



On The Step
Issue 22 - May 2010

My first flight in a Seaplane

When Ross recently invited me to go with him for a flight in his Searey, along the coast of Adelaide, south to Aldinga airport for morning tea, it was an offer I couldn't refuse!

In the past I had owned and flown a Jabiru so I knew the joy of flying in a small plane. To my surprise, flying in a seaplane made most previous flights pale into insignificance. Ross flies his plane with great confidence, experience and sheer joy, and that added to the fun of the flight.

However, the most amazing part was 27 landings on the sea in Gulf St Vincent on a perfect spring morning. The freedom of it all was what I thought was the most wonderful. It seemed that in this little seaplane we were free to fly like a bird; free of the constraints of life in a city; in harmony with the beauty of nature. Of course Adelaide Tower kept a close watch on our flight and the natural laws of physics and flying had to be adhered to. But in spite of that, I found an immense feeling of being care free in that wonderful flight. There was no need to fly high and always watch out for a suitable emergency landing spot. We had the whole ocean! I found myself waving at every one I could from an open cockpit. I've never done that before!

I stared in happy wonderment as we travelled in this plane/boat along the coast and around cliffs, climbing gently and then touching down frequently. I had never known that it was possible to see our local coastline at such an altitude, or to skim over shallow water. I'd always enjoyed looking down on to scenery, but this birds' eye view was fascinating.

The last surprise was coffee at Aldinga Airport. I'm sure many of you will have been into tiny airports where the welcome is friendly but the amenities very ordinary. Not at Aldinga! In air-conditioned comfort there is a coffee shop!

It was a magic flight. I now understand why pilots have a passion for sea planes. I wonder why more recreational pilots don't fly them? Thank you Ross.

Meg Hutton

From the Editor

Life gets in the way

Paul Rawnsley, our Seawind building SPAA member in Darwin (see SPAA #17) wrote to me recently saying:

Hi Ross

I just realized I hadn't received any newsletters since Nov 2009. I changed my email address and forgot to advise you.

Regards Paul.

Well Paul, there has not been a newsletter since Nov 2009. There has just been too much happening and life just sort of got in the way.

Firstly, there was the planning for the Big Bight GASA. Then the flight in January to Perth with Harvey and Kevin for the Australia Day celebrations (see p3 this issue). My SeaRey stayed in Perth while I returned to Adelaide to work and plan the return trip. In March that trip took me all the way up the west coast, around the Kimberley and down the Centre (see p7 this issue).

One highlight of the trip was a water landing in the very centre of Australia. I had flown south from Alice Springs to see the spectacular rock formations around Chambers Pillar. Then my track took me over the

normally dry Fink River (pictured). It was beautiful, a meandering ribbon of water flanked by eucalypts and surrounded by the red soil of the Centre. What seaplane pilot could resist that! I dropped down and skimmed the surface, enjoying the irony of landing my seaplane in the very centre of the driest continent on earth.



All you builders out there, get building, there are great trips to be had. I'm planning a trip to the Lake Eyre Region soon to take advantage of all the water that has come down from Southern Queensland. AND, put 13 November 2012 in your diaries. I will be leading a flock of SeaPlanes to Far North Queensland to experience a total eclipse of the Sun (see p4 of SPAA #16)

Gear UP to "kiss the water"

Ross Vining (VH-RRZ)

Business Opportunity

Dear Editor

I own a property in St Georges Basin which is zoned to allow a recreational business which would include sea planes. It was designated as a flying boat base in WWII and that designation remains.

I have spoken to Council. Some enthusiastic, some wary, but they do not seem to have any problems with the idea of a seaplane base other than noise

A local Qantas pilot commutes to Sydney in his seaplane from nearby. He assures me that the noise levels are well within council requirements.

If any readers are interested in exploring the possibilities, please contact me.

Noel Bishop email: trendep@tpg.com.au



Rise Off Water

ROW (Rise off Water) is a club for people interested in flying model seaplanes.

Their flying days are at Penrith Lakes. This world class facility was built for the rowing and canoeing events of the Sydney 2000 Olympics. It's a fantastic venue.

Proposed flying days are: 15 May, 30 May, 5 June, 25&26 Sept - For more information contact: Tim Nolan mailto:timnolan11@optusnet.com.au



Catalina Flying Memorial

Dear Editor - One of the largest supporters of SPAA is **The Catalina Flying Memorial Ltd** which operates a PBY6A amphibian Catalina. I ask all SPAA members to support CFM by becoming a members. The membership form is available at www.catalinaflying.org.au

There will be seats available for members and donors, and the CFM is also looking for pilots and aircrew. Where better to look than the SPAA.

