Approach

AIRCRAFT OWNERS AND PILOTS ASSOCIATION OF NEW ZEALAND
SUMMER 2022

Battling the nor-wester
Haast exceeds expectations
Fulfilling a dream
Future of Avgas

AOPA FLY-INS • INDUSTRY NEWS AND VIEWS • COMING EVENTS AND MORE

AOPA NZ

APPROACH: *SUMMER 2022*
ISSN 2422-8230 / 2538-1083 (*Online*)

Coming up

- *Wings over Wairarapa 24–26 February 2023*
- *AOPA AGM 2023 Whitianga, 4 March*
- *AOPA Northern Safari 5–11 March 2023*
- *Classic Fighters Omaka 7–9 April 2023*
- *Watch your inbox for notification of One-Day Fly-ins*

For more visit www.aopa.nz

Cover photo: Rebuilding a WACO
Photo credit: Jay McIntyre
(See *Fulfilling a dream*, page 16).

Contents

Regular Columns

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Deadline for ads, articles and photos for the next (Autumn) issue: **20 January 2022**.

President's Comment

As I type this Summer 2022 magazine report I note that the World Rally Championship is done and dusted – or would it be termed "mudded" thanks to the relentless rain? Our Vice-President Steve Horne was involved with the organising of this major event, and it was a job well done!

We remain in the north in 2023 for the AOPA NZ Safari, with members including Steve Horne and Peter Armstrong volunteering their time to bring it all together. We start the eight day gathering at Whitianga from 3 March, with the Safari route including Taupo and Te Kuiti. The AOPANZ AGM is scheduled for 4 March 2023, and will be held at the Mercury Bay Aero Club at Whitianga Aerodrome. I look forward to seeing you there.

Highlights of this quarter

A meeting with Keith Manch, Dave Harrison, Mike Hill and John Kay of CAA. From the July meeting it was acknowledged that topics discussed will be published in Vector magazine.

The recent October meeting agenda included carbon reduction initiatives; in USA, GAMI has gained STC for piston engines to use unleaded fuel. We will be researching the Ministry for the Environment's greenhouse gas emissions targets and reporting.

Life Membership was this year awarded to Don Ryder, the mover, and Kevin Anderson, the groover.

AOPA NZ is maintained and professionally administered by volunteers, aviation enthusiasts and aircraft owners, all of whom love flying, and it should always be remembered that we are a mixed group of geniuses who combine, to the best of our ability, our various areas of expertise.

Over the years Don has contributed his marketing skill and experience to such tasks as producing the awesome AOPA NZ VNC chart book, APPROACH magazine, and the new advertising campaign, launched in this issue of our magazine.

Kevin has for decades worked tirelessly behind the scenes, helping organise one-day fly-ins and other gatherings, promoting AOPA NZ at airshows, and generally volunteering to shoulder the workload that lies behind any successful event, large or small. Both gentlemen have served on the Executive Committee and are mentors within AOPA NZ. On behalf of our membership base, I thank you for your valued input, and especially as I have stepped into the role of AOPA NZ President.

Thank you to both Charlie Draper and new owners of the Kimberly Rd strip, Peter Morrison and Liz Natrass, for the 7-9 October weekend fly-in at Darfield. Also helping pull it all together was our 'Above and Beyond' award winner, Murray Paterson and Executive Committee members Ian Sinclair, John Evans and Ross Millichamp, who, alongside Charlie, arranged registration, strip selections, venue hire and catering. Additional thanks to Trish and John Crawford at Aylesbury Park for hosting and feeding numerous people; to our team leaders, Fred Bull, John Evans, Murray Paterson and Ian Sinclair, who made the most of the weather and selected appropriate strips for their individual groups; and – always in the background with social event organising – to Shaun Gilbertson and Kevin Anderson.

Alongside our function of facilitating flying camaraderie stands our responsibility to protect and enhance the Association's reputation. One aspect of this that we are currently working on is the updating of our constitution with a view to achieving Charitable Trust status. Steve addresses this topic in his column, and do watch for further updates via our weekly AOPANZ comms during the lead up to our AGM 2023.

