Australian

Volume 32 No. 3, August, 2022







THE PREZ SEZ

Welcome to the latest AMPA newsletter.

Plans are well underway for our next flyaway to Merimbula on 9 - 12 September. We have released any unbooked rooms at our hotel, so as not to cause inconvenience to them. I am sure if there are any more starters, we can get you accommodation, just let me know. At present we have about 25 coming.

We have a very relaxed and informative weekend planned, which should be very enjoyable.

Howard also has been busy arranging our next AGM to be held in Longreach. There is much to see as Longreach is a great town in central Queensland and has a great history. This will be held over the weekend of 16 - 20 March 2023, so please keep the date free. Howard has booked the motel, so we will get registrations open later this year.

John Hillard and Andrew Kotzur have been working hard on the next PSP at Bathurst on 29 - 30 October 2022. We have a good roll up but are having a few problems getting enough instructors. I have all the faith that John and Andrew will get through those hurdles.

We are all wishing Owen a swift recovery from his heart surgery last month. He tells me he is taking it easy, but he seems to be doing as much as ever.

This should be a reminder to all of us to get regular check ups.

It was also sad to hear that Jim Lewis from Canberra has had to give up flying because of a health issue. He has now sold his beautiful J model, NWF. Jim is only a new member of AMPA, so hopefully he will remain one. Jim attended our last flyaway to Mt Gambier and produced a great Youtube video of our weekend. It was great.

None of us are getting any younger, so lets try to keep safe and well.

Your Committee is working well together, with a few meetings under our belt now. We have managed to get all the banking changed over to the new Committee, thanks to a big effort by your Treasurer John Martindale. Many thanks John.

We have had a few invitations to attend air shows around the country and showcase our aircraft. These have come from Avalon in Victoria, AusFly at Narromine Volume 32, No. 3. August 2022

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NSW and Wings over Illawarra at Wollongong NSW. If anyone would like to attend these shows and put your aircraft on display, please contact me and I will arrange. These events are a good chance to fly the flag for Mooney and a good excuse to visit air shows and catch up with fellow members.

It appears that the Mayday rally at Bankstown back in May has fallen a bit flat. The Senator who was going to get things rolling wasn't re-elected so we will have to get some new politicians trained up. I am sure Ben Morgan from AOPA will be on the case.

John Hillard has discovered that the Mallacoota RNAV has been discontinued because of the airport being decertified. This could have dire consequences around the country if this has happened to other airports. It appears that this is because of a change in CASA regulations and a failure by the local Council to take advantage of opportunities offered by CASA to retain the approach and the NOTAM service. John has made quite a stance on this so lets hope that he gets some action. The latest response from Darren Chester, the Federal member for the region, indicates that CASA and the Council are working together to resolve the matter.

I had a zoom meeting with representatives of BMG insurance about a month ago to meet our new representatives from the BMG company. BMG have had a shifting of seats within the company after our old

representative, Geoff Bingham, left the company. He has been replaced by Scott Robson, who is a commercial pilot. Also, Damian Hooper has been replaced by Blake Hanna. Damian is still available if we need him, but is now in a consultancy role within BMG and has other roles. They seem to have a good handle on things and are keen to continue their relationship with us. No doubt we will find out soon as our policies are due this month

I have asked Rae to look into increasing our membership amongst Mooney owners around Australia. So far we have picked up about 5 new Mooney owners as members. Lets hope this increases. I am planning on attending Oshkosh next year if anyone is interested. I have a big contingent from Wagga City Aero Club coming and I will be making a bulk accommodation reservation at the University of Wisconsin Oshkosh in the coming months. If anyone is interested, call me. The dates are 24 - 30 July 2023.

Until next month.

Cheers

John Smith

President

Australian Mooney Pilots Association



AMPA Calendar

2022 Pilot Safety Program

The next Mooney Pilot Safety Program will be run at Bathurst, NSW from Friday 28th to Monday 31st October. Friday is the scheduled arrival day as the program starts early on Saturday.

We had to cancel the 2020 and 2021 PSPs due to COVID restrictions but, otherwise, the PSP has run every year since the first in 1996. We hope that it will now be possible to get back to our usual practice of running PSPs each year alternating between the East and the West Coast.

We believe that the PSP is the best type specific training program in Australia. It involves a day and a half of theory sessions and two half-day sessions in your own aircraft with an experienced Mooney instructor. The instructors teach you to fly your Mooney the way the factory intended - "by the numbers". Mooney's test pilots worked hard to establish the right combinations of power settings to enable us to fly their airplanes safely, efficiently and well.

If you are new to Mooneys and are "making it up as you go along" then you'll find the method we teach will not only make the plane easier to fly but it also might just save your life one day. If you think that you have a better way of flying Mooneys than the test pilots, then you really do need to attend! Over the years, we have had many very experienced pilots demonstrate "their" method to our instructors and, almost without exception, they have admitted that the factory method is better once they have tried it.

The PSP instructors are highly qualified in Mooneys and other types and are mostly CFIs, ATOs and Grade 1 instructors. We bring them to the PSP from all over Australia to give you the benefit of their experience and skill.

2022 Spring Fly-in to Merimbula

Fly to beautiful Merimbula on Friday, September 9 -12. Enjoy a guided tour of a local oyster farm and a whale watching cruise from Eden. There will be plenty of time to relax with your AMPA friends, see the local sights and generally have a wonderful weekend.

