



# REDCLIFFE AERO CLUB

## AIRCHAT

No. 32

Autumn 2024

**OVER 50 YEARS OF PROFESSIONAL AVIATION TRAINING  
CHARTER AND QUALITY AIRCRAFT HIRE**



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## Contents

- 4 From the President
- 5 CEO update
- 6 Chief Pilot's report
- 7 Editorial
- 8 Curly's corner
- 10 Master the 5P's
- 12 Recent milestones
- 14 This tiger flies like an angel
- 16 Are you really that good?
- 22 2023 wings awards dinner
  - 24 We did return
  - 31 RTO roundup
  - 32 Instructor intro
  - 34 Fright VFR
- 36 Lifting the lid on Bernoulli
- 43 Learning to fly at RAC
  - 46 Cirrus life 2023
  - 48 A dusty diamond - part 2
  - 55 Instructor intro

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# Changing of the guard

Hello everyone

I hope that this autumn edition of AirChat finds everyone healthy and looking forward to the weather cooling down so we can all enjoy the winter months of beautiful flying conditions.

Back in 2014 I was asked by the late former President, Greg McCallum, if I was interested in becoming President of RAC. At the time I pondered on the idea and then agreed to give it a go. That was in 2015. Nine years later I find myself stepping down from the role of President and “handing over” to the very capable Vice President, Sam Keenan.

I have enjoyed being in the position of President and serving the Club in the best way that I could during this time. I feel that the Club is in good hands and am proud of the many achievements that have been made over the last decade to make our Club what it is today.



I would like to thank all the previous and current Directors along with the RAC team and members for your support during my tenure.

I will be staying on as a Director and look forward to being involved with all the Club activities for many years to come.

Thanks everyone and happy landings

Mike Cahill



## From the President



scheme. It is imperative to the Club's long term financial viability that we continue to expand and improve our service offering to this key student market.

More aesthetically, you may have noticed that the Club buildings were recently repainted and there are a few new picnic tables out the back. Although only subtle changes, these signify the first small steps towards refreshing the Club facilities and making our venue a place pilots and locals alike may like to frequent. I believe that as a Club, we have a unique opportunity to engage with the local community and promote aviation (one of our constitutional objectives). I intend to explore ways we can make the Club more relevant to our (ever expanding) local community. Watch out for some new signage on the main building over the coming months!

Finally, I'd like to thank Mike Cahill for his service as President. I have known Mike for some 15 years and have had the pleasure of working with him as a director of the Club for the past 9 years. Directors volunteer their time and experience to the Club, and Mike has professionally navigated the Club through many different situations as are faced by such an organisation. We appreciate that Mike will remain as a director and continue to assist with the guidance of the Club into the future.

Cheers,

Sam Keenan

President - Redcliffe Aero Club

Dear members and friends

It is with great enthusiasm and optimism that I address you as the incoming President of the Redcliffe Aero Club. As we soar into a new era for our beloved Club, I am honoured to share with you some exciting aspects that underscore our commitment to excellence, growth, and aviation in general.

One of our most noteworthy achievements in recent times is the successful growth of the VET Student Loans (VSL) pilot training program at our Club. Much of the commercial pilot training market has evolved from what I would call a "pay-as-you-go" structure that many of us grew up with, to the ability to finance commercial training through the Government's VSL

# CEO update



Dear members

As reported in the last AirChat there has been a significant improvement in all aspects of the Club over the last 12 months, even with the weather not cooperating at times. I'm not sure what happened to the predicted El Niño cycle!

We continue to take on full-time students in our diploma courses as existing students complete their courses. We have also been successful in doubling our approved VET Student Loan cap which will give us greater flexibility in courses offered and ultimately income for the Club.

We have also been very busy conducting general competency training in the C210 for newly qualified CPL pilots from a variety of schools in preparation for their first job. I've personally conducted such training (ground school plus five hours training in the aircraft) for 11 such students this year alone.

Our survey contract with VH-VMV has continued into this year, with it performing well after the recent engine and avionics overhauls.

Bernadette Killick, our new RTO Coordinator, has settled in well into our team and has made significant changes to the administration of the RTO, streamlining many procedures whilst still maintaining the highest levels of compliance.

We also recently successfully completed a CASA compliance audit of our Part 135 (Air Transport) and Part 138 (Airwork) sides of the business, resulting in no significant issues found.

I'd like to wish you and your families all the very best for the Easter season and hope to see you around the Club.

I encourage you to make the most of our facilities and services be it training, Club flyaways or hiring our aircraft so you can enjoy the privileges of your pilot licence.

Best regards,

Stephen White

CEO

## Chief Pilot report

Vale Alec Taylor

It is with great sadness that I learned that one of our former student pilots, Alec Taylor, died in February in a terrible car accident on his way to work. He was a current serving member of the RAAF and a Growler pilot posted at Amberley, after spending time in the US for conversion training. I sent Alec on his first solo (below) back in 2013 and he was a very determined young person then. I was not surprised to find out later that he had been picked up by the RAAF. The last time I spoke to Alec he was very excited to be going to RAAF Williamtown to start the 'Lead in Fighter' course on the Hawks and his expectation was to transition to the F-35s after that. I guess the needs of the service took him to the Growler community instead.

I would like to extend our deepest condolences to all of Alec's family and friends. I know he will be sorely missed.



Now that summer has passed the weather is improving and the flying is great, so come on down and get into the cockpit and remind yourself why you got a Flight Crew License or at least want one. We have plenty of availability on weekends and some of the best flying scenery in the country on our doorstep so there's no reason not to get up into the wild blue yonder. If you need some refresher training or want to learn some new skills grab an instructor and give your ambitions wings. Instructors are here and always ready to assist you the members of the Redcliffe Aero Club.

See you all soon.

Mal McAdam

Head of Operations / Chief Pilot



# Editorial

Dear aviators

We have a variety of stories in this edition ranging from how not to try skydiving from a Tiger Moth (thanks to Bob Tait) to how to enjoy flying in one (thanks to Luc George and Ron Ennis). Rob Knight reminds us why we should critically assess our own capabilities while Jim Davis brings us up to date with the various theories on why our aircraft actually lift into the skies at our behest. There's a couple of sobering tales with Greg Ackman relating a close call on a night VFR flight over the Nullarbor and Luc George describing how he made it back home after his alternator failed while flying up the west coast of Cape York Peninsula.

I've described the second part of our Kimberley adventure last year, Bernadette Killick brings us up to date with the latest RTO activities and we have introductions to two of the Club's new-ish instructors. We can reminisce or discover what it's like to be a novice pilot as Louise Hoey describes how she went about getting her Restricted Pilot Licence and Mike Cahill recounts the fun he had at the 2023 Cirrus Life conference in Adelaide.

I took on the role of AirChat editor in 2016 and have enjoyed putting it together three times per year since. Eight years later however I think it may be time to have a fresh approach so I'd like to hand the job over to someone else. Are you keen? We're looking for a volunteer so we can transition during this year and I'm happy to help with the transition. Each edition takes me about 40 hours to prepare so it's not too taxing. Please let me or Sam Keenan know if you'd like to volunteer and help out your Club.

Thanks to all the contributors to this edition and happy reading.

And don't forget - **please email me your stories for inclusion in the next AirChat.**

Email: [airchateditor@redcliffaeroclub.com.au](mailto:airchateditor@redcliffaeroclub.com.au)

Philip Arthur



Keep yourself informed as to what's coming up and tell us where you'd like to fly to by joining the RAC Flyaways Facebook group. Go to the link below:

<https://www.facebook.com/groups/678739008989427>

Also, the Club's famous get together barbecues are held at the clubhouse on the first Friday of every month.

You pay only \$20 for the best steaks in SE Queensland plus salads, snags, bacon, delicious cakes and more.

And drinks are available from the bar at almost give away prices! You'd have to be mad not to attend.

Please call the Club reception at least one day before to register your attendance for catering purposes.

# The best of Curly's corner

by **Phil (Curly) Ware**

*A life member of the Redcliffe Aero Club with a long and illustrious career in the RAF and Air Traffic Control, and still today as a private pilot, Phil is always keen to share his knowledge and experience to demystify ATC for the rest of us.*



It was 1970 something. I was working the northern outer sector at Brisbane ATC, and the morning departure "gaggle" was in full swing, with my screen full of aircraft radiating out from Brisbane, Coolangatta, Amberley and Maroochydore to their various destinations: Maryborough, Bundy, Gladstone, Rocky, Mackay, Townsville, Cairns, Mt Isa and points beyond, including international destinations. I was talking like an auctioneer as aircraft came on frequency and needed transferring to the next sector, accommodating level change requests, climbs and descents, radar vectors etc.

Inbound on the oceanic route was a Qantas B707, a freighter carrying a live killer whale called Ramu. It was coming from the USA and was inbound to Brisbane, where the animal was to be taken to Seaworld (it was called Marine Land back then) by road. While in transit Ramu was housed in a special seawater filled tank with aeration, etc.

The pilot calls up at the outer edge of my airspace and shortly after coming onto my frequency, he asks for a Flight Level below the Oceanic Control area which had a base at Flight Level 250 (25,000ft). The rules in those days were that no passenger aircraft could descend

below controlled airspace without approval of the Senior Operations Officer.

Qantas captain: "Ahh... Brisbane Centre, Qantas 8 Alpha, request descent to Flight Level 210."

Me: "Qantas 8 Alpha, descent below Control Area base of Flight Level 250 not available, descend to Flight Level 260."

Qantas B707: "Centre, be advised that we have no passengers on board, and are carrying a live killer whale, and the animal is suffering some discomfort due turbulence, we require Flight Level 210."

Suddenly the airwaves were on fire!

TAA DC-9: "Never had killer whale on the menu before."

TAA B727: "I'll check with the girls and see what's down the back in our galley."

Ansett DC-9: "He must be having a whale of a time."

Air New Guinea: "Wonder where he caught a whale"



Next plane: "Probably had his trailing aerial out coming across the pacific."

Next plane: "Must have had a big hook."

Next plane: "Wonder what he was using for bait."

And so every aircraft on frequency had something funny to say ...

The Qantas captain was NOT amused at the goings on and at this point came back on the radio in a pucker angry voice:

"Drop dead you people and cease using non-standard phraseology."

A certain TAA Focker Friendship pilot who was a well known identity, piped up at that stage and said in mock agreement with the Qantas captain: "Yeah you blokes, shut up, drop dead... and report leaving each thousand on the way down!"

Of course I was the only ATC to have heard any of this. Just as quickly as it had started the banter was over. I received the permission I'd sought to let him descend below controlled airspace, I cleared him to leave CTA on descent, checked Flight Service for traffic, and then had a good laugh. I've never laughed so much in my life as at this quick wit and repartee. It was one of those special moments in ATC where only those on that frequency at that time hear the events. It was dutifully relayed to my colleagues at the Brekky Creek Hotel (the main 'watering hole' back in those days) after work.

I have many good memories of ATC. If you're a young person aiming for a career in aviation the more 'irons in the fire' you can have, the better off you are and the more likely you are to get something. Many would-be pilots I speak with say ... "HmMMM ... Naahhh" and realise later, after not having achieved a career in aviation, that ATC would have been a great choice when the door was open. So always remember that the time to say "Nah, I don't want to be an ATC" is when you have a letter in your hand saying ... "Dear ... We are pleased to advise that your recent application for ATC has been successful".

To apply, just go online to the AirServices Australia website and, who knows, it may open up a whole new career direction for your life :-)

<https://www.airservicesaustralia.com/careers/air-traffic-control-careers/>



# Attitudes

by Bob Tait



## Master the 5P's

**Proper preparation prevents poor performance**

Job was a crazy Norwegian skydiver. He had somehow ended up in Ingham, a North Queensland country town, working at the local sugar mill. To Job, skydiving was not just a casual pastime, it was an obsession. A reason for living. His rig was always at hand in the corner of his bedroom just in case the opportunity arose to climb into an aircraft (any aircraft) and launch himself into free-fall. Job had no special interest in flying - to him an aircraft was simply a device that was necessary to carry him aloft so that he could once again feel the pressure of the wind tugging at his jumpsuit as he accelerated earthward at terminal velocity.

It was in the middle of the crushing season when Job met Shaun, a quiet spoken Irish cane farmer who happened to own a vintage Tiger Moth. Shaun had purchased the 'tiger' from the Townsville Aero Club some years earlier when

the club had decided to update its fleet of training aircraft. Job had not had the opportunity to make a jump for six months during the busy crushing season at the mill and he felt his pulse quicken as he realised that here was a local man with an aircraft readily available. Maybe he could fit a jump in occasionally in the late afternoon after work!

Job was not daunted by the fact that, of all the aircraft in the country, it would be very difficult to find one that was less suited to use as a sky diving platform than a Tiger Moth. To add to the challenge, Job's rig was of the old-fashioned type with the main chute packed along his back and the reserve chute packed separately and mounted across his chest. The ripcord for the chest-mounted reserve chute was positioned on the front of the reserve pack.