Sue Kronfeld, President

A warm welcome to new members:

Liam Beale, Christchurch; David Bentley, Waitara; Daniel Bon, Taupo; Hamish Brice, Christchurch; Joe Brown, Coalgate; Phil Crawford, Patea; Richard and Endah England, Auckland; Ben Innes, Lake Tekapo; Brook and Rachel Johnstone, Whitianga; Lloyd Morris, Albany; Wallace Pendray, Whitianga; Nigel Piper, Huntly; Luke Price, Kaiapoi; Rob Steele, Darfield; Michael Train, Waverley; Andy Woods and Mylrea Bell, Wanaka.

AOPA News

Safety priority for new PreFlight platform

Aeropath and MetService have joined forces to develop a one-stop platform to better support the needs of pilots by combining safety critical weather and aeronautical information.

Launched in September 2022, PreFlight is a website application that has been more than 18 months in the making. Developed by Aeropath, a subsidiary of Airways International, in conjunction with MetService and stakeholders across the aviation sector, the new application provides recreational and commercial pilots with safety critical weather and aeronautical information in a modern, interactive format and on a mobile-friendly interface.

PreFlight is a one-stop briefing application designed for use on all types of devices, from smart phones to tablets and desktops.

PreFlight has been specifically designed for pre-fight planning and is not intended to be a replacement for electronic flight bag products.

PreFlight is accessed via a web browser (go to https://gopreflight.co.nz) and will work on desktop computers, tablets and smart phones – though devices generally need to be mid-range and less than four years old to run PreFlight well. For older devices, IFIS remains available for pre-flight briefing information.

For recreational pilots, PreFlight has both free and paid subscriptions. The free version provides the standard MetFlight and IFIS briefing information, while the paid version adds an array of additional features, including VNC charts, advanced briefing features, interactive map overlays of SIGMET/SIGWX phenomena and webcam data. All pilots can self-register for a free account for personal use by visiting https://gopreflight.co.nz.

A key benefit of PreFlight for pilots is that all the information needed to plan a safe flight, from an aeronautical and meteorological perspective, is in one place. Information that paints the broader situational awareness picture, right down to enroute and aerodrome level, is easily accessible.

New features allow information to be filtered by time or altitude so that only the most important information for your flight is shown, removing clutter and allowing you to focus on the information you need to plan and complete your flight safely.

The new briefings also provide easy navigation between sections and allow you to customise your briefing by removing sections or locations you don't need, sorting geographically or alphabetically, and filtering by time, altitude or product.

For a small monthly fee, recreational pilots can access additional features such as the ability to:

- view graphical NOTAMs, SIGMETs and SIGWX on a single map
- convert the TAF and METAR from the standard aviation format to a formatted version that may be easier to interpret
- switch between UTC and local time
- create custom briefing areas or routes
- access additional map overlays (VNC and LINZ topographical maps).

An introductory tour is available within PreFlight, which you will be prompted to walk through on your first login, but it is always available to go back to in the Help menu. This guides you through the basics of the application, so you know where and how to access the information you want.

PreFlight will replace both MetFlight GA and MetFlight Commercial, delivered by MetService, in early 2023. Users are encouraged to submit feedback via the feedback mechanism on PreFlight, as the developers are constantly reviewing and assessing features and products that will further enhance PreFlight's efficacy as a one-stop briefing application.

2023 AOPA AGM and Summer Safari

Don't miss AOPA's Northern Safari, kicking off in Whitianga on 3 March 2023.

A welcoming BBQ on Friday night will be followed by the AOPA NZ AGM on Saturday 4 March. The afternoon will see the North vs South Christine Taylor Memorial Golf Tournament then AOPA NZ AGM dinner, offering chat, cheer and the annual AOPA Awards.

