

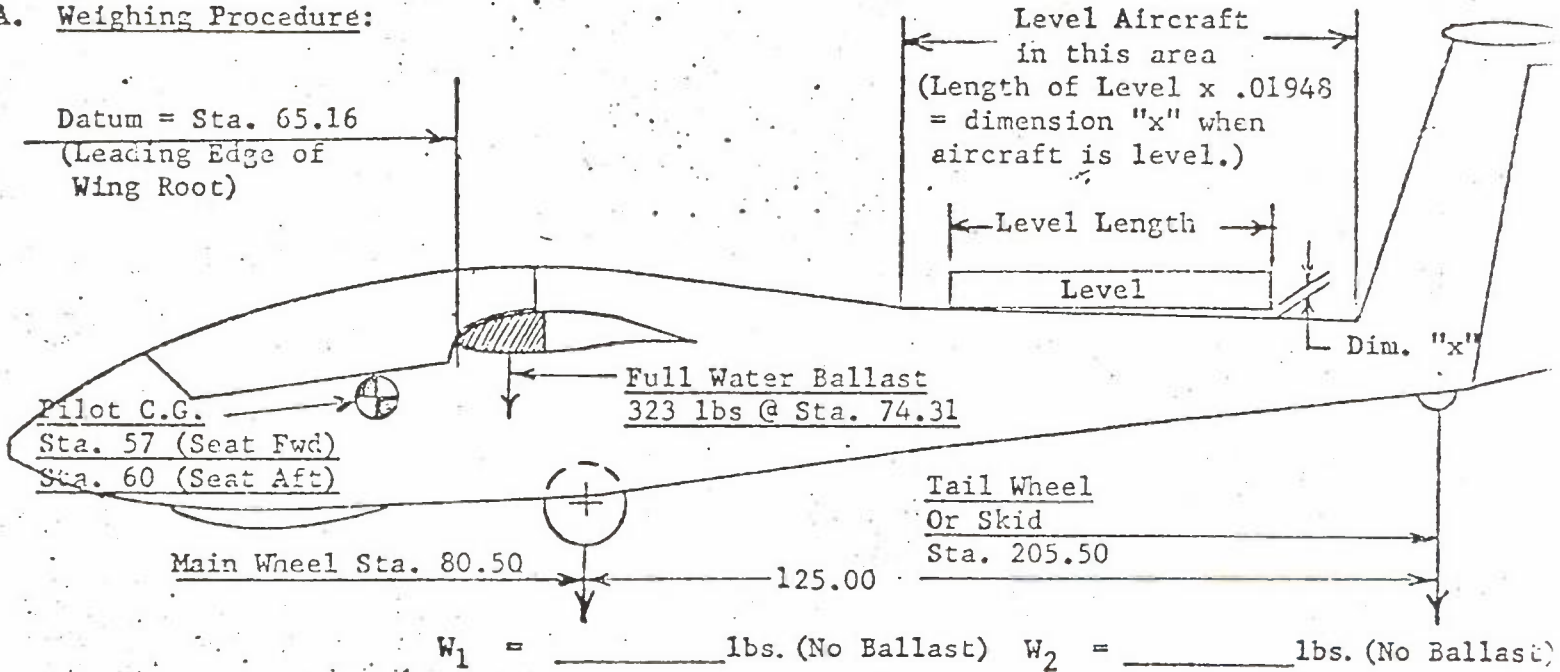
WEIGHT AND BALANCE

DATE \_\_\_\_\_

MODEL: SGS 1-35 T.C. G4EA SER. NO. \_\_\_\_\_ REG. NO. \_\_\_\_\_

C.G. Limits	High Performance	(Sta. 76.09 (28.0% MAC) Fwd )	(No Water Ballast)
		(Sta. 78.90 (38.5% MAC) Aft )	
	Utility	(Sta. 76.09 (28.0% MAC) Fwd )	(With Water Ballast)
		(Sta. 77.56 (33.5% MAC) Aft )	

A. Weighing Procedure:



B. Empty Weight:  $W_E = W_1 + W_2$

$W_E = \text{_____} + \text{_____} = \text{_____ lbs (No Ballast)}$

$W_E = (W_1 + 339.0) \text{_____} + (W_2 - 16.0) \text{_____} = \text{_____ lbs (Full Ballast)}$   
 (Reference only)

