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By Peter Harlow
Foxbat Australia

AND NOW...the Aquabat

Float Planes & Amphibs (FPNA) in Florida have been USA distributors for Aeroprakt for quite a while, as well as manufacturers of 'Waterbourne' floats for a variety of aircraft - including Australia's own Airborne. Over the last 2-3 years, CEO Shawn Okun and his team have been designing and developing a set of amphibious floats specially for the Foxbat - or the 'Cape Town' as it's known Stateside. This is the story of the first Foxbat in Australia to be fitted with the FPNA Float System.

I first met Shawn some years ago, when he was in Australia on one of his frequent visits - he holds Australian trike instructor and other ratings. At the time, we were talking about future plans for the A22 Foxbat and he mentioned the development of a float system, to take advantage of the LSA regulations in USA.

Now, I have to say at the outset that I am not a float plane pilot - land flying occupies all my wits. But Shawn suggested that once I'd flown off the water, I'd be a complete convert. Unfortunately, due to business reasons and other commitments, I was unable to take up his offer to visit FPNA's float plane base in Florida and see the Cape Town first hand. However, I did promise him I would include the amphibian A22 in some adverts in Australian aviation magazines.

Fast forward to late 2009. I had received quite a few enquiries about the Foxbat Amphibian and one customer in particular wanted to go ahead as soon as possible. While he spends most of his time in Tasmania, he has a farm property near Melbourne and his dream had always been to own a small amphib. At the time I met him, I did not realise just how much research he had carried out to find his ideal - but luckily, the A22 seemed to fit the bill on most counts.

For the uninitiated, there are two types of amphibian aircraft - those with a hull and wing-tip sponsons (unsurprisingly called a 'flying hull') and those with a pair of floats (called, you guessed, 'float planes'). Flying hulls are generally designed from the ground (water?) up, whereas float planes are usually land planes with floats added. There are pro's and cons to each of them. Hulls are generally a bit faster in the cruise (but not always), and float planes are usually better in rough water (but not always). One advantage of a float plane is that you can pull it up to a dock, where a hull prefers a (wide) slipway. All amphib pilots have their own opinions and reasons as to which they like.

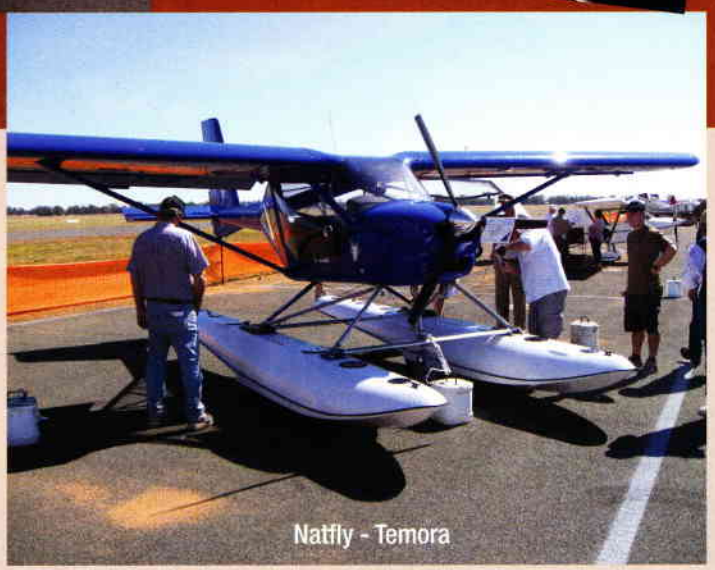
Eventually, the float kit arrived at Moorabbin Airport.

It had been shipped from Florida by air and the transport company had not been kind - there were several minor dents and dings in both floats (where a happy-go-lucky fork truck driver had missed the target) and a crucial box of fittings had gone 'missing' from the shipment.

However, with Shawn present to answer any questions, Steve Hobby and the engineers at Flight Safety Australia got cracking with the installation on bright blue A22LS Foxbat, registered 24-7250.

In the event, it took a couple of weeks of effort to finish

Testing at Patterson Lakes, Vic.



Natfly - Temora

the job. Foxbats are hand-built aircraft and all have slight differences which need to be accommodated when making major modifications - like installing floats.

The floats themselves each have seven watertight compartments. They are constructed from Kevlar and e-glass and have a buoyancy around 150 kilos more than the total 650 kgs MTOW of the aircraft. So there's no chance of that sinking feeling!