From there, the safari will take in Waiheke Island, Taupo and Te Kuiti. There'll be fun, food and flying, adventuring and exploring. Details will be on the website and in weekly emails. Accommodation bookings will be essential, so start planning now!

New ads for AOPA

This issue sees the introduction of a series of three new recruitment/profile advertisements for AOPA NZ.

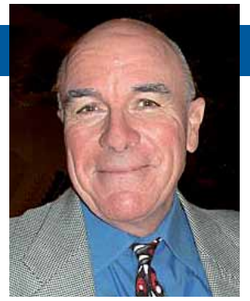
The new ads reflect our ongoing focus on advocacy, social fly-ins and ensuring a welcome for all aviation enthusiasts, but offer a whole new presentation.

The creative concept harks way back to that time, long ago, when we all had those initial thoughts about how great it would be if, like the birds, we could fly. Quite unlike anything else that you'll see in an aviation publication, we hope that they leave you with a smile on your face.

New VNC Chart book

The updated AOPA NZ VNC book is now available, and includes significant changes to Auckland and Wellington control zones. New visual reporting points and danger zones also contribute to making this an essential cockpit back-up tool.

The effective date for all charts is 1 December 2022. Members can order for the discounted price of $88 (including gst and postage) from the AOPA website.



Vice-President's view

By the time you get to read this we should be well into summer and hopefully a good flying season.

Up here in the Republic of Waiheke things are definitely spring-like, which means a lot more property work outside, some wind and more flying.

My local airport at Ardmore is certainly very busy, with a lot of student and flight school activity, along with occasional jets and many helicopters and the odd warbird thrown in. It's certainly a diverse airport.

Like anywhere it has its 'traffic' challenges.

I was recently practising touch and goes with short field and flapless landings when I nearly got caught out by an aircraft practising forced landings directly after takeoff. I had seen it climb out and I waited a suitable gap and commenced my takeoff and climb out. Once I turned crosswind, and still climbing for the downwind, I saw the preceding aircraft under my wing and climbing crosswind also from a much lower altitude. If I hadn't seen it, what would have happened? I don't want to think, but it would have been close. The question to be asked is, is it okay to practise forced landings directly after takeoff in a crowded circuit? I think not.

At our last face to face AGM at Cromwell, Steve Brown and the executive asked you to consider whether it was a good idea for AOPA NZ to form a charitable trust.

Sue, the Executive Committee and I have been working on this, and at our next AGM we will present it to the membership for a vote. Basically, on the advice of our excellent law firm, Parry Field in Christchurch, we have agreed to modify our existing constitution to become a charitable trust. They advised us creating a separate one was superfluous and unnecessary as we were already an incorporated society.

Our constitution needed some minor changes as well to comply with the new Incorporated Societies Act 2022.

We are just working through the final changes and, once done, we will post on the members' website for your review.

Planning for the Northern Safari is well advanced. Have you booked for ziplining on Waiheke yet? It's fun!

Steve Horne, Vice-President

From the Editor

Welcome to this bumper issue of your magazine. In it you'll find a spread of articles covering fly-ins, flying adventures and destinations both familiar and new. As well, we touch on an ever-important subject: your passengers.

Safety is – as ever – a recurring theme. There are fly-in do's and don'ts, 'take home' messages, info on a new Preflight app, and we update you on SBAS and the future of Avgas. Hopefully you'll find plenty to enjoy! Fly safely out there.

Anna Mackenzie, Editor

AOPA Haast Fly-in 2022

By Steve Lyttle

Friday 22 July dawned clear and calm in Timaru: perfect for heading to Haast for the 2022 AOPA NZ Winter Fly-in.

I'd spent some time preparing for the Fly-in, studying AOPA strip locations on OzRunways and Google Earth, and the flight to Haast provided a great opportunity to view several from the air.

Overflying Omarama and Makarora, I arrived mid-afternoon, refuelled, picketed and covered the plane, ready for the following day's flying.

Chatting with other pilots over dinner at the Heartland Hotel provided more information about the strips we might be visiting over the coming two days. It also reinforced the importance of being properly prepared for any conditions we might encounter.

