



# Newsletter of the Seaplane Pilots Association of Australia



*SPAA member Cliff Gerber's RV7 on Floats (see letter page 9)*

## On The Step Issue 29 - Feb 2012

### From the M'ship Coordinator

## Polishing Members

### *SPAA's IT systems get a polish!*

Many of you will have experienced our "new" membership system and the need to logon and re-enter your membership information. It's part of a series of projects to improve our web presence and IT systems.

Richard Holgate established our web-based membership database by piggybacking it onto his own business systems at no cost to SPAA. This lifted us out of the "membership-data-on-a-spread-sheet" era to something far more effective. With his sad passing last year, we had to establish our own database presence and I thank Richard's partner Julia for helping with this.

After many hours of "playing around" (you know, like sitting in your aircraft with your GPS fired up trying to work out how the hell it works!) I've finally designed a system like the old one but with a refined form, automatic *Welcome Pack* email and some nice features that will help us track members more effectively. We'll finally have ONE membership database and one central reference point that can be updated by members.

This means we can maintain better contact with our members.

I hope you've found it easy to use and haven't been too perplexed by the many emails you would have received about registering on the new system!

The SPAA website ([www.seaplanes.org.au](http://www.seaplanes.org.au)) is also updated. It may look much the same, but it now has code to stop spammers harvesting our addresses.

I plan to make our website more interactive, with a news feed sync'ed with a Facebook page and Twitter account + seaplane tests/quizzes, + more information, + photo gallery + a CASA section + Waterways/National Parks info. Watch out for more SPAA "IT" news and developments.

**Philip Dartnell - Membership Coordinator,  
Webmaster and Social Media**

### From the Editor

## Aircraft & Dogs

Aeroplanes and dogs have a lot in common. You can have a lot of fun with both of them and they respond well to TLC and they don't hold grudges.

However, no matter how friendly they are, and no matter how long your relationship with them, if you abuse them, they will bite you.

I do a lot of my flying now with just me and half a tank of fuel. The aircraft is light, and in this condition it is a highly responsive companion, it almost leaps into the air, from land or water; it turns fast; it's like a young puppy that wants to play.

But load it up to MTOW with 2 people, fuel and gear and it's a very different animal, more like an old dog that is not so not so eager to leave the security of the land or water, and slower to respond to control inputs. On a hot day, or at altitude, it is even less enthusiastic and definitely does NOT want to play.

Overloading your aircraft is just one form of abuse, but there are others. See article on page 8.

The RA Aus Website contains an excellent series of "Fly Safe" tutorials written by John Brandon. I commend them to you. In this (page 4) and future editions we will feature short safety articles (with John's permission) based on material in John's Fly Safe tutorials.

If you are going to have a long and happy relationship with your aircraft you need to really understand it, just like you understand and love a faithful dog.

**## # Gear up to Kiss the Water ## #**

**Ross Vining (VH-RRZ) Editor**



# Breakfast at the Boathouse



By Ben Hunter

All week Sydney weather had been hot & unsettled, with thunderstorms lashing the region most afternoons. But on Friday evening when my partner Dianne asked, "what shall we do tomorrow?" my first thought was 'lets commit aviation'

The weather forecast was surprisingly good, cooler, partly cloudy skies and light winds.

"Let's go flying .... With an early start, we can have breakfast at the Palm Beach Boat House." There was very little resistance to this idea!

We were airborne out of Bankstown at 8am the next morning. The flight along the Seaplane lane (R405) took us down the Parramatta River at 500ft, over the south pylon of Sydney Harbour Bridge (wave at the bridge climbers!) past the Opera House, and right down Sydney Harbour. It's a truly spectacular flight. We continued out through Sydney Heads and then along Sydney's northern beaches, to alight on some mild chop at Pittwater. That was thirty-three minutes of spectacular pleasure.

With the SeaRey at anchor, we tucked in to a hearty alfresco breakfast and hot cappuccinos.

After chatting to a few locals and the "Sydney by Seaplane" office based at the complex, VH-TAD was airborne and tracking south for Sydney Heads. With such good weather, fuel in the tank, and time up our sleeve, we continued down the coast via the 'Victor One' coastal route, and then tracked home via Helensburgh and Wedderburn townships. With the post flight wash-down completed, were back at home by

1400Hrs... in time for lunch!

