

P68 Observer Series

The Aerial Works

Industry Standard



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vulcanair
aircraft 

P68 Observer Series (P68 Observer 2 · P68TC Observer)

“unique visibility, unsurpassed utility, extreme beauty”

The Vulcanair Aircraft P 68 Observer Series is a six seater, twin engine, high wing, fixed landing gear airplane for observation, light transport or plain enjoyment of the panorama.

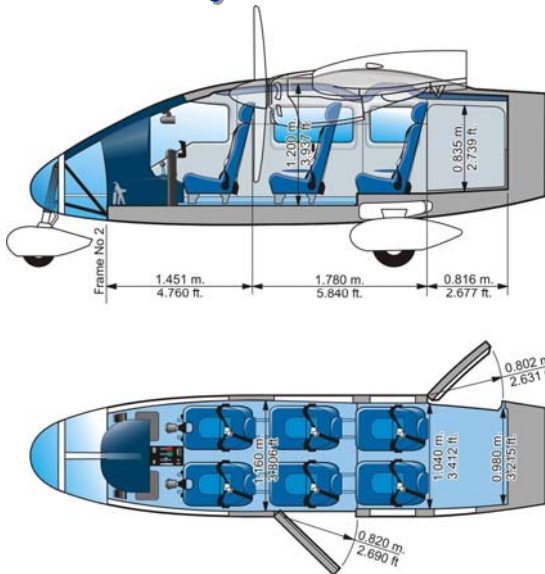
The main characteristic of the aircraft is its **helicopter-like visibility** thanks to its plexiglass transparent nose. This uncommon feature in fixed wing aircraft enables it to perform patrol and observation roles like a helicopter, yet with acquisition and operating costs much lower than those of a helicopter and with a much higher endurance (10.5 hr).

Extreme structural simplicity, absence of complicated systems, ruggedness, accessibility to servicing points reduce maintenance costs and put the Observer in a position of outstanding advantage with respect to helicopters whenever vertical take-off is not necessary. The new generation glass cockpit further reduces the cockpit size increasing visibility and further increases the situational awareness of the pilot.

NEW Cockpit Layout



General Layout



Aircraft Configuration

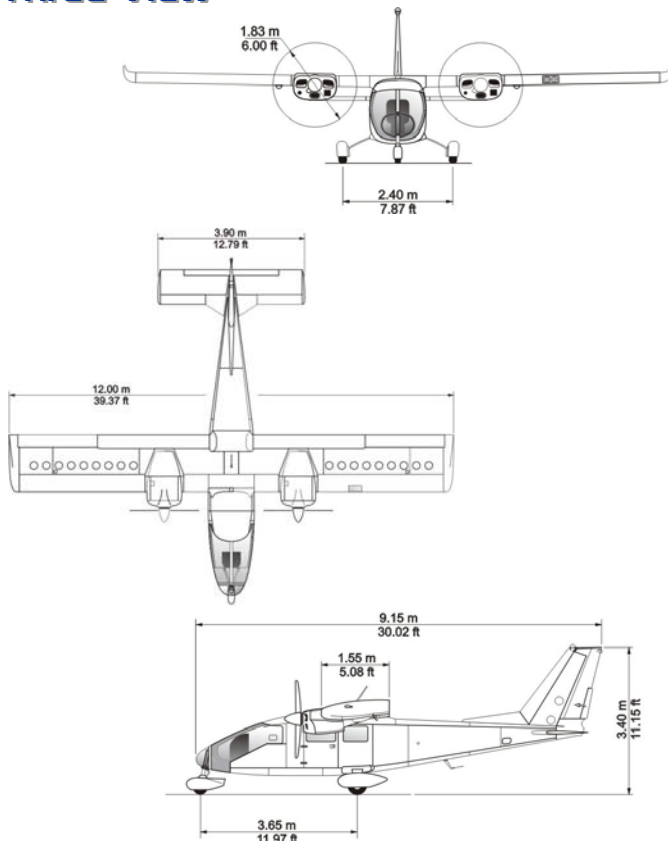
The standard interior configuration is for 6 people (1+5). The large cabin volume is available for carriage or installation of bulky items like airborne surveillance racks, aero-photo cameras, stretchers for ambulance duties, etc. while still leaving some space for the operators.