## Private Pilot Theory Lectures

by Bob Tait



**Private Pilot Theory Lectures for the beginner with no previous experience!**

**Full details at [www.bobtait.com.au](http://www.bobtait.com.au)**

As Job and Shaun slid the hangar door open a shaft of sunlight flashed across the Tiger's wings. Shaun busied himself carrying out a daily inspection, while Job began the complex task of positioning and fastening the tangle of parachute harnesses in preparation for the jump. Job walked awkwardly to the plane and, with some assistance from Shaun, managed to settle into the seat in the open front cockpit. Shaun gave Job a quick brief of the starting procedure, swung the prop and the engine spluttered into life. The tiger climbed effortlessly away in the cool afternoon air.

At 6000 feet even the tropical air of North Queensland takes on an invigorating freshness, tugging at the shoulders and heads of the two men as the Tiger is positioned for the drop run over the deserted country aerodrome. Job begins to prepare for exit. He undoes his seat harnesses and throws them aside. Now, surrounded by a maze of struts and flying wires he attempts to stand upright on the seat.

Unfortunately for Job, the Tiger Moth cockpit features a horizontally mounted compass that is positioned in front of the pilot. The compass has a lockable ring that allows the pilot to set his/her heading. As Job attempts to stand, the ripcord of the chest-mounted reserve chute catches on the compass grid ring. There is a flash of white as



the reserve chute deploys and is carried away in the slipstream. With a violent tug Job is ripped out of the cockpit, sliding along the fuselage and crashing into the right elevator. The impact breaks his leg. He slides along the leading edge of the elevator and finally vanishes behind the aircraft under the fully deployed reserve parachute. The reserve chute cannot be cut away, so Job has no option but to continue the descent under its smaller canopy.



Shaun knows something dramatic has happened but has been unable to follow the chain of events. He is relieved to find that, even with the badly damaged elevator, the trusty old Tiger still offers an adequate degree of control. He manages to land safely beside Job who is seated beside his deflated reserve chute. He is nursing his broken leg.

How easy it is to fail to identify the latent threats that lurk behind poor planning!!

# Recent milestones

Congratulations to all our students who recently completed a milestone in their training at the Redcliffe Aero Club, especially Nick Coad who first soloed on his 18<sup>th</sup> birthday! The whole Club wishes you all well for your future endeavours in aviation.

*Louise Hoey*

*Recreational Pilot Licence*

*27 November*



*Jacob Neumann*

*Multi Engine Instrument Rating*

*9 December*



*Nick Coad*

*First Solo*

*1 March = 18th Birthday!!*



*Joel Rodney*

*CPL*

*3 January*



*Jhye Fisk*

*First Solo*

*2 November*





*Riley Head*  
*First Solo*  
*26 November*



*Thomas Wilson*  
*First Solo*  
*19 November*



*Jared Littin*  
*First Solo*  
*29 February*



*Rajesh Ramanath*  
*First Solo*  
*28 February*

*Chloe De Chellis*  
*First Solo*  
*23 February*



*Xavier Blunt*  
*First Solo*  
*15 November*



# This tiger flies like an angel

by Luc George

Can you imagine an aircraft that is nearly 100 years old (1931) and still one of the most amazing 'toys' to fly in? The tiger moth is exactly that. If you love engines (not too much in my case ) then beside a Land Rover and a Harley you just need a 'Moth' in your life mate!

A few months ago, Ron Ennis offered that I could jump in with him and go flying in his Moth VH-UXD. I had often wanted to fly with Ron, but his invite to fly in UXD was a special thing.

A bit less than two months later Redcliffe Aeroclub organised a special offer: a 'free' flight with Ron in UXD to the person who made the largest donation to Angel Flight that month. I made a donation and soon was told that I was going to be on board!!

We read many thing about De Havilland's mechanics: oily, noisy, always grounded, etc. Well, not in the case of Ron's aircraft. It is in in absolute pristine condition and as soon as you're able to climb in you're good to go.

On the ground, taxiing, rolling and landing, it appears that the Tiger wants to take over control, without notice, even though I was not holding the controls myself.

But as soon as you are airborne, the beast is much more tameable, and you are literally flying the plane from outside, as soon as you stick your big nose aside the windscreen... now that's what I call a glass cockpit !!

We did some aerobatics while we were up there. Do not ask me exactly what happened, but I remember a loop, yes, engine stuttering a bit at the top, then a couple of stall turns, plus 'un peu de je ne sais quoi' (= a little bit of I don't know what - Ed).

It was an amazing experience. I think it would be whether you are an experienced pilot, a very basic one (like me) or had never been in the air in a small aircraft. The experience of a single flight is worth more than all the videos you might see on social media.

I can't wait for another go in such a wonderful flying machine.

Thank you Ron. See ya next time mate.





# Are you really as good as you think you are?

## Is your opinion of your flying skills realistic, or even relevant?

by Rob Knight

*Rob Knight grew up in New Zealand in the 1950s and 60s with a crazy urge to fly. He became a flight instructor and worked in the industry for many years, eventually as Chief Pilot/Chief Flying Instructor for the Wellington Aero Club. Rob is now retired and living near Amberley. He is the editor of the *BVSAC Flyer*, the magazine of the Brisbane Valley Sport Aviation Club at Watts Bridge.*



Obviously, pilots must have confidence in their ability to carry out their duties to fly as a pilot in command. However, as in all things natural, too much of a good thing becomes a bad one. But where is the line? When does an excess of confidence become a liability to a pilot instead of a necessity? An unrealistic and excessive level of confidence is too often ego-driven and becomes exceedingly dangerous. Perhaps it's time to have a look into our inner souls and take a realistic screen-grab of our egos and consider the effect they can have on our opinion of our real ability to perform.

First, and to form a basis, let's take a history lesson and view some of the issues that befell some pilots in my own experience. Every one of these held a self-opinion that was vastly inflated over their real ability to perform. Note that these examples presented only represent a small portion of the actual number of pilots I have seen with this affliction.

### Wayne

In 1979 Wayne was an accountant with a pilot's licence, and amongst his friends were syndicate members owning a Cessna 177 Cardinal (ZK-DAK). DAK was on the flight line and operated by the Waitemata Aero Club where I was the deputy CFI, and where a member of the instructing staff was required to authorise every flight in aircraft operated by the club.

It was a Saturday, and the weather was, at best, a VFR challenge. Around 0830, a call came into the office from a non-member wanting to hire DAK for a flight to Gisborne, to return the following day. I took the call and declined to accept the hire as the

conditions were marginal for even local VFR. He pressed me further and advised that he was IFR rated so my opinion didn't count. I then pointed out that I would not authorise such a flight as the aircraft wasn't cleared for IFR ops. The caller became abrupt and asked if I knew who he was. Of course, I didn't, and said so, whereupon he told me that he was a friend of the owners and that they had said that he could hire the aircraft. I pointed out that the aircraft was on contract hire to the club and that we had the legal and final say as to who could and should fly it, and under what met conditions. He went off-topic and advised me that my parents weren't married and hung up. I was surprised - I didn't know that!

Half an hour later, one of the owners called and asked for me. He instructed me to authorise the flight as the hirer wasn't a club member and my refusal was in contravention of the agreement the owners had with us. I refused and gave him the phone number of the club's lawyer.

The lawyer called me back shortly after and told me the owners had pulled the aircraft off our flight line for the weekend and it was therefore not our responsibility. I was to release the aircraft to the man who had called and, apart from fuel purchases and recording the man's name and the aircraft meter reading for our own records, to wash my hands of it. In due course, the caller arrived and with a smirk, loaded four people and a truckload of baggage into the back before departing into the misty drizzle and low cloud.



Around 1430, the Tower called and requested the name of the pilot in command of DAK, and also the number of passengers, and their names. I gave him what details I had and he told me that the aircraft had crashed onto the Gisborne Park Golf Club's fourth fairway, demolishing a building. Everyone had survived with non-life-threatening injuries, but were in the Gisborne Hospital under observation.

I mention all this detail so you can judge for yourself the ego-based mental state of the pilot. He was so grossly over-confident that he felt he could take three passengers on a two-hour flight, in conditions that were marginal for the aircraft's instrumentation and nav equipment. But it was actually worse - he wasn't current, either his pilot licence, or to operate in IMC, he took off in excess of the aircraft's MTOW, and the C of G was aft of the aft limit.

However, his final demise was caused by a basic error that even a near-solo student would be capable of avoiding. He arrived out of IMC on approach for the Gisborne runway, too high and too fast, and it's a pretty long runway so the errors were not tiny ones. Forced into a go around, he applied full throttle but the aircraft didn't respond with normal full power. He staggered off the end of the runway at around fifty feet AGL, marginally above the stall, and wobbled for about a mile before the aircraft gave up the ghost and stalled, to crash onto the fairway. Crunch time - the flaps were still full down, AND the carburettor heat was still in the HOT position.

To add insult to injury, the port wing collided with and demolished a fairway long-drop dunny, with a man engaged in exercising his right to use it. He, too, was unharmed, just embarrassed to be left sitting in the open with his pants around his ankles.

In reality, after the long list of transgressions against common sense, the PIC's ego prevented him from both making sensible pilot decisions and operating the aircraft correctly. I was told that the insurer paid out on the claim by the owners and subsequently sued the pilot for the claim and all their accrued costs. Egos can be expensive to maintain!



### **Bernie**

Then there was Bernie, the retired school teacher and owner of a lovely Grumman AA5B Tiger. Bernie had spent much of his life in the Pacific Islands teaching in island schools. On his retirement, he returned to New Zealand and followed his dream of learning to fly.

I met Bernie when he booked me for a PPL renewal (old term for a BFR). Then he owned a Beechcraft M23 Musketeer in which he had learned to fly. It was a nice enough aeroplane, not over-abundantly powered, but quite adequate for an older fella who just wanted to potter around with a couple or three mates. His flying skills were basically sound in all areas except for a consistent issue with recovering from the stall too early, before the aircraft had actually stalled. He was difficult to talk to, he'd spent his whole professional life telling others what to do and had now forgotten the boot was on the other foot. I had to get the official flight-test instruction-standard paperwork from NZCAA and show him what he had to demonstrate before he would agree to another flight during which he would demonstrate the exercise to the required standard. We did, he did, and I passed him.

I saw him again a couple of years later when his next proficiency test was due. We had a laugh about the last one and he flew quite OK and I passed him again. However, in the update brief afterwards, when I advised him of the changes in the NZ Metservice weather briefings, he resisted angrily, saying that he'd simply ignore the changes as they didn't improve anything as far as he was concerned. However, I had signed him off so I merely advised him of the changes and left things as they were.

Advance five years. I am now the CFI at the Wellington Aero Club in New Zealand. ATC called me and told me that a Grumman AA5B had missed Wellington airfield in poor (but still VFR) visibility and they had last seen the aircraft from the control tower flying east, across Lyall Bay, and heading for the Southern Wairarapa area. Would I grab the club's AA5B and head out and try to make radio contact as the intervening hills meant no tower contact was possible? I went around into Palliser Bay and found him, completely lost, orbiting Lake Ferry. I led the pilot back to the airport and he followed me in. Until I actually saw him get out of the aircraft at the club's hangar, I didn't know that I was dealing, once again, with Bernie, now an even more irascible 82-year-old with attitude.

ATC was pretty P'd off with his failing radio procedures and his gross failure to comply with requirements (no surprise, here for me) and gave him a rather severe dressing down in front of me, in the office under the tower. I was not reassured at his refusal to be lectured and his aggressive defence of his actions when I could see that he was clearly in the wrong. Later, at the club, over a beer (his - I was still on duty), I found that he'd completely misread the map and had not realised that he'd flown directly across the final approach for Wellington's runway 34 without a clearance. And even when he did understand the issue, his blatant refusal to accept responsibility for his actions was alarming. It was all someone else's fault.

His plan was to depart for Ardmore the following day for a church seminar involving people from across New Zealand. He had on board three Pacific Island women, one of whom was his wife, and I was told later that the other two were nieces. We had a teleprinter in those days and I used it to call up the forecasts and attempted to show him that a VFR flight to the Auckland area the following day was foolhardy at best. There was simply too much cloud in the

way. But Bernie was Bernie, and I made no headway with reason so figured that not being able to see the hills around Wellington the following morning would make a louder and more convincing statement than I could.

The morning was better, weatherwise, than the Metservice had predicted. Bernie saw no reason to delay so, against my warnings, elected to make the decision that any owner can make. He flew off, around the cloud-topped hills and headed north, along the west coast. Flying up the west coast of New Zealand's north island can be treacherous at times. I had given him a last-minute weather brief and advised him to land at New Plymouth to pick up a new set of weathers before completing the second half of the journey. However, he didn't, and around 1500 hours, Wellington search and rescue called me to say that he was missing - overdue - and had exceeded his fuel-on-board figures given on his flight plan.

