



Flying the PAC 750XL - DAAN BRAND

First impressions can be deceiving as I learned when the airplane arrived at Wonderboom Airport. The PAC did not look like the high performance machine that I was told about by Chris Briers (CEO of Naturelink Aviation) who went down to New Zealand to test fly the airplane. The demonstration unit was still lacking its cargo pod and was definitely a strange looking aircraft. In fact, I think most people that see the PAC for the first time will classify it as ugly; that is until they get into her and experience first hand what it feels like to break the laws of gravity.

Pre-flight and start up procedures, engine gauges and power quadrant are similar to the Cessna Caravan, as well as the emergency power lever situated to the left of the power lever in the case of a FCU failure. No fuel selector, two fuel tanks on each side, which feed a collector tank, therefore fuel balance is automated. Engine start is done with the inertial separator in the open (bypass) position. Power loss with the separator in the open position is negligible. In fact, with the separator in the 'open' position at Wonderboom Airport's altitude of 4 100 ft and an outside temperature of 30°C, power will still be torque limited.

Normal take off is accomplished with 20 degree flap, full power against the brakes and lift the nose at 45 knots, rotate at 65 knots and climb away at 80 knots. This results in a ground roll of 200 metres or less. The climb gradient defies aerodynamics as demonstrated in a 1 500 ft/min rate of climb when the aircraft is not loaded. Flying at 60 knots with a 60 degree bank angle is no problem; with flaps and 20 torque setting one can see indicating flying speeds of 45 knots. At this low speed, aileron authority is still good with no tendency to drop a wing. Even at max all up weight, the aircraft will climb at a rate of 1 000 ft/min or more. Flight controls are light and effective with an incredible roll rate for such a large aircraft. In the cruise, fuel flow will decrease to 270 lbs/hour at a true airspeed of 165 knots.

The approach speed for landing with full flap is 75 knots and a touchdown speed of 58 knots. Because rudder and aileron controls are inter-connected, care must be taken with crosswind landings. Normally ailerons will be into the wind; however, to get more rudder authority it may be necessary to apply ailerons in the direction of rudder input. What about stalling? A power off stall occurs at 58 knots as the flight manual describes. There is no need to lower the nose; just grab a handful of power and she will climb away at a 1 000 ft/min out of the stall. Descents with prop in Beta are allowed with flap down at 40 degrees and will result in a rate of descent of more than 3 000 ft/min with airspeed stable at 100 knots indicated air speed. With this climb and descent performance the aircraft is excellent for parachute dropping, and very short field dirt strips where the average pilot will be able to fly the PAC out of dirt strips of 400 metres, and that is at maximum all up weight, including 9 passengers and full fuel. The only negative aspect to the PAC is the huge trim inputs needed when flying the aircraft at extreme attitudes, which will not be necessary in normal day to day operations. Flying the PAC 750 will never be described as boring or average. Just ask any pilot that has flown the aircraft and the smiles will tell all.