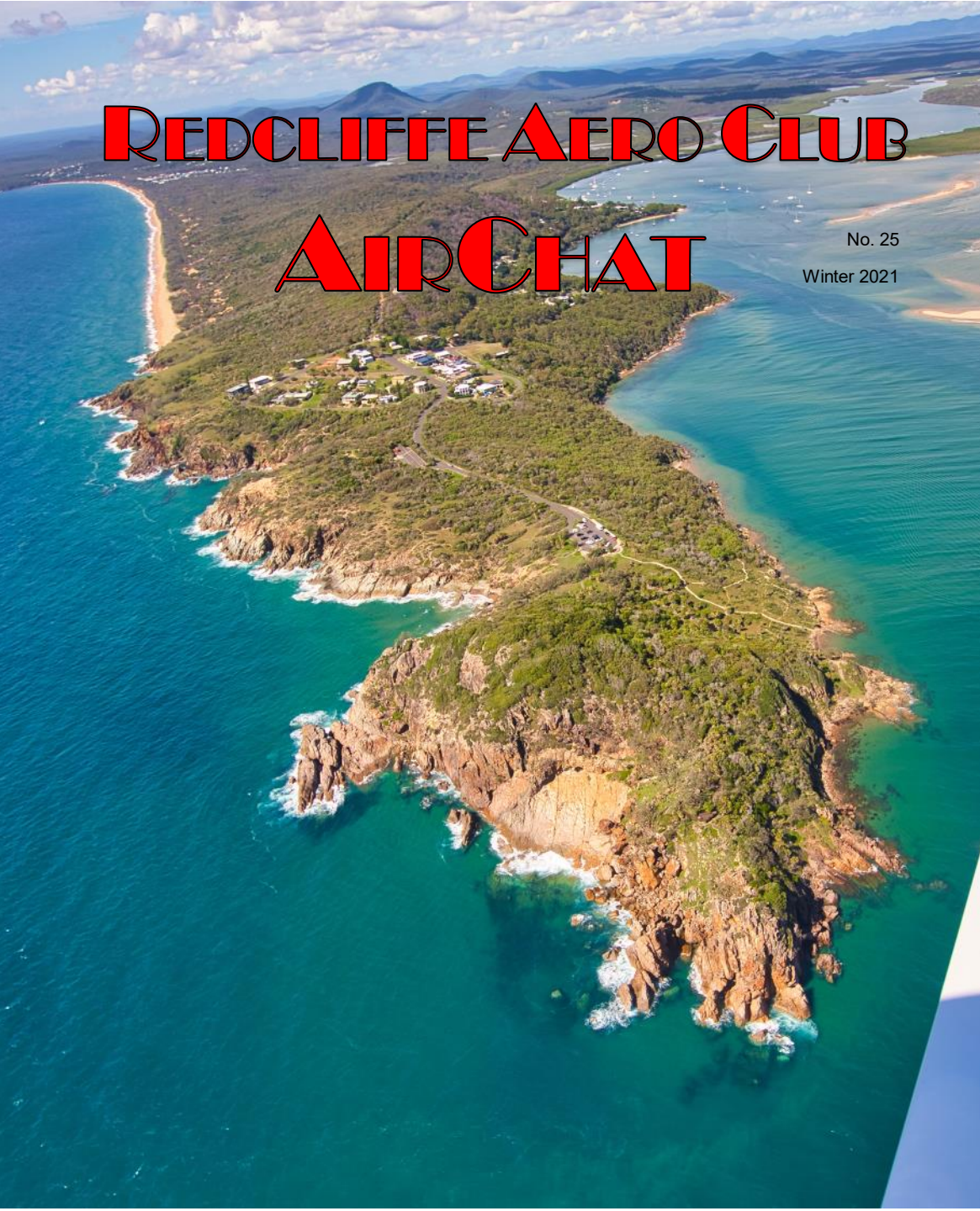


Redcliffe Aero Club

AirChat

No. 25

Winter 2021

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

Inside

Front Cover: Round Hill Head, Town of 1770
Rear Cover: 500ft over water near Caloundra at sunrise on ANZAC Day

From the President

Hello and welcome to the winter edition of AirChat as we enter the best flying months of the year.

Our Club has had a good start to the year with minimal down time with weather, although any rain during this time is always welcome everywhere. During some of our flyaways it's been noted that our countryside is quite green from the air which is a vast difference to some years.

Our refurbedished C172, VH-RAQ, returned to us in this period, looking like a brand new Cessna just off the production line. The Club has spent considerable money to update our oldest initial training aircraft. A new engine, complete repaint, upholstery renewal, avionics upgrades and total airframe inspections have brought this aircraft into the modern era. Our Club has saved lots of money with this overhaul by comparison to purchasing a new aircraft.

VET Student Loans, charter and walk ins have remained fairly stable, along with private pilots hiring Club aircraft.

Interest in our Club flyaways has been strong, weather permitting. Our biggest activity to date this year was undoubtedly the Anzac Day pre-dawn service and Dawn Patrol. We had 13 aircraft involved in the Dawn Patrol and approximately 50 members and friends enjoyed the breakfast at the clubhouse on its completion. The weather on Anzac Day was picture perfect and the dawn service is something special that you have to be involved in to fully comprehend its meaning, and is so different for each individual present. To be part of the pre-dawn service commemoration is quite special, but to be part of the actual flight to Noosa and return at low levels over water at dawn is unique. Looking out to sea as the sun rises through the low level cloud is spectacular. For me, it's the image of the rising sun through the clouds that makes the flight very symbolic.

The Club works hard to organise interesting and adventurous flyaways for members and I can only recommend that you get on board and enjoy flying with fellow Club pilots and friends on these getaways. As mentioned before, we are entering the best time of the year to fly, weatherwise, so check out what we are offering over the next few months with Club flyaways and get involved with your Club.

Happy Landings

Mike Cahill

Club President 2021

CEO update

Dear Members

On 7th March we welcomed a refurbished VH-RAQ back to the fleet with a social gathering and BBQ which was well attended. We bought RAQ new from the Cessna factory in June 2006 and it had approximately 9300 hours total time in service when the Board decided in December that refurbishment was preferential to replacement. A replacement C172, if in fact you could get one from Cessna in a reasonable timeframe, costs in the order of A$600,000. We were able to refurbish RAQ for $170,000 including a bare metal repaint, replacement of some interior components, new windscreen, overhauled engine, and completely new Garmin G3X touchscreen avionics suite including GFC500 autopilot. This airframe will continue to service the Club's training and private hire needs well into the future. If you haven't yet flown RAQ I'd encourage you to talk to one of our instructors to receive some training on the new avionics suite. Please also refer to an in-depth article on RAQ's refurbishment by Grade One Instructor, Callum Taggart, in this edition of AirChat and some important aspects of the autopilot operation in Mal McAdam's Chief Pilot report.

On the financial front, by July this year we will be a step closer to owning our fleet of eight aircraft outright as we make the final payments on ULF and VMV. The SIM will be in a similar position by December 2022. There are residual amounts to pay, which the Board has decided to finance. These assets, together with our substantial cash balances, put us in a strong position to tackle the challenges and opportunities ahead.

The Registered Training Organisation side of the business is in the final stages of screening our next intake of diploma students for this year as our current cohort approach the back end of their CPL training, with two students recently having completed their course. We now also have the capability to train CPL holders for the issue of a Grade 3 Instructor Rating outside of the Registered Training Organisation/VET Student Loans (i.e. this would be a non-diploma self-funded course). Please contact the Club if you wish to challenge yourself by obtaining an Instructor Rating.

As always, I encourage you all to visit and make use of your Club's facilities, aircraft, and simulators and to participate in the flyaway and social program. I look forward to seeing you around the Club throughout the remainder of the year.

Best regards,

Stephen White

CEO

Chief Pilot report

Gidday Aviators

By now many of you have flown RAQ in its new refurbished form. We have been pleased to see a positive reception to the new instrument panel set up.

RAQ is equipped with a system that not many people will be aware of for flight envelope protection, call Electronic Stability and Protection (ESP). The following description of it is reproduced from the Garmin flight manual supplement:

ESP uses the autopilot servos to assist the pilot in maintaining the airplane in a safe flight condition within the airplane's normal pitch, roll and airspeed envelopes. Electronic Stability and Protection is invoked when the pilot allows the airplane to exceed one or more conditions defined below:

- *Pitch attitude beyond normal (+20°, -15°)*
- *Roll attitude beyond normal (45°)*
- *High airspeed beyond normal (above 161 KIAS)*
- *Low airspeed below normal (below 50 KIAS)*

The conditions that are required for ESP to be available are:

- *Pitch and roll servos available*
- *Autopilot not engaged*
- *The GPS altitude above ground is more than 200 feet (for low airspeed mode)*
- *Aircraft is within the autopilot engagement envelope (+/-50° in pitch and +/-75° in roll)*

Protection for excessive pitch, roll, and airspeed is provided when the limit thresholds are first exceeded, engaging the appropriate servo in ESP mode at a nominal torque level to bring the airplane back within the normal flight envelope. If the airplane deviates further from the normal flight envelope, the servo torque will increase until the maximum torque level is reached in an attempt to return the airplane into the normal flight envelope. Once the airplane returns to within the normal flight envelope, ESP will deactivate the autopilot servos.

When the normal flight envelope thresholds have been exceeded for more than 10 seconds, ESP 'Autolevel Mode' is activated. Autolevel Mode engages the autopilot to bring the airplane back into straight and level flight based on 0° roll angle and 0 FPM vertical speed. An aural "ENGAGING AUTOPILOT" alert (or a Sonalert tone) sounds and the Flight Director mode annunciation will indicate 'LVL' for the pitch and roll modes.

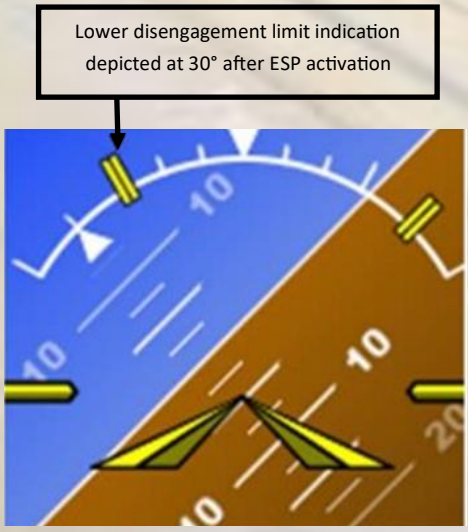
Anytime an ESP mode is active, the pilot can interrupt ESP by using the Autopilot Disconnect (AP DISC / TRIM INT) switch, or simply override ESP by overpowering the autopilot servos. The pilot may also disable ESP through the G3X menu.

Display symbology implemented for ESP is illustrated in the figures over the page.

Nominal roll attitude ESP engagement limit indications

The engagement and disengagement attitude limits are displayed with double hash marks on the roll indicator depending on the airplane attitude and whether or not ESP is active in roll. When ESP is inactive (roll attitude within nominal limits) only the engagement limit indications are displayed in order to reduce clutter on the roll indicator.

Once ESP becomes active in roll, the engagement limit indication that was crossed (either Left or Right) will move to the lower disengagement limit indication. The opposite roll limit remains at the engagement limit.



Engagement limit indications upon ESP activation

ESP is an interesting self-protection feature that I hope no-one will ever need, but it's nice to know it's there. Those of you who would like to practise steep turns will notice that the roll limit is set at 45°. If you want to exceed this limit, keeping in mind anything beyond 60° is an aerobatic manoeuvre with accompanying aircraft and pilot limitations, ESP can be prevented from engaging and trying to level the wings by pressing and holding the auto pilot disconnect button for the duration of the turn on the control yoke.