The Boat House is open daily from 0730-1600Hrs for breakfast and lunch. The café is situated on the Pittwater side of the Palm Beach Peninsula just south of Sydney's Barrenjoey Head. It has ample beach to the north and south of the complex with good sandy ground for mooring and anchoring.

Seaplanes are advised to seek 'fly neighbourly' advice from either the local seaplane operator's office, or from a Sydney based SPAA member if unfamiliar with operating in the area.

<http://www.theboathousepb.com.au/>  
[http://www.sydneybyseaplane.com/#palm\\_beach](http://www.sydneybyseaplane.com/#palm_beach)



Boathouse Cafe



This French, floating hull 2 seat amphibian LSA looks to be a cross between a Seawind and a Icon A5.

The wing uses a patented "variable geometry" design to facilitate safe low speed takeoffs and landings but still gives a cruise speed of 125kts with a 100hp Rotax engine & a max range of 890 nm.

And the wings fold for ease of storage!

A unique feature is the absence of a "step" in the hull, rather it has hydrofoils which they say allows takeoff in choppy conditions. And the retractable U/C is equipped with retracting snow skis!

Equipment includes a glass cockpit + analogue emergency gauges & ballistic parachute.

However, even if it is real, with a price rumoured to be about \$300,000 euros it will remain a dream for most.

For more info: [www.lisa-airplanes.com](http://www.lisa-airplanes.com)



# Albatross evades arrest in Sydney\*



A US coast Guard "Albatross".  
(This is not Lyle Campbell's aircraft)

Lyle Campbell is a US banker with a passion for aviation. And his love affair with an Albatross started inauspiciously through his accidental meeting with Dennis Buehn, an aircraft restoration expert and Albatross aficionado who runs American Warbirds.

The Grumman Albatross is an huge amphibian used after WWII for reconnaissance and search and rescue.

"I fell in love with the Albatross. And the London to Sydney air race gave me a reason to own one," remembered Campbell. The London to Sydney air race celebrated the centenary of flight. It followed the traditions of the Great Air Races of 1919, 1934 and 1969 and it featured an international air armada of single and twin-engine aircraft representing nine nations.

Buehn found a beaten up old Albatross on the beach in Barbados and at Campbell's behest, he recovered and restored it to as "as new" as possible.

His next acquisition was a pilot; Captain Lonny McClung had had a 30-year career as a carrier-based fighter pilot, logging 7,000 hours, 1,000 carrier landings and over 250 combat missions in Vietnam. "He's an incredible guy who has become a close personal friend," Campbell said. Another crew member was Frank Wilkins, a former crew chief on an Albatross assigned to air/sea rescue and support for the 1956 Bikini Bomb Test.

The restored aircraft, named "Miss Nancy" after Campbell's wife, was ferried to London, and the race began in March 2001. The route took the crew through many fascinating places including Cannes, Cairo, Kuwait City, Calcutta and Singapore and they arrived in Sydney on April 7, 2001.

Through complicated negotiations, Campbell had gained permission from the director of the air race to land in Sydney Harbour. Unfortunately, not everybody in Sydney Harbour had been advised.

With vectors from air traffic control, they came over the bridge, and being careful to avoid sailing boats and ferries, landed on Sydney Harbour. As they taxied past the Opera House the Harbour Police arrived and demanded the crew shut down.

Lonny said, "we can't shut down; we can't control this thing if we don't have power."

Campbell remembers: "They told us to taxi over to where the Clippers used to land in the 1930s. That's when we decided we better get out of there. Lonny shoved the throttle forward and said, "Take us out of here, Mr Campbell," and away we

went."

We knew we were in trouble when we landed in Bankstown to be greeted by the authorities from CAA. "They were going to confiscate the plane, and our licenses, and every other damn thing," Campbell recalled.

At the awards dinner that night, Campbell was seated next to Prime Minister John Howard and was able to relate the story. PM Howard began his formal address by congratulating the winners, but also noting the controversy surrounding

the Harbour landing. "He said that had he known he would have invited us to tea at the official residence. Right then and there, he administered us a full "Prime Ministerial Pardon".

Campbell said that they decided that getting home should be an adventure too .

"We decided we wouldn't come back through the Northern Hemisphere like everybody else, but back through the Southern Hemisphere where nobody goes."