New details, including costs, itinerary, recommendations for accommodation, and the registration form will be available on the web site later in the year.

IFR Refresher

Several years ago, we ran an on-line IFR refresher course that was very well attended and very highly regarded by our members. We are hoping to run the event again later this year. It will be an on-line event focussing on the changes in the new Part 91 as well as other important operational matters.

2023 AGM

Next year's fly-in and annual general meeting will be in Longreach from March 16 – 20. Howard Hobbs is planning a fun weekend with visits to the QANTAS Founders' Museum and the Stockman's Hall of Fame, a cruise on the Thompson River and ample time to relax over an ice cold XXXX.

From The Mooney Flyer

The Mooney Flyer is a monthly on-line newsletter published by Phil Corman. It always contains a range of useful and interesting articles and can be accessed free of charge at <u>http://themooneyflyer.com/</u>. The contents of recent issues are listed below and AMPA members are encouraged to read them.

June

- Hot down, summer in the Mooney
- Complacency and multi-tasking
- What's all the flap about
- First actual IMC post check ride
- These are turbulent times
- New hot spots and arrival alert notices
- Brilliant engineering = bright LEDs
- Flyin' the bird
- They fly among us

July

- My first long cross country in my Mooney 201
- Wings to Walla Walla fly-In
- Head on a swivel
- A departure briefing
- Learning at Oshkosh

- Like my exhaust valves medium rare, not burned
- Take the "pain" out of painting
- Mooney math quiz

August

- ADS-B receivers, you should want one
- Rules of thumb
- Flying the redbird TD2
- When should you activate an approach?
- Can you be off the ground in one minute?
- Forget one little checklist item

In every issue

- Appraise your Mooney's value;
- Ask the Top Gun;
- Have you heard the latest?

OUTBACK AIR RACE 2018

Tim Alexander and John Martindale recount their experiences

Part 2

The Air Race took everyone through some remote and interesting areas and towns:

- We tasted rum and visited the Jabiru Aircraft factory in Bundaberg
- Paid homage at the Qantas Museum in Longreach
- Revelled in the majestic scenery at Adels Grove, truly an oasis in the middle of nowhere
- Explored the memorabilia pinned to the walls of the quaint Daly Waters Pub, where the beer was COLD
- Dodged crocodiles on a trip down Katharine Gorge

- Explored the magnificent Argyle Lake, had a sunset swim and sundowners in the lake with 20,000 crocodiles in it
- Did a scenic spin around the highly unusual Bungle Bungles and Argyle (Pink) Diamond Mine
- Then the last spectacular lap down the coast over the Bonaparte Archipelago and Horizontal Falls to Broome.

One of the main joys of this adventure was the scenery – the north-west of Australia must boast some of the most extraordinary and spectacular scenery John and I have had the privilege to view out of our respective aircraft windows. The remote and haunting Kimberly Region is truly magnificent.





Fig. 12: Extraordinary Kimberly scenery

John and I were fortunate enough to win a few of the legs, enough of them in fact to walk off with the eventual overall prize, much to our surprise and delight, closely followed by Bad Mooney Rising (Rowan Hill and Stuart Payne) in third place and Flying Doc in sixteenth.



Fig. 13: John and I with the LEG at Adels Grove



Fig. 14: Overall Race Winners



Fig. 15: Coffs Harbour contingent at final Prizegiving Dinner

The return trip from Broome took us across the centre of Australia, across some more remote and spectacular scenery.

Over **2,000nm** (3,700km) and **15 hours** in the air for the race ... and at least the same to get home!!



Total of **4,000nm** (7,400km)That's as far as Japan...yikes!!

So in conclusion an epic adventure ended where we made many new friends in what will undoubtedly be a once-in-a-lifetime experience.

Fig. 16: The Complete Flight

A Monster Mooney Marathon

Peter Retjo's recent Kimberley adventure



Peter's jaw dropped when Bernadette unexpectedly announced in April this year that she had enrolled herself in a marathon conveniently located at Ayer's Rock, and wanted to know if Peter could fly her there. This was all the more strange because she hadn't ever run or even trained for a marathon in her life. A former member of the Wild Women and having trekked across England in the not too distant past, Bernadette got it into her head that she could do anything if she put her mind to it. And she thought it might get her out of bed earlier on those cold Rylstone winter mornings. She had a fail-proof plan to run the 42.5 km required to complete the marathon. She would enlist the services of Rylstone's local drill sergeant, Davina Deegan. This human spark-plug takes no prisoners. The most sympathetic of her training mantras was, "Talk to the hand Bernadette. Just get it done."

This innocent request to fly her to a marathon grew from a quick up and back to Uluru, to a mammoth trip to the Top End, testing the much touted capabilities of the mighty Mooney and its pilot.

They made the decision to depart from and return to Mudgee to mitigate any weather issues which could stop them from leaving the ground on time. Mudgee also happens to stock a fine assortment of emergency supplies, such as the iconic SheWe. For all its superior performance figures and luxurious interior cabin, the Mooney lacks that one room that makes it possible for Bernadette to sit in the plane for hours on end. Peter had no idea such an emergency item existed and made known his alarm at the prospect of it actually being operated in his presence so, fortunately, it remains snugly wrapped in its original housing waiting for its next adventure. A good relationship depends dramatically on keeping bodily functions locked up behind closed doors.