Happy aviating

Mal McAdam

Head of Operations / Chief Pilot

Editorial

Dear Reader

Welcome to another edition of AirChat. Looking back through some old editions recently I found the first one I edited five years ago. At the time I stated that my aims in editing this prestigious publication were to:

* Provide an interesting read for aviation enthusiasts
* Inform members of upcoming events and Club flyaway opportunities
* Promote the Club and general aviation to the wider community
* Report on Club events as they occur
* Provide a conduit for members to air their views on the Club and its activities
* Recall some of the Club's history and some of the people that have made it what it is today
* Inspire members to take to the sky more frequently and visit some of the amazing destinations on our doorstep and further afield in this great country, either as part of a Club flyaway or independently
* Encourage interest in improving members' flying skills through further education and training at the Club and elsewhere

I hope you agree that we have been generally achieving these aims and hopefully continue to do so in this edition. This time we have included a few more flyaway stories to inspire you to get out and explore our magnificent country while COVID continues to restrict our international travel options. We also introduce Kelly James, our newest staff member, and Grade 2 Instructor Callum Taggart describes some of the features on the new glass cockpit installed in the upgraded Cessna RAQ. We have some historical articles and photos from the early days of the Club while Bob Tait provides advice on forced landings and Phil Ware relates a none-too-pleasant experience of an unnamed rookie pilot way back in the dim, dark past. David Smith relates a stressful experience from his distant past and Lauree Skene Gordon updates us on the Club's RTO students' progress.

I hope the AirChat continues to spread our passion for aviation among Club members and the wider community. Of course I appreciate it when readers contribute articles for me to include. I thank everyone who contributed over the past five years and remind all readers that YOU all have great stories to tell - and we all want to read about them. Please email your thoughts, experiences and ideas about aviation to:

airchateditor@redcliffeaeroclub.com.au

or just write them down on a piece of paper and hand it to Dee at reception. I'll make sure they feature in the next edition.

Philip Arthur

Recent achievers

Congratulations to all our students who recently completed a milestone in their training at RAC. The whole Club wishes you all well for your future endeavours in aviation.

Ray Hansen Muller

Sam

First Solo

Michael Alexander

Alexander Beck

Sachin Butola

Liam Carroll

David Chapman

Ray Hansen-Muller

Jack Kliner

Barend Lindeque

Michael Klingner

Restricted Pilot Licence

Johan Van Andel

Ray Jonkers

Michael Alexander

Private Pilot Licence

Michael Klingner

Yu Hsien (Sam) Wu

Ray Jonkers

Commercial Pilot Licence

Philip Arthur

Jake Whinn

Ji Zhang

Alex

Jack

Barend

Ji Zhang

Jake

Johan

Philip

Upcoming events

Our Club flyaways are always fun and a great way to get together with like-minded aviation lovers.

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

https://www.facebook.com/67groups/678739008989427

Also, our regular happy hour/barbecues are held at the clubhouse on the first Friday of each month. Please call the Club at least a few days before to register for the barbecue for catering purposes.

Here's a list of a few events that are planned in the coming months:

Sun 13 June - Burnett Flyers breakfast, Murgon, from 7:30am burnettflyers.org

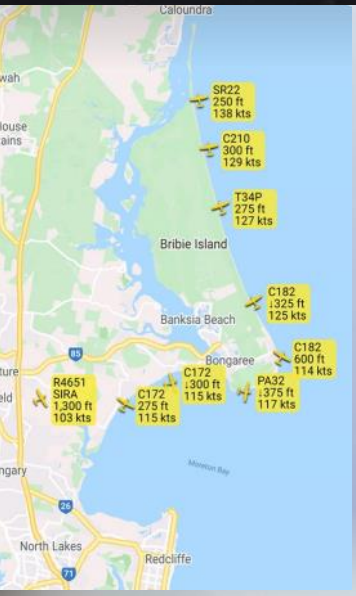
Sat 19 to Sun 20 June - Stanthorpe overnight Club flyaway

Fri 2 to Sun 4 July - Brisbane Air Show, Watts Bridge Airfield www.brisbaneairshow.com.au

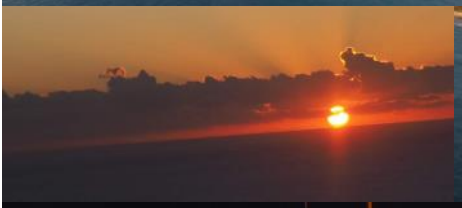
Sun 8 Aug - Burnett Flyers breakfast, Murgon, from 7:30am burnettflyers.org

Sat 4 to Sun 5 Sep - Chinchilla one long table Club flyaway www.facebook.com/onelongtablechinchilla

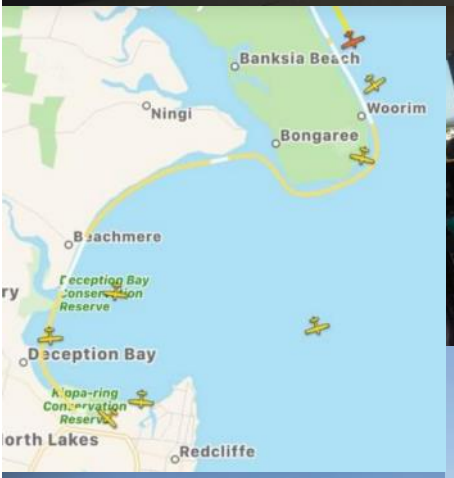
ANZAC Day dawn patrol

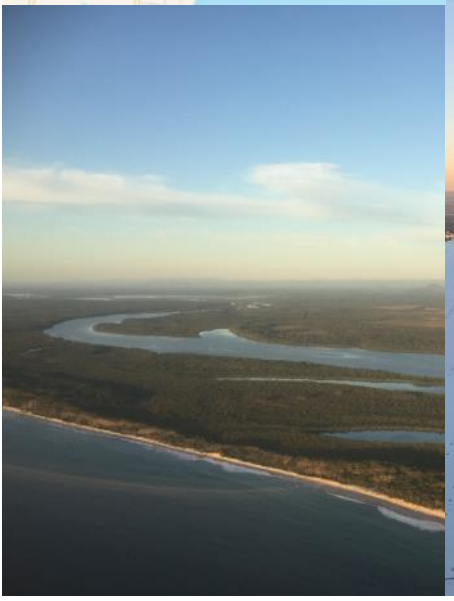


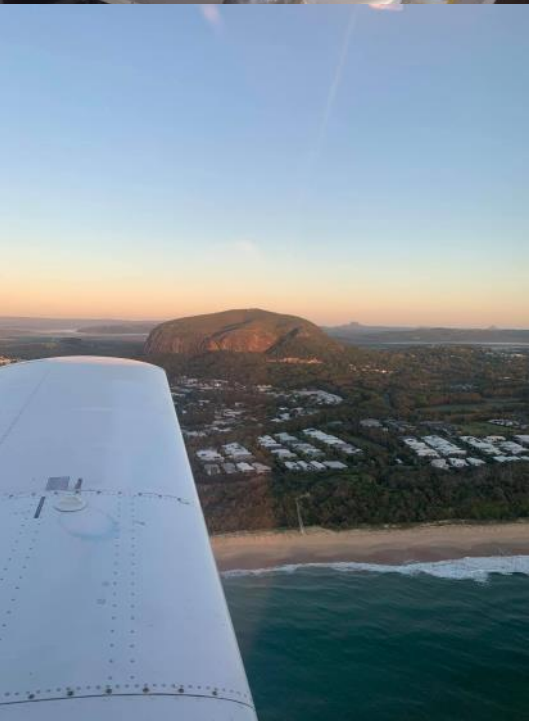
This year's dawn patrol on ANZAC Day was our most popular to date, with 13 aircraft taking part. After a pre-dawn service officiated by Phil Ware and MC'd by Sam Keenan, Mike Cahill led the aerial convoy at 500ft up the coast over water past Beachmere, Bribie Island, Caloundra and the Sunshine Coast Airport to Noosa Heads. After completing a climbing turn to 1000ft north of Noosa all 13 aircraft returned to Redcliffe along the same route. On landing everyone assembled at the clubhouse for a cooked breakfast served by the Club's own Master Chef Bryan Galvin. The perfect conditions, with sun rising into clear blue skies and no wind, made it an unforgettable experience for all who attended and a fitting memorial to all our fallen defence force personnel.



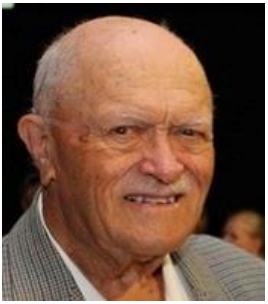

VH-TRE


Banksia Beach
Ningi
Woorim
Bongaree
Beachmere
Deception Bay
Redcliffe





Curly's corner



A life member of the Club with a long and illustrious career in the RAAF and Air Traffic Control, Phil (Curly) Ware is always keen to share his knowledge and experience of ATC and flying in general with the rest of us.

Years ago, the main training aircraft at the Club was the Cessna 152, with three in use: BUE, BUQ and IVW. IVW was eventually consigned to the scrap metal yard and a new C172 bearing that call sign was subsequently purchased by the Club.

Even though all trainee pilots studied and passed their weight and balance theory, they were allowed to use a "standard weight" of 77kg per adult instead of actual weights. This approach proved problematic at times.

One day a newly qualified private pilot received a phone call from the Club, letting him know that a new C152 had been added to the fleet and asking him whether he would come out and fly it. The pilot duly arrived, dipped the tanks and found it needed refuelling. The Cessna 152 had a total capacity of 92 litres and a fuel flow rate of 27 litres per hour so it always seemed a good idea to fill the tanks, which was done.

While the refuelling was underway, a man of massive proportions wandered over to observe. He was a detective sergeant from the then Woolloongabba CIB, and was indeed a **b-i-i-i-i-g** man. He'd always wanted to be a pilot and asked whether there was any chance of him going for a ride.

Approval was given, the passenger was strapped in, given his safety briefing and the C152 started up and taxied to the holding point for RWY07.

The pilot had made many flights in C152s so he made a quick mental calculation of the W&B: 2 adults at 77 kg each plus 92 litres of fuel - weight within limits - fine.

It was a hot day, and the QNH was relatively low. The take off roll commenced, and about three quarters of the way down the runway, noticing the acceleration was not quite as expected, the pilot began to have misgivings about the aircraft weight and conditions. Nevertheless the take-off continued and the aircraft became airborne and climbed away. It was a very low climb rate however - similar to how the toilet block near the helicopter hanger would climb, if it had wings!

Speed was held at the "Best Rate Of Climb Speed" as the aircraft skimmed over the coastline and the pilot commenced a 5 degree left turn, so as not to lose altitude in the turn. Suddenly he noticed a placard on the instrument panel that he hadn't seen before. It read:

CAUTION - This aircraft is fitted with long range fuel tanks

With 2 POB do not fill above 92 litres

It was common knowledge that a C152 normally held 92 litres but this wasn't a normal C152. With long range tanks, this particular aircraft had taxied out with 160 litres on board, making it way over the maximum take-off weight. Moreover, the pilot suddenly realised that it was also way over the maximum landing weight! What to do? He quickly calculated that he had about three hours of flight time before he'd burned enough fuel for the aircraft to be back below legal landing weight. So he said to his passenger "How would you like a run up to Hervey Bay and back?" The passenger was delighted and so the flight proceeded over water to Hervey and back with mixture full rich to use as much fuel as possible and, on return to Redcliffe, calculation confirmed that the aircraft was finally below its legal landing weight.

It was a "greaser" of a landing. The plane taxied in and parked and the passenger was ecstatic. Never in his life had he flown with such a competent pilot! And with that he fished some notes out of his wallet, stuffed them into the pilot's shirt pocket and said that the best part of the flight was the low level departure from Redcliffe, where he had such a good close look at his properties. He didn't realise just how close he came to arriving prematurely in the back yard of one of those properties!

Ignorance is indeed bliss and the passenger had enjoyed a very blissful flight while the pilot had learned some valuable lessons. So he counted his lucky stars and contemplated what he'd learned that day:

1. Always check your weights (including fuel on board) and do thorough weight and balance calculations before every flight; never just rely on "convention" or assurances from others.