Four days later a pig hunter found the burned-out wreckage of an aeroplane with four bodies scattered around it. The ensuing enquiry found that he had not even communicated with New Plymouth for a clearance when he passed through their control zone, and had not requested or been given any further weather updates. The accident investigator concluded that he'd run into an extensive cloud bank known to exist from other PIREPS at the time, just north of Raglan, and, instead of returning to New Plymouth, had attempted to head inland and follow the road from Raglan to Hamilton. He must have been forced to enter cloud because the enquiry suggested that the aircraft had spiralled into the side of Mount Pirongia, from at least 2000 feet AGL. All on board had been killed instantly.

Why do pilots paint themselves into corners. The results are both horrifying and inevitable - if not this time, maybe on the next one.

## **Jake**

Jake was a tradesman with a bent to fly. He was employed servicing forklifts when I was bequeathed him as a pre-solo student by my CFI predecessor at the Wellington Aero Club. On our first booking, I checked his logbook as a matter of course and was astonished to read that he had accumulated nearly thirty hours dual training, almost all with the same instructor, and in the same Beechcraft Skipper.

Not commenting at that stage, we flew and I noted that he was always seeking my approval to reassure him that what he was doing was what I wanted. Post flight we retired to the briefing room with coffee in hand.

Under my questioning I found that he had been subjected to an overbearing father all his life. Jake could never do anything right and it had affected his self-confidence to the extent that it was habitually non-existent. The brainwashing he had been exposed to absolutely prevented him from ever learning to fly and becoming a competent and confident pilot in command.

We worked together and eventually I sent him off on his first solo. It was his ultimate dream and I thought that he'd begun to stand on his own judgement but that was not to be. Whilst I was on leave, one of my other "C" Category line instructors, against my direct instruction, sent him solo at Paraparaumu in a crosswind. Not a severe crosswind, but we still ended up with a bent propeller and a gibbering, incomprehensible student pilot, and therein ended his flying training.

The ego issue in this anecdote lies with the instructor. Not only did his ego-driven over confidence lead him to ignore my direct instruction but his lack of knowledge of psychology in pilot training led him to destroy the hopes of one of our members. These issues made him a liability so let's just say I didn't offer any encouragement for him to stay instructing with the club.

## **The crop duster pilot**

Not all pilots that are unable to imagine they can do wrong are completely inexperienced. I was a new crop duster pilot, waiting for my mentor to arrive for work. There was no hurry: a heavy fog covered not only the valleys, but many of the hill-tops around our base at the Kaipara Flats airfield.

Then the silence was broken by another Fletcher that flew in from the direction of Dargaville. After cruising around on top for about twenty minutes he found a breaking hole and spiralled down and landed. He taxied in and asked where my mentor was because he'd been told his mentor had appendicitis and he had been delegated to us for training and supervision until his mentor was back on his rudder pedals.

We were talking generally until I asked him how far the fog extended from the airfield and he replied that it was a complete sheet, almost all the way to Dargaville, more than 30 miles away. I asked about the risks of an engine failure and he was completely complacent and said that if the engine failed, he'd put the aircraft down in a paddock. When I asked about the fog, he said he'd just keep the stick still and glide down through it, with no visibility, until he could see and flare.

This was impossible. Fog is cloud, and in cloud you must have a minimum of an ASI, an altimeter, and some means of ascertaining yaw - usually a bat and ball turn and slip indicator or a turn coordinator. A compass was also helpful. However, without that old fashioned bat and ball indicator, or a turn coordinator, there is no way of seeing yaw until the magnitude of the yaw is substantial and often too great to correct. However, he was convinced in his invincibility and the topic died. He also died, about two months later stalling in a steep turn trying to dodge a power line that he had failed to see along a ridge line. The Fletcher was not as all-powerful as he had convinced himself it was. He was GOD! He was untouchable and didn't have to fly within the same set of physical laws that other, lower class and unintelligent, pilots, did. Here endeth the lesson in his case!

## **Caught out after dark**

The next story deals with a personal friend of mine and it pains me greatly to write this. He was a businessman who lived some fifty miles away from his place of work and he used an aircraft to commute daily. When the weather was inclement, he'd either drive to work, or, more usually, leave it to his deputy, as there were several hours driving involved instead of 30 minutes flying.

Over several years of friendship, I had noted that sometimes he left it very late in the day before heading home, sometimes even when there were cumulonimbus anvils visible, and failing light from the cloud build up to the west. However, he claimed to make it home before last light and it was his aircraft, so there was little more that I could do.

I did mention to him that I had an instrument hood, and maybe he'd like to do a bit of practice under it but he declined. He told me that he detested instrument flying and that he had only ever done the absolute minimum time under a hood. And his training instructor had told him that he was an above average pilot so, based on that, he'd make sure that he never got into a situation that required flight on instruments. Bloody fat chance of that!

About a year after our last discussion, in spite of his self-imposed pilot standing, he was caught in an unfamiliar area after last light. His navigation lights were observed crossing the airfield when he did finally arrive, but they disappeared soon after his turn onto base leg. He obviously became spatially disoriented and spiralled in, dying tragically and instantly in the resulting crash beside his innocent passenger. Having spent considerable time on instruments, both as pilot flying and instructing, I believe that he either just lost his orientation in the dark, moonless, and near-starless night with the inevitable result, or that he did not know how to turn his instrument panel lights down and the glare from his glass panel stopped his night vision developing and this resulted in his eyes being unable to recognise the faint horizon. A catastrophe all around, but the painting was on the wall long before the event when his over-confidence allowed him to exceed his actual ability.

### **Why does this happen?**

So you may ask why does this affect some pilots and not others? I believe that it affects all pilots. But some are more hesitant to give themselves a mental over-ride on self-belief. To me, knowing myself in my own mind and talking to, literally, thousands of other pilots (including every one that I have listed here) it depends on an individual's ability to exercise their own imagination. If you can imagine facing the potentially fatal issues yourself, you can deliberately tone down your ego and prevent it from taking over control. The ability to see yourself in a seriously fatal situation

causes you to realize that maybe, just maybe, you need to back off and ENSURE that you can avoid such threatening situations and influence fate. Maybe, considering that there's a possibility that I'm REALLY not as good as I think I am, could be a life saver. Luckily, pilots that think like this are in the great majority, otherwise insurance premiums, high though they are, would be vastly higher still.

The other type of pilot, the one that doesn't consider that their skills might not be as good as their ego specifies, simply cannot imagine that they are anything less than perfection personified. They continue to fly and encounter situations in which they have no experience or ability to recover should anything go belly-up. But because it has always gone OK before, they cannot imagine any difficulty, ever, in the future. Difficulties are for other pilots, dumber pilots. Pilots obviously too ignorant, too unskilled, and too brain-dead to avoid problems, so they deserve to suffer the consequences.

Stupid thought it is, and although numerically in the minority, there are too many who think like that. And the worst across the board are pilots with under 250 hours who have yet to face a seriously real emergency. Imagination will not keep them safe when the chips are down. But the scary thing is that they lack the ability to imagine it.

To slightly miss-quote Frank Borman (USAF test pilot and commander of Apollo 8, the first mission to fly around the Moon): *"A superior pilot uses their superior judgment to avoid situations which will require them to use their superior skills".*

Superior judgement comes from a realistic impression and understanding of one's real flying abilities and skills, not an ego driven rush toward unimagined and thus unexpected dangers and hazards.

As an instructor, I found the most difficult students to teach to fly were, in order: school teachers, lawyers, doctors of medicine, then dentists. These professions require their participants to maintain command and provide advice which, to them, is absolutely correct, and to be obeyed for the best results. In flight training, the customer (read student) is very seldom correct so clashes are inevitable.

### The school teacher

George was a head teacher at a local school. He had been converting to type in ZK-DGJ, a late model PA28-140 fitted with an ignition key start system that automatically selected the left magneto (for the impulse coupling) when the key was turned to the START position. However, on this day, DGJ was u/s and George had been allocated ZK-CEQ, a very early PA28-140 which required the pilot to turn the left magneto switch ON and press the starter button. After start, the right magneto was then turned to ON so the engine was running on BOTH. In light of this being his first flight in CEQ, I offered to assist with the start but he shut me down saying that he wanted to do it. He set the start process up but turned both the magnetos ON. After he cranked the engine a few compressions, I again started to tell him the correct procedure and he told me to, "SHUT-UP". He was paying for it so

he would do it. When the crank speed dropped as the battery flattened, I got out, telling him that I'd grab a coffee and watch the performance.

The battery flat, he finally turned everything off and came back into the club to seek my assistance. We were now forty minutes into our booking so I declined, telling him that we'd book CEQ next time as I didn't have time to check him out at that late stage today. To give him credit, he never did that again and later we became good friends.

Gods, bloody Gods, all of them! Don't become one - GET YOUR EGO BACK DOWN TO EARTH. YOU can stuff up. No, let me correct that, YOU WILL STUFF UP and, under Murphy's, it'll happen when you least expect it, when it can do the most harm, and in the worst place possible. Believe it.

Happy flying



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# 2023 wings awards dinner



The annual wings awards dinner last November was another fun night in the hangar. Numerous students and members were recognised for their efforts with a variety of awards. The food and drink was amazing as always and the two piece band allowed us to dance away the evening. Thanks to all those who helped organise such a great event and to Ava, our private paparazzo.





# We did return (from FNQ)

## Another great learning experience

by Luc George

*This article is a follow up to the 'We shall return' report on our trip to Lake Eyre published in AirChat edition #30 in winter 2023. On that trip, I had the comfort of sharing the experience with my dear excellent pilot and co-pilot friend, Scott Underwood. This time, for the "Northern Exposure" Club flyaway to Far North Queensland in August 2022, I wanted to take responsibility for myself on a long journey, so I went alone in Piper Cherokee VH-WKE. The flyaway, as related by all the participants but me in AirChat edition #29 in summer 2022/23, was a great success. They were hardly challenged even by the strong cross wind that welcomed them at Cooktown, and they all had a lot of fun doing a compulsory 'dog leg' on final when landing on RWY14 at Shute Harbour. I decided to leave myself a bit of time to share with you here some of the sweetest moments of the trip from my perspective, in particular a description of my 'diversion' from the 'flight planned track'.*

### OFF TO THE TORRES STRAIT

On Sunday 21<sup>st</sup> August 2022 (Day 2 of the flyaway) we flew from Longreach to Karumba, including a refuelling stop at Cloncurry.

From YCCY, I departed ahead of the mob, and was the first to caress the ground at stunningly magical Karumba. The vision of discovering one nautical mile after another of the Gulf of Carpentaria was a spectacle that I'll keep in my mind for a very long time. Not to mention the immensity of the flood plains that lead to the ocean. Somewhere out there Burke & Wills went no further, we suppose...

My landing was smooth, even though my left wheel strut decided to play up and sort of

collapse, the same story again that happened in St. George on Day 1 of our trip to Lake Eyre.

At least I didn't have trouble with the gascolator leaking again and this time it didn't take long to reinstall my 'wooden leg' on the port side.

### TROUBLE IN PARADISE

On Monday 22<sup>nd</sup> it was just a question of time before the happy mood changed. Before we departed Karumba, I needed to try the starter three times (unusual) to get my engine running! I felt alert as I made my way towards Horn Island, that should have been the 'Top End' of my story, with a refuelling stop in Weipa.

Still, absolutely stunning views again, river after river, winding from east to west, reaching the ocean, giving the impression from above of giant & peaceful snakes sleeping in a colourful spectacle.

I had one eye on the rivers and the other one on smoke from bushfires coming from out east, obstructing the visibility at some places at altitudes of up to 5,000 ft. I kept a third eye on my voltmeter. In these circumstances you do not want to see the needle going down, so it did not. Or very little, I thought!

*The left wheel strut*





All went well up to YBWP, at least until we started our engines again. This time the slower planes like mine were to take off last, and I should have told Paul, who was flying VH-ROC, before he entered the runway, that I had just enough energy to restart my engine. Now it looked more serious!

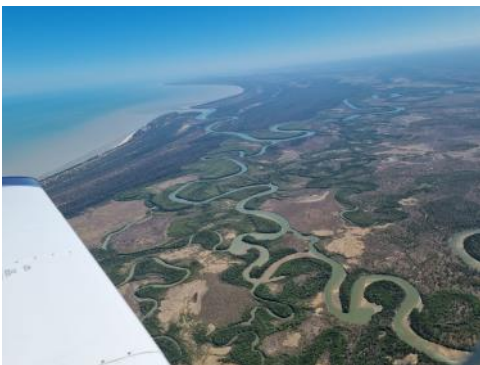
I took off and this time both eyes were on the voltmeter. I could swear the needle was commencing a very, very slow movement downwards starting from 12V. It's usually about 14V when we're in a happy flying mood looking at the beautiful landscape.

Sure, you do not want to believe it at such times and you hope that things will change and your alternator will keep charging. In the moment it is quite difficult to admit that the ammeter is not only showing zero, but actually discharging. A lot of experienced pilots have been caught by that tricky leak... I read.