This was my third Haast Fly-in. My first was in 2020, when the weather had been so bad I'd opted to drive. Fortunately, I'd been offered a seat on Saturday in Eamonnd Johnston's 180 and, despite imperfect weather, I gained a huge amount of knowledge about flying into remote strips.

My second visit was in 2021, when I flew my Alpi Griffon to Haast and focused on the easier well-formed strips to the north of Haast.

Roll on Haast 2022!

Our family is the proud owner of a Carbon Cub SS (LSA), which arrived in March this year and, with a taildragger rating already in place, it was a relatively easy process to get rated. Focusing on upskilling in the Cub became my next priority, with the goal of being prepared to meet the challenges offered by the fly-in. Planning commenced immediately, with a range of flying activities in Timaru that focused on getting in and out of simulated short and one-way strips, along with simulated engine failures and glide approaches. At the same time, I amassed a full survival kit for the plane that would enable me to stay dry and spend at least a week in the open.

Haast 2022 Fly-in: Day 1

Saturday, we awoke to clear skies and, after breakfast and a pilots' briefing at the Hotel, we were ready to go. Divided into groups, I'd chosen to fly with the group heading north of Haast. I'd landed on some of these strips in my Alpi during the 2021 Haast Fly-in, so it was known territory and a good way to relax into the weekend's flying in the Carbon Cub. To avoid conflicting traffic over the weekend, northbound traffic was flying east of the coast over land while southbound flew just off the coast. The strips in the northern area are generally better formed and a bit longer that others in the Haast area.

With Ian Sinclair as team leader, we were soon on our way to Scully Road, a well-formed strip with a solid, smooth surface and plenty of room to park several planes. We were met at the strip by the owner, Gary Julian, and driven to his hangar to check out the RV he is building and view the two helicopters he operates. Construction of the RV was well advanced, and the standard of workmanship was exceptional.

It was then on to Bowater, a farm access road that's a bit wider than normal, and another good solid and very long strip. Next, a short flight to Poerua River (pictured above), where I was first to land. The strip is easy to find as it sits on top of a widened stopbank, and has a good solid surface. The approach is toward the road and there are power lines across the end of the strip, so if your touchdown is well into the strip, a late go-around is not an option. It's also a strip where you need to hold a straight line as it has a 3m bank on either side; one side down into the river and the other down into small trees and a fence.

From there we flew to Okarito for lunch. Okarito strip lies between the beach and township, and is approached from the north over the coastline to avoid the wildlife reserve R700. Firm grass with a few undulations, it's a great lunch stop. The Okarito Kitchen, located towards the northern end behind the first row of houses, has great coffee and is just a five minute walk away.

After a good break we headed back to Haast, with a stop at Karangarua strip, the shortest of the day, with a slightly raised surface, about 4m wide. The ground was soft either side and a bit of pushing was required to get one of the heavier planes

Highlights of Day 2: flying through the Upper Landsborough Valley (above); and (right) AOPA fly-in camaraderie enjoyed over a tailplane afternoon tea at Forbes strip in the Hunter Valley.

out of a soft spot. There had also been cattle on the strip, so most planes received a generous coating of cow dung.

Approaching Haast, we received a radio message asking us to give landing priority to an aircraft with overheating problems, currently east of airfield. The planes in the immediate vicinity either extended or orbited until the plane was safely on the ground. In typical AOPA fashion, the owner, with the help of members, quickly had the problem rectified. As planes landed they were refuelled and prepared for the next day's flying.

The evening was a relaxed affair with talk about the day's adventures and the opportunity to quiz the more experienced pilots about strips we might visit the following day.

Haast 2022 Fly-in: Day 2

Greeted with amazing weather, we shared another hearty cooked breakfast at the Heartland Hotel, followed by a briefing on the flying options for the day. At day's end we'd all be heading home, so this was also factored into the direction we'd choose for the day. For me, the route which would work best put me under the watchful eyes of John Evans and Mike Oakley.