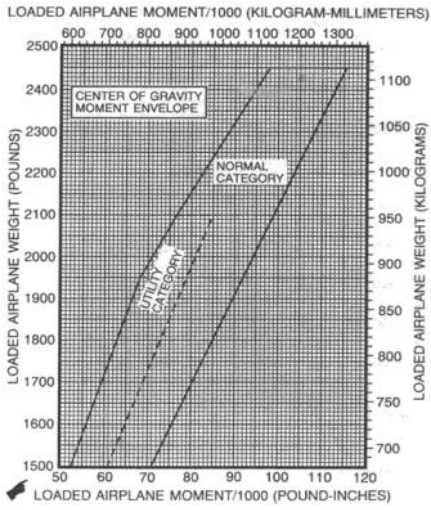
2. If there is any doubt during the take-off run abort the take off run - do not take off.

3. If there are doubts during the subsequent flight, wait for conditions to improve and/or adjust the actual weight being carried.

As a former RAC Chief Pilot said, "When you open the throttle, you must have already asked yourself all the questions and have all the answers that permit you to take off safely and legally."

Happy and Safe Flying :-)

Curly



Attitudes

by Bob Tait

FORCED LANDINGS WITHOUT POWER

I remember seeing a newspaper article once which carried the headline: “PASSENGERS PRAISE PILOT’S DECISION”. The following story revealed that, following a complete engine failure in a single engine light aircraft, the pilot had had the presence of mind to land the aircraft immediately. Just as well or, as the old Irish joke goes, they could have been up there all night!

What makes forced landings without power different from any other element of (motorised) flying training is that the situation presents no option but to land off the first approach. It follows that the planning of that approach into the chosen field is absolutely critical. If ever you are faced with the real thing, the approach will probably be to a surface other than an aerodrome and in a locality other than the familiar circuit areas of your training days. It is then that the quality of your training and recent practice sessions will be tested.

A forced landing requires you to demonstrate your competence in two areas: DECISION and CONTROL.

There are three vital decisions to make:

- Which field?
- Which end? (think wind)
- Where’s base?

There are three elements of control required:

- Control of the aircraft (airspeed and balance to maximise gliding performance)
- Control of your passengers (keep them informed)
- Control of yourself (stay calm and follow your plan, do your trouble checks, give your MAYDAY CALL, brief your passengers, monitor the approach)

The first and most important consideration is can you get to a suitable field? You need a good feel for your aeroplane’s gliding performance. Imagine your aeroplane to be sitting on the apex of a cone whose sides slope down at your gliding angle. The slope of this cone will be different for different aeroplanes but, with practice, you should learn the angle which your aircraft's cone makes with the horizon. Any field that falls within the base of this imaginary cone is available for your forced landing.

CHOOSING A FIELD

Any field which is outside that base is not an option no matter how inviting it may look! If a strong wind is blowing, imagine the cone's base to be displaced downwind.

Remember that if you are on a cross-country, your altimeter will be unlikely to give you an accurate height above the ground - you should practice 'eye balling' your height. Also, you will not have the familiar ground features that you have likely been using around your favourite forced landing practice field in the training area.

THEN IN ORDER OF PRIORITY:

Is the field plenty long enough? If there are two possible fields within your cone, choose the one that offers the longest landing distance.

Are there obstacles on the approach? If there are two long fields within reach (you should be so lucky!) choose the one with the best approach.

Is it into wind? If there are two long fields with good approaches within reach, choose the one that is into wind. Note that wind is secondary to length. It is better to choose a long field that is out of wind than a short field which is into wind.

What is the surface like? If your good fortune was such that there were two fields within reach, both of which were long, with clear approaches and into wind, choose the one with the better surface.

Will there be help? If there were two reachable long fields with good approaches, into wind with good surfaces - choose the one with dwellings or a road nearby.

Plan for a close base and short final. Remember you can always lose height, but you can never get it back if you've wasted it. It's better to go through the far fence at taxi speed than the near fence at flying speed.

THE IMPORTANCE OF PRACTICE

Obviously decisions such as these are not going to be easy to make in your option-depleted situation. The wise pilot will already have made them in years of practice and conversation with others.

WHAT ABOUT SIDESLIPS?

A good friend of mine, who was also a very experienced aviator and independent Approved Test Officer, often expressed his surprise at the number of licence test candidates who, after applying full flap on final for a practice forced landing, realised that they were still too high and sat there saying things like: "Well I've @#&*$# stuffed this one up!" What ever happened to the ability to do a controlled sideslip? Now, I know that sideslipping with flap extended is not recommended for many light aircraft, but we are talking about an option-depleted situation here. I'm sure that I have seen many practice forced landings where, had they been real, injuries would have been prevented by a full-blooded sideslip on final. Maybe it's time you asked an instructor to show you again how to sideslip? And how best to practise forced landings.

Agnes Water and 1770 discoveries

In search of the elusive vanilla slice!

by Sandra Safey and Beth Petersen

Our trip of discoveries began with pre-flight planning, including a safety instruction video for us (as novice flight recruits) and a lengthy discussion about our departure time from home - 0457 precisely - as we had not only a plane but also a boat to catch! It was early on Saturday, 27th March, and we were on our way to Redcliffe aerodrome for a trip to Agnes Water and Lady Musgrave Island. Excitement all round as we boarded our flight on Cirrus VH-MSF. After a quick spot of photography on the wing, we climbed into the plane, strapping ourselves in. Unravelling the headphone cords was all part of the fun. Our pilot ran through the requirements and flight plan while his first officer provided offers of in-flight entertainment and food! We were airborne by 0628.

Our flight path took us up the coast past Caloundra, Noosa Heads to Double Island Point, over Maryborough and past Hervey Bay and Bundaberg. We arrived safely at Agnes Water/1770, following a 500ft overfly to check for kangaroos inhabiting the airstrip - fortunately there were none! The weather was gloriously clear, allowing stunning views of the vista below. Philip and Sigi pointed out landmarks and we marvelled at the wonderful coastline from that birds-eye view.

Upon landing, we were met by Woody (aka Les Woodall), the airport manager, and no sooner had we tied down MSF than our pre-booked taxi arrived to whisk us all straight to the 1770 marina for our Lady Musgrave Island boat trip. Our schedule was tight, allowing no time for error. Sadly, Beth left her phone in the taxi causing momentary panic. Fortunately Georgia, our taxi driver, saved the day, delivering said phone to its rightful owner within minutes.

What a day! It was 1.5 hours by boat from 1770. Lady Musgrave Island is the southern-most island in the Capricorn Cay, formed entirely of coral and covered by pisonia trees. Its only inhabitants are various breeding bird species, including Black Noddy Terns, known for their voluminous pooping behaviour. Perilous to unsuspecting walkers! This island sanctuary is surrounded by an 8 km diameter turquoise lagoon containing an abundance of sea life.

First up, struggling with our flippers (fins for the experts), was snorkelling, delighting in the coral, beautiful fish and turtles in the lagoon! Magic! Beth's underwater GoPro came into its own, capturing the extensive marine life and certain ungainly fellow snokellers! Next, a glass bottomed boat ride to the island afforded us great images, including some very curious turtles. Our guide's enthusiasm and knowledge of the marine world below was just amazing. Upon arrival, we had a guided walk to learn about the island formation and birdlife. Interestingly, there are no predators for the birds such as snakes or lizards.

All of us left Lady Musgrave Island with a new appreciation for the pristine beauty of this stunning area. After our 90 minute boat trip back to 1770 we enjoyed a cooling lager at the newly opened wine bar at the marina, watching the brilliant orange hues of the sunset over Bustard Bay. We finished the day with a delicious dinner of calamari and pizza at Codies Place, right next door to the Mango Tree Motel (our accommodation) and the beach.

The next morning Sandra, Sigi and Philip were eager for a swim (where was Beth?). Breakfast at Holidays Café with fabulous beach views was a hit. We left Philip and Sigi here and taxied to the Paper Bark Forest. Wow! Another highlight! Only 400m long but a beautiful walk along planks and stepping stumps enjoying the paper bark tea trees, dappled sunshine, and the somewhat elusive butterflies and birds. Some of the path was under water due to recent heavy rains but was easily traversed in bare feet! Faced with a long walk back, our feet were saved by yet another wonderful local who offered us a lift to our morning tea destination at the Getaway Garden Café to meet up with Philip and Sigi again.

It was time for the much awaited vanilla slice, which, we had been told, is one of the best in Queensland. Of course, we had to sample it. Having tasted with great gusto we decided it could well be true! Our walk back to the motel took us via the Discovery Trail Lookout with fabulous views of the coastline. Sandra enjoyed another swim (where was Beth?) then we were off for our LARC (Lighter Amphibian Replenish Cargo) tour from the marina. On the way, Georgia extended our taxi ride to show us Round Hill Head lookout where we saw stunning views over Bustard Bay - thank you Georgia!

The LARC tour, a one hour trip in the amphibious craft across sand and water with a couple of exciting splashdowns, was great fun, with our humorous and knowledgeable guide. We then walked along the beach to the Captain Cook Monument - a cairn commemorating the landing of the Endeavour on 24th May 1770 (hence the name of the town). It stands overlooking Bustard Bay, which was named after the crew shot a bird for dinner, and noted in their log that it was the best meal they'd had since leaving England in 1768!

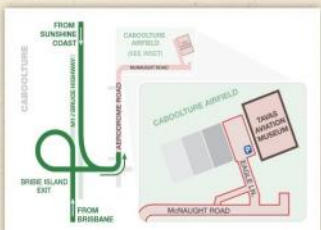
That evening, we enjoyed bubbles and nibbles at the beach, watching the sunset and the moonrise, before having dinner at the 1770 Hotel.

Our final day in paradise began with a beach visit, breakfast at Codie's Place, then a quick taxi ride to the airstrip for a 0930 take off. After refuelling in Bundaberg we took off again and headed for home, encountering some cloud, which caused a few bumps and some visual loss (IMC) at times. Despite this, we had some great views as we flew past Woodgate, Fraser Island, Maryborough and the Glasshouse Mountains, with Caloundra and Noosa in the distance, landing safely at Redcliffe around 1130.

A truly magical trip.

TAVAS MUSEUM

Hangar 106, Caboolture Airfield, Caboolture QLD



Only a 40 minute drive north of Brisbane and just off the Bruce Highway - take exit 152 and head towards Bribie Island. Take the first left, Aerodrome rd.

The only museum in Australia that concentrates solely on the first 30 years of powered flight - and houses the only collection of flying WWI type aircraft in this country.

See a full-size replica of the first aircraft to achieve powered, controlled flight – 2 years before the Wright brothers did.

Get up close to a 100% accurate reproduction of the first ever true fighter aircraft of all time - it is one of only two in the world. This one painted in the colours of the one to shoot down the last Australian to die at Gallipoli.

See two flying aircraft that represent ones flown by interesting Australian Aces of WWI.

One of the flying WWI aircraft in the collection is literally powered by a 100-year-old engine.

Of all the aircraft in the museum, one can't be found anywhere else in the world, three of them can't be seen anywhere else in the Southern Hemisphere and another two aircraft are the only ones of their type in the country.

The front wall of the museum is dedicated to all of the Australians who became aces during WWI. This is the most complete and accurate list ever and gives a good account of each of these amazing individuals.

There is also a kids corner with interactive elements to keep them having fun, whilst you continue to look around the aircraft and displays and learn more about this little known, but fascinating period of aviation history.

LOCATION

TAVAS is a new and unique museum experience, just a 40 minute drive north of Brisbane and just off the Bruce Highway. After visiting TAVAS, you can drive further north to Caloundra and see the impressive Queensland Aviation Musuem.