Some fun was had when some members of our troop who were finding the flying duration a bit long and the spectacle not glamorous enough, wanted some others to tell them jokes on 123.45MHz.

Unfortunately, 25 minutes after departing from Weipa, I could tell that things were not improving at all. The volts were heading unreluctantly towards 10V now. I had to make a decision. If my alternator had failed it was certainly cause for concern but not alarm. A failed alternator didn't mean that my engine was about to cut out. The magnetos would keep it going all day. But operating up there in that remote country without any instruments was not smart. I needed to head back.

So, I made a first call, not a joke, on 123.45 to tell my dear fellow pilots that I was planning to turn



*The track to my point of return*

back as my battery was obviously discharging. No answer!

Why no answer? I could still hear them laughing at times.

Up until then, I'd had a few possibilities for emergency landings, but further north from Mapoon & Skardon River the landscape was not good at all for emergency landings - rugged bush covered hills on my right (eastward) - no roads of course - why would there be any? I could have diverted to the left (westward) to the uninterrupted beaches, Oh YES, so tempting!

But look where you are mate! It's a designated remote area as described in ERSA GEN-FIS 17. One of the most isolated spots on the planet. What idiot will come here and fix your plane? Or even to get you out of there, except for the always happy to help LACOSTE saltwater boy! I was thanking AirServices for the Sartime system that would ensure a search party would swing into action if I did get stuck there. Anyway, there was NO WAY I could continue further northwards. I had my remote area emergency pack so I could survive a while on the ground if need be but hey, why do that if I could return to the comfort of Weipa?

*The coast south of Weipa*

So, I made my second call, announcing to whoever wanted to hear me, from the (now) 'Too Far Northern Exposure', once again that I was turning back and heading towards Weipa. I told them I'd provide more news later. Same outcome, the radio was silent. GRRRR !! Sadly, I concluded that my radio was no longer transmitting.

I turned 180 degrees and headed back to Weipa. I was now counting every single mile while the voltmeter continued to drop. Even though you know there is no good reason for your engine to stop, while airborne you still cannot be sure exactly the nature and the extent of your trouble.

After 20 very long minutes, I saw the bauxite mines. Lucky me, I could have landed there if need be, as it seemed there were absolutely no vehicles moving at all on the wide yellowish/orange dirt roads. More importantly, I made sure I had absolutely no traffic in the vicinity of YBWP. When I made my 10nm inbound call, I suspected that my radio reception was now out of order as well. I later learned that when your battery dies you first lose transmission then later your reception. No one had told me that before. I had set my transponder on 7600 for a while already, but realized later that it was probably giving no signal at all either.

I flew a couple of high circuits to check for other traffic, then a long, left base on RWY 12, landed and exited the runway promptly. I breathed a sigh of relief. I was out of trouble for now. I phoned the guys in Horn Island to let them know that I wouldn't be joining them. Sorry.

Now came the 'fun part' - trying to find exactly what was going on and how to start fixing the problem, while your mates, I supposed, are celebrating reaching their landmark at the tip of the Australian continent. Cheers to all of you guys!

### *Stranded at Weipa*



### **WKE HAS A HOLIDAY AT WEIPA**

So, I had to solve the problem of what to do about WKE. Luckily, while refuelling earlier that day, I had initiated a good connection with Steve the refueller, as his pump broke down while he was jumping from one tank to the other on the Cherokee, and I didn't blame him too much. I kept smiling at him.

Now I approached him again and he gave me a few tips and people to call. I also tried my insurance people who came back to me a bit later, with a few absolutely unuseful infos.

More hope came from Torres Strait Air and Hinterland Aviation, but it was still hard to find a LAME. There was none at Weipa. They had one at Cape Air Transport on Horn Island but that didn't help much. The solution was going to come from somewhere else, much later.

One person who was extremely helpful was Jarred from Weipa Air, a twin pilot who landed shortly after me. He gave me good info and most of all dropped me at the [Heritage Resort](#) in town for the night. Nice blokes in aviation most times.

I booked an RPT flight back to Cairns for the following day and, after a cool dip in the pool, my revitalised brain realised that I could fly to Cooktown one day after that. As the Northern Exposure crew was staying two nights at Thursday Island, I could meet them two days later when they flew into Cooktown. We could maybe complete the trip together after all! I rang them and we worked out a great solution, with them confirming that my luggage and I could be split between two different aircraft, to satisfy the W&B requirements, for the trip back to YRED.

After a night at the always busy and fun youth hostel in downtown Cairns, I was lucky to reach Cooktown, on Wednesday 24<sup>th</sup> August, without losing too much hair. As luck would have it, a strong cross wind was sweeping the strip after 9:30 ish...

Oh, and when I arrived at the very nice [Sovereign Resort](#) in Cooktown early that morning, with the help of a charming and willing-to-accommodate staff member, I managed to fix a major booking blunder. All our reservations had been completely lost. None of our crew had a room booked when I arrived. So it was good luck indeed that my broken alternator had caused me to seek an alternative and arrive a bit ahead of time!

### HOW TO GET WKE BACK HOME?

On arriving back in Brissy (after hitching a lift with the other guys from Cooktown - see epilogue below) I tried to evaluate all the options for retrieving WKE from Weipa. I considered whether changing the alternator may not totally fix the problem. What if it's more complex, as the lady is indeed quite old and respectable? Would it be better to send a rescue team with LAME from Cooktown or Mareeba to Weipa, a costly expedition (\$8k), with little tools and few options, or would it be better to fly the Cherokee back to Cooktown or Mareeba, as such?

Christian Letondeur (French origin) from Daintree Air Services, who I'd met in Cooktown together with his dad, were extremely helpful, so I considered him of course. But I decided the best option was going to be Ben at [Tableland Aircraft Maintenance Services](#), in Mareeba. I'd fly WKE to Mareeba, with Cooktown as my alternate.

### THE RETRIEVAL

So, on 10<sup>th</sup> September 2022 I certainly had the most challenging day of my early PIC plane owner's life.

It was a very, very, early wake up so as not to miss the first RPT from Brisbane to Cairns, then jumping onto a REX to arrive in Weipa a bit after 11am. On the last leg, from my window seat I was trying to understand the weather conditions as much as I could.



*Window seat view on the way to Cooktown*

Luckily Steve the refueller was waiting for me. He'd agreed to recharge the battery of the Cherokee over the previous three days. During the first day and a half progress had not been significant at all, as we had to start from very, very low. But luckily, since the day before, it looked like the beast was cooperating much more.



I dropped off a bottle of French Champagne at Steve's office and a detailed inspection of WKE was done. A strong 'dead body' smell dissipated once I had extracted a partially eaten sandwich that had been under the seat since 22<sup>nd</sup> August. I checked the weather forecast one last time and submitted my flight plan. I was ready to go if the 'bl..y' propeller was willing to cooperate.

Hoorah, hoorah! On the second attempt the engine roared into life!! No time for hugs, instruments were set, I was ready to taxi and take off.

The strategy to save battery life was to turn the master and avionics OFF after leaving the vicinity of YBWP as I headed towards Coen... and to switch them ON again only every half an hour to check my instruments and engine gauges, mainly CHT, and monitor the CTAF frequency.

I was mostly using the tablet for navigation this time, and for looking out for local traffic too. I planned to also make contact with anybody I noticed was flying in my vicinity and advise them of my intentions. However, there was no other traffic on my journey south.

I'd planned for 3.3 hours with a forecast persistent headwind, and I decided to head direct to Mareeba while not venturing too far from the highway. Leaving Weipa, towards Archer River and further south east, I had one hour of flying with very few options for emergency landings. From Coen onwards, from 5,500 ft I had stunning views over to the east of Princess Charlotte Bay, but was still extremely focussed on my process (master ON every half an hour for five minutes max). From there I could mostly follow the road leading to Mary Valley, Laura and Lakeland Downs. It looked like I was going to be OK... or was it just an impression? Now, I could clearly see what I had suspected from my morning flight with REX and the NAIPS weather



*My track from Weipa to Mareeba*

forecast, which was that most of the coastline between Cairns and Port Douglas was covered by developing low cloud.

Anyway, I wasn't going anywhere near the coast. I could enjoy my day, leaving the escarpment at Mount Carbine Mine, and following the valley towards Quaid's Dam and the welcoming plains leading to Mareeba Airport.



*Enroute to Mareeba with Cairns on the horizon*

On descent, I switched my master and avionics ON, knowing that the battery would easily last until I'd landed, and to my delight I found out that my radio was working and the local aeroclub was doing circuits from RWY10.

Hip, Hip, Hip, Hoorah! Safe and sound at Mareeba after 3.86 hours of engine running time. I'd never been so happy to cancel a SARTIME. Thank you AirServices.

So, Ben from Tableland Aircraft Maintenance got to work on WKE. He had a cupboard full of second hand alternators, but still had to modify bits and pieces to fit one in. While he fixed my 'flying lady', I spent four days in Atherton, staying with a cousin of my landlady in Brisbane. Virginia & Sunny were extremely welcoming, even showing me some of the local scenery and the marvels of the Atherton Tableland.



*WKE in Mareeba*

Finally, on Wednesday 14<sup>th</sup> September, I was ready to fly further south. First stop: Charters Towers.

I started the engine at 11am, as there was no rush to start too early while low clouds were still hanging around Atherton (2,460 ft) which was going to be my first fix position.

The weather was still stuck a bit on the ocean side of Bellenden Kerr south of Cairns, so the safe route was to stay just east of Majors Mountain (4,016 ft). Then for improved visibility I decided to fly west of the Cardwell Ranges, as I knew west was going to stay clear.

I followed the same strategy along the Seaview

*Caboolture*



Range (not much sea view that day) and over Girringun National Park. So, far from the Great Barrier Reef, I finally reached YCHT after a bit more than two hours, without seeing much of the ocean, but I definitely qualified as a mountaineer! The last section was all about avoiding the restricted airspace, south west of Townsville.

Thursday 15<sup>th</sup> September took me from Charters Towers to Emerald for refuelling in 2h15min. The weather further south was clear, and I had booked into Wondai for the night. I did briefly consider cancelling my accommodation booking and flying on to Caboolture that day as I knew the forecast around Brisbane was not going to be great in the morning, but after nearly five hours of flying time, I decided that WKE & myself had had enough for the day. I was simply enjoying the feeling of being close to home again.

As for my last day, Friday 16<sup>th</sup> of September, I made it safely to Caboolture after only 45 minutes of engine time. Believe it or not, during that last leg the voltmeter was showing just below 12V again, as a component of the new/old alternator was defective... lucky, it was a short one on that day.

We were home. We did return, mate!





Above: Whitehaven Beach

Below: South of Rocky

**EPILOGUE - THE FIRST RETURN**

My first return to Brisbane was with the rest of the Northern Exposure crew.

Thursday 25<sup>th</sup> August, flying from Cooktown to Shute Harbour was described by Mike Cahill in Airchat #29 Summer 2022/23. For that leg I flew in the back seat with PIC Bryan Galvin and 1<sup>st</sup> Officer Michael Hawley.

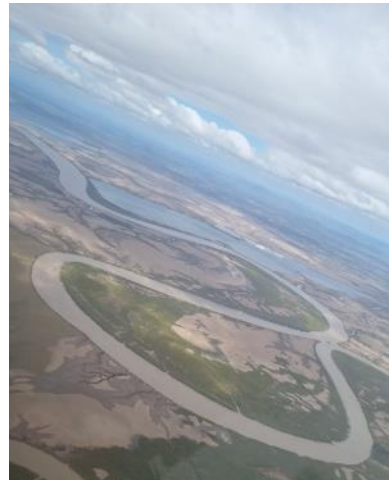
On Saturday 27<sup>th</sup>, the flight from Shute Harbour to Redcliffe was great fun again with PIC John Waugh, in his Piper Cherokee 180. While approaching the Sunny Coast on the western VFR route however, a curtain of showers forced us to turn back towards Gympie. When we had nearly reached the YGYM circuit area, it looked like the elements had cleared further south, so we decided to turn back towards Redcliffe.

Bad luck, it was still not possible to get through. John knew he had electrical problems as we'd had to use jumper leads on our previous refuelling stop in Gladstone. So, when we tried to contact Sunshine Tower on 124.4MHz to request a clearance due to weather conditions no one answered us. Believe it or not - his alternator was failing!!

So, it was back to YGYM again. We landed there, and this time waited for the weather to clear properly so we could make it safely to Redcliffe without needing a clearance.

We arrived at YRED nice and happy. WKE would be sleeping under the sun in Weipa for another 14 days, but eventually came back home as described above.

*My invoice from Ben*



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# RTO roundup

by Bernadette Killick

## New students!

2024 has kicked off and we are proud to announce two new RTO student pilots to the Club: Chloe De Chellis and Nick Coad. Both students are off to a flying start, completing their first solos within three weeks! If you drop by the Club in the coming weeks, please feel free to introduce yourself to Chloe and Nick and congratulate them on their achievements.