Phil Dulhunty OAM -Director - The CFM

Bear eats Cub

Lots of SPAA members sent me a link to the amazing story of the Cub aircraft that was trashed by a bear. The owner taped it up with duct tape and flew it out.

To see the full story just google "bear cub duct tape" and you will get the stories and pictures.



Tasmanian Summer

Kyle Gardner and his dad Adrian have been flying around Tasmania again, and recording it all on video, you can see it on youtube. Check it out!

http://www.youtube.com/watch?v=gNIKjngKvbk&feature=youtube_gdata



Thank You Kennards

Our thanks to Neville Kennard for providing professional storage for all SPAA merchandise at no cost to SPAA.

SPAA could not exist without the support and goodwill from its committee and members such as Neville who do what they can to keep our association healthy.

Buy! Buy! Buy!

But really, we don't want to store the merchandise.

We want YOU to buy it.

Its not expensive and its really easy to buy from the SPAA on-line store at www.seaplanes.org.au

Items include :

- Blue T-shirt - \$15
- Board Shorts - \$25
- Spray jackets - \$55
- Travel Bag - \$25
- Water resistant Cap - \$15
- Business Tie - \$15
- Lanyards - \$5
- VHS video Seaplane ops - \$12

As your editor I try to put my money where my mouth is, so I have just ordered one of everything on that list (except the video - I don't have a VHS player anymore!).

Go on, Support YOUR SPAA, order NOW!



Endorsements

Sydney Seaplanes offer familiarisation, float endorsement and refresher training in their DHC-2 Beavers and Cessna 208 Caravan.

They can also conduct aircraft flight reviews (the old BFR's) in their Seaplanes as well!

For more information contact:

Adam Holt: Chief Pilot
Sydney Seaplanes - Ph 02 9388 1978
Mb:0402 884 811; www.seaplanes.com.au



Icon A5

The A5 has completed its 100th test flight including stall testing (stalls at 43 knots) to evaluate and refine low-speed handling. Their stall test video is on the website. They have also assessed salt water operations, landing in swells and taxiing in and out of the water on steep and narrow boat ramps.



Seawind

The certified SeaWind has completed ground testing and started flight testing, which will be done under the direction of The Canadian National Research Council (NRC). For more info see <http://www.seawind.net>



The Big Bight GASA Concludes

Harvey Prior, Kevin Bowe
and Ross Vining



Our plan was for a group of seaplanes to gather in Adelaide and fly in company to Perth to take part in the spectacular airshow over Perth on Australia Day.

Many were interested but in the end there were just 3 aircraft in the group. Harvey Prior

piloting Lake Buccaneer VH-LAK, Kevin Bowe in Lake Buccaneer VH-ASS and Ross Vining in SeaRey VH-RRZ

The trip around the coast from Adelaide to Perth is not to be missed, a pot pourri of moods with numerous huge shallow estuaries in South Australia, the endless cliffs of the Great Australian Bight, deserted beaches stretching into the distance and the rugged beauty of the Albany area.

The airshow over/on the Swan River next to the Perth CBD made a fitting finale. A truly spectacular location for an airshow, quite unique in the world.

There were aerobatics, simulated dogfights, formation flying by the RAAF, banner towing, helicopters towing giant flags, war birds, a vintage aircraft flyby AND our seaplanes. It is professionally organised, a real pleasure to be part of, thanks to Werner Buhlmann.

The Display Box is quite tight, just 1,600m long by 800m wide. And down the centre, waiting for the Australia Day celebrations, was a row of six barges loaded with fireworks!

The crowd was gathering for the Australia Day celebrations and the fireworks, so people started arriving in the morning, and by late afternoon the foreshores were packed with spectators and there were hundreds of small boats moored around the perimeter. About 250,000 people line the Perth Water Display Box.

Our display needed careful planning to cope with the wind, the turbulence off the tall buildings on the water front, wind-generated chop, boat wakes, fireworks barges and numerous marine navigation pylons. The fact that we had 2 Lakes and 1 SeaRey – with quite different performance characteristics added to the complexity. But, with careful planning and good use of the radio it all went brilliantly.