Their first stop was Bourke where they quickly refuelled and got the hell out of there with enough fuel to get to

Alice Springs, with a stopover in Birdsville, avoiding Birdsville's "outrageous, unconscionable fuel prices". A constant and lengthy diatribe about fuel prices in Australia flooded Bernadette's headphones from woe to go during this monster Mooney marathon. For those sympathetic to Peter's outrage, Birdsville's Avgas is \$4.10 per litre. For a comparison, Bourke's is \$3.18. Bernadette learned the importance of fuel prices when she offered to pay for a fill up - the Mooney holds 240 litres and filling up at Birdsville, for example, would have cost close to \$1,000.00 as opposed to the measly \$750 somewhere else. She promptly lost her credit card.



Once in Birdsville, they opened the cockpit and were knocked out by the swarm of overzealous blowflies. What a garden spot! They didn't realise that all those tourists wandering around with face masks were not avoiding the virus - they were actually using them to stop them filling up on those fat flies. However, the flies didn't stop Bernadette from attempting to train for the great marathon. She drew inspiration from the mythological Birdsville race track, curiously getting lost, and running only 8 km. When she got back to the motel, Peter asked how it went. Bernadette was thinking that 42.5 km was a really long way and started twitching noticeably. Peter found her a piano and she started feeling better.



The motel was quaint and breezy but lacked fly screens.



Birdsville has a great bakery and, after a lovely bacon and egg roll breakfast, they took off for Alice Springs.



They couldn't wait to land there and taste the airport's one and only eating (?) establishment. There was great anticipation on their part, especially after reading the reviews:

"Café Terra(ible?) Rossa - It honestly isn't worth placing any percentage of a star on this rating. Horrific service. Shockingly poor food and massively overpriced, even by airport standards".

"Worst coffee ever in my life"; "zero flavour, overcooked and burnt"

Buoyed by such rapture, they ordered a ham and cheese sandwich. The "fresh?" bread seemed to have come out of the package pre-toasted, conveniently, and the ham and cheese slid easily out from between two such pieces because there was nothing holding them on to the bread. The best \$10 they've ever spent.

They refuelled (\$3.40/L) and got the hell out of Alice.

Next stop, El Questro.

After flying nearly 4 hours, the dirt landing strip at El Questro shook Peter out of his smug auto-pilot stupor. This would require a demonstration of his much-lauded flying skills. With equally rising terrain to the south and trees at both ends of the runway, Peter was laughing maniacally from downwind to final. They landed. YES!

After a 45 minute drive, during which they were regaled with stories and the history of the area, and after two tiring days of travel, they found themselves in a most beautiful part of Australia – Emma Gorge. They enjoyed absolutely fabulous food, cute and private accommodation, and wonderful service.



After a good night's sleep in their beautifully appointed tent, Bernadette thought another training run would be a wise idea. Today her plan was to run close to 42 km. She stumbled across the airstrip that they were supposed to land on the day before but missed, probably because of all that laughing. Just kidding. For some reason, Emma Gorge's landing strip was closed this year. Unfortunately, El Questro reservations wasn't told that news.... Again, Bernadette ran 8 km. When she returned, Peter asked how it went. She stared at him like a zombie.

They skipped breakfast, feeling completely stuffed from their dining experience at Alice, and went for a 5 km hike up Emma Gorge to the extremely beautiful and dramatic waterfall and hot (NOT) springs.



They got back in time to join the half day tour - a cruise on the Chamberlain River and lunch at the El Questro steak house. Both were amazing. The rock formations and colours were incredibly vibrant and ancient. Both Peter and Bernadette reminisced on the boat about their parenting days, as the spitting archer fish spat gobs full of water, smacking them right in the eyes, reminding them that they were waiting to be fed.

The next morning, after a huge breakfast, they took off for Kununurra where they refuelled at only \$3.25 and were collected by coach and taken to the river cruise operator – Triple J tours for the half day tour up the Ord river to the Lake Argyle dam wall.



This cruise is not to be missed. It was Peter's second time but you wouldn't have known. Bernadette reckoned Kununurra would be a perfect spot to have a house. Peter agreed and suggested a house-boat which immediately brought back fond memories for Bernadette of her parents' sinking houseboat on the George's River, later blown to smithereens by NSW Roads and Waterways. Exciting!

On the river they saw crocodiles, and this rare pair of white-bellied sea eagles.



On the bus ride back, they stopped at the Durack homestead museum. The area around Lake Argyle was originally settled by Patrick Durack in 1886. The homestead was moved before the lake was built in 1979, dismantled stone by stone to a position 15 km from its original position.

Bernadette bought a polished boab nut here.



The Kimberley is one of only three areas world-wide that is home to the fascinating Boab tree. Bernadette would like to make the Rylstone aerodrome the fourth. She has started a GofundMe campaign to genetically modify these ancient trees to survive in Rylstone's freezing climate. Peter suggests she goes back to primary school where he believes she missed out on some vital bit of education.

