



MEMORANDUM FOR RECORD

Shaun Williams
Senior Aviation Accident Investigator
Central Region

Date: 6/27/2022
NTSB Accident Number: CEN21FA198

Weight and Balance Calculations

The following information was derived from the filed flight plan (5:30 fuel on board), aircraft weight and balance sheet (basic empty weight 2817.6lbs) and an estimated fuel burn of 16.0 gallons per hour (from Pilot Operating Handbook (POH)). Exact seating locations for the two passengers not seated in the front two seats could not be determined, therefore, these calculations are for weight only, and cannot be used for determining center of gravity. Center Seats weight includes passenger and personal effects. No fueling records were located. Maximum gross weight per POH was 4118.0lbs. Cargo was weighed as it was removed from the aircraft with 3 bags removed from the aft cargo area, which weighed 10lbs, 36lbs and 42lbs. 53lbs of miscellaneous cargo/personal effects were removed from the cabin, as well as 21lbs of cargo from the forward cargo section. The front two occupants weighed 234lbs and 260lbs, the passenger located in the center row of seats weighed 257lbs and the final passenger, whose seating location could not be determined, weighed 239lbs. Passenger weights were provided by the Yell County Sheriff's Office.

BEW	2817.6
Front Seats	494
Center Seats	310
Rear Seats	239
Fuel	528
Front Baggage	21
Aft Baggage	88
Ramp Weight	4497.6
Taxi Burn	18.0
Takeoff Weight	4479.6

VBA
Vero Beach Avionics, Inc.

WEIGHT & BALANCE/EQUIPMENT LIST

REG. NO.	MODEL	Serial No.	WORK ORDER
N461DK	PA46-310P	46-8508102	7785
Items: (Description / P/N / S/N)	Weight Pounds	Arm Inches	Moments Inch/Pounds
Previous Aircraft Empty Weight:	2840	132.2	375448
KA91/071-01545-0200/10749	-0.5	149.5	-74.75
GA56/011-00134-00/59035477	-0.24	150	-36
KLN906/066-04031-2121/61347	-6.3	115.1	-725.13
KR87/066-1072-00/23040	-3.2	112	-358.4
KT79/066-1053-00/3029	-3.4	112.3	-381.82
KNS01/066-4010-10/5243	-5	112	-560
KY196/064-1019-05/17628	-3.2	112	-358.4
KI227/033-3063-01/18674	-0.7	115.9	-81.13
Weather Scout Radar Installation	-19.4	133.1	-2582.14
GNS530W/011-01064-00/23821787	8.2	112.5	922.5
GNS430W/011-01060-45/96301539	6.2	112.5	697.5
GTX330/011-00455-50/84148121	4.2	112	470.4
#1 GA35/013-00235-00/96378	0.47	148.8	69.936
#2 GA35/013-00235-00/111174	0.47	148.5	69.795
Totals	2817.6		372520.361
A. Old Empty Weight	2840 Pounds		
B. Old Empty CG	132.2 Inches		
C. Old Empty Weight CG Moment	375448 Inch/Pounds		
D. Max Gross Weight	4118 Pounds		
E. Old Useful Load	1278 Pounds		
A. New Empty Weight	2817.6 Pounds		
B. New Empty CG	132.21194 Inches		
C. New Empty Weight CG Moment	372520.361 Inch/Pounds		
D. Max Gross Weight	4118 Pounds		
E. New Useful Load	1300.4 Pounds		

This new weight & balance information supersedes all previous weight and balance data.
For aircraft loading, see instructions in Weight & Balance Section of Aircraft Flight Manual.

FAA Form 337 Completed? Y
Equipment List Amended? Y

By: _____ Date: 11/10/2014
Vero Beach Avionics, Inc. FAA CRS VQVR013Y

Photo 1: Weight and Balance/Equipment List

Date Created Fri, 23 Apr 2021 20:25:15 GMT
Status SUCCESSFUL
ARICC State Acknowledged: ACK
Request Type FILE
Ident N461DK
Tail N461DK
Type IFR
Type/Equip PA46/GLO
Speed 175
From KMKO
To X60
Alternate
Route
Departure Time (old) 21:0
Departure Time Fri, 23 Apr 2021 21:00:00 GMT
Scheduled Filing Time
ETE 3:43
Cruise 23,000
Fuel 5:30
Remarks
Pilot Timothy Allison
Address
Email t30allison@gmail.com
Phone 9187564060
Base KMKO
Souls 4
Color W
Destination Contact
Destination Phone
Generated FPL Message
(FPL-N461DK-IG
-PA46/L-GLO/E
-KMKO2100
-N0175F230 DCT
-ZZZZ0343
-DEST/X60 DOF/210423 EET/KZME0009 KZTL0210 KZJX0237
-E/0530 P/4 R/
A/WHITE
C/TIMOTHY ALLISON 9187564060 KMKO)

End of Record