We had 2 display slots, one at 5pm and another at 7.20pm. The 5pm slot was disappointing. A strong, blustery SW wind generated chop on the water and turbulence off the tall buildings on the south shoreline. This made for difficult flying and even greater difficulty in settling our craft onto the water.

But the 7.20pm slot was sheer magic.

We arrived in the holding pattern to the west of the city 10min early and circled, watching the setting sun illuminate the tall buildings of Perth CBD in a golden glow. The wind had dropped to a light breeze and the white caps that had frustrated us at 5pm were gone.

We watched the preceding acts from our dress circle seats. First the "Turbo Blast", a handling display of big, fast aircraft, then a pair of helicopters towing giant flags through The Box.

And, then just as the sun set, it was our turn . . .

The Lakes headed around the city to enter from the east. The SeaRey dived down, crossing the Narrows Bridge and passing down the north shore of Perth Water. There was still a light chop on the north shore line and with a slight tail-wind we were fast as we skipped along the shoreline. And then we headed around the protected, shallower southern shore. Here the water was calm with just a light head wind – perfect!

The sun was below the horizon, the buildings were glowing in the sunset, giving the setting that beautiful early evening serenity. We skimmed around the perimeter of Perth Water and the crowd loved it. The subdued light of early evening caused cameras to select "flash" mode and there were dozens of sparkling flashes on the foreshore as we cruised past barely skimming the water.

We did a few circuits and manoeuvres and then climbed out over the Narrows Bridge as the next act, "High Performance Aircraft Aerobatics" entered the box. We flew back to Jandakot airport with the lights of Perth glowing brightly, making a fitting end to an exciting and satisfying Big Bight GASA.



Photos courtesy of Neville Murphy - nmur8396@bigpond.net.au

Size Does Matter

Make sure yours is long enough

SEAPLANE TAKEOFFS - 2

The Delta Ratio Method

by Dale DeRemer* PhD

In SPAA #21 we discussed the *timing method* as one of two tools for the seaplane pilot to use to determine if a patch of water is long enough for takeoff.

The *timing method* is easy to use, needs nothing that isn't already in the cockpit and enables you to judge, while still in the air, if there is enough water length for takeoff.

This issue we will explore the *Delta Ratio Method*.

Several years ago, after a lecture on the many factors that influence seaplane takeoff performance, a frustrated student said, *"you mean to tell me that, in order to know if I can get out of a short lake, I have to factor in all the things like propeller, engine and airframe condition, humidity, etc. that I don't know? That's bullshit!"*

He was right! It is impossible. And that started me on a long search for a better way. Finally, while looking over the impressive takeoff performance curves in the DeHavilland Beaver POH, I saw a short notation on the chart that said:

"Note: Water run is 68% of total distance over a 50' obstacle."

I said to myself: "Always? No matter what?"

To answer those questions, I went to the Cessna 180 POH and graphed the percentage, or ratio, of water run to total distance over a 50' obstacle, nowadays called the Delta Ratio, and sure enough, DeHavilland was right! (Fig. 1)

Checking other aircraft models agreed. The Delta Ratio for each model aircraft was different, but the ratio remained nearly constant regardless of the conditions of weight, wind, temperature and altitude covered in the POH tables required for certification of the aircraft.

The Go-No Go Flag

On the short, narrow lake that we want to be sure we can get out of, if we place a flag at 62% of the length of water available for takeoff (in the case of the Cessna

180), it becomes a marker for the no-go point of the takeoff run. If our bird isn't off the water (normal takeoff procedures—do not use techniques that get you off the water sooner as they typically result in greater distance to clear the obstacle) when we get to the flag, we must abort (the pilot has already determined that there is sufficient distance after the flag to decelerate and turn). The deceleration taxi time must be less than the taxi time from the no-go flag to the shore you plan to depart over.

See Figure 2 on the next page.

Making the flag is easy. Obtain a few 100-200 gram) fishing sinkers, some cotton string and some large, 40cm or larger, colourful balloons. That's all you need to assemble a marker flag in less than 5 minutes. Don't use the ready-made fish locator markers at the tackle shop. You can't see them well enough from a distance and they don't bio-degrade.

