Peculiarities

<u>Editors note</u>: This article was found in a box of stuff I got with a Seabee project. The author is unknown but, I believe, it was authored by Mr. George Pomeroy; long time Seabee owner and expert. No editing of the text was done. Enjoy a bit of history!

Oddly enough, some seabees seem to climb better in turns than in straight flight – perhaps it is because of reduced rudder drag in allowing the turn instead of holding rudder against it – left of course – do all planes do this? I don't know.

If your bee has a bonanza-type wallow – perhaps you ought to clean up those lower wing strut cuffs and put them back on – a properly cleaned up bee runs like a railroad car (and feels as heavy).

Your brakes don't work so good? Have you ever tried cleaning them up by sanding the rubbing surfaces – drums too – of course you know about the compensator that adjusts pedal travel – they have little screws on top of them that adjust pedal clearance. They are just ahead of the pilot's left toes. If all else fails, learn how these operate.

You probably guessed that burying a wing float could crack off a float strut but did you know it can also cause a bend in the rear spar right next to the fitting that attaches the rear edge of the wing to the rear cabin spar – this is the reason you see so many repairs in that area and the reason for large angle bolted on in the lower trailing edge there.

I have been very lucky so far in not burying and breaking a float strut. The main danger of this comes from trying to force a slow speed turn during heavy wind and/or wave condition. I've had a float buried a couple of feet, but I was going very slowly. As I said, I was very lucky (float buoyancy is about 230#)

In taxiing, I try to avoid touching float at all. Don't touch them in turns if it can be avoided – merely use a flat skidding technique for turns. And here's another place you meet your old pal – Mr. Porpoise – if you tighten up your high speed turns too tight – ease up the turn and he leaves. If you don't let the floats touch the water, you can't hurt them!!!

Stalls are straight forward – a great deal like a tri-pacer – plenty of warning that something is going to happen. Power stalls can be turned into a snap roll or spin easily, but with enough warning, under ordinary conditions (however in cross wind take-offs – there may be no warning if the wind is strong as you leave the water and you were using most of your aileron already just to keep level.)

Spins start with a sudden break, the nose drops to maybe 45° down and oscillates left or right 1/4 turn and then for a moment returns to level. At this point, recovery is made by merely relaxing the back pressure a bit. If you hold back pressure the plane will spin in about 80° nose down condition – losing about 700 feet per turn. Recovery is normal and very quick. She comes out on the proverbial dime. A good deal like a Cub, as far as I can tell.

Mr. Percy Spencer, the bee designer, told me that the factory test pilot had made some 17 turns at one time (consecutively). The plane completely stabilizes about the 5th turn.

You may note that at the time this plane was certified, spins were required for a private license and so most planes spun safely thru at least 3 turns.

Flaps – the book says full flaps for take off – this isn't as strange as it sounds, since full flaps is only 25° on this machine. You will find it pretty tough to get off the water if you don't follow the book on this one. Later, you may try some techniques of your own – but on the water, flaps are neat. And while I'm thinking of it – don't back up too fast with flaps down. They may be damaged by excessive prop blast.

Unless I'm making a short field – power on, type approach, where I use full flaps, I like to apply full flaps in the approach and then let them bleed up 3-5 inches at the trailing edge so as to approximate 15°-20°. This gives a little more lift than drag and doesn't slow you down too much, but just enough for nice water landings when the water is not rough [rough water – full flaps].

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After take-off from water, just flick the flap lever back for a quick count of five. This lets them bleed up a little for a little faster climb speed but still gives you some extra lift. Then to neutral for the climb-out. As you get up a couple hundred feet you can ease the lever back till the flaps bleed themselves up to even – then pull handle back in neutral till needed again.

Be sure not to climb any slower than your best climb and approach speed, so as to be safe configuration if engine fails you – this should not be any less than 82-85 MPH indicated.

Take-Offs

Trying to make a bee fly before it wants to, is a sure way to make the Republic Parts and Services, readers of Trade-A-Plane happy.

You will never really appreciate what flying behind the power curve means until you start flying a stock seabee. I would go so far as to say it takes at least 65% merely to hold your attitude much less climb. I generally find myself flying mine at about 75%-85% most of the time, except for the take offs which are naturally at 100% for a couple of minutes each time.