The return trek took the "Miss Nancy" through Auckland, NZ, Tahiti, Easter Island across to South America, through Lima, Peru and Panama City and back into the USA.

"It was an incredible adventure and it wasn't easy," he said. "This air race could never happen today. There are places we went through where you could never get clearances today, and there isn't anyway in the world we could do now what we did then, considering everything that has happened."

The Albatross's journey around the world is captured in the book, "The Adventure Continues".

*\*This article was adapted from a story by S Clayton Moore on the "AirportJournals" website. See the complete story and many more at [www.airportjournals.com](http://www.airportjournals.com)*



Lyle Campbell, Sam Steward, Lonny McClung & Wendell Setterburg beside "Nancy" in England at the start of the Race

# Don't stall and spin in from a turn

This article (with John's permission) is based on material from the "Fly Safe" tutorials written by John Brandon. A much more complete examination of the topic and other tutorials in the series can be found on the RA-Aus website (<http://flysafe.raa.asn.au>) I commend them to you. Editor.

Loss of control in low-level manoeuvring is a major cause of serious accidents for seaplanes since they do more low level manoeuvring than most GA aircraft.

## The accelerated stall

Most pilots are used to benign stalls (wings level, 1G) but have not experienced an accelerated stall. When the wings are loaded up or asymmetrically loaded, the stall may be viciously different.

A common cause of fatalities is a stall spin from a low level turn. The tragedy is often caused by use of rudder to hasten the turn or hold-off bank in a descending turn.

In a low-power, low speed descending turn the aircraft is at a relatively high AoA. If rudder is applied to hasten the turn, the aircraft will skid. If the critical AoA is exceeded the inner wing will stall, with a consequent instantaneous roll in that direction.

Lets look at what happens when the pilot adds rudder to hasten the turn in a low power, low speed turn.

- ▶ The excess rudder yaws the nose down and the rotation (yawing) about the CoG reduces lift from the inner wing and increases lift from the outer wing, so the aircraft banks more.
- ▶ The pilot pulls back on the elevator to keep the nose up (which moves the AoA towards critical).
- ▶ Then the pilot uses opposite aileron to counteract the extra bank. If the aircraft is close to the critical AoA, this is the "final straw".
- ▶ The down aileron on the low wing causes that wing to exceed the critical AoA. The inner (low) wing may stall viciously with instantaneous wing drop, possibly flipping the aircraft inverted. You will need 500 to 1,000 ft to recover control.

The pilot may not recognise an initial roll as an incipient stall and accept it as part of the planned turn. Too late the pilot will find that applying corrective aileron increases the roll rather than reducing the bank. In similar situations the pilot may wonder why the elevators are completely ineffective when the control column is pulled right back to get the nose up.

**When the wings are loaded up the stall may be vicious!**

Such stalls might occur turning base to final, or on final when avoiding bird strike or attempting a late correction to an out-of-line approach, or any time when you try to hurry a turn with bottom

rudder. Stalls on the final approach, caused by failing to increase power when raising the nose to stretch the approach or reduce a high sink rate, will be exacerbated if the aircraft is also slipping.

Here is an extract from an RA-Aus serious injury report:

*"The 8,000 hr instructor (and student) encountered engine problems in the circuit. The instructor used rudder to yaw the aircraft toward the short runway then used rudder again to yaw the aircraft more to the right so that a landing could be made on the longest runway. The aircraft stalled & hit the ground right wing first."*

No pilot can escape from a stall/spin if there is insufficient height, but prompt recognition of the incipient stall & fast corrective action can save the day.

Low-level stall/spin events are deadly. Spin recovery training will not save an aircraft that is spinning below the minimum recovery height.

The only solution to a low level stall/spin event is absolute avoidance;

Stay within the aerodynamic limits.