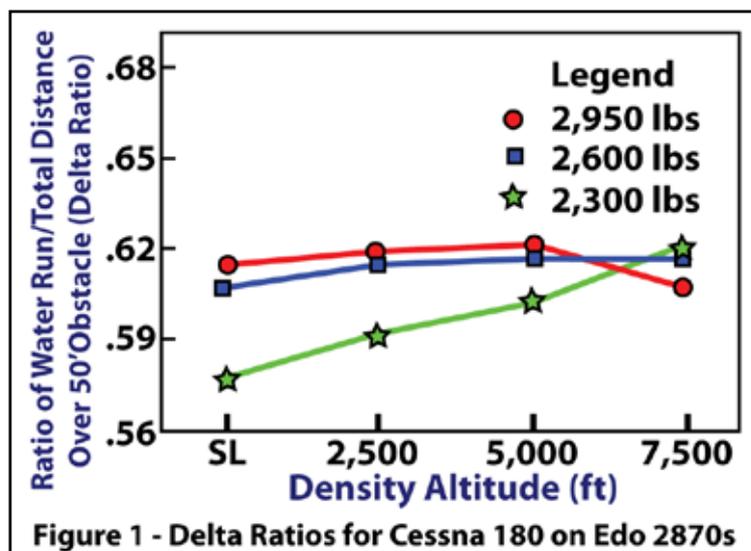
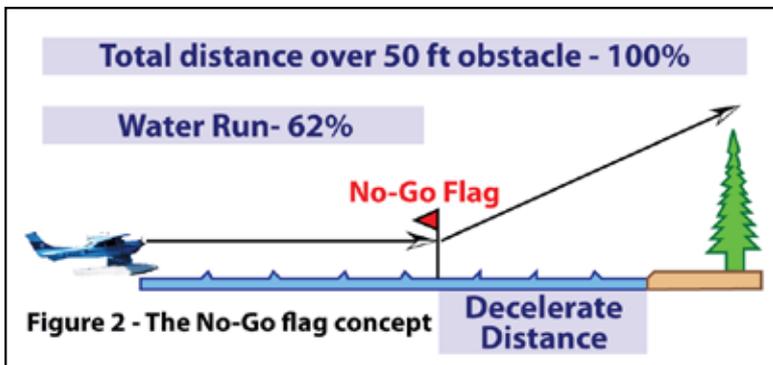


Figure 1 - Delta Ratios for Cessna 180 on Edo 2870s

To place the flag, taxi into the wind along the takeoff path at taxi rpm and note the time required. Then determine the time that represents whatever the Delta Ratio is for your bird. If the total time is 520 seconds, for example, and the DR is 62%, go back to the start point and taxi 520 x .62 = 198 seconds. When that time is up, throw the flag out the window (or door). Now your peace-of-mind marker is in place, at the go, no-go decision

point.

If you fly one of those birds that doesn't have any takeoff performance data you trust (your bird will have vastly different DRs for land and water takeoffs if it is an amphibian so don't use the data for land if you are on the water), rejoice! You can determine your own Delta Ratio—it's a great excuse to go flying! Find a suitable (uninhabited) shoreline. Note something



*Dale DeRemer is Professor Emeritus, UND Aviation and author of **Water Flying Concepts, Seaplane Operations and Seaplane Pilot.**

Dale's website is <http://www.aero.und.edu/~deremer>.

Editor: Dale's salt vs fresh question is an interesting one.

Once you are clear of the water the climb rate is indifferent to the salt vs fresh. So its really a question of "Can you get airborne faster off salt or fresh water."

ashore that is a good marker and start your takeoff run there, with the airplane loaded appropriately (a passenger or other pilot can really help observing a point ashore where liftoff occurred and where the 50' obstacle was cleared). Then go back and time the taxi from the start point to the liftoff point and the obstacle cleared point. You can also do it out in the lake, using 3 of the flags you made up. Do the same to determine your bird's deceleration distance (taxi time), but practice first, then practice periodically to maintain your skill level.

Clearly, there isn't sufficient space to describe all the nuances of this seaplane pilot's tool. There is more you need to know, such as how to determine the height of an obstacle, techniques for rapid deceleration, how to re-compute the proper ratio if the obstacle is higher than 50', etc. However, I can tell you that nearly two chapters are devoted to this, and other seaplane takeoff performance issues, in the book *Water Flying Concepts*.

Some of you fly from salt water, so—do you think the Delta Ratio for your bird would be different in salt water?

Happy splashdowns, Dale

The thrust from our air propellers is identical in the two circumstances, so it comes down to the interaction of our hulls/floats with the water.

The greater buoyancy from salt water will result in less wetted area which should reduce drag.

The greater buoyancy will result in less cross sectional "form" in the water and thus less form drag, but the greater density of water which has to be pushed aside probably negates the reduced form factor.