To take off, check weight, balance, trim, flaps – open throttle and <u>let</u> bee fly off. Level off to accelerate to 80-85 – then climb at that speed. Any other technique will soon upset you. You can mush along at 60 all day, but you won't climb or accelerate if you do that.

Old Seabee Pilots

I only know about 5 people whom I could safely entrust with my bee to fly it. One of them is my son who soloed in it, off the water, at 16 – however, he had probably 150 hours in it, so wasn't your average student pilot.

In my tourist ride business there naturally occurs a number of old owners and pilots of all kinds of planes, including, wouldn't you know it, seabees. Fellows, I caution you, unless you know a fellow is current in this machine – keep him in the back seat at least 5 feet from the controls. If they ever were any good, they already have forgotten what they knew. I have had guys whom I know had 300 hours of 10 minute ride type experience try to level out and land as much as 20 feet over the surface of the water. Don't believe them till you've seen them fly someone else's bee not yours!! And as for float plane pilots, well, seabees, dirgibles, helicopters and float planes are all completely different from one another – there is practically no carry-over of experience from one to the other – beware.

Zooming

Zooming a seabee at cruising speed will probably net you 100 to 150 feet gain in altitude before you feel the stall nibbles at your wheel.

Down Drafts

Always try to avoid going over the shore line during take off. There usually is a down draft condition there – many wrecked bees can testify to that! Try to plan a turn so as to keep your climb over the lake – it is much safer. Down drafts can actually force you right to the surface, so be prepared to accept this as a fact. Jellison and I both have experienced the condition that full power couldn't keep us up when near the surface, landing and the draft put us on the water.

Don't do any high speed touch downs – it may flip you right over on your back. I don't believe it is safe to touch down any faster than 85 MPH.

While cruising one day off the Buns (?) Harbor Beach, I thought a high speed touch and go ought to be neat. The water was glassy calm – I was doing 115 and set down very gingerly and was watching my step touch the water thru the mirror on the port float. As soon as it touched the increased drag from the water caused the bow to <u>slam</u> into the water. Speed instantly reduced to about 75, seats and I flopped forward – I jerked back on the wheel and popped her back into the air on the bow wave that formed in front of me.

Seabee Notes

It took two days of steady work to repair the damage. The front bow plate beat in – and even buckled the bottom edges of the bulkhead at 55" station. I understand that one of the Seattle group tore off his whole forward bottom that way. I didn't know about that then, hence the warning.

Control Feel

The bee hasn't much control feel – It feels like a B-25 or a Twin Beech. After a couple hundred hours you will get some feel for it, but the feed back is very little – you simply have to turn the controls as you know you ought to - the bee will do the rest.

This will be particularly disconcerting when you are learning ground handling. In taxiing or take off – a wing may drop – ignore it and keep your heading with that huge rudder (assuming the wind is on the nose or nearly so). At around 40 the ailerons take effect and then things start to normalize.

<u>Landings</u>

An approach speed of about 83 seems to do the best for me. Power on or off this gives a good rate of descent at a pretty steep angle – excellent for short field or emergency landing situations. This speed is about the minimum that allows for a final break and glide at the end of your descent in a power off landing situation (assuming full flaps at this time).

Any slower than 80, you might find that the break in the descent does not stop the descent – this rate of descent will continue right to the surface. If you feel that you want to approach slower, for any reason, where approaches are clear, do not use more than 20° flaps – this will give you a slightly softer break and a softer touch down than full flaps would at lower speeds.

Use what ever angle of descent is necessary to maintain your 83 MPH – right to final glide – break which should be initiated at the last possible instant – because the period of <u>no rate</u> of descent and glide is a very short period. The plane is not a "floater". It is more like a Tri-Pacer or Colt in landing.

If you don't mind riding the back of the power curve, the bee is a good drag-it-in and plunk-it-down aircraft. Given the clear approaches, on land you can touch-down and stop in perhaps 400 feet using power and flaps with slow flight techniques. Have no doubt that you can put it in many places that you can't get it out!

Seabee Notes