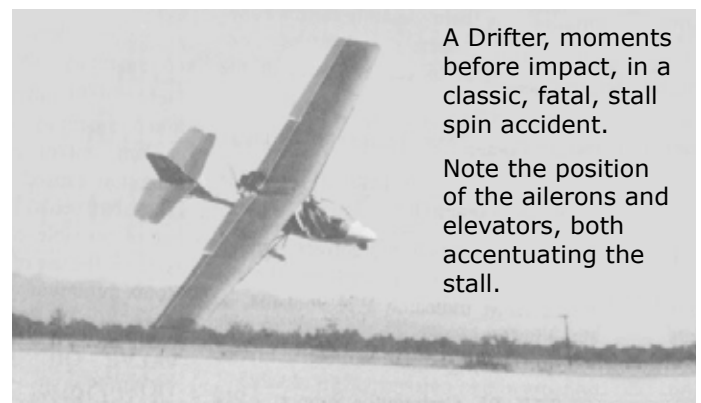
Never place the aircraft in any situation which would make such an event possible; fly the aeroplane or, more to the point, make sure the wing and tailplane always keep flying!

Never, never indulge your self-supposed ability to produce fast pull-ups on take-off

**The only solution to a low level stall/spin event is absolute avoidance!**

## Rules to avoid low-level stall/spin

- ▶ Expect the unexpected!
- ▶ Good energy management: if potential energy of height is low then kinetic energy should be high; i.e. maintain a safe speed ( $1.5 \times V_{s1}$ ) near the ground.
- ▶ Avoid distraction: maintain a scan appropriate to the situation. Never concentrate on one task, or a ground object/surface scenery, or a search for another aircraft in the circuit.
- ▶ Envisage the wing AoA while manoeuvring: keep the wing flying, don't exceed  $30^\circ$  bank angle. A good pilot can feel the onset of a stall — before any wing-drop — & catch it with a slight forward stick input.
- ▶ Fly accurately: Keep the slip ball centred. Never apply excess rudder to tighten any turn or change direction.



A Drifter, moments before impact, in a classic, fatal, stall spin accident.

Note the position of the ailerons and elevators, both accentuating the stall.

Whenever we talk about a pilot who has been killed in a flying accident, we should keep one thing in mind. He called upon the sum of all his knowledge and made a judgment. He believed in it so strongly that he knowingly bet his life on it. That his judgment was faulty is a tragedy, not stupidity.

Every instructor, supervisor, and contemporary who ever spoke to him had an opportunity to influence his judgment, so a little bit of all of us goes with every pilot we lose.



The last newsletter (#28) featured correspondence between Sean (a float pilot in Borneo, see [www.junglepilot.blogspot.com](http://www.junglepilot.blogspot.com)) and Dale DeRemer, our expert on seaplane safety. In this issue we continue the insights into using the Flap Change Take-Off (Flap Pop-Off) safely

Dale,

Thanks for your advice re "Flap Change Take-Off". I will be the instructor at our location soon. I have instructed extensively in the wheel plane world, but this is my first time in the float world.

I was taught the Flap Change Take Off in a way I don't feel comfortable with and I would love your input on the best technique.

I was taught as follows:

- Set Flaps to 20°, accelerate to 50-55 KIAS,
- Remove right hand from throttle, grab flap handle and QUICKLY go to 40° flap, while simultaneously easing back on the yoke to counteract the pitch change caused by the extra flaps.
- As soon as the flaps lift the airplane off the water, drop the flaps back to 20°
- Adjust pitch to appropriate climb speed/angle

The whole manoeuvre takes about one second.

With lots of practice my coworkers have become fairly good at this manoeuvre. But when they botch it, you have to pull the power and try again. It can be VERY risky when done wrong.

Originally, when I was being taught this I tried SLOWLY "milking" the flaps back to 20 degrees. My instructor was most emphatic that the return to 20° flap must be as quick as possible. I feel this overly complicates the manoeuvre and relies too much on the hope that it will probably work, but maybe not. I find that if I hold 40° of flap for maybe 1-2 seconds more, then "milk it off gently" the manoeuvre seems more seamless and a successful outcome more likely.

I would value your opinion on the safest technique.

*Sean Cannon* (Mission Aviation Fellowship - Borneo)

### **OOOF-DAHI (As they say in Minnesota)**

I wish the guy that started teaching that 'snatch and hope' method you describe was around so he could explain why in the world he did it that way. Scary!

If you were flying with me you would definitely get your

hands slapped after scaring the crap out of me!

One of the main functions of an airplane is to teach the pilot how to fly....Not "listening" to the airplane is how these cocamamie ways of doing things get imbedded in the culture - especially the seaplane culture.