## Notable completions

Jacob Neumann graduated in early December 2023 with a AVI50519 Diploma of Aviation (Instrument Rating) with Joel Rodney following behind at the start of 2024 with a AVI50222 Diploma of Aviation (Commercial Pilot Licence - Aeroplane). Both Jacob and Joel have been a pleasure to have around the Club and I wish them both a successful career in aviation.

## What's happening?

During 2024 you will see some changes happening in the RTO space, more specifically the number of intakes. There has been increasing demand for flight training and as a result we are aiming to have intakes every 12 weeks. If you would like to know more about the commercial pilot diploma programs, please feel free to drop by the Club and see me or send an email to: [RTO@redcliffeaeroclub.com.au](mailto:RTO@redcliffeaeroclub.com.au)

## Personal note

Since joining the RAC team in September 2023, I have had time to meet the team and get to know them a little better. I have had an amazing experience here and appreciate all the help everyone has contributed. I am still learning the ropes in aviation and hope one day to be able to share the knowledge I have gained.



# Instructor intro - Angus Nugara

*Angus joined the Club recently as a Grade 3 instructor. We asked him a few questions about how he got here.*

*Airchat: How did you become involved in aviation?*

AN: Living underneath the base leg of the circuit for runway 07 here at Redcliffe, we would constantly have aircraft flying over our house. I guess always seeing those aircraft made me curious about planes and flying. I went to Aviation High in Hendra, which was my first exposure to the industry, going on excursions to the airport and playing around on the flight sims really fuelled the fire.

*Where did you have your first flying lessons?*

It was Archerfield Airport, with the Airline Academy of Australia back in 2015. I did a program they were offering called "Pilot for a day." As the name suggests, we did all the admin duties a pilot would do, and the day ended with a 60-minute trial introductory flight. Safe to say I loved every second of it.

*What type of licence and endorsements did you gain and over what duration?*

It's been a long road, with my effects of controls flight in my logbook being all the way back in 2015. From that date I completed a Bachelor of Aviation at Griffith University, got my Recreational Pilots Certificate (RPC), converted that into a Recreational Pilot Licence (RPL) in 2020, then my Private Pilot Licence (PPL) in 2021 and finally achieved my Commercial Pilot Licence (CPL) in March 2023. After my CPL I jumped straight into an instructor rating, finishing that in September 2023, then also did my design feature training endorsement.

*Where did the training take place?*

I did a lot of my RPL training at the Airline Academy of Australia at Archerfield, and then moved over here to the Redcliffe Aeroclub to do a little more. I decided to pause because of uni, and when I resumed, I got my Recreational Pilots Certificate with Caboolture Recreational Aviation. I converted my RPC to an RPL down the road, at Aircraft Australia. I then came back to the aeroclub to get my PPL, CPL and to do my instructor rating.

*Where have you worked as a pilot?*

This is my first job as a pilot. I am very excited to get my career started!

*What other aviation related roles have you been employed in?*

I can't say that I have had any previous experience in the aviation industry. All my previous experience has been customer service, working in retail and as a barista.

*What attracted you to Redcliffe Aero Club?*

Apart from it being close to home, I distinctly remember coming in and having a chat to a very chipper Jake Hunter about getting my PPL. After that chat with him, I decided that he was the instructor I wanted to learn from, and I never looked back. The Club has a great atmosphere, well maintained aircraft, experienced instructors and a good social aspect to it. Not to mention that it's such a beautiful spot to fly.



*What do you love most about flying for a career?*

Well, my career is just beginning but I am enjoying the fact that I get to share my passion with people willing to listen and learn about it. It is also pretty cool that my 'office' never has a bad view.

*What are some of the challenges you've faced?*

As a private student, I did find it difficult to self-study for exams, and know exactly what steps I needed to take in order to achieve what I wanted to achieve. That being said, it isn't an impossible thing to do, it just takes time and effort, and you've got to trust yourself.

*What aspects of aviation are you especially passionate about?*

Safety. Everyone wants to go home after a flight, so I believe operating the aircraft in a safe manner should be everybody's highest priority.

*Which aircraft do you like to fly most and why?*

To be honest, I don't have that many aircraft in my logbook, but I can't really look past the trusty Cessna 172, a very capable aircraft.

*What would you like to achieve in the future?*

Multi engine instrument rating is on the cards and a few more training approvals along the way would be nice.

*What would be your dream job?*

The Royal Flying Doctor Service would definitely be my dream job. Flying King Airs all around the country whilst helping people would be awesome!

*What advice do you have for people wanting to learn to fly?*

It's no easy feat, it does take quite a lot of effort and time, there will be setbacks, and nothing in aviation goes to how you plan it. However, it's all about sticking with it and not giving up.

*What advice do you have for Club members who want to improve their flying skills?*

Don't be afraid to come for a flight with an instructor, we're here to help, so if you feel like you need a refresher, book in a dual flight.



# Fright VFR

by Greg Ackman

*A bad case of "get-there-itis" could have been fatal for this night VFR pilot*

We had departed Kalgoorlie with 20 minutes margin to land at Rawlinna before last light if the weather was not suitable on our first leg across the Nullarbor to Forrest. Initially we had a five knot tail wind as we headed east with the sun receding behind us. The 2.9 hour leg was forecast to be clear skies with a quartering moon - perfect for a flight across featureless terrain at night with no ground lighting. This was my first night crossing of the Nullarbor and looked to be routine and a piece of cake and an ideal night VFR exercise. Forrest airport is an exception to the rules as there is no alternate for this airport as it is so isolated. It has lights and an NDB and has been a designated RPT alternate for at least the last 40 years. Rawlinna airfield at 250 nautical miles was an easy two hour leg and my phone call earlier had confirmed with the caretaker that the runway was serviceable and that we were welcome to stay for the night if we had to stop over.

Rawlinna was previously a railway town and home to the hundreds of workers who serviced the great iron road that spanned the continent. Now it was just a few air-conditioned huts with a runway and the only desalination plant for a 1000 miles. It was an important key waypoint for us as it was the go-no-go point before last light for the final 90 nautical mile leg to Forrest, our midpoint refuelling stop. In the days before GPS, navigation was

not an exact science and after almost two hours the monotony of following the rail line had given way to concern that Rawlinna was not appearing on the horizon as advertised. My concern with this situation, which clearly meant we had picked up a headwind, was exacerbated by the overcast that had now covered 7/8 of the sky. With just enough fuel to do a 180 and head back to Kalgoorlie I pressed on, not even considering going back as an alternative.

Fifteen minutes later we arrived at Rawlinna in the dark with no runway lights, no radio comms with the ground and an unlit 300 ft radio tower located in the centre of the airfield. In an orbit at 1000ft I reviewed my options and realised then that my only port of call was now Forrest airport 90 nautical miles east.

Off we headed with the moon shining on the rails, making a perfect ribbon leading us on. Settling down at 1000 ft we set economy cruise for the next 45 minute leg. It was now getting very dark and the only light was coming intermittently from the moon as it peeked periodically through the developing overcast. Anyhow we were ok as Forrest had runway lights, a rotating beacon, an NDB and an ARO with a ground radio. I started doing some calculations and realised that we had a 28 knot headwind!

Presently it started to get darker and as it was already night there was some confusion until we realised that the overcast was thickening and within 10 minutes it was so dark that we couldn't tell if we were upright or upside down. Having absolutely nil outside references sent a chill up my spine as I started an instrument scan to remain under control. What could I do as it was so dark I couldn't even see the propellor spinning! Where was the rail line? Hopefully it was still under us, so I started a gentle descent and at 200 ft I turned on the landing light. I was rewarded with two dim strips of light reaching out into the darkness ahead.

For the next 20 minutes we sat transfixed to the slim guide praying that the landing light would not fail. By now the overcast was down to 500 ft and solid. All I had to do was keep the aircraft level and steady at 200ft! By now we were really scared and I started to review my options. I called "any station" on 121.5 MHz and was rewarded with a QANTAS 767 over Alice Springs responding. I asked him to call Melbourne Centre and request that the Forrest ARO activate the airport beacon. A few minutes later a ping of white light intermittently broke the enveloping dark. For the next 30 minutes that light became our only hope

and salvation in a sea of black. We landed at Forrest with shaking legs and relief that the black night hadn't ruined our day through the grace of god and a wonderful white beacon of light from the middle of nowhere.

I now know that I should have done a 180 when Rawlinna hadn't appeared and gone immediately back to Kalgoorlie. I was too preoccupied with reaching my destination when I should have been considering what the actual situation was and the consequences. It could have been a fatal mistake !

*Greg Ackman is an inventor and designer of communications products and has operated his Australian manufacturing business for 50 years.*

*A pilot and aircraft owner & operator with over 5,000 hours of private and business flying in Australia, New Zealand and the USA, he is proficient in single engine fixed wing operations as well as helicopter, gliding & light sport aircraft.*

*Greg currently flies a Grumman Tiger and a Rutan Long EZ and splits his time between bases in the Gold Coast Queensland and at Wedderburn NSW.*



# Lifting the lid on Bernoulli

by Jim Davis

*Food for thought? Conclude what you will as Jim Davis stirs the pot on a principle most of us have treated as gospel, until now perhaps...*

Do you remember that awful moment as a child when someone said, "Surely you don't still believe in Father Christmas?" You stared around you in horror hoping for some indication that they were kidding. Could the people you'd always trusted lie to you? I had the same gut-chilling feeling three years ago when a physics professor from my Uni said, "Surely you are not still teaching Bernoulli?".

I said of course I am teaching Bernoulli - is there something wrong with that? He said pilots are the only people who still believe that Bernoulli's theorem explains lift. The world of science, he told me, considered Bernoulli somewhat passé as far as aerodynamics go. He advised me to apply my mind to current theories on the subject. Professors are not much given to professing. They point you at references - books, texts, papers, journals and websites - and let you do your own research. So that's what I have been doing, and the results are extremely interesting.

The truth is that no one really knows exactly what makes an aeroplane fly. It seems strange that we can send a man to the moon, but can't agree on the fundamentals of flight - but that's how it is at the moment.

## **A wing is a machine for pushing air down**

The main players - people like NASA, the RAF, and that group of aerodynamicists, physicists and mathematicians, which I will simply call scientists - all agree that Bernoulli is part of the equation. However none claim that he accounts for all the lift a wing produces. Some even say that his contribution is as little as 2%!

No one's knocking Bernoulli. Science is simply admitting it was wrong to use his theorem as an explanation of lift. Bernoulli didn't claim his work had anything to do with aviation. He had no

interest in flight and never mentioned lift or wings.

So, if Bernoulli's is only one of the theories about flight, how about the others? We will look at them in a moment. I had hoped that my search through them would lead me to some simple Ultimate Truth that everyone could understand. And this has happened - to a point.

What I did was gather cart-loads of paperwork and gigabytes of electronic gen, and boil it all into a huge cauldron. From this I distilled out the points on which the big boys agree. What was left in the pot was a turgid mass of ignorance and half truths which have been passed down by previous generations of text books and instructors as God-given veracity.

At the moment there is no definitive truth that explains the entire reason for flight. But we do have one overriding principle - courtesy of Sir Isaac Newton. Then there are at least three other explanations that in some way account for lift. The problem is that even the most knowledgeable are unwilling to say how much we should attribute to each theory. Let's start with Newton - because all the theories use this as their base.

Newton's third law says that for every action there is an equal and opposite reaction. This means that if you want to move up, you must push down on something. If you are strong you can lift yourself out of your chair by pushing down on the seat with your hands. So, for an aircraft to lift itself up it must push down on the only thing available - the air. And if it pushes down on the air, then the air will move down. Very simple.

Because our brains have been addled with the soup of uncertainty, it is not always easy to grasp this basic concept, so here is a mind-experiment to make it clearer. Imagine that some nutty professor has built an entirely new machine for generating aerodynamic lift. It is so secret that he won't allow anyone to see it - he hides it behind a screen. He starts it up and there is a thunderous noise, a flashing of lights and a whooshing of air. You have no idea what is going on behind the screen, but there is one thing you can be certain of: if there is a nett downflow of air from behind the screen, then lift is being produced. If there is not, then there is no lift. Full stop.

This is a complicated way of saying that a wing is a machine for pushing air down. That's its job. As long as it is pushing air down it is producing lift. If it doesn't push air down - no matter what it may be doing with high and low pressure areas - there is no lift being produced. It is like a helicopter - it pushes air down to lift itself up.

That's the bottom line.

