

Adventist Aviation, Papua New Guinea

The following is information provided by Roger Millist, CEO and Chief Pilot for Adventist Aviation in Papua New Guinea. Adventist Aviation purchased aircraft XL124 in February 2007 and is looking to expand their P-750 XSTOL fleet.



Website: <http://www.adventistmission.org/article.php?id=320>

What does AAS do?

Adventist Aviation is owned and operated by the Seventh-day Adventist Church in Papua New Guinea to provide air transport and support for the Church's operations throughout PNG as well as medical and general transport (passenger and freight) services to the remote bush communities as capacity allows. The Church supports and operates over 600 clinics, schools and mission stations in PNG.

Our services include:

1. Passenger operations – Teachers, ministers, nurses, builders, mechanics, NGO (Non-government organizations) Aid personnel, general public, to/from the 500+ bush airstrips.
2. Medical Clinic rounds providing "Maternal and Child Health" (Vaccination rounds etc) services to communities with either no clinic at all or limited services. Medicines and medical supplies to isolated clinics operated by the

SDA Church, other Churches or the Government. Medical evacuations of seriously sick or injured persons to the base hospitals in the main centres – many of these are small children and/or mothers experiencing complications with childbirth.

3. Freight operations including building materials and essential supplies for clinics, schools, Churches and development projects such as clean water projects. Basic supplies for communities such as flour, cooking oil, kerosene, rice, tin fish, sugar, salt, and other very basic necessities. Produce and cash crops from villages back to town for marketing – peanuts, vegetables, coffee, vanilla etc which is often the only source of any form of cash for the communities.

The only operators servicing these isolated airstrips (500+) today are the four Mission aviation operators and three charter operators. Hence, the isolated communities are almost totally reliant on the services which charter operators like ourselves can provide.

Types of Airstrips.

About 200 of the airstrips we operate into on a regular basis are at or above 5000' elevation the average length being 500m (some much less) and up to 18% slope, many of these are constructed on the side (or top) of a mountain at the end of a blind valley. Hence you only get one chance at a safe landing and once you turn onto final approach you are committed to a landing. Most are carved out of the jungle and or mountainside by hand and consequently drainage, maintenance and condition of the surface are often sub-standard. Many are very soft and "draggy" especially after heavy rain.

Why we chose the 750XL.

Our list of requirements for a new aircraft was very specific.

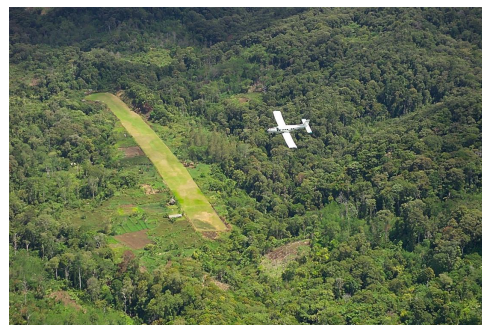
1. Must run on Jet A1 fuel – Avgas is only available in drums from 3 main ports in the country and costs US\$2.00 per litre, Jet A1 is available by tanker direct into aircraft at most of the major airports (as well as in drums from the 3 major ports) and average cost is around US\$1.00 per litre. So as an operating cost factor alone the 750 is costing US\$200/hr for fuel versus US\$140/hr for a 206 which can carry ½ the number of pax and 1/3 the cargo load.
2. Must be capable of operating into all the strips we currently service with the 206's. As we only have small fleet we require this flexibility to ensure a reliable service even during periods of aircraft maintenance. This condition required an aircraft with exceptional STOL (Short field Take-off and Landing) performance due to the airstrips we operate into (see above). This also demands a very tough, proven airframe as many of the airstrips would rank among the roughest and poorest maintained airfields in the world.

3. Must be capable of better climb performance at high altitude than a turbo-charged piston aircraft in order to increase our levels of safety for both pilots and passengers. The highlands of PNG is one of the most demanding flying environments to be found anywhere in the world, hence, performance and safety is a major consideration in any new aircraft type acquisition.

4. Due to the demanding conditions we operate in we require an airframe and engine combination which has uncomplicated systems and is relatively simple and economical to maintain.

5. Must be economical to operate and capable of much greater capacity (pax and cargo) and profit margins than our current aircraft type. (Turbocharged Cessna 206 piston singles)

With this very specific "shopping list" there are currently not a lot of certified aircraft available which meet all of these criteria. After over 400hours of operating a 750XL in our demanding environment I can honestly say "The 750XL has met and exceeded all our expectations and confirms daily our choice"



Comments on Performance and Business;

I do not have to ask a pilot to fly the 750XL – they enjoy operating it due to the ease of operation and increased performance and safety margins. Now we have the option of climbing quickly above the terrain and weather rather than having to try and navigate our way below and among it. Passengers constantly comment on how much they appreciate the performance and

roominess of the cabin.

Clients frequently request this aircraft even if they don't require it's full capacity due to the increase in levels of performance, speed and safety. The 750XL has had a huge impact on the viability and profitability of our business and has now opened the way for us to actively and responsibly plan for growth and expansion of our operations through the addition of additional aircraft in the future. The efficiency and productivity of our operation has increased by 2-300%. In 2 hours with the 750XL we can accomplish what would take a whole day (weather permitting) in the C206. Our profit margins have also increased in excess of 300%. The high operating costs of piston engined aircraft operating on avgas in PNG leaves a very small profit margin (less than 20%)

Features / advantages:

Simplicity of operating systems – the pilot is able to concentrate his attention 'outside' the aircraft on the task of flying safely rather than constantly monitoring and 'fiddling' with complicated systems (eg. Fuel selection)

Large capacity cargo pod – we can carry the entire payload of a TU206 in the pod alone. We are called on to conduct many "coffin charters" to return relatives to their home villages for burial. With the 750 we can place a full size coffin and luggage in the cargo pod and still carry nine passengers (relatives) in the cabin.

Large entry doors fore the cabin and cargo pod – makes for easy loading of long and/or large items particularly building materials.

Large roomy cabin – easy loading of freight and increased space and comfort for passengers.

Turbine powered – A well proven simple, reliable engine. Operates on JetA1 which is readily available and reasonably priced in PNG.

Ease of maintenance. Maintenance cycles are 150hrs which has markedly decreased our downtime and maintenance costs.

Testimonial:

"Already three other operators in PNG have ordered 750XL's after inspecting and flying in our aircraft, I think that fact alone speaks volumes"

"Every operator in PNG is facing the same challenges, decreasing availability and increasing cost of avgas, requirement for aircraft with greater capacity and performance, increasing cost of maintenance and the difficulty of finding experienced qualified engineers, and decreasing profit margins and viability."

"The 750XL has definitely met and in several areas exceeded our expectations, I would have no hesitation in purchasing additional aircraft of this type, this aircraft is well suited to the rugged unforgiving environment in which we operate" No one aircraft type is perfect for all needs and operations even in PNG but the 750XL is certainly a very versatile utility aircraft which is well suited to our needs.

Safe, Economical, Rugged, Simple, Fast, Easy to operate.

Average cargo load from the bush airstrips is 1200kg with about 90-120 mins fuel on board. We carry an hour of reserve fuel at all times due to the vagaries of the weather up here (legal requirement is only 30min). Typically it takes us about 30mins to reconfigure from seats to cargo or vice versa. A lot longer than the 206 owing to the different type of seats and tracks, but still workable.