We flew up the Haast River and into the Landsborough Valley to the Creswick strip. Being a novice at this type of

landing, I did a few circles overhead the strip at a safe height, watching how the experienced pilots made their assessment of the strip's suitability. Having studied their circuit/approach, I planned my own. Conditions were calm so I didn't need to focus on wind direction. I planned my circuit and touchdown point based on a three-point landing, then worked backwards to establish my go-around point and where I wanted to be downwind at 300ft with the Cub configured for landing. With the others all on the ground, it afforded some relief that it proved a landing I could be proud of.

After Creswick it was a short hop up the valley to overhead Toi Toi, with a downwind leg and left turn to land up the valley. Toi Toi is a lovely strip with a bit of character as you roll to a stop. Richard Rayward from Air Safaris hiked into the area on foot in the mid to late 1960s and hand built the strip, subsequently making regular flying visits to camp. It's a magical place and I can understand his motivation; I felt privileged to have been able to land there.

After departing Toi Toi and climbing to 6500ft to fly through one of the heavily snow clad passes, I reached for my phone to take photos of the stunning scenery, only to find it was missing. I had a fair idea where it might be, so radioed the others to let them know I was heading back to the strip to look for the phone.

When I landed back at Toi Toi and closed the plane down, I was struck by the absolute tranquillity. Not a breath of wind, clear blue skies and not a single man-made sound. It brought home what a privilege it is to be able to fly into such places, and how important it is that we protect the opportunity for future generations of pilots to enjoy.

Fortunately, my phone was roughly where I thought it would be. Airborne again, I climbed back to the saddle, took a couple of photos and descended to Forbes strip in the Hunter Valley. Afternoon tea was already spread out on a tailplane.

Underway again, we headed to Cotters Flat in the Dingle. There was valley fog as far as the eye could see down the Hunter, so we stayed high until we crossed into the Dingle. The approach to the strip was downwind on the west side of the valley,

Steve Lyttle's Carbon Cub at Forbes strip in the Hunter Valley as Day 2 drew to a very happy close.

with a tight base leg and onto finals to land uphill to the north. The strip was hard to see from the air, with patches of what looked like hard snow on the ground, so caution would need to be exercised when braking.

The strip was one of my favourites. From around 5000ft it looked rather short and intimidating, given the valley was quite narrow, but I found it easy to land on my second approach, after being too high on the first attempt.

From Cotters, it was a short flight to Omarama for lunch then final goodbyes and home to Timaru.

Despite being held at short notice following the previous cancellation, the 2022 Winter Fly-in was a great success. For low time pilots like myself, and for those attending a fly-in for the first time, these events offer a safe and supportive learning experience. Briefings are a must, and there is always a competent team leader guiding each group, plus a wealth of other experienced pilots who can be approached for advice, which they share with enthusiasm.

There is time to socialise in the evenings and to catch up on the day's adventures, and there are always some little gems of information shared that you can take away and smile about until the next time you meet up. We were made extremely welcome by the team at the Heartland Hotel Haast; it's a great place to stay and offers genuine West Coast hospitality.

A huge thank you to the organising team and all the pilots who freely offered advice and assistance, and especially to John Evans and Mike Oakley, together with the rest of my Sunday group, for their support and encouragement. Without doubt, that Sunday offered the most amazing powered flying I've ever enjoyed, and I look forward to participating in as many AOPA events as I can. The flying support and fellowship offered by members is something special.

My key takeaways from the event:

- If pilots are keen on backcountry flying, join AOPA – it's a very supportive group
- Make sure you're 100% fit to fly and current for the type of flying being undertaken
- Ensure all aircraft documentation is up to date, including insurance
- Be well prepared with safety/survival equipment, maps, and spare radio
- If you're not sure of anything, ask for advice from the experienced pilots
- Don't be afraid to go around if your approach profile is not spot on
- Always have a plan B

Darfield Fly-in 2022

By Bryan Bedwell

I'd often mulled over plans to attend AOPA fly-ins, but weather or work commitments as a Boeing 747 pilot based in Hong Kong always seemed to intervene. Finally, after a pandemic-induced early retirement, an opportunity arose: with my fellow flyers, Phil Crawford and Michael Train, I began finalising plans for Darfield 2022.