In my way of doing things, you are absolutely right to want to do what makes sense. The act of lifting the flap handle should tell you whether your bird will fly or not, so it is ease-and-feel the handle up to 40° and milk it back down slowly while staying close to the water with the elevator.....move the handle slowly allowing speed to build a little so you don't settle back in the water.

At Vclimb your attitude is safe in case you contact the water again. Just let the airplane tell you how its going! Absolutely not more that 5-8 feet above the water until Vclimb and pilot comfortable, then climb out.

Just like the helicopter, the floatplane has a "dead man's altitude zone" which, if you have a power failure at a low speed, things are not going to go well, so stay out of it and live to be a grey haired old pilot like me with 24,000+ hours in the logbook and a smile on my face.

Oh, and by the way....I always used 10° of flaps, not 20° because flaps impede acceleration. If you can reach the flap handle easily at 10°, that will help a little.

### **Dale DeRemer**

*(Dale is Professor Emeritus, University of North Dakota. He established the SEAWINGS national FAA safety program for seaplane pilots.)*

### **How SMART is your plane?**

One of our members recently had an interesting experience. His aircraft is fitted with a beautiful glass cockpit, 2 big screens, all flight instruments, engine instruments and GPS, all interconnected. Then flying along, in the middle of nowhere, it all went black. No flight instruments, no engine parameters, no GPS.

Fortunately he had retained an old steam gauge ASI, and he had his "smart phone" which has a gps and map system in it. It's not perfect, but it was enough to enable him to complete the leg safely. Ed

# Trips to Inspire

## Lake Boga - Splashin

21 & 22 April 2012

Lake Boga, on the Murray River, was an integral part of allied defence during World War II. It was home to the No.1 Flying Boat Repair and Service Depot. In WWII, 416 flying boats were repaired or rebuilt there. These aircraft included Catalina, Dornier, Sikorsky KingFisher, Sunderland, Walrus and Martin Mariner.

This secret WWII facility is now the base for the Lake Boga Flying Boat Museum which hosts a splashin for seaplanes every 2 years.

This is a **MUST ATTEND** event - 21 & 22 April 2012

Lake Boga is reserved for Seaplanes for the weekend!

Ramp & parking for Seaplanes is available beside the Catalina Museum.

Fuel and O/N security is arranged.



Details from Jack Peters

Ph 0414 737 400

jack.peters@optusnet.com.au

or Dick Peel 03 5457 9256

See your there. Ed

## Totality



No one should pass through life without experiencing a total solar eclipse. Its not a "science thing"; it's a profound experience. (*Lief Robinson - Editor in Chief, Sky & Telescope*)

To experience this profound phenomenon you must plan carefully. Total Solar eclipses are rare. On **13 Nov 2012** there will a total eclipse in Far North Queensland. If you miss it, you have to wait until 2028 for the next one to pass through Australia.

I will be leading a GASA to experience the 2012 eclipse. Mark the date in your diary now. More details in future SPAA newsletters. Details from: editor@seaplanes.org.au

## Summer in Tassie

**Be quick or you will miss it!**

Meet in Tooradin (Vic) on Thursday 10 Feb

Depart across Bass Strait on Friday 11th

**Day 1** Phillip Is - Flinders Is - Bay of Fires - Georges Bay

**Day 2** Georges Bay - Wine Glass Bay - Hobart

**Day 3** Hobart local flights - Port Arthur

**Day 4** Hobart - Strahan

**Day 5** Strahan - Lake St Clair - Arthur River

**Day 6** Arthur River - Devonport



**Day 7** Devon Port - King Is

**Day 8** King Island- Cape Otway - Geelong

**Sat 18th** final group dinner in Geelong

**Sun 19th** depart for home

Info from **Rohan Whittington**  
rohan@hydro-flo.com.au  
Ph 0411 321 307

or **David Geers**  
david@computerdrive.com.au Ph 0418 103 535



## Seaplanes in Europe

Visiting Europe in 2012, why not include a seaplane meet? Here's a few to consider:

- Biscarrosse, France, 17-20 May
- Hergiswil, Lake Lucerne, 8-10 June
- Lutry, Lake Geneva, 22-24 June
- Bönigen, Brienersee, 29 Jun-1 July
- Scalaria Air Challenge 6-8 July
- Bouveret, Lake Geneva, 9-13 Aug
- Vevey, Lake Geneva, 31 Aug-2 Sept
- Morcote, Ticino, 7-9 Sept

Jvan Aeberli, President of the Seaplane Pilots Association Switzerland welcomes any visiting seaplane pilots from Australia and NZ.