The landing gear is operated by compressed air - or electro-pneumatically as Shawn prefers to call it. The main gear retracts into shaped wells just behind the float steps and the nose wheel folds backwards like an elbow. There are no wheels on the front ends of the floats, so the aircraft is ground steerable via the rudder pedals and nose wheel in the normal way.

Speaking as a land-lubber, I had not realised just how much work had gone into the design and operation of the amphib floats - retractable water rudders for water taxiing, watertight lids on all the compartments, air lines for extending and retracting the gear, metal runners underneath the floats for protection, and lots of bracing to keep everything square. On this topic, I had not realised that the angle between the floats and the chord of the wing has to be set very precisely - otherwise you'll find it difficult to take-off (or all too easy,

perhaps taking you by surprise!).

Eventually the installation was finished and signed off and Shawn had departed for home to prepare for this year's Sun 'n Fun event. And I was left to test fly the amphibian for the first time. Gulp! RA-Aus had given me clearance to fly it, provided I didn't go anywhere near the water. So, on an afternoon in the week before RA-Aus Natfly event, I taxied nonchalantly out (not) towards Moorabbin's 17 Right for a couple of circuits.

In the amphibian, you sit well over two feet higher than in the land Foxbat - it may not seem much but it feels like you're sat on the top of a tower! Following Shawn's advice, I carried out about 20 minutes' worth of taxiing to get the feel of the steering and to acclimatise to the raised perspective. Then I lined up for a high-speed run along the runway. I was not intending to take off, just to get the feel for the controls and the attitude. Slowly I increased the power, watching all the dials, particularly the ASI. 20 knots, 30, 40, 45....gently and almost imperceptibly I was airborne. By this time, the Rotax rpm had only reached about 4,500 - well short of the full 5,250 I normally use for take-off. So I eased off on the throttle and the amphib gently skimmed back onto the runway from about 10 feet.

Next came the real thing. Line up, 'clear for take-off' and full power. Like all Foxbats, the amphib accelerated rapidly and in no time at all (well about 150 metres) I was airborne and climbing at a steady 60 knots, at maybe 700-800 feet a minute. Now all I had to do was get safely back on the ground.

With Shawn's warnings about using only one stage of flap at first and keeping speed up to 60 knots on final, I did my downwind checks and prepared for a touch and go. Late on base leg, I was badly cut up by a Cessna at low level and had to go round from about 300 feet. One way to prolong the excitement!

The next time I had 60 knots nailed down final and with a little bit of engine to round things out, touched down smoothly at about 45-50 knots. A couple more circuits confirmed that the amphib is definitely different from the land plane to land, but just as easy to fly.

A few days later I flew the aircraft from Moorabbin to Temora for the Easter Natfly show. There was quite a bit of crosswind there but the amphib handled it reasonable well - at least it did for me, with all of four hours experience and around 10 landings with it.

My whole experience of the show at Temora is fondly recalled by the words of a pilot departing on Sunday morning: "Lining up on 09 just in front of the blue thing on floats".

So here's to you from the blue thing on floats - many thanks to Steve Hobby and everyone at Flight Safety Australia. And mostly, thanks to Philip Myer, the blue thing's new owner, for all his patience and positive attitude throughout.

And maybe by the time you read this, two more Foxbat Amphibians will be flying in Australia: a red thing and a yellow thing!

A22LS Amphibian
Data & information – April 2010

Guide price from $140,000
fly-away with radio .. GST inclusive.

Powerplant	Rotax 100hp 912ULS
Propeller	Warpdrive, 3-blade, nickel edges
Dimensions	
Length	7.1 m
Height	2.7 m
Wingspan	9.55 m
Wing area	12.62 sq m
Wing loading (at MTOW)	51.5 kgs per sq m
Power loading (at MTOW)	6.5 kg per hp
Seats	2
Cabin length	156 cm
Cabin width	128 cm
Cabin height	119 cvm
Empty weight*	390-395 kg
Maximum Take-off Weight	650 kg
Useful load*	255-260 kg
Fuel capacity	87 litres usable
Design Loads	+4/-2 (w/150% margins)
** Weights will vary based on options selected.*	
Performance: sea level, gross weight, standard day	
Take-off distance, water	150 m
Landing distance, water	150 m
Rate of climb at sea level	800 fpm
Normal cruise speed	85 kts
Maximum level speed	90 kts
Range	435 nm
Maximum endurance	10 hr at 3700 rpm
Vne (never exceed)	120 kts
Vso (stall, landing config)	34 kts

Peter Harlow is CEO of Foxbat Australia, the exclusive distributor for the A22 Foxbat and Amphibian in Australia. There are currently around 65 Foxbats flying in Australia on both RA-Aus and VH- registers.