The long-range forecast was checked: excellent weather expected. Work commitments were considered: time off was doable. Accommodation was organised: sleeping bag packed just in case.

Phil had recently acquired a Cessna 182Q, ZK-JSB, which had languished in a hangar in Hamilton for fifteen years. A forty-plus year old aircraft with only 2500hrs total time, the previous owners had resurrected her then decided to sell. Phil, who had a Cessna 172 and had recently completed his PPL, decided he needed something a bit faster to travel around New Zealand and possibly take touring in Australia. Since purchasing JSB he's given her a new paint job, while replacement of the very dated interior is scheduled to be his next project.

Two other locals, Brad Raven and his brother Dean, were interested in joining us in the beautifully polished Cessna 170B ZK-JCG. Due to the speed difference between the two aircraft, plans were made to meet up in Darfield.

Friday 7 October dawned clear, with light winds forecast for most of central New Zealand. Phil and Mike departed from Phil's Waverley strip for the short flight to Wanganui to top up the tanks and pick me up, then we set off mid-afternoon, heading for our first stop in Rangiora.

Rather than the usual coastal flight route, we decided to make the most of the great weather and track from Kapiti Island to The Brothers Islands, then across the Marlborough Sounds and west along the Wairau Valley. Turning south before St Arnaud, we followed the St Arnaud–Hanmer Springs Road. The scenery in this north-eastern corner of the South Island is rugged and awe-inspiring. Shortly after passing through Hell's Gate the terrain opens up, revealing the swampy area known as Lake Sedgemere in the northwest corner of Molesworth Station. Crossing over Island Saddle (the highest point on the road being nearly 4500ft), we passed Lake Tennyson off to the right then headed south towards the Hanmer Range.

Beyond Hanmer Springs the scenery opens to North Canterbury farmland. From the back seat, Michael, with flight radar in hand, noticed Rebel MSR out to the east, heading toward the same destination.

After a quick stop in Rangiora for fuel, we continued to Darfield, where Charlie was on hand to run us to our accommodation in town. Soon a bus delivered us to John and Trish Crawford's place for a BBQ and planning session for the following day's activities. We opted to head south – it was a good chance for Phil to gain experience in the Cessna 182 while, for me, it was an opportunity to sharpen up my skills on short strips.

Saturday morning was clear and calm. After catching the early transport, there was plenty of time to preflight and warm up JSB before the 0900 briefing.

First strip of the day was Intake on the banks of the Rakaia River. This is a narrow strip with limited parking at the western end, which just managed to accommodate us all. To depart, it required a coordinated pattern of four or five aircraft back-tracking in a group, turning around in order, so the last aircraft to taxi became the lead aircraft to depart.

The next strip, further up the Rakaia Gorge at Bruce Nell's property, was unfortunately a no-go for us less-experienced strip flyers due to a strong and gusty nor-wester. Brad, used to howling Taranaki winds, landed, so Bruce did receive one visitor at least. The rest of us diverted back to Ashburton to re-group and decide the new plan of attack.

The pesky nor-wester put the strips in the foothills of the Southern Alps out of reach, so the new plan became lunch at Les Vincent's place, where there was plenty of space to park up and brilliant sunshine made it an enjoyable stopover. After that came Anama, where a strip had been marked out in the middle of the lucerne, complete with edge and centreline markings. From there, the group split, with some heading to Thornycroft enroute Mesopotamia while the rest flew there direct. The backup plan was to regroup at Arundel if we were unable to land and, with the wind showing no sign of abating, this was what happened.