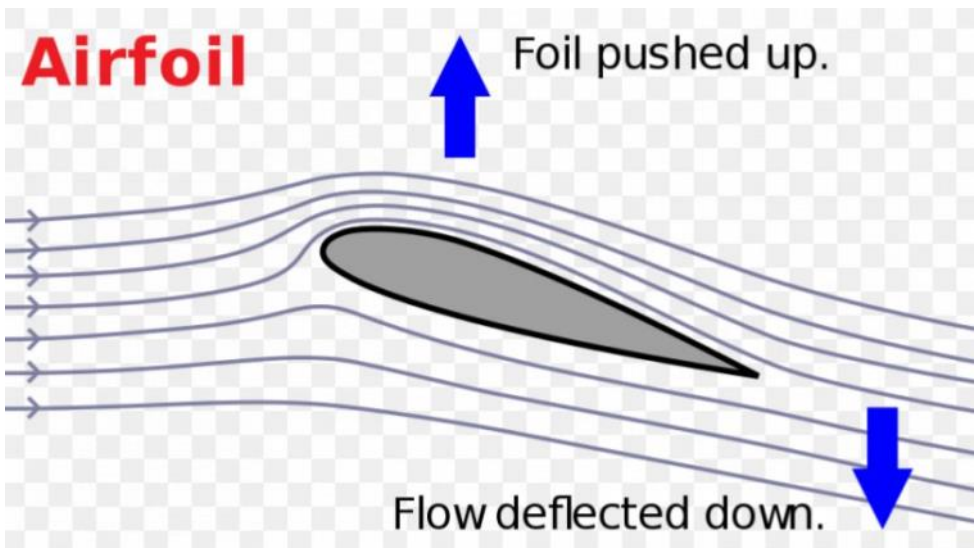
The controversy is about how the wing pushes the air down. In fact it is only the top of the wing that seems to cause a problem. Everyone is pretty much agreed that it is not difficult to imagine how the bottom of a wing (which has a

positive angle of attack) deflects the airflow downwards. So let's see what the authorities have to say.

### What the main players have to say about lift

The RAF Flying Training Manual, acknowledges Bernoulli's experiments and his theorem, while emphasising their limitations. They are not presented as the reason for flight. The manual also considers the Vortex or Circulation Theory, which is a useful model for theoretical aerodynamic calculations, but does not explain lift. The Manual's only commitment to the source of lift is found under the heading Momentum Theory, where we find these words: *"This principle can be applied to an aerofoil which can be said to produce an aerodynamic advantage by changing the momentum of a stream of air."* This is the crux of the matter. It refers to what I call deflecting the airflow.

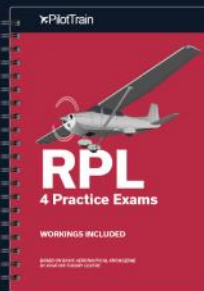
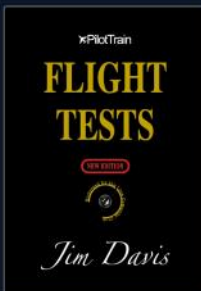
Now let's see what NASA has to say about lift on their website. They say here, in big red lettering *"Lift is a force generated by turning a moving fluid."* This is pretty much what the RAF manual said. NASA then goes on to say *"air is deflected downwards by the action of the airfoil, and in reaction the wing is pushed upward."*



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NASA then gives three examples of the incorrect explanations that we have been feeding to our students for over a hundred years - my turgid soup of ignorance and half-truths. Here they are:

### **Incorrect Theory #1: 'Longer Path' or 'Equal Transit' Theory**

This is the one that says that the air has to travel further over the top of the wing, which means it must go faster. Bernoulli says that faster means less pressure above the wing, and presto we have lift. NASA doesn't agree.

There are three problems with this theory. First, when two air particles bid each other farewell at the leading edge, one taking the high road and the other taking the low road, as the Scottish ballad would have it, who says they have to meet again at the trailing edge? In fact they don't ever meet again. Second, the longer-path theory can't account for paper plane (or flat plate) aerofoils that are the same length above and below the wing. Finally, if we apply Bernoulli's theorem to the difference in speed that the 'longer path' supporters suggest, it would (according to the calculations of Professor Jeff Raskin - who we will meet shortly) produce only about 2% of the lift that the wing actually does produce.

### **Incorrect Theory #2: 'Skipping Stone' Theory**

This claims that all the wing's lift is produced by the bottom surface deflecting the airflow downwards. This only accounts for a portion of the lift. As this is not a commonly taught theory, there is little point in discussing it further at this stage.

### **Incorrect Theory #3: 'Venturi' Theory**

This is the one many of us were given during our training. It is generally seen in pilot manuals and taught in flying schools. Sorry folks - NASA says it is wrong. So do the scientists.

The reason this theory is wrong is that the air above the wing does not behave as if it were in a venturi. There is no 'other half' of the venturi. In fact, one can't think of a venturi as having top and bottom halves - as shown in diagrams. It is a three-dimensional cylindrical restriction.

So that is what NASA has to say about the soup of half-truths that are left in the pot.

### **Albert Einstein's mistake.**

Let's see what Albert Einstein - probably the greatest scientific brain of the twentieth century - thought about aerodynamic lift.

During World War I Einstein was working as an aircraft-designer for LVG (Luft Verkehrs Gesellschaft). He based his wing design on Bernoulli's principle, giving the upper surface an additional hump - so that the air had even further to travel. The wing was a comprehensive failure. It was so bad that they didn't believe the wind tunnel results, and decided to test it properly on the aeroplane. It hardly flew - and the project had to be scrapped.



*Einstein's airfoil rib*

In 1954, a year before his death, Einstein wrote: *"Although it is probably true that the principle of flight can most simply be explained in this (Bernoullian) way, it is by no means wise to construct a wing in such a manner!"*

Perhaps that is it - we have taken the easy way out and used Bernoulli to explain lift, because it's simple, rather than because it's true.

### **Jeff Raskin's spinning ball**

One of the most distinguished critics of the application of Bernoulli to aerodynamic lift is [Professor Jeff Raskin](#) - I said I'd introduce him. If you look for him on the net, Google will give you more than six thousand hits! He was the author of over 300 articles on mathematics, science and computers. He was an accomplished musician, composer and conductor. He was named one of the 10 Most Outstanding Engineering Graduates of Penn State University. He is also the guy who invented the Macintosh computer at Apple.

In an excellent paper on lift, Raskin starts by asking which way a spinning ball will curve through the air. He consulted five authorities - a baseball coach, three physicists, and the Encyclopaedia Britannica. The coach knew the answer from practical experience. One of the physicists got it right, while the other two, plus Britannica, reasoned their ways through to the wrong answer!

Raskin was making two points here. First, learned reasoning on aerodynamics is not necessarily correct reasoning. And second, the results of practical experience or experiment are to be trusted - they show how things are in the real world, regardless of theories.

He then takes the reader through several practical experiments backed up with some mathematics and concludes that Bernoulli can only account for about one fiftieth of the lift. He believes that a large portion comes from a phenomenon known as the Coanda Effect.

### Henri Coanda

This takes us to the doorstep of the Romanian aerodynamicist, Henri Coanda, one of aviation's most colourful and amazing characters. He first caught the public's eye when his jet (reaction) aircraft caught fire - with him in it - just after take off at the Paris Airshow in what year? - wait for it - 1910!

Coanda's experiments led him to discover coalescence (named after him) and what became known as the 'Coanda Effect'. He found - by practical experiment - that a stream of air (or other fluid) emerging from a nozzle tends to follow a nearby curved or flat surface, so long as the curvature of the surface, or the angle that the surface makes with the stream is not too sharp (a stall in pilot-talk). He was a realistic man and admitted that he had no idea why this happens - it just does. Modern

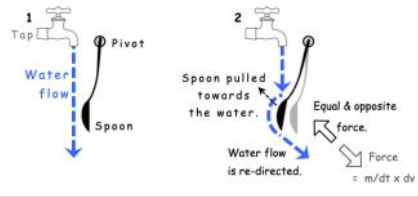
science has at least three theories that try to explain it - none of them is conclusive.

Anyhow, here is the core of the matter. Air passing over the top of the wing tends to follow the curve (unless the angle is too sharp). And nobody really knows why.

This means that as long as the curve of the top of the wing points downwards, the air will be deflected downwards and, according to Newton, this will give us lift.

Now, do you remember those demonstrations they gave you when you were learning to fly? Blowing over bits of curved paper, and running tap-water over the back of a spoon? Your instructor probably didn't know it but what they were demonstrating was the Coanda Effect and Newton's third law. When you blow over your piece of curved paper, the airflow clings to it (Coanda) and is deflected downwards. This imparts an opposite - upwards - reaction to the paper (Newton).

For me, the spoon is a more impressive demonstration, because you can see the water following the curve of the spoon and being deflected. It also makes a nonsense of the 'longer path' explanation. There is no longer path - the water is only acting on one side of the spoon.



'Stick and Rudder' by Wolfgang Langewiesche is a wonderful book which was published in 1944 and is still considered the Bible of basic aerodynamics and aircraft handling. In it the author doesn't beat about the bush - he says plainly that wings derive their lift from pushing the air down.





## In a nutshell

It is time to step back, take a breather and see where we have got to. Here is a summary:

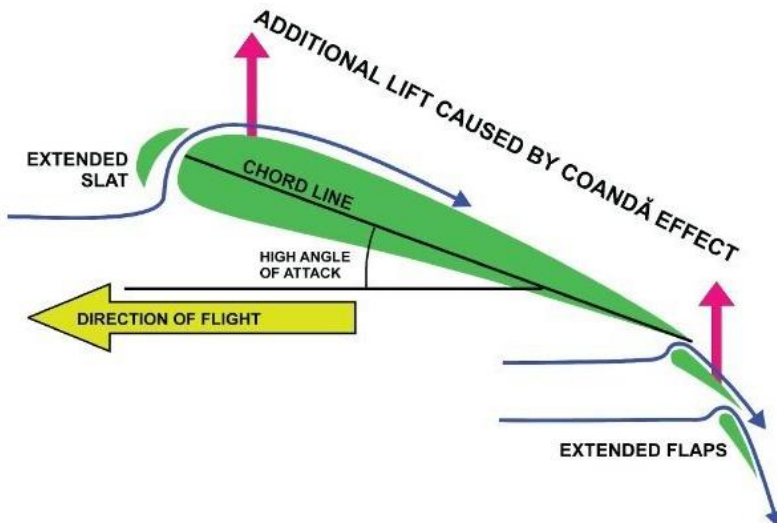
- In order to obtain lift we have to deflect the airflow downwards (Newton's third law).
- The bottom surface of the wing deflects the air down in much the same way as a water-ski pushes water down in order to hold the skier up.
- The air over the top of the wing is also deflected down because it follows the curve of the wing. This is due to the Coanda Effect - known by practical experiment.
- If the angle of attack gets too large the air going over the top of the wing loses its coalescence - 'stickiness'. It stops following the curve and it stops being deflected down so we lose its lift. It's OK - we can still call it a stall.

I can feel a question coming on. Someone is going to put up their hand and say, "If it's the downflow of air that causes lift - what about the high pressure below the wing and the low pressure above it? Doesn't that cause the lift?"

Excellent question. It's all part of the same thing. The air striking the bottom surface of the wing causes high pressure. And the air following the curve of the top of the wing is held there by low pressure. It's like saying that your tyres support your car by pushing down on the road. But it is also the high pressure air inside them that does the job. Both the tyre and the air are part of the same car-support system.

So there we have it. A peek at how science sees aerodynamics right now. Perhaps in another five or 20 or 100 years they will look at it differently, but until then, the best we can do is say that, due to Coanda theory, the wing derives lift from deflecting the air down.

Don't hold your breath, it may take a while for the aviation authorities, the instructors and the flight training manuals to catch up with what science has known for years.



*Jim Davis has been training civil and military pilots for over 50 years. That includes 15,000 hand-flown hours on 130 aircraft types, of which the majority were instructing. He also has a passion for writing and has columns in flying magazines on three continents and is the author of the best-selling training manual 'PPL' (with the intriguing sub-title 'A practical book about flying safely') as well as the very popular 'Flight Tests' booklet (reviewed in the Summer 2023 AirChat). You can find him at [www.jimdavis.com.au](http://www.jimdavis.com.au).*



## How can I find out more about lift?

The RAF Manual, AP 3456 A is an immense and extremely comprehensive work. It is the bible for just about every air force in the world, and is seen by many as the definitive authority. Volume A is the place to find aerodynamics. The source of lift is in Para.19 of the Annex to AP 3456A, Part 1, Section 1, Chapter 2, under 'The Momentum Theory'.

The part of NASA's website that deals with aerodynamics is: <https://www1.grc.nasa.gov/beginners-guide-to-aeronautics/learn-about-aerodynamics/>

Professor Jeff Raskin's paper 'Foiled by the Coanda Effect' can be found at

[http://users.df.uba.ar/sgil/physics\\_paper\\_doc/papers\\_phys/fluids/coanda\\_effect\\_94.pdf](http://users.df.uba.ar/sgil/physics_paper_doc/papers_phys/fluids/coanda_effect_94.pdf)

The amazing Henri Coanda - his life, inventions and achievements is to be found at <http://www.allstar.fiu.edu/aero/coanda.htm>

Coanda's 1910 jet aircraft - 30 years before jets were 'invented' is at

<https://web.eng.fiu.edu/allstar/coanda.htm>

'Flight without Bernoulli' - a paper by Chris Waltham which deals with some of the mathematics of flight. 'The Physics Teacher' Volume 36, November 1998, pages 457 to 462.