Sadly, they didn't stay overnight in Kununurra – instead taking the 45 minute flight to Drysdale River station. It has a large and well-maintained airstrip with a diddi - locked, and which serves only to shelter a person from wind of the environmental type. They were collected 45 minutes late and driven five minutes away to the overgrown caravan park which pretends to be a station. Peter maintains it is a far cry from what he remembered when he visited there last.



The local tour pilot provided the highlight of their stay by granting Peter access to his wifi so they could file their next flight plan and get the hell out of Drysdale! But seriously, the food was decent, people were very friendly, and the place was kind of cute. Pilots are lucky the place exists for trips such as this!

The next morning they left for the Mount Hart Wilderness Lodge in the Wunaamin Conservation Park. They didn't realise it has an International airport. But what a gorgeous place. It's a first class resort, run by a colourful South African, Colin Fitzgerald and his wife Mitsie. This place is remote and uncrowded, and the food was cooked by an international chef of high quality.



The intrepid pair had a whole building to themselves. They really did not want to leave, except that Bernadette was chomping at the bit to get on with the marathon. That meant jumping in the plane after a wonderful night at Mount Hart and heading for Halls Creek. Halls Creek has an excellent airstrip. Peter had many interesting things happen to him at this airstrip, including panicking over his lost sunnies that somehow found their own way to his head. A couple of other things happened that won't be mentioned here......

It was sad to see small outback towns, such as Halls Creek, fortified with barbed wire and full of problems with alcohol and poverty. This town runs on mining and the miners are mostly transitory. The motel was ok, but really odd. The attached restaurant was called the Red Russian which Peter and Bernadette did not quite get. Their waiter was a girl from Vietnam with not much English. In fact, everywhere they went in these remote little towns, the hired help were international backpackers. Do Australians not want this work? They didn't see any indigenous people in paid work, except in the Yarliyil Art Centre. Local artists go to this centre to create and a lot of the work is fantastic! Peter and Bernadette (actually, Peter, as Bernadette lost her credit card again) bought two paintings by Shirley Yoomarie, a Nangala Jaru woman, who was born in 1960 on Sturt River Station, about 120 km from Halls Creek. They slept soundly that night after Peter put an end to the colourful conversation that was going on between two miners in the adjoining room. Peter did not have to pay for damages however, as he and Bernadette skipped off to the airport at first light and took flight to Ayers Rock. Peter had a small bruise on his hand, but the wall remained solid.

Enroute they saw some very interesting geography below:





After a three hour flight to Ayers Rock, Peter coordinated perfectly with the Uluru resort coach transfer to take them to their hotel, the Pioneer Outback Hotel. Things got better once they checked in to a different room than they were given at first, which smelled strongly of over-worked sewerage. Sewerage would come back to haunt Bernadette in the marathon the next day....

For some reason, not at all because of lack of training, Bernadette got in line at the marathon registration table on the afternoon of their arrival, to downgrade to a half marathon. For some other reason that Peter will never understand, Bernadette was talked back into the full marathon despite her having run precisely zero races above 5 km in her whole life. Bernadette hatched another training plan - she would contact the drill sergeant during the marathon for last minute survival tips.

There was a huge feast for all the runners and their support team that night. Not only was the food and drink flowing freely, but so was COVID and Bernadette took a nice long swig of it. Next morning, up at sparrow fart and off to the starting line where the sunrise worked its magic and the "Field of Light" was still on display.



Peter proved to be an excellent marathon coach and suggested to Bernadette that she run one km and walk the next for the duration. This plan might have worked, only Bernadette thought she had better run for two kilometres before walking, which would get her more quickly and safely past the huge expanse of gutwrenching sewer works that the marathon organisers had included on the route. Unfortunately, the route was in and out, not circular, so the plant rose up to meet her again when she was on the last leg of the race and her last legs.



She stupidly kept up the run two/walk two strategy but struggled to do either after a while. A few kilometres before the stench of the sewer plant began wafting into her nostrils again, she deployed last night's training strategy and called the drill sergeant.

Bernadette: "30 km help D!!"

Davina: "There is DNFing in your future. GET IT DONE"

Bernadette smiled inwardly. She'd caught Davina in a tender moment.

She made it to the finish line, in a sort of running fashion.

Having reported to Peter that she would finish last at around the half way point, Bernadette didn't receive that honour. She did however, receive first class medical treatment when she told Peter she had forgotten how to move her legs to get to the chair to sit down.



At this point, Peter was running through different scenarios in his mind involving the winching of Bernadette into the Mooney the following morning. "Blast", he thought, "why didn't I buy that high-winged Sling TSI last week?". But after 30 minutes in an ice cold pool, Bernadette was pain free and together they took off on the final leg of their monster Mooney marathon adventure.



After a fantastic sight scenic flight around The Rock and the Olgas (Kata Tjuta), and the fascinating landscape enroute, the pair headed for Marree, a small historic town in South Australia with a beautiful hotel and airstrip. The winds were not as forecast and at 20-25 knots directly across the only runway. The poor old Mooney fought hard, but after two aborted landings, they gave up and diverted to the ghost town, Leigh Creek. The pair's last visit here did not leave a favourable impression on them - dry and hot and flyridden. But this time, they felt differently. It is a little oasis actually. Sadly only a small handful of people remain while the town is slowly demolished around them in an attempt to diminish its footprint, to keep it sustainable and encourage tourism.