See details on their website. [www.seaplanes.ch](http://www.seaplanes.ch)

## Thrust and drag during take off

If you have two V12 engines pumping out 3,000 hp in a single seat racer like the Macci Castoldi, getting off the water will not be a problem.

However, for a more conventional seaplane, getting off the water (particularly if it is Hot, Heavy or High) is one of the hardest things a seaplane has to do.

This is because getting airborne off the water is a far more complex undertaking than a land takeoff.

The problem is that the thrust/drag vs. speed curve for a seaplane taking off is very different from that of a land plane.

**The figure and the description below are adapted from Chapter 19 Mechanics of Water Flying, from the book "Seaplane Operations" by Dale DeRemer and Cesare Baj.**

The figure below shows the hydrodynamic and aerodynamic drag and, for clarity of understanding, the wing's angle of attack for a typical seaplane taking off.

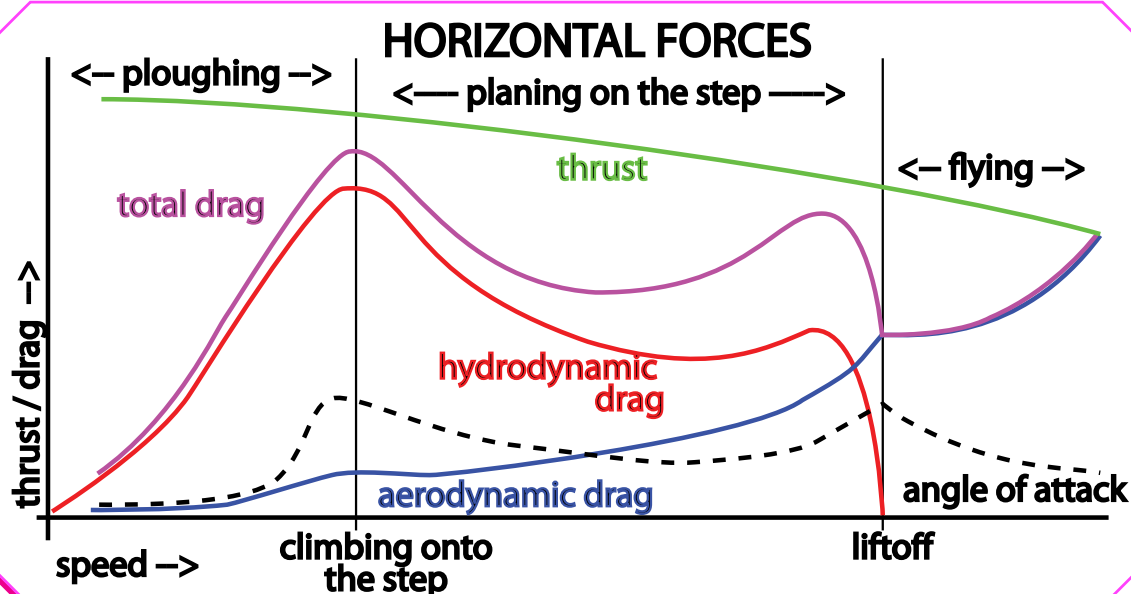
For every speed, the gap between the **total drag** and **thrust** curves expresses the force available to accelerate the aircraft (net accelerating force). When this gap is great, the acceleration is considerable, where it is small, the acceleration is reduced.

The figure shows the great increase in resistance (from **hydrodynamic drag**) as the seaplane climbs over its bow wave. Once "on the step" there is a sharp decrease in resistance. As speed increases towards takeoff speed, **aerodynamic drag** becomes the major cause of resistance.

This complex of interconnecting drag factors makes the takeoff phase of seaplane flying very delicate, in which one can have difficulty in making up the few knots needed since when thrust is equal to drag there is no acceleration, and takeoff is impossible.

At increased density altitude, power & thrust are decreased and the aircraft may not have the thrust required to climb over its bow wave and onto the step.

Alternatively, at maximum takeoff weight, a seaplane



However, the parameters are so varied that this cannot be considered a general rule. For example, operating with aircraft whose lift-off speed is particularly high, it can happen that the thrust curve intersects the drag curve before lift-off. In this case the aircraft climbs onto the step, but the take-off run ends with a stabilised high speed taxi.

