Superseded 11-9-94 Superseded 10-31-75

WEIGHT AND BALANCE DATA

MODEL PA-28-151 CHEROKEE

WIGGINS AIRWAYS REPAIR STATION 171
NORWOOD, MASS.

FOR CURRENT WEIGHT AND BALANCE DATA AND ALL ITEMS ADDED OR REMOVED AT THIS TIME, SEE WEIGHT AND BALANCE SHEET DATED 6-12-79

Airplane Serial Number 28-7515396

Registration Number N1163X

Date 5-20-75

AIRPLANE EMPTY WEIGHT

Item		Weight (Lbs)	× C. G. Arm (Inches Aft of Datum)	= Moment (In-Lbs)
*Empty Weight	~~Actual~~ Computed	1319.0	85.7	113066
Unusable Fuel (2 gal.)		12	103	1236
Standard Empty Weight		1331.0	85.8	114302
Optional Equipment		82.1	101.1	8301
Licensed Empty Weight		1413.1	86.8	122603

*Empty weight is defined as dry empty weight (including paint and hydraulic fluid) plus 1.8 lbs undrainable engine oil.

AIRPLANE USEFUL LOAD

(Gross Weight) - (Licensed Empty Weight) = Useful Load

Normal Category: (2325 lbs) - (1413.1 lbs) = 911.9 lbs

Utility Category: (1950 lbs) - (1413.1 lbs) = 536.9 lbs

THIS LICENSED EMPTY WEIGHT, C. G. AND USEFUL LOAD ARE FOR THE AIRPLANE AS DELIVERED FROM THE FACTORY. REFER TO APPROPRIATE AIRCRAFT RECORD WHEN ALTERATIONS HAVE BEEN MADE.

C. G. RANGE AND WEIGHT INSTRUCTIONS

1. Add the weight of all items to be loaded to the licensed empty weight.
2. Use the loading graph to determine the moment of all items to be carried in the airplane.
3. Add the moment of all items to be loaded to the licensed empty weight moment.
4. Divide the total moment by the total weight to determine the C.G. location.
5. By using the figures of Item 1 and Item 4, locate a point on the C.G. range and weight graph. If the point falls within the C.G. envelope, the loading meets the weight and balance requirements.

SAMPLE LOADING PROBLEM (Normal Category)

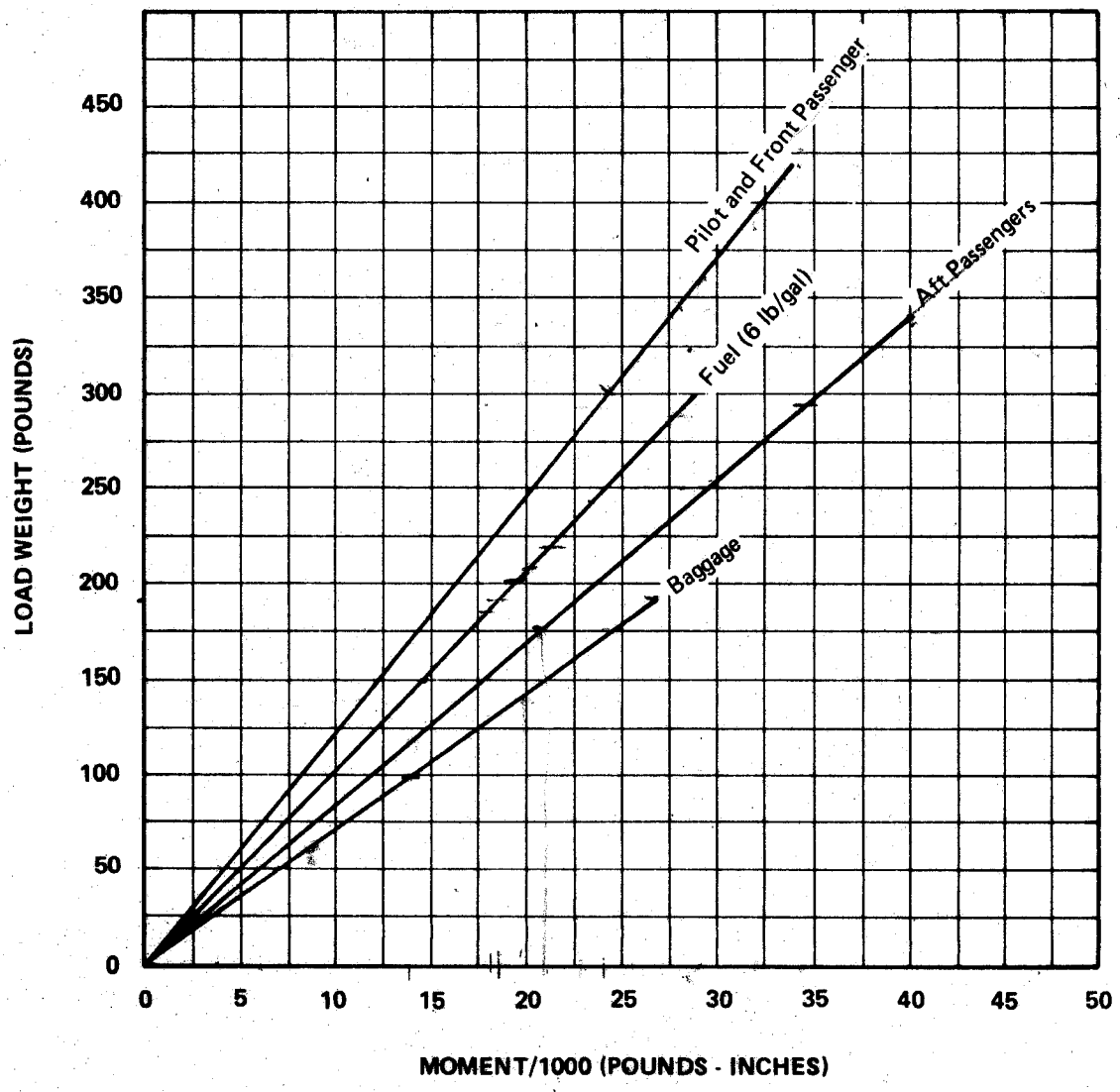
	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Licensed Empty Weight	1413.1	86.8	122603
Oil (8 quarts)	15	27.5	413
Pilot and Front Passenger	340	80.5	27370
Passengers, Aft* (Rear Seat)	340	118.1	40154
Fuel (48 Gal. Maximum)	216.9	95.0	20606
Baggage*		142.8	
Total Loaded Airplane	2325.0	90.8	211146