Prices:	Adults	$15	
	Concession	$12	
	Children 5-16	$ 7	Children under 5 Free

OPENING TIMES

Thursday - Sunday:
10:00am – 3:00pm
Web: www.tavas.com.au
Email: info@tavas.com.au
Phone: (07) 5495 7069

AIRCRAFT ON DISPLAY

- 1901 No.21 Condor
- 1909 Demoiselle
- 1910 Henri Farman III
- 1911 Johnson Monoplane
- 1915 Fokker E.III Eindecker
- 1917 Sopwith Camel
- 1917 Fokker Dr.I Triplane
- 1917 RAF SE5a
- 1917 Bristol F2B
- 1917 Nieuport 24
- 1917 Fokker D.VII
- 1918 Fokker D.VIII
- 1933 Flying Flea

RTO roundup

by Lauree Skene-Gordon

Exciting times are ahead as the club commences the recruitment and selection process for new and eager aviation students for 2021 enrolment vacancies. Vacancies include positions on our AVI50219 Diploma of Aviation (Commercial Pilot Licence - Aeroplane) and AVI50519 Diploma of Aviation (Instrument Rating). The team are excited to see the talent pool that apply for 2021.

Staff intro - Kelly James

We welcomed Kelly (back) to the club in February 2021. Kelly began flying training in the early 1990s at Archerfield while completing a Bachelor of Science. She completed her instructor rating with the Redcliffe Aero Club in 1998 and spent 8½ years with the club as a flight instructor. Kelly loved her time at the Club and was here to see the first C172S purchased.

In 2007 Kelly moved to Townsville to accept a position as first officer (FO) on a Saab 340 for MacAir and continued to gain experience and knowledge until the airline went out of business. Kelly then took her experience and applied it to a new position in an instructing position at AAA at Archerfield before moving to Cairns to fly for Skytrans Airlines as a Dash 8 FO.

At Skytrans Kelly was able to see a large portion of our beautiful country flying from the northern tip of Queensland to the south of Tasmania and spent a lot of time flying around the outback. She moved back to Brisbane to complete her command training and become a captain.

Kelly's most recent position was with Virgin Australia as a flight dispatcher. This role involved flight planning for all VA services, from domestic to international, from ATRs to Boeing 777 aircraft. A large part of the job was providing a flight following service that involved monitoring and contacting her planned flights in case of any issues/emergencies. She was also a trainer of new dispatchers and upgrades to international planning. Due to the COVID-19 pandemic Kelly's position with Virgin Australia, like many in the aviation industry, was made redundant in 2020.

The redundancy provided Kelly with the opportunity to reskill and refresh her knowledge with the Cessna aircraft fleet as a Redcliffe Aero Club member in 2020 before joining the team earlier this year.

Kelly is excited to be back at the Club in her new role of RTO Administration Officer and she hopes her aviation experience will be a big asset to the RTO team. She is looking forward to seeing some familiar faces around the Club as well as meeting all our new students and members.

A very long reach

by Luc George

For some aviators it would be an "Unreachable Star" as Mother Nature seemed to have thrown some of her wildest weather at us in order to protect us from our own foolishness. Several Redcliffe Aero Club members had planned to fly to Longreach for a weekend of celebrations at the Qantas Founders' Museum. It was to be a delayed 100th anniversary celebration for Qantas and the official opening of the museum's new airpark roof and spectacular "Luminescent Longreach Experience" lightshow, culminating in a Red & White Gala Dinner on Friday 19th March. Sam Keenan had organised accommodation and dinner bookings for us all but unfortunately bad weather with rain and thunderstorms forecast for both the outbound and return journeys precluded flying from Redcliffe. A great deal of planning effort by Sam went into this weekend, so it was very back luck that he, along with Mike Cahill, Ron Ennis, Bryan Galvin, partners and friends were not able to fly in. Nevertheless, thank you Sam for the perfect organisation!

On the Wednesday Mike had spoken to the met office. They advised there would be some showers Thursday morning and possible thunderstorms about the Brisbane ranges on Thursday afternoon – so Friday would be a better day for our route, based on what they knew overall. We all thought we would still try to head out Thursday morning, but if the forecast on the day said "no", we would wait until Friday. Such was the plan!

Well, getting out of the Brissy basin on Thursday was problematic, with BKN1000 (broken cloud at 1000ft AGL) forecast in the YROM area until after 10am. Roma was meant to be our first stop so that didn't look very promising. The equation started to be more complex as we read the weather in more detail. Slight improvements were forecast throughout the day between YRED and YROM with a small possibility of the odd thunderstorm in the Longreach area in the afternoon. Both Roma and Longreach had "INTERs" between 12pm and 5pm with visibility down to 3,000 metres. Not pretty!

With only a 50% chance of being able to make it, we decided it would be better to think about a long drive out West if we still wanted to make it for the celebrations at the Qantas Founders' Museum.

Some even thought about flying out with Qantas on Friday and back on Sunday but the thunderstorm forecast for Sunday afternoon east of the dividing range was going to be another trick to avoid, if possible!

For myself, I had been looking forward to finally flying west on a long haul in VH-WKE, my Cherokee, but by Thursday afternoon I'd already made the decision to join Ristan and Gary Greer to drive in convoy from Brisbane to Longreach, spending a night at a Roma motel.

So, then started the Very Long Reach across the country. One good thing was to observe that most of the roads were in near perfect condition. Politicians from all sides have certainly done an amazing job in order to transport people and goods out there!

Outbound - outside Drillham west of Miles

As a result, after some 1,200 km of exciting driving experience along the A2, at least some RAC members, friends and partners were able to attend the Red & White Gala Dinner. Tony Lanzi, the 'smart guy', was the lucky one - he flew into Longreach from Cairns in his Cessna 182 VH-TBD, together with his wife Angie and their friend Peter.

The dinner was held under the roof of the museum's new airpark. The roof is an architectural masterpiece in itself, with over 400 tonnes of steel and only 6 supports. The design had to comply with aerodrome obstacle limitations and also be sufficiently aerodynamic that it did not lift off in strong winds.

VH-TBD with the museum in the background

MC for the night was Mitchell Murphy, the CEO of the Longreach Regional Council, and a variety of VIP guests were in attendance. The Governor of Queensland (Paul de Jersey) officially opened the airpark and the lightshow. Other official attendees included the Queensland Minister for Tourism Industry Development and Innovation and Minister for Sport (Sterling Hinchcliffe), John Gissing (Qantas Group Executive, Associated Airlines and Services), Tony Martin (CEO of the Qantas Founders Museum), John Vincent (ex-Qantas engineer and current Chairman of the Qantas Memorial Foundation Ltd Board) and Daniel Gschwind (CEO of the Queensland Tourism Industry Council).

Tony and Angie on the airpark tour

Flight deck of the 747

His Excellency the Honourable Paul de Jersey

VIPs at the dinner

The dinner was great French inspired food in spectacular surroundings, under the wings of the 747 and the new roof, with excellent service from the local hospitality school.

Other display aircraft under the roof are a DC3, a 707 and a Super Constellation.

Future plans for the Qantas Founders' Museum include construction of walkways at 'window level' around the display aircraft, for which the Board is currently seeking funding.

Fun at the museum

Douglas DC3 under the roof

Minister Sterling Hinchcliffe said in his speech that he would approach the Queensland Treasurer for funding, the Treasurer would say "no", and they would go from there!!

The light show was spectacular, with images depicting the history of Qantas from its outback origins to the present day projected onto the side of the 747.

On Saturday morning, while recovering from the night before, and being not completely satisfied with my first solo driving experience in the Far West, I added a couple of hours by heading back to Barcaldine to my last petrol/coffee stop, where, quite exhausted, I'd left my wallet the day before. Life could always be more fun, hey!

Fortunately a repair program was on my agenda back in Longreach, with a 2000m swim at the very visitor friendly 50m pool.

Tony and his wife Angie went to the museum with their guest Peter, who made the trip on crutches. Well done mate and thank you for your enthusiasm for life.

Ristan and Gary spent Saturday sightseeing around Longreach, with a visit to the Qantas Museum. Unfortunately the Stockman's Hall of Fame was closed for renovations, to be re-opened on the 1st April.

Later in the afternoon Tony invited me to step on board VH-TBD, his C182, to finally have a bird's eye view of the beautiful, and luckily at this moment of time quite green and watery, landscape. Great thanks again for this very generous opportunity, as we were the only plane in the sky over YLRE.

Saturday evening was shared with everyone around the table at one of the local pubs, just enjoying being there and sharing experiences.

We headed back to Brisbane early on Sunday morning, arriving that same evening. It was a long drive to finish off a great trip - I will definitely fly next time!!

Tony taking Luc for a spin at Longreach

Thomson River with Longreach in background

Tony and Peter with TBD

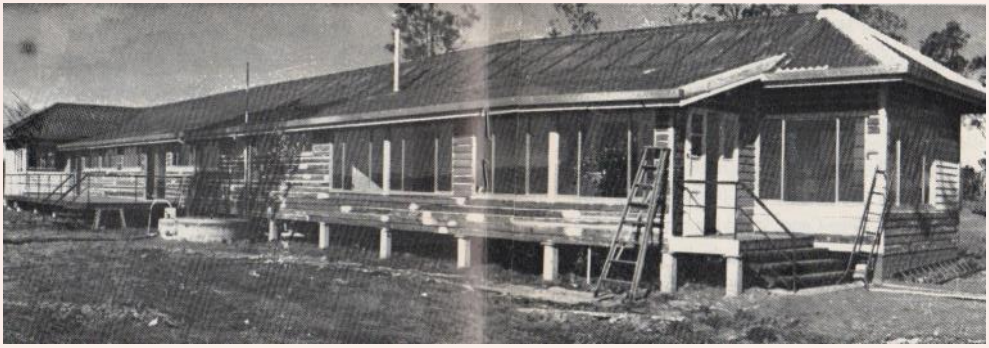
Tony and Angie at the dinner

From the archives

From time to time it's interesting to look at how times have changed over the past fifty years. These articles and photos are from the Club archive.

The original clubhouse - initially half of it was occupied by Redcliffe Flying Services

The new bar was well patronised



The new clubhouse nearing completion in 1978

If you hadn't already guessed, the occasion for this SOUVENIER ISSUE of the AIR CHAT is.

The opening of the NEW CLUB HOUSE

Certainly it is appropriate that some facts about the new club house should be listed.

Firstly, our thanks must go to Dave Eban (the "Chief Pirate").

Dave donated the building to the club and I don't doubt even he never expected it to turn out as it has. Thank you, Dave.

Next; The clubhouse itself consists of two sections under the one roof; the operations area and the social area. The two sections are divided by the entrance foyer and recreation area.

The social area contains a large kitchen, fully equipped with Freezer, Refrigerator, Electric Range, Micro-wave oven and dishwasher. There are also large food preparation areas which have already been well used by the ladies. Next is the Bar area and lounge cum recreation area. The recreation area is now graced by a "Wheel-a-way" table tennis table donated by John (Buller) Newbery. Our thanks John.

Of course, we still have our VERANDAH, where many a gracious lady has waited for THAT aircraft to finally land.

So, that is the new club house. Look through it, use it. That's what it is for.

In getting the club house to its present stage, many, many people were involved, but special mention must be made of the effort put in by Mal Allsopp. Your efforts are sincerely appreciated Mal. As to the opening which is occurring today. We express our thanks to Alderman Ray Frawley, the Mayor of Redcliffe, for performing the official opening ceremony.

Early refuelling facilities

From the April '75 Issue:

"Those of us who have been flying lately *(Ed. It sounds as though flying didn't occur too often then. I wonder what they did instead?)* would have noticed the lack of boulders and pot holes on the strip.

This is largely due to the fact that the Redcliffe City Council has completed grading and rolling the gravel surface of the runway.

The airfield was completely closed for one day while the Council workmen carried out this work and, while they were on the job, they also did a substantial amount of grass mowing. All in all, a most commendable effort by our local Council."

