

**N2406K PA38-112  
TOMAHAWK  
WEIGHT & BALANCE**



Max Gross Weight: 1670.00 LBS

Useful Load: 512.51 LBS

Basic Empty Weight (N2406K – Updated 10/20/2017): 1157.49 LBS

Useable Fuel: 30 GAL (180 LBS)

Weight x Arm = Moment (divide by 1000 for smaller numbers)

Moment divided by Weight = Center of Gravity x 1000 = C.G.

Weight and Balance Example:

	WEIGHT	X	ARM	=	MOMENT/1000
Basic Empty Weight	1157.49	X	73.5	=	85.08
Pilot Left Side	180	X	85.5	=	15.39
Pilot Right Side	185	X	85.5	=	15.82
Baggage Area	5	X	115.0	=	0.58
Fuel	120	X	75.4	=	9.05
Ramp Weight/Mom	1647.49				125.92
Taxi/Run-Up	-1.5	X	75.4	=	-0.11
Takeoff Weight	1645.99				125.81
Takeoff C.G.	76.43	Refer to Section 6 of the POH			
En-route Fuel Burn	-72.0	X	75.4	=	-5.43
Landing Weight	1573.99				120.38
Landing C.G.	76.48	Refer to Section 6 of the POH			

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	WEIGHT	X	ARM	=	MOMENT/1000
Basic Empty Weight	1157.49	X	73.5	=	85.08
Pilot Left Side		X	85.5	=	
Pilot Right Side		X	85.5	=	
Baggage Area		X	115.0	=	
Fuel		X	75.4	=	
Ramp Weight/Mom					
Taxi/Run-Up	-1.5	X	75.4	=	
Takeoff Weight					
Takeoff C.G.		Refer to Section 6 of the POH			
En-route Fuel Burn		X	75.4	=	
Landing Weight					
Landing C.G.		Refer to Section 6 of the POH			

**Take Off Distance (Ground Run):** \_\_\_\_\_

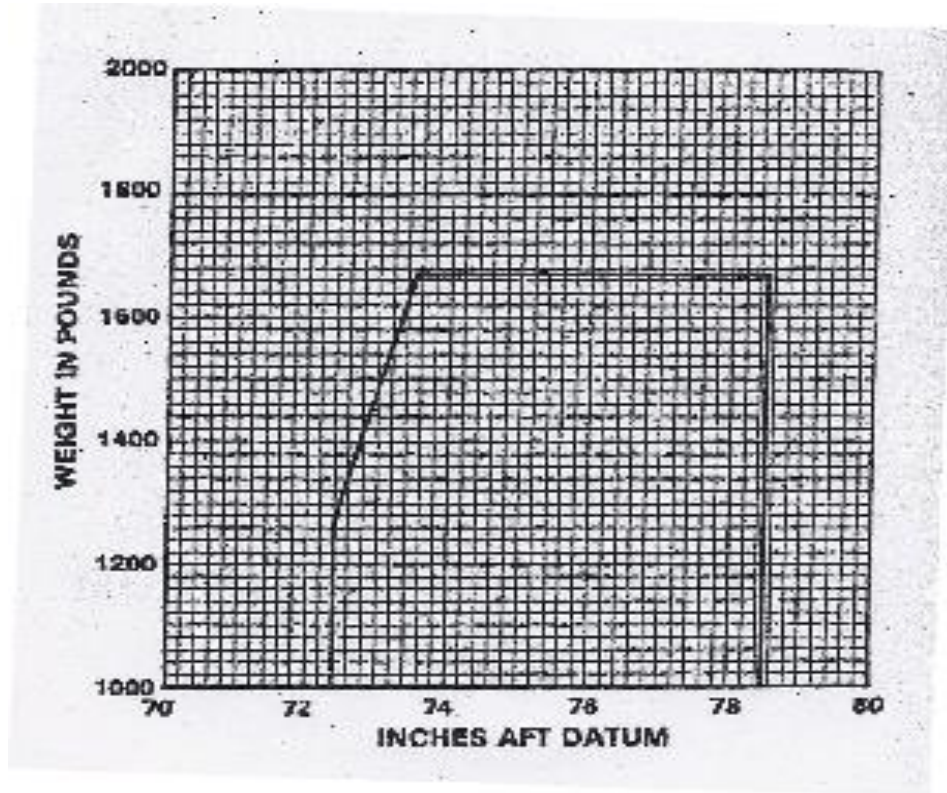
**Take Off Distance (Over 50' Obstacle):** \_\_\_\_\_

**Vy:** \_\_\_\_\_ **Vx:** \_\_\_\_\_

**Landing Distance (Normal):** \_\_\_\_\_

**Landing Distance (Over 50' Obstacle):** \_\_\_\_\_

**C.G. Envelope:**



**Tomahawk Profile (KTS):**

	SPEED	GAL/Hr	LBS/Hr	RATE
CLIMB to 1000'	70	8.5	51.0	800 FPM
CLIMB After 1000'	80	7.5	45.0	500 FPM
CRUISE	105	6.5	39.0	0
DESCENT	90	5.0	30.0	500 FPM

**PA38-112 V-SPEEDS:**

KIAS		
Vso	49	
Vs	52	
Vr	50-60	
Vx	61	
Vy	70	
Vfe	89	
Vno	110	
Vne	138	
Va		
#1670	103	
#1277	90	
Best Glide	70	
Max X-wind	15	
Normal App. Speed	70	
Short App. Speed	65	
Enroute Climb	80	

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Compass Card:

For	Steer	For	Steer	For	Steer
N	360	30	031	60	060
E	090	120	120	150	152
S	180	210	210	240	240
W	269	300	300	330	330

DATE: 05/01/2014