

Hello, sailor

*Landlubber **Steve Copeland** sorts his skeg from his chine and takes to floatplanes like a duck to water*

One of the exciting things about being a pilot is the never-ending challenges available to us. One such challenge is float plane flying, the ultimate mix of airmanship and seamanship – something that as a former charter boat skipper and current pilot I found really appealing. Having had a little time on floats in the past, I had set myself the goal of attaining a floatplane qualification at some point. A recent trip to Florida gave me the perfect opportunity to finally achieve this goal.

Never having been one to shy away from a challenge, I decided to add the rating to my commercial pilot licence. The choice of where to do the rating required little thinking about – Jack Brown's Seaplane Base at Winter Haven in Florida. This world-famous school is a

mecca for those seeking the rating and is used by many of the major seaplane operators around the world for initial staff training. Such is the volume of training that has taken place in the last 47 years they have been formally recognised by the FAA for excellence in training and can claim credit for around a quarter of all of the seaplane ratings issued by the FAA.

Originally founded by Jack Brown and now

operated by his son Jon, with additional examiner services provided by brother Chuck, this place has a warm and friendly family atmosphere and the most exacting of standards in instruction and examination. Brown's have a varied fleet of float aircraft including the UC-1 Twin Bee, Maule, and a number of PJ3-C65 Cubs. The Cubs are the training platform for the Single Engine Sea rating. These take us back to basic stick and a



Keith Wilson

Airborne over Florida with a thousand landing lakes to choose from

rudder skills, as flying the aircraft is all done by look and feel.

The course starts with the usual check of pilot certificates, medical, enrolment forms and a check that I can swim! Then we are straight into the ground school. My instructor for this is 'Scooter' Mainero, a young and incredibly enthusiastic pilot who has amassed considerable floatplane time. When not teaching floatplane he can be found hauling

cargo in the Alaskan wilderness during the summer. He covers the unique blend of airmanship and seamanship required of floatplane pilots. We discussed the design of the floats and relevant facts, such as the FAA's requirement that a single float to support 90% of the max weight of the aircraft, giving a total of 180% of the required buoyancy. I learn all about the keel, the chine and the skeg, much of it familiar from my

years around boats. I even learn that it was the French who came up with the concept of floatplanes in the very early part of last century. We then move onto talking about the basic skills – water taxiing, turning and weathervaning on the water as well the basics of rough water operations, glassy water and confined water take-offs and landings. The talk of power failure and other emergency procedures, ramping and beaching and sailing leaves my head spinning!

With all of this out of way we are ready to head for the aircraft and start on the fun stuff. The rating requires five hours of flying training plus the check-ride with an examiner in addition to the classroom sessions. We start with the walk-round. Having many hours in Cubs, the basic checks are familiar to me, so we concentrate on the floatplane-specific items such as the retractable water rudders, the construction of the floats and the method for pumping out the water that inevitably finds its way into the floats. Strapping into the rear seat of the Cub (as they are flown from the rear) we are ready for the off. We start with the basic water handling skills – slow taxi, raising and lowering the water rudders, ensuring we keep below 1000rpm to prevent water erosion of the propeller during taxi. Then we move onto step taxiing, plough turns and weathervaning. Step taxiing involves getting the aircraft up onto the plane in the same way as you would a speed



Left: two Cubs beached at Jack Brown's seaplane base in Winter Haven, Florida
Above: Chuck Brown, son of the founder, airline pilot and FAA seaplane examiner
Below: Scooter Mainero and Steve Copeland ready for take-off in the Cub, and Steve in the driving seat – the Cub is flown from the back

boat, with initial application of full power until the floats climb up onto the plane and then a reduction in power to 2000rpm to hold it there. We drive the aircraft round on the water with our feet manipulating the rudders and we deal with the crosswinds using aileron. We also cover plough turns, docking and sailing, all tools in the floatplane aviator's toolbox for controlling the aircraft on the water. I learn about CARS checks, C - Carb heat, A - Area check, 360' look around, R - Rudders, ensuring they are in the right positions, and finally S - Stick back. The basic handling skills are remarkably easy to grasp and whizzing across a lake on the step like a speedboat brings a smile to your face! Getting airborne is just an extension of the step taxi – you keep it at full power, holding it on the step, and the aircraft just flies away. Air work is no different from any other type and we quickly get the stalls, steep turns etc. out of the way. We move on to landings, and I learn to read the lake and the conditions, looking for the tell tale signs such as water streaks and calm water in the lee of the land and choosing an appropriate technique. We start with standard landings, lining up into wind and bringing the power off, settling into the flare about 15ft above the water then just gradually pulling back on the stick to settle down onto the water, rear of the floats

Below: 'whizzing across the lake on the step like a speedboat brings a smile to the face'

first. We started with full stop landings, then graduated to splash-and-goes by keeping the aircraft on the step after touchdown. Next I learn rough water operations – similar to the standard landing but keeping about 1400rpm of power on and aiming to touch down at the slowest speed, tail of the floats first. Powering away in rough water is similar to a short/rough field take-off on land, keeping the nose slightly higher and aiming to get off a little earlier before accelerating away in ground, or rather water, effect.