What about viscosity effects? Is there a significant difference in the viscosity of salt vs fresh water?

Would differences in surface tension have any effect?

The web has many discussions of the effect of salt vs fresh water on the speed of kayaks, & sailing & power boats, but its mostly just opinions from people with limited expertise. I could not find anything definitive.

My gut feeling is that the difference would be very small and would be insignificant compared to the normal variation in take off distance resulting from variations in take off weight, water surface conditions (glassy, ripples or waves) and wind.



The line-up for the SPAA Annual General Meeting at Wallage

SPAA AGM at Wallage Lake March 12-14

Jack Peters in his Jollyroger turned the AGM into a great flying trip. He and Mark Bettiol (new owner of Turbo Searey VH-IIL) flew around the Victorian coast past Port Welshpool, Cape Everard to Gabo Island, then up past Eden, Merimbula and into Wallage Lake.

James Moline was inbound to Searey Heaven (Wallage Lake) and arrived just in time to clear the beach.

A pleasant track into the lake with small cakes and tea by Eduardo (the provider) & his nymph Genevieve on arrival gave Mark an insight into Searey customs & the hospitality of Ted & Jenny Munckton.

Next morning a flyover of the Bermagui Fair in formation, was briefed by Eduardo (the navigator) during the typical Wallage breakfast. This took place very successfully with Mark fitting in well and in fact leading the formation for the last pass. Other guests at

Wallage were Jimmy & Caroline of Albury, Jimmy has a Bird Dog on floats and a wife that loves flying.

Another memorable evening at Chateau Wallage with a dinner extraordinaire then an early night for the trip back to Melbourne.

A few weeks later I am at Penfield doing a bit of maintenance with a nice sandwich the Margarita has made me.



I think what a nice place Eildon would be for lunch, hence the other flick, we might see more of Eildon, Mark has a very nice two story houseboat WITH A SEAREY JETTY !

What a life !

Jack Peters

Awoken Rudely Again!

On 29th May 1942 the Japanese submarine I-29 catapulted Ito Susumu in his Yokosuka "Glen" floatplane off the deck to reconnoitre the allied warships lurking in Sydney Harbour.

His mission was to record the positions and details of all the warships in the harbour so that the midget subs could be launched the following day to torpedo them.

Ito was flying an unmarked floatplane and carried an observer who sketched the position of the boom net across the entrance to the harbour and the location of all the battleships. Flying low over Garden Island he saw flood lights and oxy welding flashes coming from Cockatoo Island west of the Bridge. He climbed up over the bridge and circled Cockatoo Island and the battleships being repaired.

Coincidentally, Phil Dulhunty was a rookie anti-aircraft gunner at Georges Heights that night.

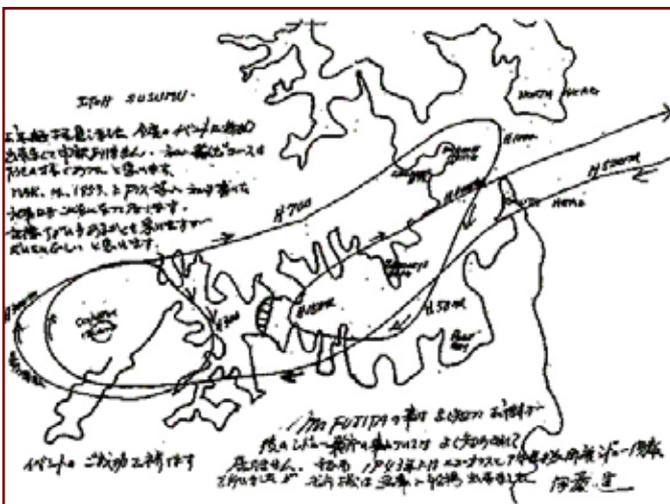
Ito's plane was mistaken for a floatplane from SS Chicago, an American heavy cruiser moored near Garden Island. Ito returned to the Sub and crash-landed in the sea which was now turbulent in a southerly buster. He and his observer with his map were rescued and the Glen floatplane was sunk.

Some 20 years ago Phil Dulhunty contacted Ito who described his flight and provided a copy of his map of Sydney Harbour and the route of his spy flight.

More recently Peter Grose has written a book "**A Very Rude Awakening**" describing the seaplane and midget submarine attack on Sydney Harbour.

