



Foxbat Australia

Newsletter – August 2011

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Polish Police buy A22LS



Aleksander Opoczynski, Aeroprakt agent in Poland, writes to tell me the Aeroprakt A22LS (Foxbat) won a tender for a light aircraft to conduct Police surveillance and other work in one of Poland's 15 police districts. Competition was tough and the aircraft was modified substantially – mainly to handle the dual aircraft and police-band radio communications. The Night VFR aircraft also has the optional photo doors as well as a special camera port in the floor of the aircraft.

Aleksander writes: “The aircraft also required an independent check of carburetor heating system. We used LM335 temp sensor put into the airbox and connected it to a Stratomaster RTC-1 (which is firstly a clock, but also with temperature input). Thanks to it we know now that the carburetor heating increases the temperature in the airbox by celsius 12-15 deg.



“The police also wanted to have many systems doubled. There are two horizons - one RC Allen and one electronic in Stratomaster XTreme, additional oil pressure and temperature gauges (main are in XTreme). There are also plenty of extra switches and fuses for police systems. The A22LS is also prepared for camera installation and is fitted with a special port in the floor as well as an additional photo door.

“It is the first test by the police to use a light aircraft for state services and the A22 LS won the contract. It cannot replace helicopters in all duties but surely many of them can be performed by at least as well by the A22LS. So the police expect to make quite a lot of economies. If they are satisfied with it we can get more orders in future. We have 15 such regions in Poland.”

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The ageing GA fleet – an issue for sport & recreational aircraft owners??



It's a fact that stunned me: the average age of GA aircraft in Australia is around 40 years. "Oh well", you probably think, "this has nothing to do with me – a sport & recreational aircraft owner/operator/ pilot."

And there you'd be totally wrong.

A recent CASA publication titled "Take a closer look – Airworthiness and Ageing Aircraft" makes interesting reading for all aircraft operators, including Light Sport and Recreational.

We may gloat at the (expensive) problems encountered by owners of older GA aircraft but the messages are just as applicable to our own aircraft.

For example: even an aircraft that's been fully maintained as per manufacturer's requirements can still be un-airworthy. This is because aircraft are usually designed with a finite life – typically 20 years – and many have long ago passed this period. As a result, maintenance procedures are almost certainly no longer

realistic and probably do not take account of issues like fatigue and corrosion, which were never envisaged as an issue in the planned 20-year life of the aircraft.

If GA aircraft (some of which are built like brick out-houses) can suffer fatigue cracking after 20 years, what about our much lighter airframes?

And another warning – corrosion affects wood and composite aircraft every bit as much as metal aircraft – it's only the causes and results that are different. Carbon fibre in particular can cause major problems when certain metals – like aluminium – are fixed to it without appropriate (expensive) isolation.

Every aircraft starts ageing the moment it leaves the factory – the airframe, the rubber hoses, avionics, fibreglass, lexan, hydraulics- all examples of age-susceptible items. How well it resists the ageing process is dependent on a variety of factors such as how often it is flown, how and where it is hangared/stored, accident damage & repairs and overall maintenance quality.

Here's when warning bells should ring.

If your Sport/Recreational aircraft...

- is more than 5-6 years old and/or has flown more than a couple of thousand hours
- has been kept in a corrosive environment (eg within 50 miles of the sea and/or in the sun)
- has completed a high number of take-off/landing cycles
- does not have a comprehensive airworthiness program to handle the ageing process

...it is highly likely that you need to do something now to ensure your aircraft is not suffering prematurely through fatiguing, materials degradation and other age-related problems.

Don't become a statistic – do something now!

For more information see: <http://www.casa.gov.au/ageingaircraft>



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Water flying in my Foxbat

By Philip Myer

Let me say at the outset, this is not an article about how to fly off the water, merely my personal reflections of learning to fly the Foxbat Amphibian. For those seeking to learn water flying - find a suitably qualified Instructor to start your journey. I did my amphib endorsement in a Cessna 185 with Rod Gunther at Williamstown, Victoria – a very experienced gentleman, high time water pilot and patient instructor.



A newly float-rated pilot will soon discover that it is impossible to solo hire a seaplane, so if you really want to advance your skills and use your endorsement as 'a ticket to learn' then you will have to buy your own aircraft. Having already become a sport pilot after over 2000 hours of private GA flying and after much research I purchased a Foxbat A22LS from Foxbat Australia and fitted amphibious floats from the USA. Rod Gunther test flew the aircraft after which I did a couple of hours dual with him and then I was off to learn on my own.

The Foxbat has some wonderful attributes as a seaplane. It is very stable for an LSA, even more so than the land plane because of the pendulum effect of the floats. The speeds are low, stall speeds only slightly higher than the land plane. The visibility is outstanding. The liquid cooled Rotax engine means the temperature remains stable at 90°C even after hours of water circuits and its simple reliable starting is important on the water because once you push off the dock or beach you have to get the motor started quickly. The airframe is simple and easy to wash and maintain, an advantage for a seaplane especially one that operates on salt water.

