

Factual Report – Attachment 11
Weight and Balance

OPERATIONAL FACTORS

WPR19MA177

1.0 N256TA Weight and Balance¹

AIRPLANE WEIGHING RECORD (CONTINUED)

DESCRIPTION	NET WEIGHT	ARM	MOMENT
TOTAL (As Weighed)	5,130	150.9	773,967.6
OIL IN AIRPLANE -INCLUDED - FULL	---	---	---
TOTAL OF ITEMS WEIGHED BUT NOT PART OF BASIC WEIGHT (From Col. 1 Below)	/		
TOTAL OF BASIC ITEMS NOT IN AIRPLANE	/		
WHEN WEIGHED (From Col. 2 Below)	NIL	---	---
BASIC AIRPLANE	5,130	150.9 <small>HC & G INDEX</small>	773,967.6

BASIC WEIGHT OF AIRCRAFT IS 5130 LBS LOCATED 150.9 INCHES AFT OF DATUM.

ITEMS WEIGHED BUT NOT PART OF BASIC WEIGHT	COLUMN 1			BASIC ITEMS NOT IN AIRPLANE WHEN WEIGHED	COLUMN 2		
	WEIGHT	ARM	MOMENT		WEIGHT	ARM	MOMENT
			/			/	
			/			/	
	NIL				NIL		
			/			/	
TOTAL			X	TOTAL		X	

REMARKS: TYPE OF SCALES USED: ROAD RUNNER I MODEL: AW10000-3 S/N: M1341B
METHOD OF SUPPORT: RAMPS
ATTITUDE (TAIL UP-TAIL DOWN): LEVEL
*The Index is to be calculated by formula and check on Weight and Balance Computer.
Whenever possible airplane is to be weighed with all and only basic equipment installed.
*The Index formula differs with each type of airplane; see instructions on relevant computer.

I CERTIFY that this data has been prepared in compliance with the provisions of CARS Standard 571 Appendix C and Manufacturer's Instructions and to the best of my knowledge represents the true basic empty weight and center of gravity of the Aircraft.

*The maintenance described above has been performed in accordance with the applicable standards of airworthiness. AMO 46-89

SIGNATURE & LICENSE # [REDACTED]

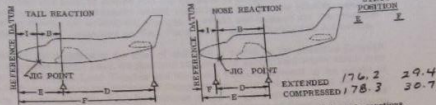
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¹ Photos are of the accident airplane's FAA-approved Flight Manual, taken by a former OPC King Air pilot and provided to the NTSB.

AIRCRAFT EMPTY WEIGHT AND BALANCE

DIAGRAMS FOR MEASURING ARMS OF REACTIONS

MODEL 65 A90
 SERIAL NO. L1 356
 REGIST. NO. N5114
 COMPUTED BY DW



CHECKED BY
 DATE 3-11-67

USEFUL LOAD WEIGHTS & MOMENTS
90-32367 & 90-30163A
w/ Attachment
 GROSS WEIGHT MOMENT LIMITS
90-32365 & 90-32366A

The distance from the jig point to the centerline of the main reactions. Obtain by measurement. (The jig point is usually identified in the "Datum" Definition on the applicable FAA Aircraft Specification or Type Certificate Data Sheet and represents a convenient reference or plumb line point.)
 $D = 35.5$

The distance from the reference datum to the jig point of the Airplane. Obtain from the applicable FAA Aircraft Specification or Type Certificate Data Sheet.
 $D = 160.0$

The wheel base for the distance between fore and aft reactions. Obtain by measurement.
 $D = 112.0$

The distance from the Reference Datum to the centerline of the main reactions. $E = 1 / 2$ (with jig point FWD of G of main reactions). Check against $E = 1 - B$ (with jig point AFT of G of main reactions). Check against approx. dimension "E" above when aircraft is weighed on wheels.
 $E = 195.5$

The distance from the reference datum to the centerline of the nose or tail reaction. $F = E - D$ (for nose reaction weighing). Check against approx. dimension "F" above when aircraft is weighed on wheels.
 $F = 83.5$

REACTION (Inch Pounds, oz)	SCALE Reading	TARE	NET WEIGHT	ARM	MOMENT
LEFT MAIN	1578	157	1421		
RIGHT MAIN	2190	157	2033		
SUB-TOTAL (BOTH MAIN)	3768	314	3454	$\times E = 195.5 = 675257$	
NOSE	2470	150	2320	$\times F = 83.5 = 193720$	
TOTAL (AS WEIGHED)	6238	464	5774		868977

IF USEFUL LOAD ITEMS ARE IN AIRPLANE AS WEIGHED, THEY SHOULD BE SUBTRACTED IN SPACE BELOW.
 IF ALL EMPTY WEIGHT ITEMS ARE NOT IN AIRPLANE AS WEIGHED THEY SHOULD BE ADDED IN SPACE BELOW.