Glassy water operations are an interesting experience. Landing an aircraft with 1700rpm on is an alien concept for us landlubbers, but this is exactly what we do when landing on glassy water. Glassy water operations can be dangerous because we do not get any depth perception or visual cues. So what we have to do is choose an LVR – Last Visual Reference point – when on our downwind leg, something really low like lily pads, swamp grass, bushes or small trees. As we approach the LVR we set the correct glassy water pitch setting, set 1700rpm and then just sit and hold the pitch until touchdown. You are not allowed to flare visually. Take-off involves getting on the step, then lifting one float from water to reduce the drag (glassy smooth water has much higher drag than disturbed water) and waiting for the aircraft to unstick as normal.

The final skill I learn is confined water take-offs. Due to the incredible short field



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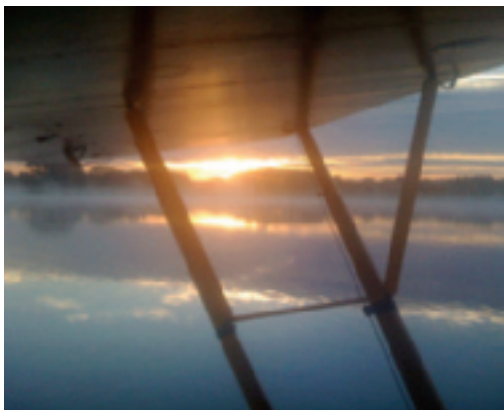
performance of a floatplane it is possible to get it into some very small lakes, lakes that are not wide enough for a normal take-off run. To get out of these spots we use the confined water technique. This involves getting onto the step and raising a float to reduce the drag, and circling around and around until we lift off, then continuing the spiral in a climb until we are clear of obstacles and can climb away. I was amazed at some of the spaces we got into and out of in this way.

With the basic skills covered we went off and practiced. Florida has an abundance of lakes and for the next few hours we went from lake to lake practicing every one of my newly-learned skills in preparation for the check ride. I flew more than 60 landings in the next few hours rarely visiting a lake more than once. Pretty soon the five hours of required training

was up and Scooter deemed me ready for the check ride. This was to be with Chuck Brown, son of the founder, airline pilot and FAA examiner. I had flown with Chuck previously and enjoyed his easygoing and friendly style.

A check ride at Brown's is pretty much the same whether you do it at private or commercial level. The company has a policy of training and testing to the highest standard. FAA check rides involve an oral examination prior to the practical test itself taking place. Here I was grilled on my knowledge of the theoretical aspects of seaplane operations, answering technical questions on things such as the centre of buoyancy, who has right of way (all other water users), how much buoyancy is required in a float and the causes and cures of porpoising to name but a few. The standard of my training was excellent, and as a result the check ride was an easy and relaxing demonstration of what I had learnt. To cap it all, at the end of the check ride I was presented with a temporary certificate stating that I was now a Commercial Seaplane Pilot!

For anyone considering doing the rating, Brown's Seaplane Base should without doubt be the number one option, a picturesque



location with some of the most knowledgeable and friendly staff and an abundance of lakes on which to acquire and hone your skills. They were also kind enough to let me go formation flying in their aircraft to take some of the accompanying pictures. One thing I was keen to investigate was the options available to me to add my newly-gained seaplane rating to my UK licence. This turned out to be surprisingly simple. Converting a foreign seaplane rating onto a UK licence and gain a SEP (Sea) Class rating just involved taking the Seamanship exam. As long as you have met the JAA requirements of five hours dual training and a minimum of 12 take-offs and landings in a seaplane, no further flight training is required. The seamanship exam comes in two flavours, the private and professional exam. A pilot just wishing to take the private exam can self-study the seamanship theory, then take a day's ground school and the written exam, which is 20 questions and takes 30 minutes at an approved school. In the Midlands, the estimable On-Track Aviation at Wellesbourne provide this training.

For those wishing to use the rating commercially, or to gain an Instructor Rating, the Professional Seamanship exam is required. This comprises of 30 questions but needs to be sat at a CAA exam centre. Maintaining validity of the rating can be done as part of the requirements of the SEP (Land) rating with the addition of 12 water take-offs and landings in the 12 months prior to expiry of the rating – a good reason to return to Florida or even look up one of the UK seaplane schools. ■



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**This photo: slightly choppy water helps ensure the floats will unstick more quickly
Below: flare at 15 feet and let the back of the floats touch first
Bottom: floatplane flying is a fabulous experience and a challenge you can't turn down
Lower left: sunrise over the lake as Steve gets ready for another flight in the Cub**