'How Aeroplanes Fly' - a paper by David Anderson and Scott Eberhardt. This is a physical description of lift - mainly related to Newton. Sport Aviation Magazine, February 1999, pages 85 - 95.

'Interpretation of Bernoulli's Equation' - a paper by Robert P Baumann and Rolf Schwaneberg. A heavily mathematical description of lift. 'The Physics Teacher' Volume 32 November 1994, pages 478 to 488.

'Lift Doesn't Suck' an excellent paper by Roger Long, with whom I have had much correspondence.

<http://www.avweb.com/news/airman/183261-1.html>

# Learning to fly at RAC

by Louise Hoey

*Louise Hoey recently gained her Recreational Pilot Licence (RPL) at Redcliffe Aeroclub and is pleased to share her motivation, experience and reflections on gaining her licence with other Club members and potential students. She thought this article may be of interest to someone who is curious about private pilot training, or considering learning to fly.*

## Why did I decide to learn to fly?

I wanted to be able to do something significant, something that gave me skills and capabilities that were different from those of my profession. I sought new skills and capabilities that could be nurtured, developed and applied to other life experiences and challenges.

Nearby to where I grew up on a farm in north Queensland was an airstrip. I would often hear and see light and military aircraft fly over the farmhouse on the approach to the local aerodrome. The pilots in the plane cockpits were obviously highly skilled people and I wondered what it would be like to fly like them. These thoughts led me to investigate learning to fly as a 'mature age student'.

## What was it like at the start?

Redcliffe Aeroclub is known for its good reputation and it was recommended by my brother's friend, who is a flight instructor in north Queensland. I made phone enquiries and went to visit the flying school. I soon decided that I would give it a go.

*My first RAC training instructors, Jake and Mark, 2022*



During the early days of my flight training, I thought flying would be straightforward yet complex. What I didn't know, but soon came to realise, was how complex and how much of a cognitive load it would be. There are quite a number of things to monitor, remember and do. However, I knew I would be in for a challenging, yet rewarding, time and it should be possible for me to achieve a Recreational Pilot Licence with the support of the very capable and professional flight instructors at the Club.

There was theory involved and I had purchased the recommended texts: Aviation Theory, Flying Training Manual - A Basic Pilot Training Programme (a blue book) and Basic Aeronautical Knowledge for the RPL (a red book) both by David Robson. Now is the time to mention challenges. I must admit the theory, at times, was more daunting than the flying. In the training it was important to be aware of and achieve a working knowledge and deep understanding of many content areas. In scanning the contents pages of the Basic Aeronautical Knowledge book, I wondered how long it would take me to read through the text and understand all the theory. To be honest, it all seemed a bit overwhelming, which may be a common reaction of most beginners to aviation.

However, seeing the contents categorised into chapters and each chapter containing listed topics helped me see the big task (understanding the theory) as a challenge that can be broken down into smaller blocks or parts. A positive about the books is that at the end of each chapter there is a summary and a review (a test of the contents of the chapter). I would highly recommend doing regular tests, answering multiple choice questions as you cover each topic. The reason I suggest this is the required four RPL theory exams are in a multiple-choice question format.

To further support my theory learning I also purchased another text: the 'RPL/PPL Study Guide, Volume 1 - A study guide for the Recreational and Private Pilot Licence' by Bob Tait. This text is specifically written to support students undertaking the CASA RPL theory test. It was the practice tests and exams in the books that made me realise the importance of reading and re-reading the chapters, taking notes and drawing annotated diagrams several times, so the information would 'stick' so to speak and enable me to reach, at least, the required 70% pass result.

I reckon I would not be the only RPL student to find that the theory is a challenge. The challenge is not only comprehending an instructional and procedural text, but also being fluent in the language of aviation (terminology and abbreviations included).

For me, I left getting on top of the theory and the four necessary exams late in my training journey. I would strongly recommend that any RPL student pilot attack the theory early so as to progress through it at a steady and attainable rate. Topics covered are: aerodynamics of flight, engine systems, systems and instruments, aircraft performance, human performance, radio communications, air law, navigation and local meteorology.

What greatly helped me was the ground school instruction from the terrific RAC instructors plus talking to other RPL, PPL and CPL pilots. This is where being a member of Redcliffe Aeroclub is a great advantage. At social events like the monthly Friday BBQ at the clubhouse and Club organised flyaway trips, I got to listen to pilots talk aviation talk and matters. There was quite a bit of information and understanding that I picked up just listening to them and asking questions during these discussions. It also allowed me to feel part of a group.



*Much experience was gained from joining flyaways and riding in the right hand (co-pilot) seat. Above is a landing approach to Kununurra airport, WA, and below is short final at Barkly Roadhouse, NT*



### **How was learning to fly at RAC?**

I cannot praise the Club's aircraft and instructors enough. My experience has been all positive. The journey to attaining a Recreational Pilot Licence may have been long, longer than most would take, but the professional support and encouragement from the staff and the Club members has helped me enormously.

*The view over Deception Bay, doing circuits*



The duration of each flight lesson was usually two hours which could include:

- pre-flighting the aircraft;
- a pre-flight briefing to discuss the flight;
- a quick review and any feedback relevant to a previous flight;
- identifying wind direction and speed;
- revising skills or procedures;
- specific instruction regarding a flight skill (e.g. what to do for a glide approach, a go-around, flapless landing);
- the flight itself; and lastly
- a debrief

What I found very helpful was the debrief after the flight to discuss what I did correctly, but more importantly how I could improve my skills or thinking in what I didn't do well.

There is quite a cognitive load when flying. At the start of training, it was hard to recount all parts of the flight lesson (each circuit leg, the radio calls, airmanship). By breaking down the flight and receiving specific feedback helped me make the gradual, incremental gains in acquiring proficiency in demonstrating the RPL skills as per the CASA Module of Standards (MOS). These skills are itemised in a checklist used by an external flight examiner when you finally go for the flight test.

Finally flying solo was a mammoth milestone. There comes a time when there is no longer an instructor in the right-hand seat. I will never forget the day when my instructor, Brendan Power, asked me to make the next landing a full stop and said "taking over" as he taxied the plane to the midfield taxiway point and climbed out. This is where my trusted instructor told



*After my first solo flight in SPP*

me to go on my first solo flight. What an experience that was! I was like a fledging bird being encouraged to take its first flight.

#### **What would I suggest to potential students?**

Do purchase good instructional study books. I was very happy with David Robson's Aviation Theory Centre books and Bob Tait's RPL Study Guide and recommend them highly.

Also, do purchase your own noise cancelling headphones. Initially I used one of the Club's headsets but once I got my own, I was more comfortable and confident with listening to and making radio calls.

To help you gain 'an ear' for radio communication, its terminology and structure, you can listen to live Air Traffic Control (ATC). I would suggest you listen to it in the background while studying to get familiar with what information is given over the radio, its pace, tone and language. An internet search of 'live ATC' will give you a link to [liveATC.net](http://liveATC.net). I would listen to Archerfield ATC as it is a smaller controlled airspace airport and therefore not as busy.

Start early in your flight training to get to know the aircraft manual, also known as the Pilot Operating Handbook (POH). They generally have a common format and contain everything you need to know about flying the particular aircraft plus there are examination questions, both written and oral, on the information from the POH.

Enjoy your journey. In my opinion, I believe it is a satisfying and rewarding experience you can gift to yourself.

*Setting up the final leg to land at Redcliffe*

# Cirrus life 2023

by Mike Cahill

It's been a while since Cirrus Australia hosted a Cirrus Life event. In fact the last one was held in 2019. It's been a biennial event, held in Hamilton Island, Uluru and Hobart in the past, but thanks to Covid the most recent one was postponed until November 2023, when it was held in the 'City of Churches'.

Adelaide was a great venue, with beautiful architecture in the city, the rolling hills around its perimeter and in the Barossa and added into the mix was a little bit of history related to Australian cricket.

Delegates started arriving Friday morning by Cirrus or RPT for the event kick off at the Friday evening cocktail party. Approximately 150 people filled the rooftop terrace of the [Eos by SkyCity Hotel](#). This venue gave everyone the opportunity to view the city of Adelaide and the Adelaide Oval from a high vantage point and to mix and mingle with old friends. An artist who did instant caricature sketches added a bit of fun.

Saturday morning saw the start of the conference while the partners took the opportunity to visit the German town of Hahndorf in the Adelaide Hills and the McLaren Vale wine area.

There were several guest speakers from Cirrus USA touching on topics of interest ranging from how to clean your aircraft and what's the best way to do a go around, to an examination of Cirrus incidents

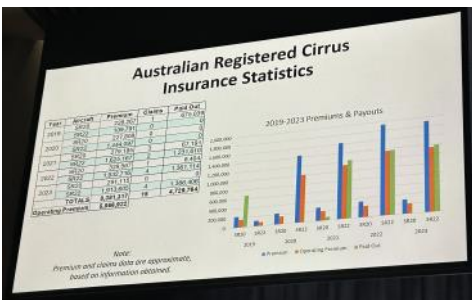


over the past 10 years. Garmin did a segment on their avionics platform, followed by BMG Insurance who discussed the contentious issue of increasing insurance premiums for light aircraft.

Saturday lunch was held at the Adelaide Oval, a short walk away across the river. There was plenty of history in the wings here, not only for cricket fans but for AFL too. I'm not a big fan of either sport but favour cricket to a point.



Cirrus had invited Queensland and Australian test cricketer [Greg Ritchie](#) as guest speaker and he kept the audience captivated for about 60 minutes. Excessive laughter continued throughout his entire presentation. He brought back many memories of my younger years watching TV and in particular some elements of The Footy Show on Channel 9 when Ritchie, as the very popular 'Mahatma Cote', ran riot with skits that you probably wouldn't get away with today. What an amazing guest speaker! The lunch was followed by a guided tour of the recently reconstructed Adelaide Oval, including a look inside the heritage listed scoreboard.





Saturday evening we were bussed to Penfold's Magill winery, home of the famous Grange. Back in the day the winery was on the outskirts of Adelaide. Today it's surrounded by several suburbs that extend right up to the start of the hills district. Christopher and Mary Penfold started the winery back in 1844 at the Magill Estate and today that estate is in

pristine condition. After a tour of the cellars we enjoyed some wine tasting with canapés while being treated to some great music by the very talented solo violinist [Cardinia](#), who manages to merge classical and pop with a touch of electronic.

Full to the brim we were bussed back to the city.

Sunday there was more Cirrus stuff to consume in lectures and the opportunity to fly a simulator, including being able to pull the 'CAPS' handle and deploy the parachute overhead Adelaide.

The finale was a gala dinner at the Oval. Cirrus organised a 12 piece band called the [Hindley Street Country Club](#) who were on stage for almost three hours, playing non stop a variety of music that got almost everyone up on the dance floor till the end, including a couple of encores.

Monday came and we all headed back home wondering what Cirrus will think up in two years' time when they host the next 'Cirrus Life Event'.



# A dusty diamond - part 2

by Philip Arthur

*In the most recent edition of AirChat I covered the first week of our trip in VH-MSF and VH-WKE around Western Australia's Kimberley. This time we continue the story into the second week...*

It was the 22<sup>nd</sup> May 2023 and the start of the second week of our flying safari in the Kimberley. Just when we thought the trip couldn't get any better, it did.

From Drysdale River we had an exceptionally scenic flight over the Prince Regent River and along the coast to Horizontal Falls. The Prince Regent River bed is in a fault line that runs NW to SE for some 50 or so miles in a pretty straight line. It delivered us to the Bonaparte Archipelago (above) with its hundreds of islands and waterways.

Overhead Horizontal Falls we did an orbit to check out the 'houseboat' we'd be staying on that evening. From there it was a 20 minute hop to Derby.

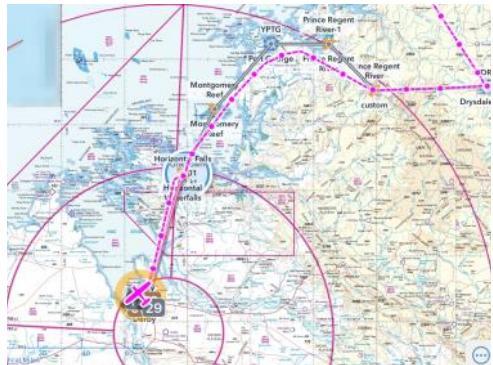
We had a few hours to kill before we'd be delivered to the Falls by seaplane so called a taxi (thanks to 'DLA' in OzRunways notes for the phone number) into town and visited the [Mark Norval Gallery](#).

Mark is an art teacher who has lived in Derby with his wife Mary for 40 years and has helped develop the artistic talents of local indigenous people. His gallery has an amazing array of traditional and modern art by artists from all over the north of WA.