Seeding the strip was a co-operative effort with the Redcliffe City Council and AG-AV

Alice Springs boneyard

When we visited Alice Springs a few years ago on the Club's Uluru flyaway we noticed that an enterprising company had started creating an airliner 'storage facility' (aka 'boneyard') for unused aircraft, just south of the main runway. The storage facility is operated by Asia Pacific Aircraft Storage (APAS) Ltd. who chose Alice Springs because its dry, arid climate is ideal for aircraft storage and preservation. It caters to Asia-Pacific carriers as well as other airlines from around the world. It is capable of handling all aircraft types, including the Airbus A380, Boeing 747 and Boeing 777. When we saw it back in 2018 we had to agree it made sense however, after beginning operations in 2014, it still only had a few aircraft in it. How times have changed! Those APAS people must have been clairvoyants. It appears that since COVID it has been keenly sought after. Billions of dollars worth of passenger jets are now waiting out the pandemic at 'The Alice' where the dry climate is ideal for preserving them until they're needed again. Singapore Airlines and Cathay Pacific are among the airlines that have sent much of their grounded fleet there, including mighty Airbus A380s. Stefan Drury, a YouTuber pilot based in Moorabbin, has made a short video of a recent visit there. Have a look at it via this link:

https://www.youtube.com/watch?v=Ibryv-hf2DI&list=RDCMUCG1HLA8IEqZ09_C_7u5tUjQ&index=8

Trouble in the Falklands

by David Smith

David Smith, a Royal Navy veteran, spent 17 years in the Fleet Air Arm, of which about 11 were flying, including active duty on Sea Harrier Jump Jet VTOL fighter jets during the Falklands conflict. On leaving the navy he joined Cathay Pacific in Hong Kong and flew Lockheed L1011 TriStars, Boeing 747-400s and Airbus 330s, 340s and 350s. After retiring in April last year he came down to Brisbane on a two week holiday but got stuck here so decided to become a member of our Club and get his Australian PPL in our C172s and C182s. He's also taken up gliding at Caboolture and helps out with flying their Piper Pawnee tug aircraft from time to time.

It was 8th June 1982. We were stationed on aircraft carrier HMS Hermes in the Southern Atlantic and had a problem. We simply didn't have enough night deck qualified Sea Harrier pilots. Those we had were the senior ex Phantom and Buccaneer pilots who represented most of our seasoned flight combat leaders. Although there was not much actual night flying during the conflict these guys had to spend the nights often at five minutes readiness to launch and, consequently, needed to rest up during the day. To say this diluted the experience of the day combat teams would be a significant understatement!

The solution to this was, of course, to qualify more night flyers. Qualifying to the deck at night in a single seat fighter is a bit of a process - especially in the South Atlantic in the middle of a full on battle! It starts with a series of what are called 'Duskers'. Here the pilot launches from the deck just prior to sunset and the recovery is initially planned to be during the light dusk period when the whole night approach profile is flown (more about that in a minute) but the horizon is still quite visible, as are the features on the aircraft carrier. The next night the recovery is planned a bit later until over a number of days you progress into the completely black approach and landing.

Back in those days the approach to the deck at night was flown using what was known as a 'Carrier Controlled Approach' (CCA). The pilot was vectored by radar to a point about three miles astern of the carrier where he was picked up by the 'talk down controller'. At this point the Harrier had to be configured with the vectorable nozzles set to 60 degrees, flaps fully down and the landing gear down. This would stabilize the aircraft at about 135 knots on a three degree slope. The words would go something like this:

"You are approaching the glideslope so prepare to descend."

"You are now on the glideslope so begin your descent to maintain a three degree slope."

"You are going slightly right - come left two degrees, make your heading 262."

"You are going slightly low - adjust your rate of descent."

"You are back on the centreline, make your heading 260."

"You are back on the glideslope - maintain" etc

This continued all the way down to 0.8 of a nautical mile when the controller would say "Point 8 of a mile, look up for sight."

Now you would peer into the darkness and see the landing sight which was a row of green lights with a white ball in the middle. It was stabilized in space to the three degree slope no matter how much the deck might be pitching. If the white ball goes high it means you are going high on the approach and if it goes low you are going low. When you get seriously low it turns red!

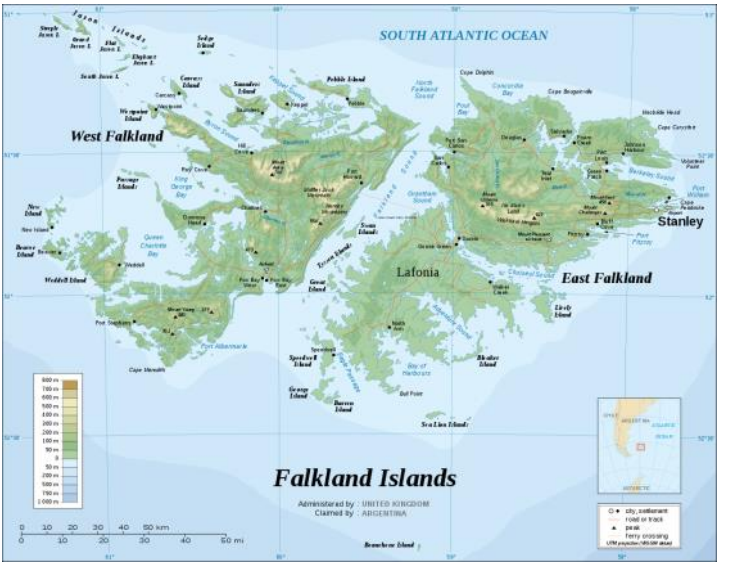
To assist in this part of the approach there would be an experienced pilot standing behind the sight on the ship who could watch your approach through a graticule that had the three degree approach marked on it. He would come on the radio and refer you to the 'Roger' which was the term for the three degree slope. Words like: "You are on the Roger - good rate of descent." "Going slightly low - adjust." "Wind down the deck." "The deck is steady." "Back on the Roger, line up is good." "Going low!" "NO LOWER!!" and the absolute emergency call "POWER, POWER!!" if you were seen to be going dangerously below slope.

Unlike the day approach, which was a left hand break into the circuit from above the carrier to a quick decel to the hover and land which would only take just over two minutes, the night approach was quite drawn out and because of the time flying the CCA with the nozzles at 60 degrees and a high power setting the fuel usage was considerably higher. These were all considerations we had to take into account when managing the fuel for the night recovery.

British Aerospace Sea Harriers

ANYWAY, back to the story...

Flight Lieutenant David Morgan and I were selected as the first stooges for the new night flyer scheme. David Morgan was an experienced RAF Harrier pilot on loan to the Royal Navy and although he had considerable ground attack time with the RAF in Germany etc he was, like me, quite new to aircraft carrier operations.



So, on the evening of 8th June 1982 David and I launched off HMS Hermes for the first of our planned 'Dusker' missions. The plan was to take off before sunset and fly to an area south of the main town of Stanley to set up a Combat Air Patrol (CAP) over two of our landing ships that had recently come under air attack from the Argentinean Air Force. The transit was over two hundred nautical miles and flown up at high level so as not to get tangled up with the enemy anti-aircraft fire over Stanley Airfield. As we approached the designated patrol area we let down to 10,000 feet and set up a purely visual CAP over the two ships. An image I'll never forget is of the HMS Sir Galahad burning fiercely in the gathering dusk with the whole back end quite literally glowing red in the intense heat of the fires below.

With the extra fuel we needed for the night profile on return we were only going to be on station for about half an hour so we did our best to prolong the patrol by flying quite slowly at close to the best endurance speed. It was very quiet and the only activity was the unfolding drama below where a frantic rescue operation was taking place to ferry the wounded ashore from the burning ships.

We had quite literally reached the last turn of the patrol before making our way back to HMS Hermes when I heard David shout over the radio "FOUR MIRAGES! FOLLOW ME DOWN!"

I was in the middle of a turn at slow speed with David directly in my six when he simply vanished from sight! I immediately slammed to full power, rolled inverted and pulled in heavy buffet to point at the sea below. I had absolutely no idea where he was or what he was chasing! The evening gloom was gathering and there were scattered rain and snow showers around making the visibility difficult at best. I keyed the radio and shouted "WHAT'S THE ATTACK HEADING??" I needed to know where to roll out once I reached low level. He replies (helpfully) "FOLLOW ME, FOLLOW ME!!" but eventually, "HEADING 240, FOLLOW ME!"

HMS Sir Galahad, casualty of the Falklands War

By now my Sea Harrier has accelerated to just over six hundred knots and I am pulling out at six 'g' low over the water.

And I still can't see anything!

Then up ahead of me by about a mile a flash followed by a missile trail and a vivid orange explosion! Then a second flash and missile trail and another bright orange explosion.

By now I have a pretty good idea where he is but I still can't see him. Then as he closes up on the third enemy aircraft (actually they were A4 Skyhawks!) he opens fire with his 30mm Aden Cannons. I see the fall of shot around the sinking Skyhawk and by extrapolating back I finally see Dave. He empties his guns with no effect and then pulls to the vertical to get out of my way and make his way home.

Argentinian Douglas A4 Skyhawks

I've now locked the target with my missile but the range really looks too long for a low level Sidewinder (Air Intercept Missile) shot. I have a great deal of speed on my side though as I am still doing about 620 knots. We are also very low. I estimated my height to be only about 100 feet over the sea and I was having difficulty putting the target on the horizon which put him even lower than me!

I couldn't maintain the chase for long as I was seriously low on fuel, so I rolled back the safety catch and fired. A terrific bang as the missile leapt into the air and the reaction nearly rolled me inverted which, at 100 feet and 620 knots, rather caught my attention! The missile tracked but appeared to run out of fuel before reaching the target and I thought I had fired out of range. However, I believe my overtake carried the missile to the target and there was a bright flash and explosion.

I had no idea where number four was but as I glanced at my fuel decided I didn't care!! I zoomed up to 25,000 feet and joined up with Dave. I suggested on the radio that he let me make the first approach as I was seriously short of fuel by now but he would have nothing of it, claiming he was in a similar predicament!

I calculated that if I flew the whole profile including the whole glide slope from three miles out using 60 degrees of nozzle and a high power setting I simply would not make it before flaming out. I therefore modified it to fly the final approach with only 20 degrees of nozzle which would use much less fuel but meant coming in at about 190 knots. Not good for one's first ever night approach to the deck, that was now much darker than originally planned. Talk about stress! All my low fuel lights were flashing and I was quite convinced I wasn't going to make it. When I came off the bottom of the CCA and looked up for sight I was going much faster than recommended.

This was going to be a challenging decel! Miraculously, the deck was behaving itself and for a change was not pitching and rolling as was normal in the South Atlantic. From point eight of a mile I pulled the nozzles straight into the braking stop and brought the power up to near maximum hoping I could bleed my speed off before I surged past the now rapidly approaching ship. With all lights flashing and the harrier shuddering under the harsh deceleration, much more by luck than good judgement, I lurched to a hover alongside the landing position. The Landing Sight Officer was rather startled at my untidy arrival but his calm reassurance got my rattled nerves under control and I was able to make a safe landing.

Whether true or not the ground crew reckoned I had less than a minute of fuel left!

Lieutenant David Smith, Royal Navy
on return from the Falklands in 1982

A night flight to the Gold Coast

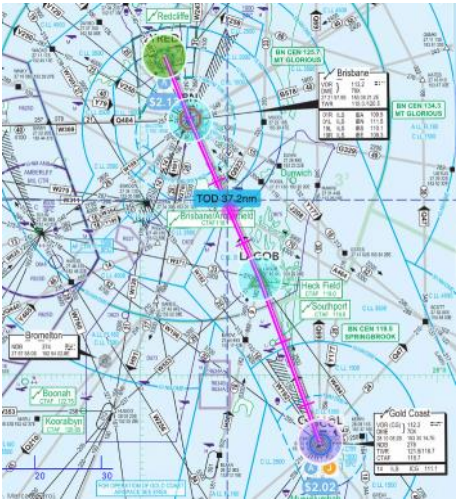
by Ryan Darby

On 10th May the Club arranged a night flight to the Gold Coast with dinner at a restaurant in Coolangatta. It was an opportunity for me to gain some night experience, fly an ILS again (which wasn't so easy now that Brisbane airspace was busier again) and to say we had flown somewhere and had dinner. Real first world stuff.