The center of gravity (C.G.) of this sample loading problem is at 90.8 inches aft of the datum line. Locate this point (90.8) on the C.G. range and weight graph. Since this point falls within the weight - C.G. envelope, this loading meets the weight and balance requirements.

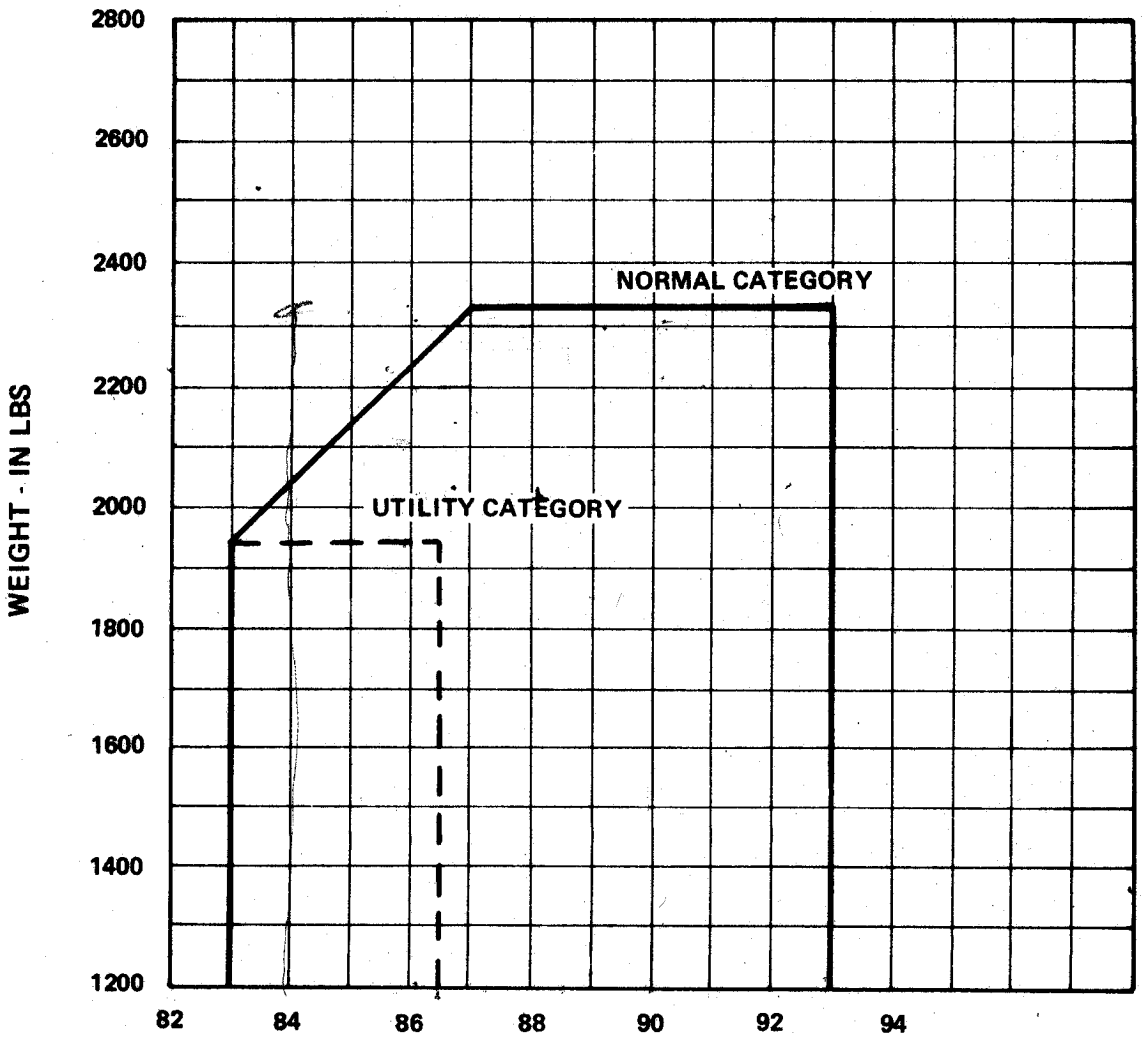
IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO INSURE THAT THE AIRPLANE IS LOADED PROPERLY.