The Arundel strip proved to have the most challenging approach of the day, with most aircraft coming in over the trees with a steep final descent. We chose an angled approach along the river flats with a late turn to line up on the strip. The short break at Arundel gave us the chance to talk with the crews of two Tiger Moths who were on their own southern tour.

From Arundel, the next leg was a thirty minute flight to visit Lou McAlister at Cust, where we were treated to a hot drink and home baking and given the opportunity to wander around Lou's extensive tractor, truck and car collection. All too soon, it was time to head back to Darfield and enjoy another great night at the Kirwee Rugby Club.

From top: Taildraggers doing what taildraggers do best; sunny weather made the most of the scenery but the nor-wester had its own view of what was permissble; camaraderie aplenty. Preceding page: a great range of aeroplanes means a broadbase of experience to be shared.

For some, it was a rather slow start the next morning. After hitching a ride to the strip with some obliging folk from Nelson, it was time for us to head north and enjoy a reviving coffee in Kaikoura before the final leg home.

The trip south had been an extremely enjoyable experience, offering excellent insights into the unique wind patterns of the Canterbury Plains, which saw calm conditions on some strips and blustery nor-westers just five or ten miles away. The experience left all three of us in JSB hankering for more. Thanks to the organisers of Darfield 2022 for making our first fly-in so memorable.

Wrong way to New Zealand: part 11

Down the line of longitude

By David Berger

The journey across Russia had stretched into a five week odyssey of eastings, always eastings. Our purpose, the reason we had been born and the sole reason we now apparently existed, was to keep making progress eastwards.

Nothing filled our days but the thought of the next five hundred nautical mile leg eastwards across the rolling brown and green taiga, a wilderness of larch trees and swamp stretching to infinity. Getting to Japan had changed all that and now, in Kagoshima on the island of Kyushu, at the far southern tip of the Japanese home islands, we stood poised to run almost due south through the Philippines and Indonesia to our own part-time home on the north-west coast of the Australian continent, Broome. It felt like we had peddled to the top of a steep hill and were now looking at the just rewards of our labour: a leisurely, downhill freewheel home.

The Bazflyers, Barry and Sandra Payne, with the enviable cruising speed of their Comanche and their extra long range, headed off non-stop to Clark Field in the Philippines, but that was too far for us. Even with a stop in Okinawa, 350nm to the south down the chain of the Ryukyu Islands, we would be making our longest hop of the trip to get to the Philippines: over eight hundred nautical miles from Okinawa to Clark Field.

But there was another reason to stop in Okinawa, a reason which transcended the mundane limitations of pure geography. During the several weeks that Tom had been helping to get the aircraft ready in the avionics shop in Grand Junction, he had become addicted to Taco Bell, and it was an addiction I had quickly come to share. I'm not proud of this, of course I'm not, but equally I'm not making any apologies. We had come to a point where, if it was available, we needed Taco Bell, and Google maps was showing three Taco Bell outlets on the island. Why there might be three Taco Bells on the tiny island of Okinawa, adrift in the East China Sea, we did not think to question. This was Japan, after all, land of the fetish for all things foreign, especially American.

By the time Barry and Sandra left, I was starting to feel better from my stomach bug and the building of another cyclone in the north Pacific was a signal for us to get our skates on. The next day, we thanked Paolo for his help and kindness and launched on the short three hundred and fifty nautical mile leg to the international airport at Naha on Okinawa.

It was a blissful flight down the long chain of the Ryukyus. Island hopping heaps psychological comfort on the pilot of a single engine piston aircraft, where long open water crossings far from land require constant self-soothing, reassurance and rationalisation. Even then, the fear simmers just below the surface, denied and suppressed, but bubbling up at the tiniest imaginary hint of a miss in the engine.

One after another, the tiny islands provided a picture of bucolic contentment in the early morning from six thousand feet. Mostly divided into the tiny fields so typical of Japan, they each had one or two small, geometrically organised villages. Had the atomic bombs not been dropped, resulting in Japan's capitulation in WWII, these tranquil islands would have been stepping stones on the route north for the American forces. As it was, they narrowly escaped the near total annihilation that Okinawa experienced.