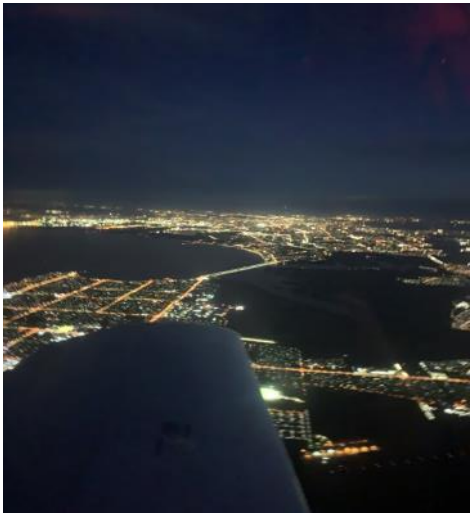
The flight had been delayed by a week due to weather, which saw the initial interest from many planes drop off, and it was just Sam Keenan in his Piper and myself in ROC that made the trip. But we both had a full load of passengers so it was a fun crowd. The weather was perfect. No wind at Redcliffe with FEW cloud at 4500. The Gold Coast had light wind with up to a 3 knot tailwind on RWY14 which is the one I wanted to use as it has an ILS. In reality the flight was smooth and there were a lot of comments from passengers who hadn't flown at night before about how pleasant it was.

Climbing to 7000ft overhead Redcliffe

Flight planned route



I wanted to use my new IFR rating so planned Redcliffe to BN to LAGOB via H185, then to GOMOL/Gold Coast. H185 is a one way but when I called Brisbane Approach while I was planning to ask for the best route they said to use that, which was something they also told us when we asked about it during training.



The view from 4500ft above YRED

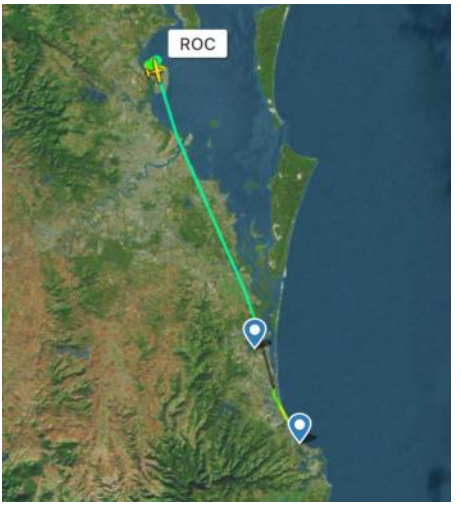
We left just before last light so were able to use the taxiway, while commenting that in a few minutes it would be necessary to backtrack down the runway as the taxiway has no lights, and how few people actually do. After runups a call was made to Brisbane Centre, and we were instructed to remain outside of controlled airspace. After taking off on RWY07 we circled above the airfield in ROC at 1500ft and waited for clearance from ATC. It eventually came in the form of comments about me having planned at 3000ft over Brisbane International when in the ERSA it says you should transit at 7000ft. These comments were followed by instructions to climb in the circling area to 7000ft. This wasn't something a VFR flight could do due to clouds but I, as an IFR flight, could. I'd been hoping to not have to climb all the way up to 7000ft for such a short trip but I was told to climb anyway. This took many frustrating orbits, but we were kept amused listening to Sam (being a VFR flight) being held far below us until we had climbed sufficiently to create a gap, and speculating on just how much the climb was costing us. But then Sam was sent on his way at 4500ft while we still had to keep climbing to 7000 which did rankle a bit.

The flight at 7000 was uneventful until we were handed off to Gold Coast Tower. I was told to fly a visual approach even though I had planned for the ILS. The controller then explained that I could fly it but it was going to be visual and I could basically do what I wanted. He then explained that the ILS was not available outside of 9am to 5pm local time. I guess the ILS was a fan of Dolly Parton and didn't work more than 8 hours a day! We went through one little cloud on descent which made the IFR flight worthwhile.

It was a challenge spotting the field at night, despite it being so big and us being on the localizer. I was glad to have two passengers to help. Overall the Gold Coast Airport seems to be not that well lit at night, and it was worse when I found I forgot to turn on the landing light. It made no difference to the landing and was not that useful once I turned it on anyway. After landing and exiting the runway we found our way through the gloom to the GA parking and parked next to Sam.

A quick trip in a couple of Ubers had us at the restaurant where we had a pleasant meal. It was interesting how many people had not been out to a restaurant in a year due to COVID, making it somewhat special. While we ate I put in a flight plan for the return, flying the reverse of the way in. In reality it was a bit academic because we were vectored all the way.

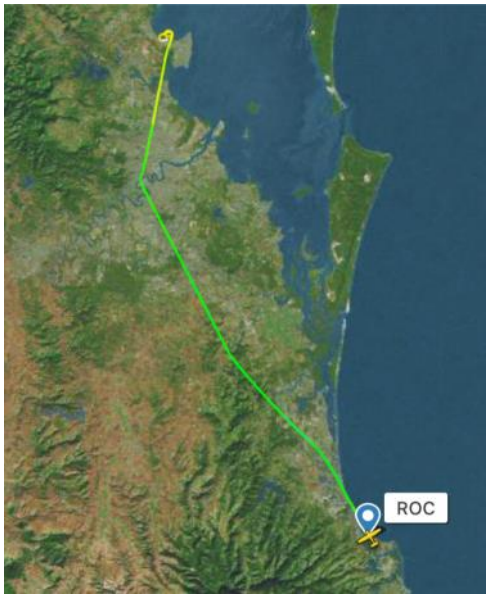
The flight path to Gold Coast over YBBN



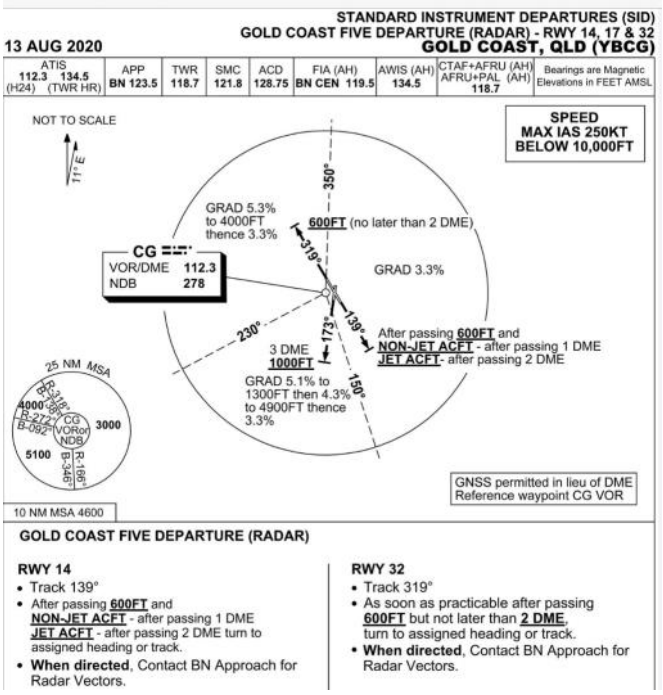
Exiting the Gold Coast is easy, but make sure you have your ASIC with you as Sam had to show his on the gate camera to get back in.

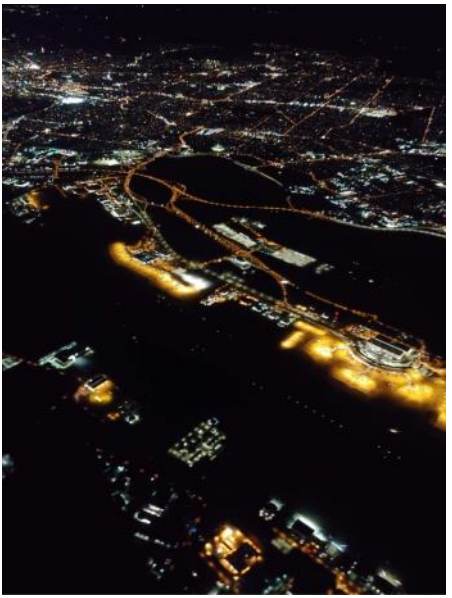
After starting up we obtained a taxi clearance and then had to get help with directions as it was not easy to find where to go. Luckily Stephan has a very useful app on his phone which plots your position on the taxiway. We started to taxi for RWY14.

I had made sure I had every IFR plate for 200 miles around printed in a folder, but was still caught out when I was told to fly the Gold Coast 5 Standard Instrument Departure (SID). While SIDs had been covered in training and I did one once I was assured only jets did it and I would not get it again. I had to ask for a delay in the taxi as I looked up the plate. It turned out to be pretty useless as we were vectored as soon as we took off and sent to the west of Brisbane. As we reached the runway holding point we were asked if we wanted an intersection take-off on RWY32 instead which we accepted as it was pointing in the direction we needed to go. The controller at Gold Coast was very helpful.

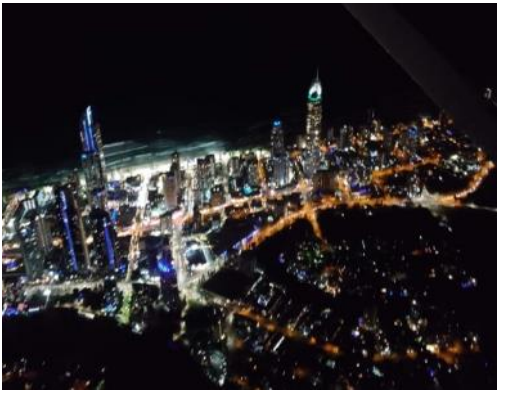


Return journey





Overhead Brisbane International

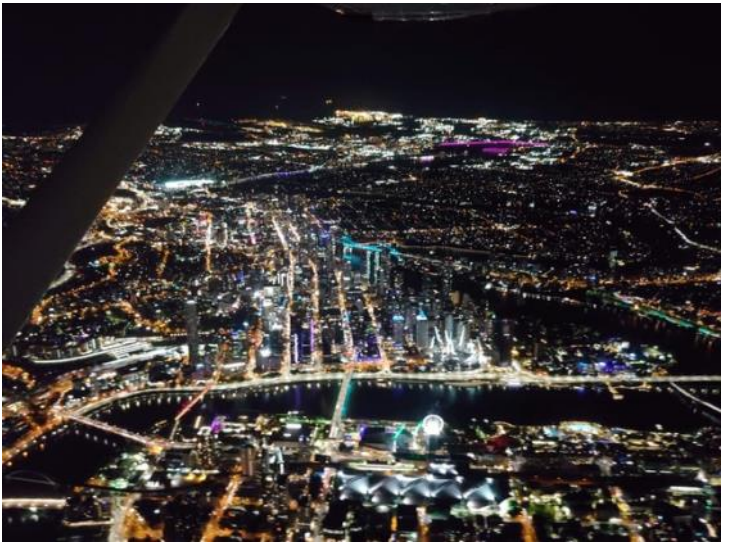


Surfers' Paradise

The trip back was quite pleasant as not only were we full of food, although there were plans made to find ice cream or something on the way home, but ATC kept us low and sent us past the city at 2600ft (the radar lowest safe for west of Brisbane CBD) providing us with a nice view of all the lights. We could see Sam in the distance ahead of us as his beacon is bright.

The landing at Redcliffe was uneventful, and after saying goodbye and tying down the aircraft we went home. The night flight to the Gold Coast was definitely worth it not just to have the experience but to see this part of the world at night, and I would recommend it to other members if it happens again.

Passing Brisbane CBD on the return trip



RAQ's Garmin G3X glass cockpit

by Callum Taggart

VH-RAQ, one of the Club's 172s, was recently refurbished at a cost of $170,000. The work included a bare metal repaint, replacement of some interior components, new windscreen, overhauled engine, and a new autopilot incorporated in a "glass cockpit" Garmin G3X touchscreen avionics suite.