On their walk next morning, they encountered an historic traffic jam that made the papers. That night, Bernadette started feeling a little sniff and by the next day, on the flight home to Mudgee, she couldn't get warm enough. By the time she drove into their home on the Rylstone aerodrome, there was no doubt that she was really crook. The PCR test next day confirmed their fears that she had COVID. How ironic that the pair had managed to avoid the nasty for three years, travelling to and from America, Sydney, by plane, by train, teaching sick students face to face, only to catch it in remote Australia!

Iron man Peter, however, continues to test negative.

And so ends this epic adventure, confirming to the pair that owning a light aircraft is a damned good thing, allowing them to see parts of the world in a unique and special way that few are lucky enough to experience.



Mooney Fleet in Australia

Since 2018, the newsletter has included an annual update of the size and utilization of the Mooney fleet in Australia since 1980. This analysis is based on data from the Bureau of Infrastructure, Transport and Regional Economics (BITRE) who ask aircraft owners each year to report whether their aircraft are active and, if so, what hours and number of landings they have done. The data for 2020 are available and have now been included.

The 2020 year was the first where aircraft utilisation was affected by COVID restrictions. Regular Public Transport (RPT) aircraft flew 66% less hours than in 2019 but hours flown by all other VH registered aircraft reduced by only about 8%.

The long-term trends for VH registered General Aviation aircraft continued on much the same trajectory as in previous years:

John Hillard's regular update of the local fleet

- The fleet remained at about 8,900 aircraft but the number of active aircraft was about 6,400.
 28% of the nominal fleet was inactive (i.e. did not fly any hours in 2020) compared with 26% in 2019;
- For most aircraft types, the size of the active fleet has been in a gradual decline. Since 2010, the active Mooney fleet has declined by about 11%, but the number of active Piper, Beechcraft and Cessna aircraft has declined by 13%, 14% and 18% respectively. The higher percentage reduction for the Cessna fleet was presumably due to the introduction of mandatory SIDS via CASA's Ageing Aircraft crusade. The only types that grew in numbers were Cirrus and amateur-built.



- The average age of the fleet increased from 37 to 38 years;
- The average aircraft flew 124 hours per annum in 2020 compared with 133 hours in 2019. There are many types (e.g. Stinson, Yakovlev, Auster, Victa, Nanchang, Pitts) that average less than 30 hours per annum but a few that recorded much higher averages than in 2019:
 - the Air Tractor fleet where the average for the year was 302 hours per active aircraft compared with 218 hours in 2019 and the

Ayres fleet that increased to 246 hours compared with 173 hours in 2019. This is likely due to the extreme bushfire season and increased agricultural work; and

- Pilatus and Diamond that fly high annual hours in ambulance and training tasks.
- Between 2015 and 2020, the fleet size has remained about the same but the uses have changed with ~30% increases in the hours flown in training and agriculture and 10-15% declines in private and business aviation.

Training and agriculture now account for half of all hours flown compared with 40% in 2015.



The Mooney fleet in Australia has fluctuated between 145 and 155 aircraft since the 1990s. If you search the CASA Aircraft Register now, you'll get a total of 155 Mooney aircraft. This is more than the 146 aircraft that were reported to BITRE at the end of 2020. There reasons for this difference are:

- the BITRE survey has a response rate of about 80% so estimates are used where responses have not been received;
- BITRE adjust the fleet numbers immediately if a response is received from the survey indicating that an aircraft has been destroyed or scrapped. But such aircraft might remain in the Aircraft Register for a while until CASA have been able to confirm that the aircraft has been de-registered; and
- if BITRE are told that an owner died during the year and that the aircraft is to be sold, then BITRE will then delete that aircraft from the fleet given that many aircraft never fly again after their owners die. This does create some volatility in the fleet numbers because some of the aircraft that BITRE assume are "dead" were really only "sleeping" and will pop up again in the numbers again when transferred to a new owner.

The BITRE survey is important in that it tells us how many of the Mooneys in Australia are actually active (i.e. recording flight hours within the year). In 2020, the number of <u>active</u> Mooney aircraft reduced by 2 aircraft to 118. Over the longer term, the proportion of inactive aircraft has been increasing and has been 15-20% of the Mooney fleet in recent years:



Some of these aircraft will have been inactive in any particular year while awaiting repairs or sale but many are unlikely to ever fly again due to their being past the point of economic repair.

The average age of the Mooney fleet in Australia now exceeds 40 years and, while we cannot be certain as the data are not collected, it is likely that a higher

proportion of older aircraft will be inactive than newer aircraft.

While 19% of the Mooney fleet is inactive, the proportion is higher for many other aircraft types: 61% of Austers, 48% of De Havillands, 47% of Victas and 33% of Maules were inactive in 2020.



The average hours per active Mooney decreased by about 9% in 2020 to 62 hours compared with 68 hours in 2015. The drop in 2014 to 54 hours appears to be a statistical aberration as there was an unexplained drop

in the number of inactive aircraft in that year. The average hours per active aircraft appears to have stabilized at around 60-70 hours in the past five years.



The reasons for the long-term decline in total hours flown are evident from the above graph. The main cause of the steady decline in hours flown has been reduced private and business use. Training use (presumably largely attributable to the M20Js of the Royal Aero Club of WA) had accounted for a significant proportion of total hours throughout the period but has declined steeply in the past ten years. In 2020, total charter hours were only 15% of the 1990-2010 average and, despite an increase vs 2019, total training hours were about only 55% of the 1990-2010 average. Despite steep declines from their peaks in the 1990s, private and business use still account for most of the hours flown.