In the air the Foxbat is similar to flying the landplane. The drag of the floats does slow the cruise speeds down to 80 kts at 5200 rpm and 75 kts at 4800 rpm, not very fast but who needs speed when you are water flying for the fun of it. As a novice you are a bit 'water shy' when it comes to operating on and off the water. The only way to 'cure' this ailment is lots and lots of splash and go's.

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We are lucky in Hobart in that the training area is over Ralphs Bay a large but sheltered area of water only 10 minutes flying from Cambridge Airport. You do not have to fly a complete circuit for every landing, numerous splash and go's can be done in a sequence. Once you are in the groove you 'land' and remain on 'the step', then reapply power to take off again to only a height of 150 feet or so before making another approach.

This way you build up a lot of landings and you

expand your skill base. A full stop landing is when you allow the aircraft to come off the step and settle into displacement mode. Take off from the water involves learning to get the aircraft on the step as quickly as possible, you learn to ease the full back pressure as the aircraft climbs up over the step. Then you learn to feel for the sweet spot as the aircraft planes on the top of the water. Once on the step at full power the aircraft accelerates to flying speed which for the Foxbat is 35 kts, you do not rotate the aircraft as this will only put the back of the floats in the water and slow you down. Once airborne you fly in the ground effect until speed builds to 55 kts for a safe climb.

When comfortable with 'normal' take offs and landings you expand into cross wind and glassy water operations. Glassy water landings are truly unique to water flying. As the name says when there is no wind the water becomes mirror like and you can not perceive where the surface is, making it very dangerous to flare in the normal manner.

The approach is made by establishing a stabilised descent, with a fixed attitude and power setting. You fly the aircraft onto the water, not looking for the water, as this would tempt you to flare when it is not safe to do so.

The Foxbat amphib has an engine-out glide speed of 60 kts clean and 55 kts with flap. I find glide approaches rewarding, requiring good energy management with the need to make a continuous flare to ensure a gentle landing. Rougher water requires a relaxing of yoke pressure after flaring close to water to ensure that floats are in a flatter attitude to cut through the water rather than smack on to it.



The seascape is always different and challenging, requiring your full attention, to be alert for changing conditions and traffic on the water. River landings I find are the most critical, there is not much room on the water and with most rivers in a valley the area must be thoroughly checked out at a safe level with the landing, beaching, overshoot and take-off all planned before you descend down to the water.

In conclusion I have found water flying very challenging but immensely rewarding - it is visual flying at its best, needing your 100% attention but giving you 200% fun. As a new water pilot the Foxbat has performed superbly, exceeding my expectations.

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Aeroprakt A20 flies in South Australia



Interesting news from Paul Woods in Goolwa about the first and, as far as I know, only Aeroprakt A20 flying in Australia.

Paul found his A20 languishing in the back yard of a furniture store in Singapore, with vines growing through the tail and round the landing gear. After many trials and tribulations, the aircraft was stripped and made airworthy. It was eventually shipped to Goolwa in South Australia, where it has now flown over 100 hours on the RA-Aus register.

The A20 was the first and original award-winning ultralight made by Aeroprakt in the late 90's and early 2000's. It is a tandem, 2-seat taildragger with a pusher engine configuration. The A20 shares its metal wing and stabiliser with the A22 Foxbat; the fuselage is composite, except for the tail boom and fin.

Originally available only as a kit, quite a few A20s were sold in the USA by the then USA Aeroprakt distributor, Spectrum Aircraft, run by John Hunter in Florida. Many others were sold in Europe and during its production life, the A20 morphed into at least 5 different versions – ranging from a single-seat, cantilever wing speed machine, to the weight carrying, crop-spraying A20 super cruiser. Later in its life, the A20 was sold as a factory finished aircraft. There was even a limited production of a twin-engine version, the A26. All were powered by Rotax engines, from the 2-stroke 65hp 582 right up to the 100hp 912ULS.



Aeroprakt designer and CEO, Yuriy Yakovlyev still has an A20 of his own, although factory production has now stopped in favour of the popular A22 Foxbat. In the A20, Yuriy and colleagues won numerous European Ultralight Awards – even on one occasion remaining airborne in an A20 for over 7 hours on 9 litres of fuel!

In many ways, the A20 is an excellent aircraft for Australian conditions – pusher prop up high away from the stones, very good glide ratio, with the 100hp Rotax, quite a turn of speed and incredible short field performance, fantastic view out of the forward pilot seat and, last but not least, the tail-dragger configuration. The only drawback for some is the tandem seating arrangement – which was one of the drivers in developing the side-by-side seating A22 Foxbat.

Lower photo courtesy Andrei Bezmylov

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