In March this year Peter organised a reenactment of Ito's flight using Bill Lane's Cessna 182. The flight was recorded with cine and still photos

The route of Ito's spy flight coincides with the special seaplane and helicopter lane in restricted area R405 so that on 20 March 2010, a precise re-enactment was flown. Peter Grose's documentary should be available to members in due course.



This is a copy of Ito Susumu's original map drawn in the darkness over Sydney in the darkest hours of WWII on 29th May 1942

Rainer Oberle New Member Profile

I am an absolute greenhorn with seaplanes, but I have always dreamt of flying them. My initial infection with the seaplane virus was during a holiday in Canada and Alaska in 1994 when I took a fly-out fishing trip in a Beaver.



In 2001 we spent 10 months in Tasmania. I would see Terry Mulholland, (Seaplanes Tasmania) every day through our Derwent River facing window.

I had my private pilot licence and longed to get a seaplane endorsement. But our visa did not allow us to work, so money was tight and I had to skip the idea. Back in Germany there was not much of an opportunity to fly floatplanes, there are very few of them.

In 2007 we completed our immigration to Australia and took up permanent residence in Tasmania. I am working as a tour guide for oversea visitors. Tasmania is a fascinating place but tourism opportunities are not well developed especially considering the number of cruise ships.

My CPL is almost complete and I would love to see a float plane going up and down the Derwent River again, with me as the pilot of course. I have discussed it with several people, some are supportive but most are skeptical. But you know, sometimes you just get a feeling that the time is right...

I am looking for a shed near the water preferably with a ramp to keep my baby clean and dry. Corrosion is an issue after all I have read.

And I need a proper floatplane, and the best endorsement you can think of, so lot's of reasons to talk to members of the association...

Rainer Oberle

Email: RainerOberle@westnet.com.au

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req 2-3 brm ho subs, \$260-\$300 need yard as have dog. Please Lance on 0408 8 IF YOU enjoy

Let's hear it from the plane



Do you talk to your aeroplane? I talk to mine all the time and she talks back to me. Here's a conversation we had in March.

We had just landed at Alice Springs, having flown about 8,000 km from our starting point in Adelaide on a loop around the western half of Australia (see map).

I parked my trusty SeaRey close to the Royal Flying Doctor Service which has a major base at Alice Springs.

Well VH-RRZ is no dope, she saw that too, and she said to me, "I want to see that aeroplane doctor."

I explained that it was actually a doctor for people.

But she was not convinced. She said, "Well if it's for people how come the sign is on an aeroplane hangar?"

She continued: "I have carried you all the way from Adelaide, around the Big Bight, over the south west corner, all the way up the west coast, around the Kimberley, into the Top End, and now down the Centre."

"I landed you in hundreds of watery places, on ocean beaches, in reefs, lagoons, crocodile infested estuaries, rivers, streams, billabongs and flooded deserts. It's probably the first time an aeroplane has landed at many of these places."

"And not just water, I've landed you on dozens of outback strips, quite a few dried out lake beds as well as a few roads when things got tricky".

After this gush of conversation I thought she had finished, but, no, she was just warming up.

"I've flown you through cold and rain, we've dodged scary-looking storms & great turbulence. I've flown you across ocean passages where even the bravest planes run rough. And I've had to fly on days that were so hot even my fuel metering system stopped working. And don't get me started on the humidity," she said.

"And what about that "so called landing" at Carnarvon. You ground looped me. That was not a nice thing to do to a little plane. Yes, I know, it had been a long day, but you were not paying attention, And I could have suffered a nasty abrasion. You have to remember that the flying day is not over until I am securely tied down for the night" she admonished.

"Now I want to see this aeroplane doctor, I want to be fully checked out, and I want to be pampered a little."

And with that, she really threw a tantrum and refused to start or even steer on the ground.

"OK OK," I said, "You're right, let's go see the aeroplane doctor."

Firstly, we consulted that highly respected aeroplane physician Dr Rob Loneragan, who diagnosed cardiac problems, and prescribed "new spark plugs". He also gave us a referral to a good gastroenterologist.

New plugs were fitted, and gastroenterologist Dr Ross Vining did a thorough examination and clean of the gascolator and both carburettor bowls.

Then we called in the orthopaedic surgeon to examine the stiff rear ankle. The diagnosis was "seized steering bearing due to corrosion from salt water immersion". Major surgery was needed. The bearing was disassembled, cleaned, greased and reassembled.

Next, we consulted the dermatologist about several nasty skin blemishes. He said that some of the cuts and abrasions would require major surgery at a big aeroplane hospital in Adelaide, but these were not urgent, and he prescribed a poultice of gaffa tape to cover the blemishes until surgery could be performed.