While the focus in this article has been on the Mooney fleet, the trends are similar for many comparable types in Australia:

- Beechcraft have similar uses to Mooney aircraft (predominantly private and business use but also some training use) and averaged only 50 hours per active aircraft in 2020. Also, 27% of the Beechcraft fleet are inactive compared with 19% of Mooneys;
- Cirrus aircraft flew an average of 98 hours in 2020 and amateur built aircraft averaged only 37 hours which is surprisingly low given their average fleet age of 10 and 17 years respectively;
- While Cessna and Piper aircraft comprise about half the total GA fleet, a quarter of them were inactive in 2020. While private and business use of Cessna and Piper aircraft has been flat to declining, there has been a significant increase in

their use for training in recent years. So, even though the active fleet is 11% smaller than in 2015, the average hours per active Cessna has increased by 13% from 135 in 2015 to 152 hours in 2020;

- Many other common types (e.g. Auster, Victa, Yak, Nanchang, Aerostar, Fuji) average only 20-30 hours per annum and there are others that average even less; and
- The GA types with the highest annual hours are those that are used in agriculture (e.g. Air Tractor, Ayres, Pacific Aerospace), training (e.g. Cessna and Piper) and air ambulance/charter (e.g. Pilatus). The above graph understates the comparison for one type – the 149 active Air Tractors in Australia averaged 302 hours in 2020 (vs 218 hours in 2019) due to the demand for them in firefighting and agriculture.

<u>GA's unleaded fuel problem is</u> <u>solved?</u>

By Janice Wood · May 11, 2022 From General Aviation News

All that's needed is one signature from FAA headquarters in Washington, D.C.

A small company in a tiny little town in Oklahoma has solved general aviation's biggest problem.

After a 12-year quest, <u>General Aviation Modifications</u> <u>Inc.</u> (GAMI) has created an unleaded fuel that is a dropin, fleet-wide solution that can be used in every spark ignition piston engine in the FAA database.

"We're done folks. We fixed the problem," George Braly, GAMI's head of engineering, told a crowd at the 2022 <u>SUN 'n FUN Aerospace Expo</u>.

Known as G100UL, the unleaded fuel made headlines at last year's EAA AirVenture Oshkosh when GAMI received a <u>Supplemental Type Certificate</u> (STC) for the fuel for a limited number of engines, including Lycoming O-320, O-360, and IO-360 piston engines.

At that time, GAMI promised the STC would be expanded to include all piston engines in the GA fleet by this year's Oshkosh — and beat that prediction by four months.

On March 2, 2022, the Wichita Aircraft Certification Office determined that GAMI "completed all necessary showings and findings of compliance and provided type design data and documentation required for the substantiation of the requested expansion" of the STC.

That was followed on March 3 with another finding that GAMI met all the requirements to expand the Approved Model List (AML) to all aircraft "approved for operation on 100LL fuels, lower octane unleaded aviation gasolines, and mogas."

The only thing holding things up?

FAA headquarters in Washington D.C.

Yet Another Delay

Instead of signing the STCs as expected, top FAA officials decided that the GAMI fuel had to undergo yet another review, this time by a Technical Advisory Board using a "work instruction" following the same outline the FAA used in the Boeing 737 MAX fiasco.

This put G100UL on hold yet again, understandably frustrating Braly and others at GAMI, who already have undergone more than six thorough reviews by FAA officials, starting in March 2010 in the early phases of the project. That was followed by five more in-depth reviews, including one at FAA headquarters in Washington, D.C.

In late 2021, Earl Lawrence, head of the FAA certification office in Washington, D.C., assigned yet another review to the Atlanta Aircraft Certification Office.

Braly said agency officials in Atlanta went above and beyond, working 12-hour days through the holiday season to produce a Jan. 5, 2022, report that was forwarded to the Wichita office, which then issued its findings approving the expansion of the STC and AML.

Braly noted that officials in Wichita told him that the "G100UL avgas STC project is the single most thoroughly vetted and documented STC project in memory in that office."

But top FAA brass still put the project on hold for yet another review by a Technical Advisory Board, made up of six "subject matter experts" with the FAA.

On May 2, FAA officials told Braly that the Technical Advisory Board review was completed and a report was expected to be forwarded to the Wichita Aircraft Certification Office by May 6 with any recommendations.

"I'm not concerned," Braly said after talking with the FAA on May 2. "I have a lot of confidence in the integrity and quality of work with the Wichita office."

GAMI officials won't speculate as to what caused the latest review. Perhaps it's the new <u>Eliminate Aviation</u> <u>Gasoline Leaded Emissions</u> (EAGLE) initiative. Perhaps it's the fact that GAMI didn't participate in the Piston Aviation Fuels Initiative (PAFI), a 10-year program that failed to find an unleaded avgas. When asked if it could be fear to turn such a big project over to a small company from a tiny town, Braly nodded his head.

"Fear is a big deal," he said. "They know this is a big deal."

In fact, it's such a big deal that EPA officials reached out to GAMI, initiating a Zoom call a few weeks ago to learn more about G100UL.