Most importantly, the aircraft features a standard predisposition for a 2.1 x 1.5 ft. belly hatch (63 x 46 cm.) allowing the safe installation of several cameras and airborne surveillance equipment. The legendary and extremely stable flight characteristics make the Observer a very flexible and easily customisable platform for aerial photography, reconnaissance and emergency missions.

Dimensions

CABIN	COCKPIT AREA	PASSENGER CABIN
Cabin length	1.451 m 4.760 ft	1.780 m 5.840 ft
Cabin width	1.160 m 3.806 ft	1.160 m 3.806 ft
Ave. Cabin height	1.150 m 3.773 ft	1.200 m 3.937 ft
Total Volume		2.478 m ³ 87.51 cu. ft
CARGO COMPART.	PAX CONF.	CARGO CONF.
Length	0.816 m 2.677 ft	2.596 m 8.507 ft
Ave. width	1.010 m 3.300 ft	1.100 m 3.609 ft
Ave. height	1.000 m 3.281 ft	1.120 m 3.674 ft
Total Volume	0.824m ³ 28.98 cu.ft	3.198 m ³ 112.8 cu. ft

Three View



Performances

Engines Lycoming

IO-360-A1B6 (200 hp) and TIO-360-C1A6D (210 hp)

Max Ramp Weight	2100 kg	4630 lb
Max Take-Off Weight	2084 kg	4594 lb
Max Landing Weight	1980 kg	4365 lb
Well Equipped Empty Weight	1420 kg	3130 lb
Max Zero Fuel Weight	1890 kg	4167 lb
Useful Load	680 kg	1499 lb
Max Fuel Capacity	696 lt	184 U.S. gal
Max Usable Fuel	670 lt	177 U.S. gal
Number of Seats	6	6
Luggage Capacity	0.56 cu.m	20 cu. Ft

P68 Observer 2- IO-360-A1B6

Avg. Cruise Speed @ 75%	301 km/h	160 Ktas
Rate of Climb (2 eng. @MTOW)	6 m/s	1100 fpm
Rate of Climb (1 eng. @MTOW)	1 m/s	200 fpm
Stall Speed (full flaps)	106 km/h	57 Kcas
Service Ceiling (2 engines)	5490 m	18000 ft
Service Ceiling (1 engine)	1520 m	5000 ft
Range, FL 100, 55% Pwr. (incl 45' Res)	2960 km	1598 nm
Take-Off Run	240 m	787 ft
Landing Run	200 m	656 ft
Max Endurance, FL 100, 65% Pwr, ISA	>10 h	>10 h
Load Factor	+3.74g	/ -1.50g

For hot and high airports or for more performance a turbocharged variant is available (P68TC Observer):

P68TC Observer - TIO-360-C1A6D

Avg. Cruise Speed @ 75%	315 km/h	170 Ktas
Rate of Climb (2 eng. @MTOW)	7.6 m/s	1500 fpm
Rate of Climb (1 eng. @MTOW)	1.1 m/s	220 fpm
Stall Speed (full flaps)	106 km/h	57 Kcas
Service Ceiling (2 engines)	6100 m	20000 ft
Service Ceiling (1 engine)	3350 m	1100 ft
Range, FL 100, 55% Pwr. (incl 45' Res)	2280 km	1230 nm
Take-Off Run	230 m	755 ft
Landing Run	200 m	656 ft
Max Endurance, FL 100, 65% Pwr, ISA	8 h	8 h
Load Factor	+3.80 g	/ -1.52g