Finally, as VH-RRZ had been complaining of feeling too cold we consulted an expert in thermoregulation. He prescribed a special rug to go over the oil cooler (gaffa tape!).

With all this attention, Searey told me she was feeling much better and felt fit for another adventure.

And off we went- to the very centre of Australia. Ross Vining



Letters

Dear readers

The article in SPAA Newsletter #21 on the Beaver crash in Lake Hood and the article on take off distance certainly generated a lot of correspondence.

In the box on this page I have chosen one of the letters which offers some valuable food for thought.

Editor

The Shark is 4 Sale

Is this the wildest Seaplane in Oz?

Lake Buccaneer VH-ETY is for sale - I still love ETY but when you are 6'4" and over 100kg, flying a Lake is somewhat uncomfortable.

Selling price is \$80,000 plus GST

1973 model with Bendix Comms, Transponder & GPS + fuel flow meter, 4 place intercom, marine radio.

It is well maintained and has had a recent Annual.

Contact Graeme Murphy at jagtransport@optusnet.com.au



Letters

Dear editor

Re: BEAVER CRASH AT LAKE HOOD

Thank you for the story on the Lake Hood accident and for Dale's article on determining take off distance required in Newsletter #21. However, I feel that available take-off length was not an issue in this "accident" as you can see in the attached Google Earth shot of Lake Hood.

The Alaskan Airmen's Association has a Webcam of the Lake and there is audio of the ANC control Tower which covers the lakes, the adjacent international airport and a light aircraft strip as well.

The distance from the start of this pilot's take-off run to the windsock in the video is approx. 3000 ft, allowing for the curving take-off path, yet at no stage was the aircraft properly on the step.

As seaplane pilots there are several lessons for us:

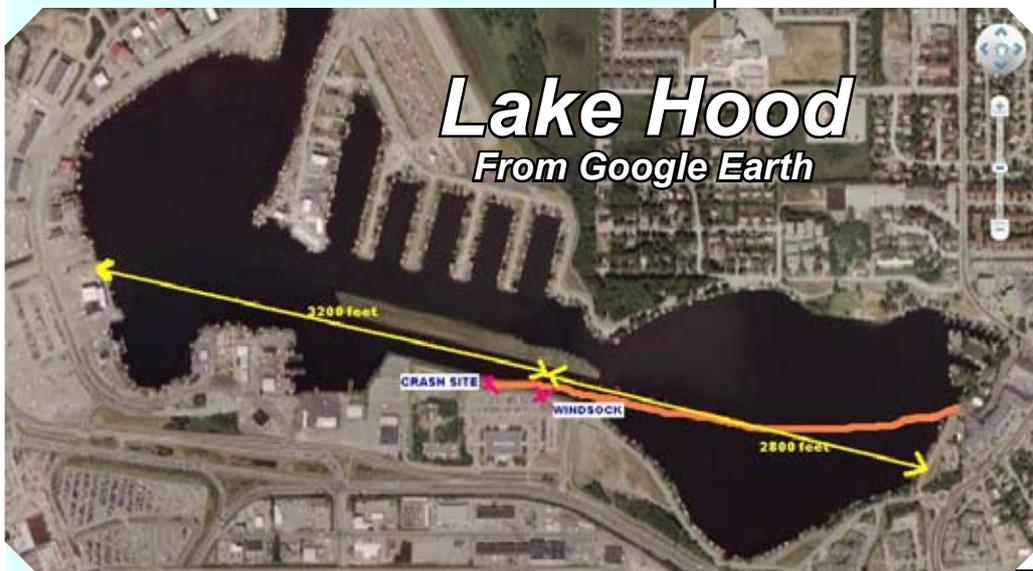
1. It can be difficult turning to the right when step-taxying, especially with flap set. The more flap the harder it is. You are fighting the left-turning forces - especially torque effect, when under power.
2. The instinctive compulsion to raise the nose higher if take-off seems to be not happening guarantees you WON'T get off because the tails of your floats will drag in water. LOWER the nose, get the right attitude, build up speed and try again.
3. On take-off, aim in the desired direction and keep lined up that way. If there is any serious deviation from this line, pull the throttle! If pointing left of the desired line, the torque effect will make it difficult to pull the nose to the right. If pointing right, the inertia of a left turn is exacerbated by the torque effect and aircraft may swing further left.
4. Start to tighten your turn gradually BEFORE any corner. You'll then know if the aircraft is responding to your actions in time to pull the pin, if necessary. Something like the "racing line" in a race-car.
5. With a crosswind from the right, the right wing is held down. With plenty of room and PLENTY OF EXPERIENCE lifting the right float IN LIGHT WINDS can result in a quicker takeoff. The pilot in the Lake Hood incident appeared to try to lift the right wing

which only created more drag on the left float thus pulling the aircraft to the left.