## How fast can a seaplane go?

# 709 km/hr !

The fastest speed ever attained by a propeller driven seaplane was set in 1934 in a Macci Castoldi MC72 Seaplane.

And more than 70 years later, its still the record.

The aircraft had two V12 engines, with contra rotating propellers. The shaft of the rear engine driving the front propeller through the hollow shaft of the front engine. The supercharged engines developed 3,000 HP.

The aircraft is on display at the Italian Air Force Museum.

What a gorgeous aircraft! But can you imagine the sound in an open cockpit?

Jack Peters



may be capable of safe flight but may not be able to climb over its bow wave.

When the thrust is less than drag there is a deceleration to a lower speed, at which point the two forces are once again the same. This happens easily in the usual two critical intervals of speed: before climbing on the step, and before lift-off.

Generally, the two curves are nearer in the pre-step phase. This means that if one has climbed on the step, one can be almost sure that lift-off will be reached, as long as the surface is long enough.

## Testing your relationship

*At the controls of a small, high-performance aircraft, day in and day out, you reach a point of oneness with the plane. Some people would call that the Zen of flying, but that's too deep for me. You're just a part of the plane, not separate from it, as if you are the brain and it is the body, doing some things you don't have to think about, like breathing, and other things that are converted from thought to action in an instant.*

— **John Glenn** (First US astronaut to orbit Earth)

Are you abusing your plane?

- Maintenance not up-to-date ?
- Overloading ?
- Flying too slowly, turning too sharply ?
- Too great an AoA ?
- Pulling up too hard ?
- Asking it to do things it is not designed to do ?

If you are guilty of any of these abuses your plane might bite you.

As John Glenn says above, It's a joy to fly a plane you have been flying for years. It becomes an extension of your body and it seems to respond to your thoughts. Without you being conscious of what you are doing, the aircraft goes where you want it to go. It's like you are wearing the aircraft. It's a glorious feeling.

Athletes talk about being "in the zone" when they no longer have to think about the "how" of what they do. Rather, they seem to play without a great conscious effort; everything just seems to "flow". And this is what it is like with your old familiar aircraft, the skill of "how to fly it" is encoded in your muscle memory so you don't have to think about.

But wait – for most of us, 99% of our flying is done in the centre of the design performance envelope.

In many sports and activities, a bad shot may just result in you losing the game. But losing the game in flying can have much more serious consequences.

Aircraft designers specify a safe working envelope for the aircraft. These are the parameters within which your airplane will fly safely. There will be a:

- Upper speed above which you may get catastrophic flutter or component failure from aerodynamic loads.
- Lowest speed or highest AoA after which aerofoil stalling is likely.
- Maximum weight
- Forward and an aft limits on CofG

The problem with long familiarity with your aircraft is that you get used to how a plane behaves in the centre of its performance envelope, but its behaviour at the limits of the envelope may surprise you, or even bite you. So you need to learn to recognise the signals it will send you as it approaches the limits of its performance envelope, particularly approaching a stall.

You need to practice recognising these signs, and unusual attitude recovery and systems failure. And never abuse your relationship. (Ed)

## Shorts Mayo Combo



The previous page looked at the challenge of getting a seaplane off the water. The problem is that a seaplane can safely fly at a much heavier weight than it can haul out of the water.

In the 1930's aircraft designers grappled with the problem of developing an economic transatlantic passenger & freight service. They had seaplanes that could fly the distance with freight and passengers but did not have power to take off. Adding larger engines added more weight and the bigger engines used more fuel, so it became uneconomic.

In 1932 Major RH Mayo, Technical Gen Mgr of Imperial Airways designed a composite machine with abundant power and wing area to take off and which could be removed once cruising flight was achieved.

The Short-Mayo Composite used a massive Flying Boat with many modifications to suit its heavy lift role, (greater beam, larger wings, larger control surfaces). The upper aircraft, a float equipped seaplane, was relatively small, but it was ideal for high density freight such as airmail.

The 2 aircraft were rigidly linked, and so at take off when all engines were used it was in effect an eight engined, biplane flying boat.