The new avionics in RAQ arguably give us the best of both worlds. All too often when I get in a G1000 equipped plane with someone new to 'glass' they fumble trying to set up and use the radio. I bet many of them wish they had the familiar old style radio avionics stack they used back at the start of training. Well, if that sounds familiar to you, your wish has been granted by the big blue Garmin genie. Next time you visit the Club take the time to go and check out RAQ. It has two 10 inch Garmin panels like the G1000, however instead of the odd vertical intercom, proudly lying between the two screens is the faithful old avionics stack, starting with the intercom at the top, autopilot at the bottom, and familiar but new looking radio comms and GPS in between.

Other wishes among many that have been granted are ADSB traffic in (and out), and Airservices Australia charts, both proudly displayed in all their glory on the right hand multi function display (MFD). No longer shall you live in fear of your iPad overheating or running out of battery. That's right, a Brisbane VTC chart can be shown on the screen, overlayed with ADSB traffic in all its moving map glory, on the MFD. You use the large cursor knob to scroll the menu to 'chart', as opposed to 'map' which is the startup page. Another neat trick reveals itself when you have the HDG and ALT bugged, you get rectangles or boxes displayed on the primary flight display (PFD) to fly through. Not that you should be locked on looking inside of course - once you have that set up with the autopilot engaged you can truly appreciate the views outside as you keep a vigilant lookout for other aircraft that don't have ADSB out (the majority of VFR aircraft).

VTC chart on the Multi Function Display

Some of you reading may not be familiar with glass at all yet, and that's fine. I ask you to close your eyes and tell me what instruments surround the attitude indicator? Why of course - it's airspeed indicator on the left, altitude on the right, with the directional gyro tucked below. Now go and look at the glass panel PFD (below). Once again you'll see that familiar setup of airspeed on the left, altitude on the right (both presented as 'ribbons' in this case) and directional indicator at the bottom, but this time the attitude indicator extends to cover the whole screen.

Primary Flight Display

If you have been in RAQ or seen a photo you may have noticed something missing - the transponder! This is cleverly built into the GPS. The GPS is also touchscreen and quite intuitive. To change the transponder squawk code tap on the number and dial in the new one. Similar to the G1000 when it is shown in green it will automatically swap over into ALT mode once airborne. If it is white it's most likely in standby mode and will need to be set to GND or ALT. If you are filing a flight plan, technically it is a mode-S transponder with ADS-B in/out. This translates to "EB2" on your flight notification.

Now back to setting radio frequencies. It can be done a couple ways. You can simply tap on the frequency you want to change and dial in the new one - the G3X is pretty

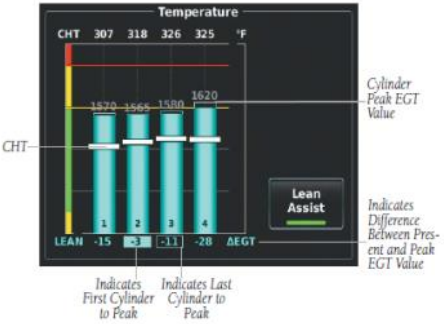
Autopilot interface

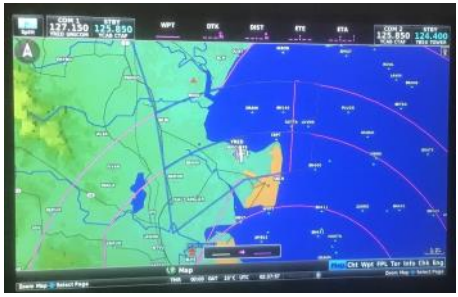
clever in this regard. If you feel lost at how to change something, just tap on what you want to change and most likely you can. Try it with HDG or QNH. If and when things get bumpy whilst in flight, touching the screen can be tricky. Thankfully we have the old tried and true method of changing frequency on the avionics stack. Another tip is to anchor your hand by gripping the edge of the plastic bezel with your unused fingertips. That's why it's not perfectly flush with the panel backing. Our new Comm is special in the fact we can hit the monitor button to listen to the non-active frequency while listening and broadcasting on the active. It will cut off the non-active so you don't miss anything on the active. There is also a built in NAV on Comm1 so look carefully and take the time to understand how to swap it and setup the VOR on the G3X before relying on it. The last thing you want to be doing is mashing buttons in frustration.

Radio avionics stack

My personal favourite feature/function of the new setup is the engine information system (EIS). This system has sensors across the whole engine just like on the G1000. My favourite is the cylinder head temperature (CHT) and exhaust gas temperature (EGT) for each cylinder. When we rely on this single engine for our safe travel it helps to be able to monitor how it is performing. Not only so that we can gather data over time to pick up on any trends where the engine may be underperforming but also allowing us the chance to fix something early before it becomes a more serious issue. Something a little more relevant to daily operations, when doing your pre-takeoff checks, specifically engine runups, you want to see all EGT's rise as you do your mag check. A dropping EGT on any cylinder at this point indicates a bad spark plug. Now isn't that neat?

Lean assist function on the EIS





I hope this introduction to RAQ's glass cockpit has answered some questions you may have had. Undoubtedly there will be more raised, so take time to investigate further. A link to the G3X pilot's guide appears here:

http://static.garmin.com/pumac/190-02472-00_b.pdf

The G3X is a system that you as a pilot will be able to grow with and appreciate more as you advance in your training. But ultimately it has been designed from the ground up to not be intimidating, but rather actually quite intuitive. I hope the tone of this article has encouraged you to go out with an instructor and give it a fly. No matter what level of pilot you are there is always something new to learn and take away.

Make use of your sim

Don't forget that the Club simulator is available for hire, both solo and under instruction, and can be used to maintain recency in order to satisfy CASA requirements while costing much less than actual flying. Or use it for fun, as Phil "Curly" Ware did recently. He's shown below, practising an approach into Brisbane International. The Sim can be set up as a variety of aircraft, either single engine or twin. Talk to any of our instructors about how you can make use of it.

Diploma dispatch

by Lauree Skene-Gordon

The Redcliffe Aero Club (RTO No. 40971) continues to pride ourselves on providing exceptional academic support for our diploma students throughout their aviation education journey however challenging that may be. As we navigate our way through the COVID-19 epidemic the current students have experienced some novel challenges with their training, with Government restrictions providing them with a variety of instructional restrictions including from educational development, CASA directives, social distancing and other health restrictions.

We pride ourselves on providing unmatched support and guidance to students to accelerate their learning progression and journey. All flight instructors, trainers, assessors and staff assist students to not only to meet the Australian Qualification and Training Framework (AQF) standards and CASA (Civil Aviation Safety Authority) industry standards but to exceed them.

In April 2021 two of our 2020 cohort, Jake Whinn and Jack (Ji) Zhang, successfully gained their Commercial Pilot Licences and obtained the qualification AVI50219 Diploma of Aviation (Commercial Pilot Licence - Aeroplane).

The sky is the limit

by Lauree Skene-Gordon

The Redcliffe Aero Club prides itself on mentoring, supporting and guiding our diploma students. As many of them are progressing towards gaining their CPL CASA Licence they will in the near future be looking for their first commercial pilot position in the aviation industry. The Club encourages all of our diploma students to attend and participate in the "Employment Assistance Program". This year it was conducted by our Grade 2 Flight Instructor John-Michael (JM) O'Dougherty and RTO Administration Officer and Grade 1 Flight Instructor Kelly James who spent the afternoon sharing their knowledge of the recruitment processes for aero clubs, flights schools and airlines. They provided the students with industry knowledge and pointers on how to stand out from the crowd. It included tips on how to best use their recently acquired knowledge and skills, how to develop current resumes and cover letters, and how to prepare for and participate in interviews, so that they are industry ready.

A tale of two stations

by Harpur Michell

In April this year my wife Anne and I were invited to fly to a couple of stations in western Queensland so we could experience the real outback. Anne had not been west of Toowoomba before and I hadn't been any further than Cunnamulla so when Philip and his wife Sigi offered us the opportunity we jumped at it. Our first station experience was Noonbah cattle station, nearly two hours by car southwest of Longreach (or 27 minutes in a Cirrus), at the head of 'Channel Country'. Channel Country covers the Cooper and Eromanga geological basins of the Great Artesian Basin and is a series of ancient flood plains that get their name from the rivulets that intertwine and cut channels into the surface. As we flew from Longreach, following the Thomson River, we passed over many channels, with the rivulets looking like tree roots flowing down to towns like Windorah and Birdsville. The variety of colours in the soils, the weaving shapes of the waterflows and foliage all made a very interesting sight as we flew overhead. Although the station airstrip does have its own ICAO code (YNBH), it wasn't in the GPS's database so Philip had to input the longitude and latitude. Not that he really needed it. We just had to follow the Thomson River and then take a right turn at Vergemont Creek!

Channel country

Noonbah homestead and dams

After locating the homestead we also found the 2 km long airstrip that Angus Emmott (our host) had dragged (to smooth out the bumps) the day before. On the check flight over the airstrip we were a little concerned that a 4WD was driving up and down the strip, however it moved off on approach and we made a very undramatic landing, pulling up next to our welcoming party of Angus, Marlene (a visiting German backpacker) and Banjo (the pet dog). Angus told us the windsock had "worn out" so he had been driving up and down the runway to create a dust trail so we could see the wind direction. Obvious with the benefit of hindsight (future visitors take note).

Noonbah has been in the Emmott family since Angus' grandmother won the right to buy it in a raffle in the early 20th century. Angus grew up here and did all his schooling on the property. He had a variety of governesses until he started to take more interest in the governesses than his schooling, at which point his mother took over his education!

Angus is a somewhat famous, self-taught, ornithologist and quite a character. He doesn't overwhelm you with his extensive knowledge of the flora and fauna so much as bathe you in it. Because of his deep knowledge many individual scientists, university groups and museum personnel visit the property. Angus has an Honorary Master's

Degree from the Central Queensland University, in recognition of his expertise. We needed to search no further for a better guide to take us on a tour of the property. Angus has identified numerous species of birds in the region over the decades and had some birds named after him and even a turtle. He's also a keen wildlife photographer with an amazing collection of photos to his credit.

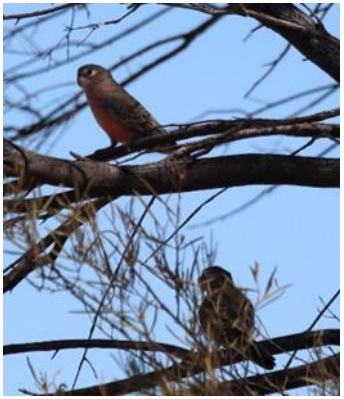
With Angus on arrival

After settling into "the cottage", a five bedroom house that Angus and Karen lived in when they were younger, and that they now use for accommodating visitors like us, we embarked on a nominal two hour wildlife tour with Angus. It took substantially longer due to our interest in his stories about the property and the nature on it. Some of the land still has a hard red crust that resists erosion, while other areas have broken down into soil and have trees and grass established on them. Angus described his farm husbandry as very selective and caring, not over-working the land. He doesn't raise young cattle - "too much work"; he doesn't fatten cattle up for the abattoirs - "too much risk in market price fluctuations at the time of maturity"; so has settled on a sweet spot of buying yearlings to grow for sale to feedlots. I'm sure he considers farming cattle really just a nuisance that interferes with his land conservation and nature studies.

Noonbah airstrip

Angus really gets into his stride with spotting and naming the birds and animals with their common and scientific names quite effortlessly. We saw several kites and falcons. One of his favourite hobbies is getting his front end loader and making ponds and waterholes for the wildlife. Fortunately, his wife, Karen, seems to be very understanding of this predilection, preferring to share his love of caring for the land and nature over materiality.

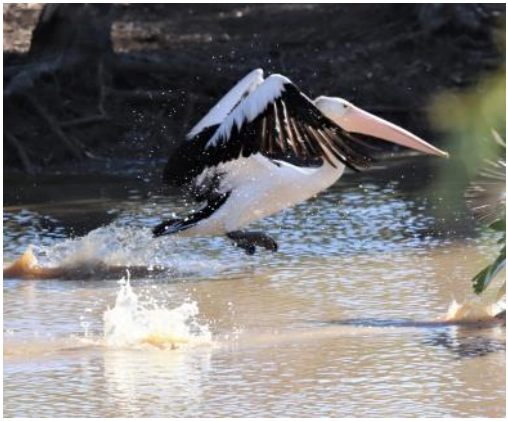
A few Brolgas were strolling around, mainly in pairs, and not dancing. There was also a particular type of heron - I think a native long-beaked heron. Angus also pointed out some Bourke's parrots. Their name comes from Sir Thomas L. Mitchell, who spotted the bird in New South Wales in 1835. Mitchell named the species after Sir Richard Bourke, the governor of the state at the time. These had very pink breasts.