C. C. G. Empty:  $CG_E = \frac{(W_2 \times 125.0) + 80.50}{W_E}$

$CG_E = \frac{\text{_____} \times 125.0}{\text{( )}} + 80.50 = \text{Sta. _____ (No Ballast)}$

NOTE: The empty weight (No Ballast), shown in B. above, includes the Required and Optional Equipment items listed on I-4636-3. All references to ballast, on this form, are for water ballast. Formula for max. allowable water ballast:

930- (Empty wt. + Pilot wt.) = \_\_\_\_\_ lbs. = \_\_\_\_\_ g  
 8.33

D. Computation of Maximum Pilot Weight ( $W_p$  max. & Minimum Pilot Weight ( $W_p$  min.))

NOTE: Computation of  $W_p$  max. based on pilot C.G. @ Sta. 60.0 (seat aft) and  $W_p$  min. based on pilot C.G. at Sta's 57.0 (seat fwd) and 60.0 (seat aft)

1.  $W_p$  max. = Gross Weight -  $W_E$   
 See Note A. = 685 - \_\_\_\_\_  
 a.  $W_p$  max. = 660 - \_\_\_\_\_ = \_\_\_\_\_ lbs (No Ballast) High Performance
2. a.  $W_p$  max. (No Ballast) =  $\frac{(CG_T - 76.09)}{76.09 - 60.00} \times W_E = \frac{(-76.09)}{16.09} \times ( ) = \underline{\hspace{2cm}}$  lbs.
3. a.  $W_p$  min @ sta 57 (No Ballast) =  $\frac{(CG_T - 78.90)}{78.90 - 57.00} \times W_E = \frac{(-78.90)}{21.90} \times ( ) = \underline{\hspace{2cm}}$  lbs.  
 b.  $W_p$  min. @ Sta 60 (No Ballast) =  $\frac{(CG_T - 78.90)}{78.90 - 60.00} \times W_E = \frac{(-78.90)}{18.90} \times ( ) = \underline{\hspace{2cm}}$  lbs.

4. Pilot Weight Limitations  
 $W_p$  max. = \_\_\_\_\_ lbs (Lesser of 1.a. and 2.a.) (No Ballast)

Seat Fwd (sta. 57.0) \_\_\_\_\_ lbs. (3.a.) (No Ballast)  
 $W_p$  min. Seat aft (sta. 60.0) \_\_\_\_\_ lbs. (3.b.) (No Ballast)

5. Computation steps for individual pilot:

a. Determination of ballast for max. gross weight:  
 Required ballast = 930 - (Empty wt. + Pilot wt.) = \_\_\_\_\_ lbs. = \_\_\_\_\_ gal.  
 8.33

b. Determination of Ballasted CG:

	<u>Weight</u>	<u>Station</u>	<u>Moment</u>
Aircraft Empty weight (No Ballast)	. lb	.	,
Pilot weight	+ . lb	.	+
Weight of Ballast	+ . lb	74.31	+

Ballasted flight wt., CG, Moment      930.0 lb      . ,

Ballasted, flight CG =  $\frac{(\text{Total Moment})}{930.0} = \underline{\hspace{2cm}}$ . (VS limits of 76.09 to 77.56)

Calculated By \_\_\_\_\_ Date \_\_\_\_\_

Checked by \_\_\_\_\_ Date \_\_\_\_\_

Note A. Gross Weight of 685 lbs. in High Performance Category is approved for aircraft having wing panels weighing 124 lbs. each, or greater.  
 WING PANEL WEIGHTS - REFERENCE : L.H. Panel \_\_\_\_\_ lbs.; R.H. Panel \_\_\_\_\_ lbs.

Schweizer Aircraft Corporation  
Elmira, New York 14902

Form I-4636-3  
4/74  
Rev. 1/75, Rev. 6/76  
Rev. 3/78

WEIGHT AND BALANCE, SGS 1-35 \_\_\_\_\_ Serial No. \_\_\_\_\_ Reg. No. \_\_\_\_\_

The Empty Weight listed on I-4636-1 includes the following equipment:

Date: \_\_\_\_\_

Item	Equipment	Weight	Arm	Moment
REQUIRED:				
1.	Airspeed Indicator	1.00	38.00	38
2.	Altimeter	1.25	38.00	47
3.	Magnetic Compass	1.00	27.00	27
4.	Outside Air Temperature Gage (SGS 1-35 & SGS 1-35A only)	1.25	38.00	47
OPTIONAL:				