Scenario

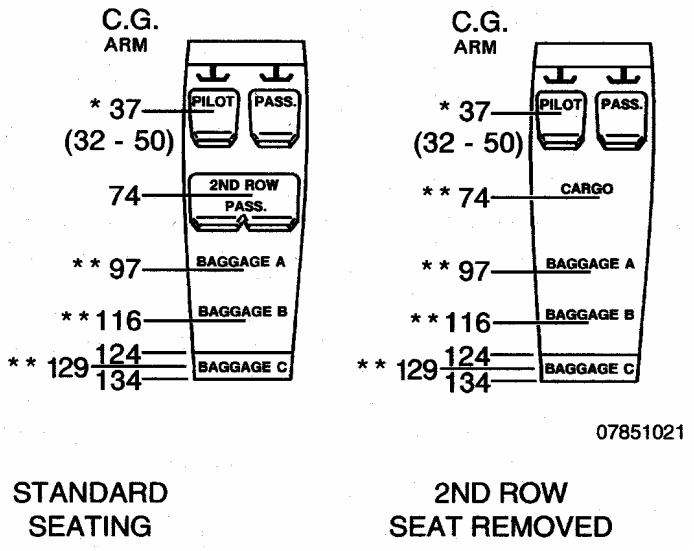
1. Compute weight and Balance. Use the weights below.

2. Determine if the load is within limits for taxi and take off. If not make adjustments.

3. Plot the weight and moment of each item on the Center of Gravity Limits envelop.

4. Determine the maneuvering speed based on weight. Use the maneuvering speed formula. $V_{A2} = V_A \times \sqrt{W_2 \div W_1}$

Pilot	175
Front Pax	125
Left Rear	186
Right Rear	0
Bags ST-A	120
Bags ST-B	80
Bags ST-C	0
Fuel 64 Gal.	



* Pilot or passenger center of gravity on adjustable seats positioned for average occupant. Numbers in parentheses indicate forward and aft limits of occupant center of gravity range.

** Arms measured to the center of areas shown.

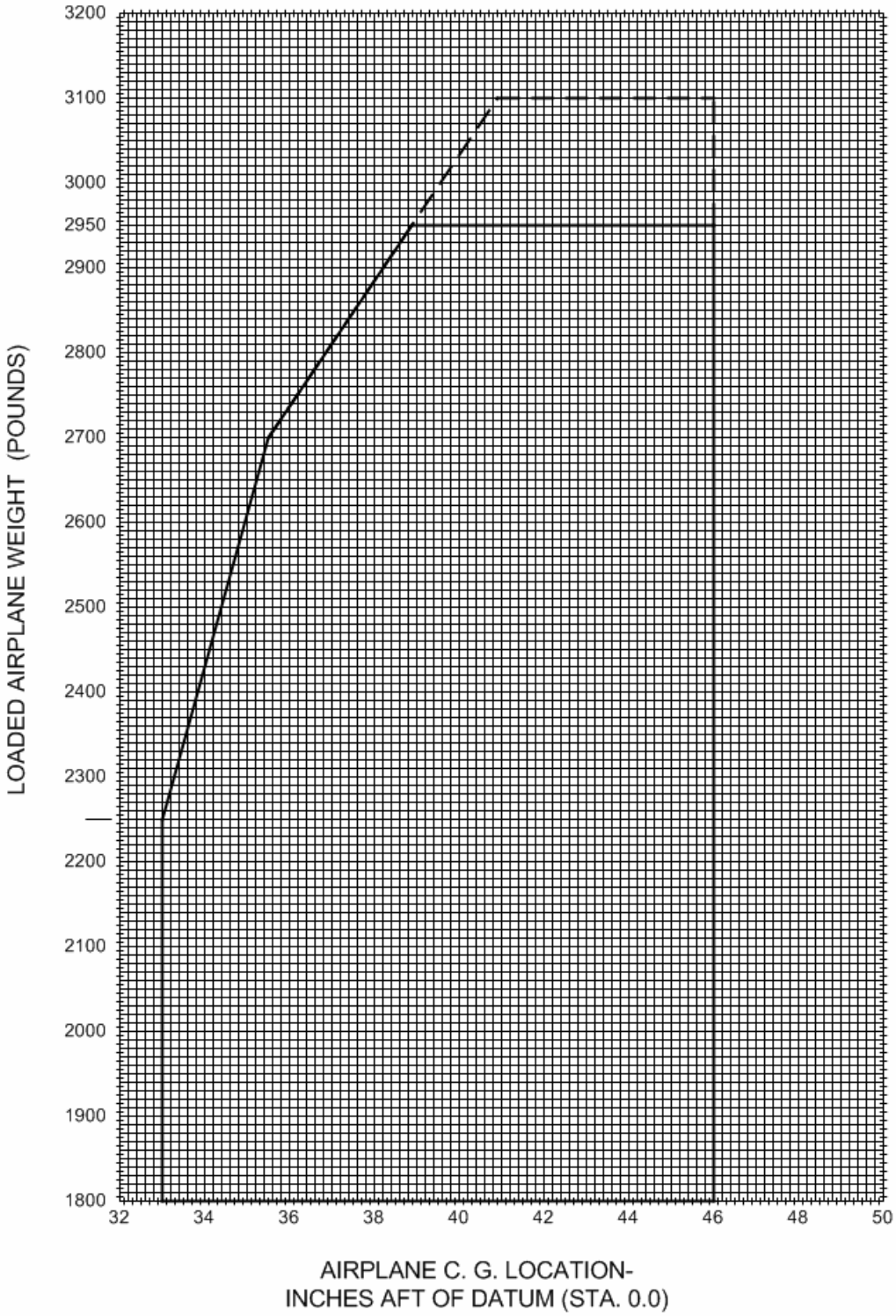
Use this weight and balance sheet for practice and class assignments only.

N4169W (Max WT 3100 235hp)	WT	ARM	MOMENT
BASIC EMPTY WEIGHT	2,050.0	39.5	80,975.00
Pilot		37.0	
Front Pax		37.0	
Left Rear		74.0	
Right Rear		74.0	
Baggage Station A (120 Max)		97.0	
Baggage Station B (80 Max)		116.0	
Baggage Station C (80 Max)		129.0	
Fuel in Gallons **(Max 87 Usable)**		46.5	
Ramp Weight (Max 3110.00)			
Fuel used start, runup & taxi	(10.00)		(0.50)
Takeoff Weight (Max 3100.00)			

Useful Ramp Load	1,060.04
Useful T.O. Load	1,050.04
Max Landing Weight	**2,950.00**

FORWARD CG	1,800 lb.	33.0
	2,250 lb	33.0
	2,700 lb	35.5
	3,100 lb	40.9
REAR CG All Weights		46.0

CENTER-OF-GRAVITY LIMITS



CODE

— TAKE OFF AND LANDING

- - - TAKE OFF ONLY*

* If take off weight is more than landing weight of 2950 pounds allow flight time for fuel burn off to 2950 pounds before landing.