEIGHT AND BALANCE**

N _____	
DATE WEIGHED	
ENGINE TYPE	
C.G. CONDITION	
EMPTY WEIGHT	
MTOW (912 ULS)	1320 LBS.

ACCEPTABLE C.G. 84" TO 91.5" FROM DATUM LINE.  
DATUM LINE IS 72" AHEAD OF WINGS LEADING EDGE.

#	ITEM	WEIGHT	ARM	MOMENT
1	NOSE GEAR	147	39.3"	5777.1
2	PILOT	175	94.0"	16450
2	PASSENGER	140	94.0"	13160
3	FUEL	144	96.3"	13867.2
4	MAIN GEAR - RIGHT	347	97.6"	33867.2
4	MAIN GEAR - LEFT	345	97.6"	33672
5	BAGGAGE*	22	122.7"	2699.4
TOTAL=		1320	TOTAL=	119492.9

$$\frac{\text{TOTAL MOMENTS}}{\text{TOTAL WEIGHT}} = \text{C.G.} = \frac{119492.9}{1320} = 90.5"$$

#	ITEM	WEIGHT	ARM	MOMENT
1	NOSE GEAR		39.3"	
2	PILOT		94.0"	
2	PASSENGER		94.0"	
3	FUEL		96.3"	
4	MAIN GEAR - RIGHT		97.6"	
4	MAIN GEAR - LEFT		97.6"	
5	BAGGAGE*		122.7"	
TOTAL=			TOTAL=	

$$\frac{\text{TOTAL MOMENTS}}{\text{TOTAL WEIGHT}} = \text{C.G.} = \text{_____} = \text{_____}$$

\* 70 POUNDS MAXIMUM BAGGAGE

**RANS S-19 VENTERRA**  
**WEIGHT AND BALANCE**  
**FIGURE 16-01**