He then managed to haul the Beaver, with all its power, off the water but it was never going to fly.

6. The pilot had nearly 3000 ft to decide things were going pear-shaped. If there's one thing to be learnt in seaplane flying it is that you must make fast decisions and not just hope things will improve.

George Beattie



Lake Hood From Google Earth

Straight Seaplanes vs Amphibians

by Phil Dulhunty

The word Seaplanes is a misnomer in that they don't operate at sea – but off water (and petty smooth water at that?). "Water" flying is really what they do.

Seaplanes (or water planes) come in two different types, flying boats and floatplanes. Within these two types there are two versions of both, straight seaplanes and amphibians.

Straight seaplanes operate ONLY off water.

Amphibious seaplanes can operate off land or water.

Each type has its advantages:

- Amphibs usually cost more than straights.
- Amphibs have a lower useful load.
- Amphibs have poorer takeoff and cruise performance.
- Amphibs are easier to work on and maintain. But more maintenance is needed (micro switches, wheel bearings, Oleo's, brakes, etc.).
- Amphib operation can cause complications – wheels down on land but up in water, this sounds simple but is easily overlooked, and has caught many pilots. A wheels down alighting on water is far worse than a wheels up on land.

So an amphib is not necessarily the best. It depends on the operational requirements, the conditions and the facilities at hand. Are you operating off saltwater or freshwater? Do you have a ramp, beaching trolley, boat shed hangar at your base? Where do you need to fly to and from, etc.

During the Pacific War the Australian Catalina Flying boats were imported as amphibians but because of the heavy loads and distances they were required to fly the wheels and retraction mechanisms were removed and the aircraft reverted to straight seaplanes.

Most of the float planes operated commercially in the Whitsundays, Southport, Port Macquarie and Sydney and Melbourne are straight seaplanes. This is so they can operate with better payloads and performance off restricted waters.

For example my Cessna 180 on wheels is a good four seater at all-up-weight. On straight floats it becomes a three seater, but on amphibians it is a two seater only. This is because not only do the wheels and oleos, etc weight more but also because they retract into the floats, the floats must be larger to maintain the equivalent buoyancy (each float supporting 80% of the AUV).

Australia has hundreds of waterways around the coastline – and even inland there are more water alighting areas than there are aerodromes, so you might think a straight seaplane is more than adequate.

BUT these waterways don't usually don't have facilities



It's moments like these you wish you had an amphib

such as Avgas fuelling, telephones, LAME's, taxis, etc so a lot depends on where you are going to operate.

It has been said that an amphib pilot is only HALF a seaplane pilot. If he has a chance to land on the land rather than alight on the water (especially SALT water) he will always choose a land landing. This can represent up to 80% of all landings. Straight seaplaners have NO choice. Every landing has to be an alighting.

So you can see there are horses for courses. In this case they have to be seahorses.

Never a Dull Moment

Phil Dulhunty has just published his autobiography "Never a Dull Moment".

It's hard cover – 460 pages, in colour (in all respects of the word!). It covers all his forced landings, six or seven crashes, a hijack in Egypt, his sailing and business adventures. His entanglement with the KGB and the iron curtain – then a lock up in China's Cultural Revolution.

A donation of \$120 to The Catalina Flying Memorial Ltd will get you a copy – posted to your door!

It is privately published and not available at book stores.

"It's a great book, really fantastic, one of the best reads I have had in a long time". Dick Smith

"What a rattling good read". Brett Moore

An inspiration to us all. Although it's heavy, I just couldn't put it down. Alf Chown

Perhaps "The Nine lives of Philip Dulhunty would be more accurate, as no one can possibly have all those experiences in one lifetime." Les Chapman

To get your own copy you simply make a donation of \$120 to the **The Catalina Flying Memorial Ltd.**

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Stories, articles, photos and news are welcome and can be sent to: editor@seaplanes.org.au.

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Jack Peters and "The Jolly Roger" on Lake Eildon, Victoria