"They are quite interested in seeing how expeditiously this gets resolved," he said.

Meanwhile, Braly said he's "going deaf listening to the phone ring."

"We're getting calls from airports that want to get the fuel," he said, saying the airports are from around the country, including on the West Coast, the East Coast, in Wisconsin, Atlanta, and elsewhere.

And GAMI is ready to go once the final signature is received.

The plan is for GAMI to license the fuel's formulation to refineries. The license includes a quality control aspect that allows GAMI officials, as well as FAA officials, to make random inspections to ensure the fuel is made correctly.

It also has a deal with <u>Avfuel</u> to work through the logistics of distributing the fuel, with both companies committing to "ensure G100UL avgas is available to all legitimate distributors and vendors on an equitable basis."

But Braly acknowledges that the first customers of G100UL — once it is approved — will be airports where **100LL has been banned**, such as Reid-Hillview Airport (KRHV) in East San José and San Martin Airport (E16) in Santa Clara County in California.

World politics, including the war in Ukraine and continuing supply chain issues, also will impact the timeline for when the new fuel could get to your airport, Braly noted.

He added that dealing with giant corporations, such as the big oil companies, takes time as things move slowly at the corporate level.

"We can't even get the new product development people to put this before their committees until we get FAA approval," he said. "So we are just sitting here on our hands waiting on a piece of paper."

The Big Questions

GAMI officials know pilots and aircraft owners have a lot of questions about the transition to unleaded fuel, so offer some answers to the most common questions they are asked.

How much is it going to cost? The best estimate is that it will cost between 60 and 85 cents more a gallon than 100LL.

Will it work in my airplane? The STC covers all spark ignition piston engines in the FAA's Type Certificate Database, "without exception," Braly said. The STC is 18 pages long and includes more than 1,800 engine makes and models.

What if I fly a warbird? It will work in your airplane as well. The STC includes all of the World War II engines and all of the post-World War II radial engines.

What changes will I have to make to my airplane? You'll have to attach a small placard to the engine and add a short supplement to the Pilot's Operating Handbook. That's it.

What is the octane of G100UL? During FAA-approved detonation testing, G100UL was the same — and in some instances exceeded — 100LL, according to GAMI officials.

Other than being lead-free are there other benefits to G100UL? Spark plug maintenance and replacement intervals will improve with the absence of lead, while it is likely that over time oil change intervals will double. Without lead, it is also likely that synthetic oil will become available that will further increase oil change intervals, GAMI officials said.

Will the operation of my engine change? No.

Can I mix G100UL and mogas? Yes. In fact, you can mix G100UL with any fuel authorized for your aircraft, in any ratio.

What will the STC cost? Price will be based on engines and horsepower, similar to the pricing for other fuel STCs. For example, the <u>Experimental Aircraft</u> <u>Association's STC</u> for auto fuel is \$1.50 per horsepower. <u>Petersen Aviation</u> offers its STC for \$2 per horsepower.

Maintenance matters

What a LAME sees

James Fogg is Chief Engineer at Aldinga Aero and maintains an M20F, M20J and M20R among many and various other aircraft. He shares some thoughts on aircraft maintenance based on observations on the three Mooneys.

Maintenance isn't just inspections or fixing things when they are broken or cease to function. As the word suggests, it is "maintaining" the condition or function. In our case, the condition and function of an aircraft.

For example, even if the flaps are operating "correctly" it doesn't mean the condition of the system remains unchanged. As individual components wear, the condition of the flap system changes. This may become evident by the rubbing and chaffing of the flap leading edge as it touches the wing trailing edge or the flap hanger rubbing on a flap fairing. Individually, each part of the flap system may be in an acceptable, serviceable condition, but the wear has caused the rigging to shift. Maintaining the condition of an aircraft requires the ongoing adjustment and rigging of systems, as well as the replacement of components. Other examples of maintaining the condition of an aircraft are: replacing a deteriorated seal due to a minor leak; removing surface corrosion in its early stages and the scheduled replacement of hoses before they fail. The list goes on. It does not mean that the aircraft is refurbished but a balance needs to be found.

Lubrication is an important part of good maintenance, especially on Mooney aircraft. The majority of the greases used on aircraft are petroleum based with a modified clay thickener. All petroleum products evaporate, leaving the thickening agent behind. This is far from an ideal situation. Even if an aircraft isn't flown very often and lives in a hangar, the greases in landing gear, trim jack and flap system are degrading. Brake fluid is also a petroleum-based product and deteriorates over time. It becomes thick and sticky, hindering the pistons in the brake cylinder from retracting and leading to dragging brakes and brake pad wear. How old is your brake fluid???

A particular component that is often overlooked for regular lubrication is a vital part of the instrument panel that is regularly looked at. It is the instrument that tells you if your engine is making power or your magnetos are functioning correctly. I'm talking about the tachometer drive - the flexible cable that runs from the accessory case of your engine to the back of the tacho and is spinning at half the speed of your engine.

It easy enough to lubricate at an annual inspection by removing the cable outer at the engine end, pulling out the inner and giving it a wipe with a rag with some solvent on it. Give it a light coating of lubrication and carefully feed it back in, making sure it engages into the instrument freely. I could not find any specific mention of what lubrication to use in the Mooney maintenance manual, but some older vehicles used graphite grease, some forums suggest a lithium grease and one instrument manufacturer recommended petroleum jelly. 'Aeroshell 7' is recommended by Shell as an instrument grease and has a good temperature range but I'll leave the decision to you and your LAME. Regular cleaning and application is the key.