Bourke's parrots

Kite

Brolgas



There are numerous tranquil spots by their creek. Angus allows free camping on his property in certain locations and has many campers who he hardly ever sees. They just want dead quiet to sit and spot birds all day long. Suits Angus to a tee. Noonbah Station consists of 52,000 hectares so there is plenty of room.

With the tour wrapped up, it was back to the homestead for smoko and some home made scones. Karen decided it was time for us to meet Noah and Sofia, two of their young kangaroos. Karen and Angus are registered wildlife carers, so are frequently gifted orphaned or injured animals for 'care and repair'. The animals are released into the wild quite quickly, however they often do not stray far as they enjoy the attention, food scraps and company.

Angus then took us on a quick trip to see the sunset, and enjoy the blues and mauves in the fading light. Soon we were back at the homestead for drinks round their roaring firepit, followed by a very hearty dinner where we shared a few quality wines.

Afterwards Angus treated us to his python juggling skills. They also recover snakes from people who don't know how to care for them. They look after the snakes until the local authorities find them a permanent home.

Typical tranquil spot

Full to bursting we retired to the cottage, managed to dodge the frogs in the toilets, collapsed into bed and fell into a deep sleep.

Next morning we unfortunately had to leave early to make our next stop, but we'd definitely like to return one day for another dose of Noonbah hospitality.

www.noonbahstation.com.au

Sunset colours behind the Land Cruiser

The second station on our trip was Shandonvale, a sheep station near Aramac, 12 minutes' flight north of Barcaldine (or an hour and a half drive from Longreach). We'd left Barcaldine after a sandwich lunch at the Ridgeedidge Café - some sandwich - three thick slices of juicy homecooked ham in a sandwich, no need for dinner tonight I thought! As we were squeezing ourselves into the Cirrus, Philip had noticed some rather dark and unpleasant clouds enroute, so we skirted around them, and the accompanying showers of rain, and soon landed at Aramac airport. We were surprised by how green the paddocks were but we were assured this wasn't normal and was the result of recent rains. We'd originally planned to fly directly into Shandonvale Station but Deon (the owner) had advised that the landing strip had been damaged by floodwater and we'd get bogged. As Deon had damaged his 4WD he'd arranged for his neighbour, Bryson, to collect us from Aramac and drive us the 30km to Shandonvale. On arrival at reception – a rather unprepossessing hut with a deck that made the Aramac airport terminal look like a town hall – we were warmly greeted and given cold drinks. An excellent start. We then proceeded to check in and answer Deon and Lane's (Allaine) questions about our travels and adventures . Deon assigned us a 4WD buggy to load our kit into and we followed his motorbike to our accommodation for the next two nights - the old shearers' quarters. The building was originally designed to accommodate six shearers, but Deon redesigned the interior with four double bedrooms, and large living, dining and kitchen areas. While cute on first impressions, the external appearance was somewhat deceptive as you can see from the photos below of the luxurious interior.

Dodging showers of rain on the way to Aramac

The reception is 'fit for purpose'

Shearers' quarters

Dining and living area

Old range or modern hob and oven, your choice!

Well, that was a surprise! Even more of a surprise was that Deon had designed and executed the refit of the quarters himself. Deon carries himself as the farm's roustabout, with a beer can permanently attached, and somewhat colourful language. He's a tall and skinny, rangy sort of fellow, dressed in baggy jeans with a variety of work shirts but the rough exterior hides a multitude of talents.

Deon - man of many talents

Well, we had just time for another drink or two and Deon was back - it was time to go to set the traps for redclaw crayfish in the dam. So, Philip and I set off with Deon, baited them up with some old lamb joints, and returned to set off for sunset champagne with the girls in the spa bath overlooking the Aramac Creek. (This is all pretty splendid so far, for a farmstay, eh?). Deon's directions were a bit vague, "the spa's over there - you can't miss it" with a casual wave of the hand. After a bit of exploring and a few wrong turns, we found the spa. It's perched on top of an old water tank tower next to the creek, that actually looked more like a river at the time, and is continuously filled with warm water from the Great Artesian Basin. Artesian water rises under 28psi natural pressure and is piped around the farm for all sorts of purposes. Surprisingly it has a very low sulphur content making it very drinkable and pleasant to shower (and bathe) in. It was an idyllic spot to watch the creek flow past and the bird life settle at the end of the day. The spoonbills, cormorants and pelicans were winding down, just as we were. Bliss!

After finishing the champagne we returned to our quarters to spruce up for our evening meal with Deon and Lane...except that Philip and I first had a job to do: empty our catch of redclaw.

First we pulled the traps out of the dam, then emptied them out to sort the larger keepers, and throw the medium and small ones back. This was our first of three catches. All three catches went into our fridge for lunch the next day. Then it really was time for a wash and spruce up for dinner with Deon and Lane at the homestead. Sadly I have no pictures of the inside of the homestead, but can tell you it is very glamorously furnished straight out of the glossy magazines – again all designed by Deon. We chatted with Lane and watched Deon put the finishing touches to the lamb. Did I mention? He's also a very good cook! While turning the lamb he had slow cooked for us, and putting on a few veggies, Deon told us about the rebuilding of the homestead and its design. The terroir is black soil. It shrinks in the dry, opening up cracks which fill with wind-blown silt. In the wet the soil expands again, however as the cracks have filled with new soil the surface churns and is unstable. Consequently, the old homestead had moved and was in pretty poor condition. So in designing the new homestead the frame of the old one was put on a steel frame with jacking points that enable the building to be re-levelled every six months. Wanting to preserve the old homestead, the walls and roof were stripped off, and the timber frame was loaded onto a tilt tray truck while the jacking and base were installed, then the old frame was re-installed, together with the galvanised steel frame. Luckily Deon's father owns a construction company.

During the meal Philip lamented the difficulty in buying goat meat in Brisbane, to the extent that 'The Goat Pie Guy' had shut up shop. Deon's response: "OK, we'll go and kill a goat tomorrow and you can take some back". After our delicious and entertaining meal, we returned to our quarters and bid goodnight to the frogs in the loo.

Next morning, Deon took us on an educational tour of the nearby parts of the property where we sighted a camel, deer, goats, cattle, roos and varied birdlife. Deon explained some of their key practices including containment fencing that aims to keep kangaroos, dingoes and feral dogs out. The fences cost about $10,000 per kilometre (half paid by the government) so with about 38km of perimeter fencing it was very costly but Deon reckons they quickly broke even on it as the kangaroos would otherwise

have eaten a large portion of the grass that they need for their own stock. He explained the impact of dingoes on sheep and goats. The issue is not only the animals the dingoes kill for food, but the ones they kill for fun and the others they injure and that die over the next two weeks from infected bites. Being very intelligent dogs, they are very difficult to trap and kill, so Deon and five of his neighbours jointly employ a pest controller to track and kill invading dingoes.

The soil develops a hard crust in the baking sun and rainwater tends to run off rather than soak in. This starves vegetation of water and dead vegetation simply blows away rather than forming soil for a new generation of plant life. The end result is a dead claypan. Deon showed us a 'humping and bumping' technique he has tried near the airstrip to solve this problem. He scoops hollows and mounds using the grader. The undulating surface allows rain water to pool rather than run off, resulting in sediment settling and dead vegetation breaking down, with the expectation of developing into arable soil. It appears to be working.

On our return to the homestead we went to visit Lane's pets - a variety of sheep and goats, a cow with calf, a solitary camel and a pig. According to Lane, despite Deon's professional approach to farming, most of the rescued animals were saved and kept by him, not her. The camel is the remainder of a herd of about 20 they used to have for controlling prickly acacia, a noxious weed that originates from Africa.

Subsequently we returned to 'home base' for a couple of cleansing ales, while Deon cooked the redclaw on the BBQ. This was pretty straightforward, but involved Deon's magic marinade being drizzled over the crayfish, while the chef lubricated himself with amber nectar. On completing the cooking Deon declined to join us, saying "You don't put fat on a mongrel!" His loss was our gain, as we thoroughly enjoyed the crays. As he departed he mentioned that after lunch we'd set off to get our goat.

Dutifully on his return we headed off for the airstrip, where suddenly Deon's 4WD dropped into a two metre long, 700mm deep trench and stopped dead. The recent floodwater he had referred to had cut this trench in the middle of the airstrip, and we were glad we hadn't used it to land on.

Not a problem - Deon disappeared with the buggy and a few minutes later returned like Mad Max…

...thundering along the airstrip in an old grader.

One good tug with a chain and the ute was pulled free. Climbing back into the ute we soon located the goat herd. Deon picked a billy about 10-11 months old, and with one well aimed shot to the head the goat went to sleep and the rest of the herd went on grazing oblivious to the departure of one of their number. Did I mention? He's also an excellent marksman!

With the goat hanging from the back of the ute Deon decapitated it and we returned to the homestead where he very skillfully gutted it, then transferred it to the cold room where I helped Lane to skin it. All over in less than an hour. You couldn't get fresher meat if you tried! And of course, after a hard day's work on the farm we just had to head back to the spa to enjoy a few more sundowners. Following a meal of camel steaks cooked on the outdoor kitchen barbecue we had an early night because, sadly, in the morning it would be time to depart.

After a leisurely breakfast of home grown bacon and free range eggs we packed our bags into the 4WD buggy and headed off to the homestead to meet up with Bryson, who was driving us back to the airport at Aramac. Deon appeared with a big grin and a large polystyrene box - it was some of the goat that he'd butchered the day before, vacuum packed and cooled with ice packs. The process of fitting everything into the back of the plane had just taken on an extra degree of difficulty.

Lifting off from Aramac for Roma our track took us directly over the top of Shandonvale so we did an orbit overhead to say a final farewell. As with Noonbah, it had been a great visit, and there was still so much more to do, so Shandonvale is definitely another place we'd love to return to.

www.shandonvalestation.com.au

After a good grading the airstrip is now back in use

Homestead right, airstrip left, shearers' quarters bottom right

Glossary

AGL – Above Ground Level

ARO – Aerodrome Reporting Officer

ASQA – Australian Skills Quality Authority)

ATC – Air Traffic Control

ATPL – Airline Transport Pilot Licence

CASA – Civil Aviation Safety Authority

CPL – Commercial Pilot Licence

CTAF – Common Traffic Advisory Frequency

CTR – Control Zone

FBO – Fixed Base Operator

GA – General Aviation (as opposed to RPT - see below)

GNSS – Global Navigation Satellite System (commonly referred to as GPS)

IFR – Instrument Flight Rules

ILS – Instrument Landing System (radio navigation system that provides short-range guidance to aircraft to allow them to approach a runway at night or in bad weather)

IMC – Instrument Meteorological Conditions (no visible horizon eg in cloud or smoke haze)

ISA – International Standard Atmosphere (15°C and 1013.2hPa at sea level)

kt – knots, nautical miles per hour

LAME – Licensed Aircraft Maintenance Engineer

MEAIR – Multi Engine Aeroplane Instrument Rating

NVFR – Night Visual Flight Rules (Rating)

PPL – Private Pilot Licence

QNH – Barometric pressure adjusted to mean sea level

RPL – Restricted Pilot Licence

RPT – Regular Public Transport (normal scheduled flights)

RTO – Registered Training Organisation

RWY – Runway

VFR – Visual Flight Rules

VMC – Visual Meteorological Conditions

VSL – VET Student Loans

VTOL – Vertical Take Off & Landing

W&B – Weight and Balance

www.redcliffeaeroclub.com.au

07 3203 1777