Odd:					23528
Cabin Chair (4)		120			
Forward Bar (RH) (MCO012876-1)		71	152		10792
Less:					
Nose Gear Compression Bar		-3	30		-90
Captain's Cabin Protective Covers		-9			-1389
CORRECTED EMPTY WEIGHT		5953	151.5		901818
UNUSABLE OIL		28	101		2828
UNUSABLE FUEL		24	140		3360
FAA CERTIFICATED WEIGHT	Actual	6005	151.2		908006

INSTRUCTIONS FOR PROPER LOADING SHOWN ON REVERSE SIDE
 95-125

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NORMAL PROCEDURES
 PERFORMANCE
 FIELD LENGTH
 LIMITATIONS
 FAA APPROVED

AIRCRAFT BASIC EMPTY WEIGHT AND BALANCE

Date Weighed: FEB 7, 2009 Type & Mark: KING AIR A90 Serial No.: LJ256

Place Weighed: SPRINGBANK AIRPORT Weighing Officer: J. EDWARDS

N256TA

WHEEL	SCALE READING	TARE	NET WEIGHT	ARM (Inches)	MOMENT
LEFT MAIN	2,115.0	-----	2,115.0	 	
RIGHT MAIN	2,086.0	-----	2,086.0	 	
SUB-TOTAL (Both Main)	4,201.0	-----	4,201.0	177.60	746,097.5
NOSE or TAIL	929.0	-----	929.0	30	27,870.0
TOTAL (As Weighed)	5,130.0	-----	5,130.0	H(C of G) 150.90	773,967.6

MEASUREMENTS

- B= _____ inches, the distance from the jig point or frame to the center line of the main wheels.
Obtain by measurement.
- I= _____ inches, the distance from the reference datum to some accessible exterior jig point or frame of the airplane from which a plumb bob can be dropped to the ground. Obtain from the diagram on the balance computer or relevant EO.
- E= _____ inches, the distance from the reference datum to the center line of the main wheels.
E=I + B
E=I - B (If the jig point is aft of the center line of the main wheels.)
- D= _____ inches, the wheel base (or the distance between for and aft reactions.)
Obtain by measurement.
- F= _____ inches, the distance from the reference datum to the center line of the nose or tail wheel.
F=E - D (for nose wheel airplane)
F=E + D (for tail wheel airplane)

TAIL WHEEL AIRPLANE

NOSE WHEEL AIRPLANE

R
E
F
E
R
E
N
C
E

D
A
T
U
M

R
E
F
E
R
E
N
C
E

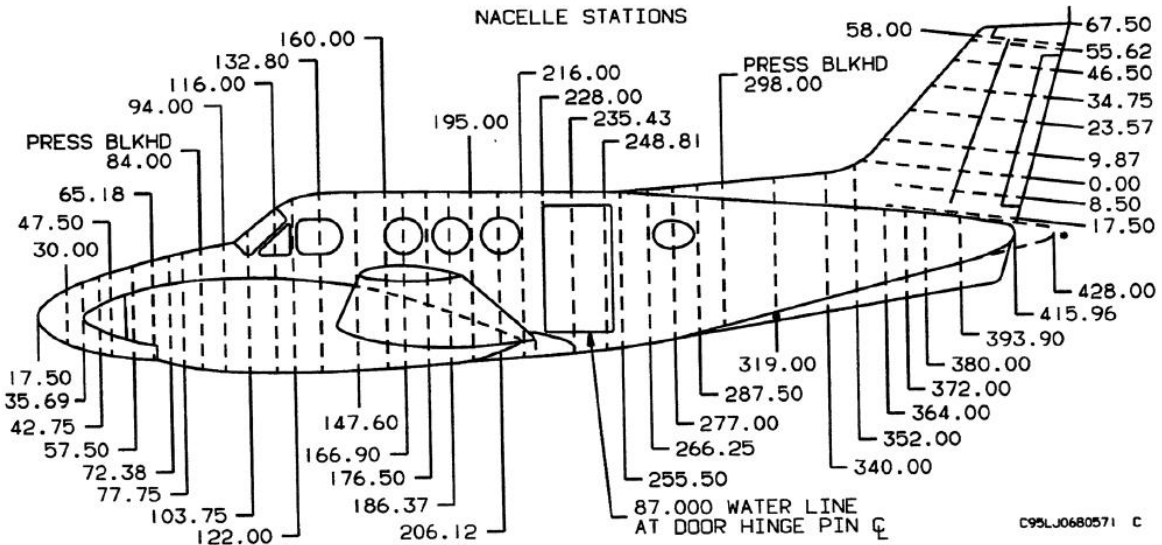
D
A
T
U
M

AIRCRAFT WEIGHED IN SKYDIVE CONFIGURATION WITH CAPTAINS SEAT ONLY

DIAGRAMS FOR MEASURING VARIOUS TYPES OF AIRPLANE TO DETERMINE
ARM OF SUPPORT POINTS

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2.0 Beech A90 Station Chart²



3.0 Fueling Records

ORDERED		SHIPPED	DESCRIPTION	PRICE	UNIT
			97 g Reed By J2 6/16		
			114 g Reed By J2 6/16		
			116 g Reed By J2 6/19		
			152 g Reed By R 6/21		

Invoice

SOLD TO *Cable Parachute* SHIP TO *HDS*

ADDRESS

CITY, STATE, ZIP

CUSTOMER ORDER NO.

SOLD BY *NS Aviation* TERMS

F.O.B.

500

² Source: Textron