Back at the airport Izzy our seaplane pilot from [Horizontal Falls Seaplane Adventures](#) helped us aboard the amphibious Cessna. With the sun lower in the sky and a prime window seat for all on board we had spectacular views of the country north east of King Sound with its islands and promontories.



Above: Mark Norval Gallery





Touching down on the water next to our floating houseboat hotel we felt like we'd landed in a James Bond movie. It was populated with a number of young girls whose hospitality skills surpassed anything I've seen for a while. We felt pretty special as the 10 of us who were staying overnight were greeted while the day visitors departed for Derby. The check in was followed by a shark feeding demonstration where we could swim next to the sharks (separated from them by a metal grill).

Horizontal Falls is unique as a result of the 10 metre tides in the area. Water builds up on one side or the other of two gaps faster than it can flow through them, creating 'waterfalls' of up to 4 metres in height. Until 2022 boats took tourists through the 'narrow gap' and the 'wide gap' but following an accident in 2022 the narrow gap is now considered too dangerous to pass through.

Boarding a fast boat we took a trip out on the water to explore the surrounding bays and the Falls, managing to squeeze in a few passes through the 'wide gap' at high speed just as the sun set in the west. Hayley our skipper couldn't help but burst with enthusiasm as she explained the geology and history of the region (and drove the boat at break-neck speed).

Back at the mother ship cheese and nibbles was followed by a meal of locally farmed barra, cooked skilfully by a couple of the girls. All the staff were amazing. It was just fascinating how they worked together seamlessly. After a very satisfying meal they left us to enjoy the sunset and chat with our new friends while they retired to their own cabins at the far end of the mother ship.

Next morning our hot breakfast was ready at 6am on the dot. We packed our bags as instructed and vacated our rooms so they could be cleaned for the next guests. At 6:30 Hayley was ready and waiting in the speed boat as we climbed aboard. It was off for another few passes through the wide gap as the sun rose. Hayley is a bit of a rev head so was clearly enjoying shaking us up a bit. Back at the mother ship day visitors arrived in four amphibious aircraft. Climbing on board one of them we took off and did a couple of orbits over the Falls as the day trippers whizzed through the wide gap below us.



*From top: Disembarking at Horizontal Falls; water rushes through the wide gap; sunset and moonset; the narrow gap from 2000ft*

Landing back at Derby we headed into town for lunch and coffee at the [Jila Gallery and Café](#) and a walk out to the wharf, famous because of the 11 metre tides there.

Taking to the skies again we flew north for one last pass over Horizontal Falls before tracking along the coast past Cockatoo Island and its iron ore mine. Heading southwest, we soon landed at [Cygnet Bay Pearl Farm](#) at the northern end of Dampier Peninsula. The dirt strip is bulldust over a clay base apparently. It's no good when wet and I'd been told on the phone a couple of weeks before that it was out of service due to a rain event but by the time we arrived it was fine.



After checking in to our rather fancy glamping tents we were feeling a bit hot and sweaty, so decided it was time for a refreshing swim in the Pearl Farm's infinity pool. Dinner was at the deck restaurant overlooking the bay.

The next day in Cygnet Bay started with a 6:15 departure on an amphibious boat to Waterfall Reef about 30 minutes away. The 11 metre tide was on the way out so there was plenty of water cascading over the edge. Flocks of terns were busy diving for fish that were being swept along by the rushing tidal waters.



Back at the Pearl Farm we took part in a tour of the operations where our guide went into great detail of how pearls have been cultivated since the place was set up in the 1970s.

The afternoon was spent relaxing around the pool and contemplating the next part of our trip.



*From top: Approach into Cygnet Bay; the bulldust apron; cooling off time; Waterfall Reef; glamping tent*

The accommodation at Cygnet Bay varied between bare campsites to refurbished pearler cabins to luxury glamping tents. They had a great communal kitchen for the campers and a restaurant/bar/cafe overlooking the infinity pool. The only real negative was the \$50 each way transfer fee from the airstrip. A bit steep for what it was. The deck restaurant and bar area were well designed and the food was good and reasonably priced. The kitchenette in our tent was well fitted out so that we could make our own breakfast easily. We enjoyed both dinners at the deck restaurant while having our breakfast out the front of our tents.

The next day, after a morning walk to explore the local area, we were driven out to the airstrip just after 11am. There was a bit of traffic around so I was glad I'd invested in a [Ping USB ADS-B traffic receiver](#) that identified all the ADSB transmitting traffic in the vicinity and displayed them in OzRunways on the iPad.

Turning left past One Arm Point we continued down the coast at 4500ft. The sealed strip at Lombadina, used by the offshore oil and gas traffic as a refuelling base, stood out, as did the dirt strip at Beagle Bay. There were lots of fires burning inland so the visibility was not ideal due to the smoke but was still greater than 25km along the coast.

Descending to 1500ft by James Price Point we were cleared by Broome Tower and followed a Cessna in to join base on RWY10. Being an international airport, it's a big runway!



After tying down and arranging transport for our passengers to the BNB, Luc organised a minor repair to WKE and we walked over to the tower to have a chat with the air traffic controllers. They were happy to show us around and explain their procedures and systems.



From top: One Arm Point; on finals RWY10 at Broome; Broome Tower

The Courthouse BNB turned out to be an oasis not far from Chinatown. The owner had it on the market as she wanted to retire.

After a quick cool off in the pool we caught the very good bus service out to Zander's at Cable Beach for a sunset aperitif. It was stunning as expected. After another ride back to Chinatown we grabbed the last table at Johnny Sausage, an upmarket Italian restaurant for a great meal with great service. Highly recommended.

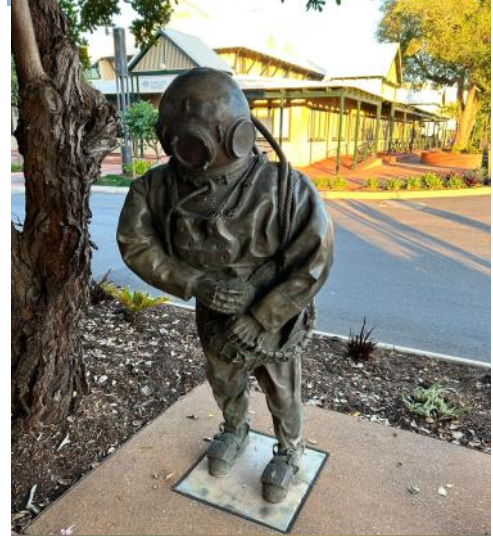
There's a lot to see in Broome and plenty of history. The Courthouse BNB was a great central base for exploring. Friday started with an early morning tour of the 'big art' around Chinatown with Chris from Salty Plum Walking Tours. The Chinatown and Town Beach precincts were upgraded for \$30m a few years ago and part of it was installation of numerous sculptures and other artworks. Chris spent an hour and a half with us explaining the history of the town.

After breakfast we walked along to the town beach jetty where there are sculptures in memory of the victims of the Japanese aerial attack on Broome during WWII. Like most people, we were totally unaware of the attack and how many people were killed, mainly refugees who were trying to escape from the Japanese forces in Indonesia.

The museum nearby gave us a bit more info on the pearling industry over the years while Matsos Brewery introduced us to mango beer over a Bibimbap.

A short ride on the superb Broome Explorer bus brought us to the Japanese cemetery and from there it was only a couple of km stroll to Cable Beach to see the sun slide into the Indian Ocean one last time.

From top: Matso's brewery; street art; Cable Beach; museum artefacts



It was time to head east once more. From Broome it was more than a two hour flight to Halls Creek via the Wolfe Creek meteorite crater.

After another sunrise walk and visit to the Saturday markets it was Broome Broome out to the airport for an IFR departure from RWY10. Our flight planned track was 101M so straight ahead for just over two hours at 7000 feet over the southern reaches of the mighty Fitzroy River. There was a fair headwind (our first for the whole trip!) and some smoke so we climbed to 8000 feet for the second half.



As we approached Wolfe Creek we descended to 6000 feet and ATC anticipated our requirements by asking what our air work would be over the crater. "Two orbits - one right, one left." "No IFR traffic for air work". All good. The crater is impressive even if 'only' one kilometre in diameter. The impact must've made quite a bang on the day.

It was only 20 minutes from the crater to Halls Creek where the local ARO jogged past and showed us the best spots to tie down. A refreshing plunge in the pool at the [Kimberley Hotel](#) five minutes' walk down the road was followed by a great steak at the Sportsman's Bar. Being asked to blow a breath test at the entrance to the bar was a first. Apparently, they have a lot of problems with preloaded patrons. You can't enter if you're over the limit. And they don't discriminate. Everyone has to blow. As a result, the place was a very pleasant venue.

It was an early-ish start from Halls Creek to Purnululu National Park (Bungles). We lifted off at 8:30 and tracked via the Macintosh Hills then on towards the south west entry for a spectacular scenic flight around the Bungles at 3000ft, as described in ERSA - Special Procedures.



*From top: Wolfe Creek crater; Halls Creek apron*

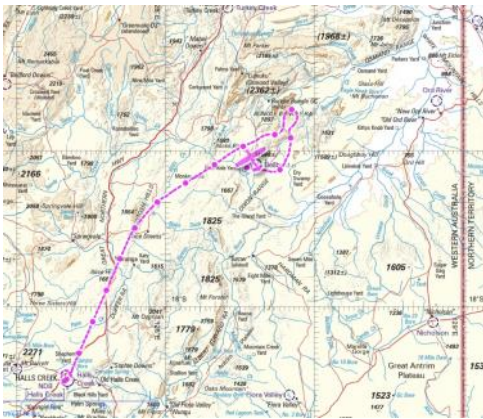
It was a maze of gorges in between plateaus for the most part, with the iconic stripy mounds mainly concentrated on the south eastern edge.

Once again the PingUSB came in handy to keep an eye on the numerous other aircraft in the vicinity.

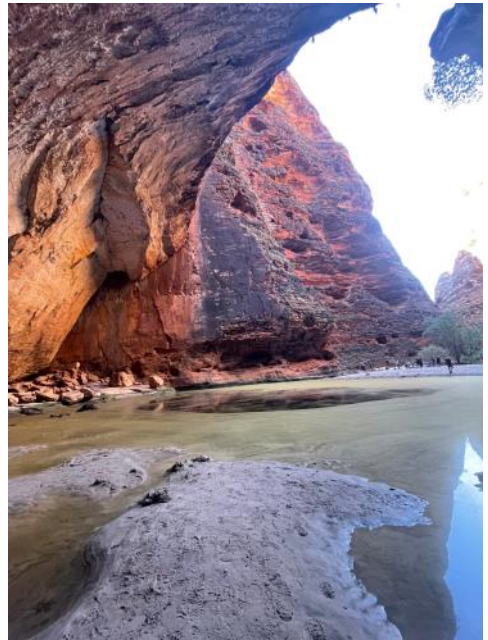
Landing at Bellburn airstrip at 9:30 we were greeted with morning tea before being whisked away on a [Bungle Bungle Guided Tours](#) bus for a walking tour to Cathedral Gorge. That involved about a four kilometre stroll through the park with lively descriptions of the geology and history by Gabriel and Wesley, two local Gidja guides. Gabriel put on quite a show with his banter and clear descriptions. Lunch was in Cathedral Gorge itself.



*Above: the Bungles*



*Below: Cathedral Gorge*



The bus took us back to the [Bungle Bungle Savannah Lodge](#) where we checked in, had a quick dip then admired the rock faces of the surrounding hills as they were lit up by the descending sun, before enjoying dinner on the deck.

After a good night's sleep we rose to a hearty breakfast and then headed out to the airstrip. Our tour of the Kimberley had come to an end and it was time to head for home. We had a four day return journey ahead of us. Next stop: Hooker Creek.



*Left: Bellburn apron*

# Instructor intro - Tapi Mapuvire

*Tapi joined the Club recently as a Grade 3 Flight Instructor*

I first became involved in aviation in second grade as my grandmother worked across the road from Zimbabwe's National Aviation Museum. I used to go to her work after school and wait for her. The security guard at the museum let me go play in the planes until my grandmother had finished work. I did my first flight lessons in New Plymouth in New Zealand where I earned my New Zealand CPL. I converted it to a CASA CPL and did my Grade 3 Flight Instructor rating at Sydney Flight College, finishing in May last year.

What attracted me most about Redcliffe Aero Club was its community. In the past I've been a ground handler for Dnata and done some bait dropping in South Australia but now I'm an instructor I get to actually do my dream job that I've wanted to do since I was seven years old. Some challenges over the years have been moving countries and having a gap during covid when I did no flying. I'm especially passionate about dealing with human factors as we humans were not designed to fly. I'm also interested in Soviet era aircraft as I think they made some of the simplest but most robust planes in the 70s. It would be very interesting to see how they work.

I'd like to impress on people that it's never too late to learn to fly. Anyone who has any interest in flying should just book a lesson. We can take you to amazing places like Orchid Beach (below).



[www.redcliffeaeroclub.com.au](http://www.redcliffeaeroclub.com.au)

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