*Utility Category Operation - No baggage or aft passengers allowed.

LOADING GRAPH



C. G. RANGE AND WEIGHT



C. G. RANGE & WEIGHT INSTRUCTIONS
For N1163X ONLY
As of 10/26/06

1. Add the weight of all items to be loaded to the licensed empty weight.

2. Use the loading graph to determine the moment of all items to be carried in the airplane.

3. Add the moment of all items to be loaded to the licensed empty weight moment.

4. Divide the total moment by the total weight to determine the C. G. location.

5. By using the figures of Item 1 and Item 4, locate a point on the C. G. Range & Weight graph. If the point falls within the C. G. envelope, the loading meets the weight & balance requirements.

Sample Loading Problem (Normal Category)
For N1163X ONLY

	Weight (lbs)	Arm Aft Datum (inches)	Moment (in-lbs)
Licensed Empty Weight	1,398.62	86.74	121316.29
Pilot & Front Passenger	**375**	80.5	**30187.5**
Aft Passengers (Rear Seat)	**120**	118.1	**14172**
Fuel	**300**	95	**28500**
Baggage	**50**	142.8	**7140**
Licensed Empty Weight	**2244**	**89.71**	**201315.79**

Note: **Bold figures are figures that vary for each flight.**
Regular text figures are set figures that do not change unless the structure of the airplane changes such as the installation of equipment.

The Center of Gravity (C. G.) of this Sample Loading Problem is at **201315.79 / 2244 = 89.71** inches aft of the datum line. Locate this point **(rounded off to 89.7", 2244 lbs)** on the C. G. Range & Weight graph. If this point falls within the weight–C. G. envelope then this loading meets the weight & balance requirements.

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO INSURE THAT THE AIRPLANE IS LOADED PROPERLY.
*Utility Category Operation – No baggage or aft passengers allowed

Weight / Balance & Equipment List Revision

PENN AVIONICS, INC. - VFAR714K
1209 Ward Ave
West Chester, PA 19380 Tel: 610-436-1200

A/C Tail # : N1163X
Register Name : Via Air Inc
Name 2 :
Address 1 : NE Philadelphia Airport
Address 2 : Grant & Ashton Rd
City, State, PC : Phila, PA 19114

A/C Make : PIPER
A/C Model : PA28-151
A/C Serial # : 28-7515396
WO Ref # :
WB Date : Oct-26-2006
WB ID # : 849

Previous data taken from document dated Oct-09-2001 Previous useful load = 921.00

Model / Part #	Description	(LB / IN)	Weight	CG/Arm	Moment
		Previous data ->	1404.00	86.63	121633.43
*REMOVED					
KLN-89B	GPS RCVR		-2.70	60.50	-163.35
KNS 80	KNS 80 RNAV p/n KNS 80		-5.68	59.00	-335.12
KY-197	COM 14 VOLT		-3.50	59.50	-208.25
REMOVED	3 Items @		-11.88	59.49	-706.72
*INSTALLED					
GNS-430	GPS/COM		6.50	60.00	390.00
INSTALLED	1 Items @		6.50	60.00	390.00
NEW DATA >>	NEW USEFUL LOAD = 926.38		1398.62	86.74	121316.71

This weight and balance document modifies past existing weight and balance data contained in the aircraft records. This facility cannot verify that the existing weight and balance data contained in the aircraft records reflect the correct weight and balance of this aircraft. Any inaccuracies in past data will be mathematically carried forward with this document. This facility cannot verify the accuracy of past data and is not responsible for any past weight and balance data or computations. It is the responsibility of the airplane owner and/or pilot to ensure that the aircraft is loaded properly for flight.

Authorized Individual : VFAR714K Peter Stelzenmuller