If the drive is very dirty, excessively sticky or very dry then cleaning of the inner may be needed. This can be done by disconnecting both ends of the outer, attaching a length of clear nylon hose to the instrument end and spraying a solvent, such as 'Shellite' or brake cleaner through it. Let it dry and reinstall the lubricated inner.

If the tacho drive inner were to snap, or is found to be badly worn, then the outer may also be damaged. Replacing the drive assembly with an aftermarket item has its traps. Other than purchasing the assembly with the correct types of ends, the length of the inner and the direction of rotation are critical. Because the inner is a wound steel cable, the direction of rotation is important for smooth, accurate indication. If the inner spins the wrong way, it can unwind slightly introducing a lag to the reading and increasing wear over time.

The length is the other trap. As the cable outer bends, the distance the inner has to travel increases. The distance can increase by as much as 17 mm for every 360 degrees of bend. So, if the tacho drive assembly has four 90° bends from the gauge to the engine, the length of the inner needs to be 17 mm longer than the outer.

Aircraft Spruce has all the information required to order a tacho drive assembly but try to replace a tacho assembly with the same length, following the same routing.

I hope this little article has given you some food for thought and helps you keep your aircraft flying reliably and economically.

New parts and equipment for sale

There's a new and extensive list of Mooney parts, avionics, electrical equipment and assorted other items on the web site. The list includes:

Magnaflite starter

KN64 DME

Nav-Radio w/o GS Altitude Encoder GPS Annunciator KMA24 audio panel Annunciator Electric A/H Turn Co-ordinator KG258 A/H AA80-001 intercom Radio blower Light control box Strobe generator Strobe generators Voltage Regulator Stall & Gear warning King KX-155 NAV COM King KG-107 Directional Gyro King KG258 Attitude Indicator Remote Annunciator Control Unit

Stainless steel wheel covers (set) Main wheel covers

For details, prices and who to contact, go to the CLASSIFIEDS page.

Mooney special tools

AMPA has purchased a number of Mooney specific tools that are available for loan to members. The tools that we have available include the aileron, elevator and rudder travel boards for all Mooney models, overcentre tools for the nose and main landing gear, and tools to replace the landing gear donuts.

The equipment is owned by AMPA but is stored by Smartair in Albury; Smartair also manage the loan of the tools to members.

The tools are available to AMPA members only. There is no charge for their use if returned in good order within the specified time but a late fee will be charged for every day of late return; the maximum late fee will equal the replacement cost of the equipment. Members must agree not to make copies (or allow copies to be made), to pay freight both ways, in advance, and to ship the tools back to Smartair after a maximum of 5 working days from receipt.

The full terms and conditions of use are available on the web site.

To borrow any of the above equipment, contact Pieter Mol at Smartair in Albury by telephone (02 6021 2929) or email (pieter.mol@smartair.com.au).

The AMPA to	ols are:
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P/N 030003-200	Aileron/flap travel board
P/N 030005-100	Rudder travel board
P/N 030004-100	Elevator travel board (M20C, D, E, F, G, J)
P/N 030004-503	Elevator travel board (M20K, L, M, R, S)
P/N 030012-100	MLG spring installation tool
P/N 030011-001	MLG shock disc tool
P/N 030038-501	MLG disc changer tool
P/N 030035-503	Rudder spring tool
P/N 030011-100	GSE MLG biscuit changer
P/N 030008-100	Nose gear over-centre tool
	Blanking plates for PreciseFlight 3000 series speed brakes

New members

Tom Oosterhof from Applecross in WA held a PPL since 2008 and has flown a variety of aircraft including RV7, C152, C172, C182, C210 and Beech Bonanza. He recently purchased 1998 Ovation VH-OID from David Marshall, and is loving it. He is a former member of the Australian Beechcraft Society and understands the value these organisations can provide pilots/owners.

Gavin Lord from Mitta Mitta owns M20C VH-ERJ. He is currently a RPL student working towards his endorsements for constant speed prop, retractable landing gear and navigation.

Michael Young has been a pilot for 46 years and a Mooney owner for 22 years. He lives in Merimbula and owns VH-MNY, VH-PFN, and N1297.

Fred Clej owns an M20E, VH-REM, which is based at South Grafton. Fred started his aviation career in the RAAF as an instrument fitter working aircraft such as the DC3, Caribou, C130, F111 and Chinook. Retiring after 20 years, he joined Ansett as a LAME. When Ansett closed, he started Archerfield Avionics which he ran for 30 years. He bought and restored VH-REM in 2000 when it was written off by the previous owner in a wheels-up landing.

Joshua Schuessler and his M20E, VH-CBA, are based at Frogs Hollow. He also owns a Bantam and a Morgan Cheetah. Josh started in ultralights as a teenager, building his own Cheetah when he was just 20. He bought CBA in 2021 and uses it as a work vehicle to take him and his building gear to remote areas.

Simon McMahon has previously owned and operated a Bonanza and most recently a share in an SR22. He has seen the light and is now moving to a Mooney. Simon is from Balliang in Victoria.