The combo solved many engineering challenges, including, how to safely separate. The pilots of both aircraft had operate a release lever and then the upper aircraft attempted to lift the lower aircraft. When the separation force became great enough an automatic latch released and the 2 aircraft separated.

Although a successful design, the timing was poor and the development of powerful longer range aircraft and WWII meant only one combo was built. But the small upper aircraft "The Mercury" set a seaplane distance record of 9,726km in 1938

They were exciting and innovative times. For more info see [www.engwonders.byethost9.com](http://www.engwonders.byethost9.com) or Wikipedia-Short Mayo Composite





# Letters, NEWS & Views

## Dear SPAA

You guys are doing fantastic job with organizing people and putting out an interesting newsletter.

I love the idea of having a world map of seaplane enthusiasts. Maybe there is a way to have people who live on waterways open their homes to member visits and overnight stays.

I would welcome folks to my home on the Willamette River in Oregon, USA. Kind of like couch surfing with your seaplane!

Best to ya,

Cliff  
Cliff@GerberDesign.biz



## Wings on the River

The Editor notes: My introduction to seaplanes was not auspicious.

In the 1950s Sydney and Brisbane were connected by a flying boat service that landed on the intervening rivers of northern NSW. My mother tells me that my first aeroplane ride was in a Sunderland flying boat taking off from Grafton and landing at Rose Bay in Sydney in 1955.

I was too young to remember it but she tells me that I cried the entire time and was sick all over her!



*Sunderlands on the Clarence River at Grafton*

Not a good start to my interest in seaplanes.

I was reminded of that by a picture of Sunderlands on the Clarence River in an excellent new book called ***Wings on the River***.

The Book is written by David Jones, a Brisbane resident who is a member of the Qld Maritime Museum and the Qld Air Museum.

The book tells the colourful story of flying boats from Brisbane's unique viewpoint. For more than 50 years flying boats provided a means of world travel reaching to distant and exotic places. During this time Brisbane was a focal point for pioneering flights.

In WWII General Douglas MacArthur's HQ was in Brisbane and flying boats connected him to sites throughout the Pacific.

A review of the book by John Wilson (Flying Boat Historian) says

*"David's book is well researched... he describes the dreams, frustrations, bureaucratic barriers and success's of a band of extraordinary flyers."*



*Empire Flying Boat "Centaurus" on the Brisbane River 1937*

The book is available at Boolarong Press for \$24.95  
[www.boolarong.com.au](http://www.boolarong.com.au)

## Windy Wellington

Wellington, the capital of New Zealand is known as ***Windy City*** with good reason.

At the air show to commemorate the opening of Wellington Airport in 1959. A Royal NZ Air Force Sunderland scraped its keel along the runway during a low pass in turbulent conditions; it returned to its base at Hobsonville and was beached for repair. See it on YouTube  
<http://www.youtube.com/watch?v=hu2qxgtFvW8>



## Float-plane Safety

Canada is known as the home of Seaplanes and on the West Coast in British Columbia (BC) they are most prolific. However, four commercial floatplane crashes in 2 years, 2 on water & 2 on land, caused 22 deaths. The B.C. Coroner's office has created a death review panel to look at float-plane safety.

Canadian death review panels are convened when multiple-fatality cases occur in similar circumstances. Previous panels, have addressed motorcycles and avalanches involving snowmobiles.

Since then, there have been a handful of private and commercial float-plane accidents in B.C. & one further death.

Recent safety reviews in Canada have recommended

- ▶▶ Improved door-latch releases.
- ▶▶ Push-out windows.
- ▶▶ Easy to open emergency exits.
- ▶▶ Enhanced pre-flight briefings to pax.
- ▶▶ Hand-held baggage scales on aircraft so pilots can better calculate weight and balance.
- ▶▶ Life vests to be worn by passengers in flight, so they don't risk drowning after escaping from a plane crash in water. (ed)

## For Sale - Seaplane Residence

Dear Editor

I live on the St Georges basin on an absolute waterfront with magnificent views to the coast. The area is still a designated flying boat base from the war years.

The property is zoned 3g (recreational business) and would be ideal for a pilot to set up a seaplane business for sight seeing flights, or seaplane instruction. Our land is for sale at offers over \$349,000+

If interested please ph 0419162372 or 02 44434570  
Noel Bishop email: [trendep@tpg.com.au](mailto:trendep@tpg.com.au)

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