Our route brought us down the west side of Okinawa, the northern end of which looked surprisingly forested and underpopulated for a small island with one and a half million inhabitants and a plethora of American military bases, and we were soon landing at the joint civil and military airport at Naha. We were directed to the small GA parking area in the wilds of the western side of the airport and pulled up next to a Japanese-registered Bonanza, which seems to be based in Okinawa. Evidently, it is worth the hassle and expense for one person, at least, to fly privately in Japan. We were soon refuelled and then whisked over to the terminal in a little van driven by an immaculately coiffed, tiny lady (you have to get something for your US$2500 fee, after all). There, we rented a car and headed north out of the congested city, tummies rumbling, to the first Taco Bell programmed into Google maps.

Expectations were high, but our jubilant spirit was soon dashed by the presence of a tall wire fence with a sign which read 'Camp Foster' blocking the way between us and satiation at the familiar purple sign, visible not fifty yards away. We parked the car and walked up to the kiosk by the gate, addressing ourselves by intercom to a supremely disinterested American servicewoman through the bullet proof glass: "What is your business on the base, Sir?"

"Er, we'd like to go to Taco Bell, please. We've flown two-thirds of the way across the world and we're really craving a Taco Bell!" We smiled and tried to be as appealing as we could.

"I'm sorry, Sir, only people with official business are allowed on the base."

Of course, it was the same story at the next Taco Bell, which also jeered at us from behind the wire, this time at Camp Kadena, the huge US Marines air base. We knew now why Okinawa was home to three Taco Bell outlets, all of which were destined to remain forever off limits to us.

We consoled ourselves with our standard self-soother when faced with disappointments on the trip – "At least the engine didn't fail yesterday!" – and continued north along the coast. We visited the aquarium (really big fish with frogman attendants bobbing around for no readily apparent reason) and finally came to our resting place for the night, the Yanbaru Hostel, a remarkably avant garde design hotel in the small seaside town of Kunigami.

Settled into our stylish room and feeling very avant garde ourselves, we congratulated ourselves on this remarkable find and went for dinner at the less than reassuringly named 'Wild Cat Restaurant' (山ねこ料理店), a tiny kiosk of a place just round the corner, run by a fellow and his smiley mum. He did the cooking, she did the front of house and, filled with laughter, chatter and wreaths of cigarette smoke, it had the appealing atmosphere of a Central European kneipe of the 1930s. "More than satisfactory," we said as, with full bellies, we returned to the hotel. By now, it was about 10pm and we were greeted in the courtyard by a curious sight. Half a dozen highly made up young women were tottering round on high heels, giggling consistently, if rather forcedly, and waving sparklers in the air, while being photographed by a young man.

Clockwise from top left: Yanbaru Hostel, Okinawa; the Influencers; always pumping. Previous page: at Balikpapan; above Luzon.

These, it turned out, were Instagram influencers on a photo shoot, mostly from the island of Ishigaki, about two hundred nautical miles to the southwest and Japan's tropical holiday isle, sitting as it does immediately north of the Tropic of Cancer. The man was their friend (I presume through Instagram), a young veterinary student from cold, snowy Hokkaido, taking a year out to cavort with tropical lovelies. And who, frankly, could blame him? Tom was a great hit with the assemblage and was soon featuring in all the photos, a big cheesy grin on his face.

The next day, we drove the two hours back to Naha and put up in an anonymous hotel not far from the airport. The winds looked favourable for the following day; an important consideration given the length of the leg.

Tortuous IFR vectoring due west after takeoff added about thirty nautical miles to the journey, but we were soon on course, making 125 to 130 knots ground speed, at the low altitude of 3000ft to catch the favourable winds. Before long we were handed off by Fukuoka Control to the oceanic controller on HF, which turned out to be… San Francisco Radio. The faint American voice coming and going through the ether was, however, rather intermittent and served more to lend a thrill of the exotic to the flight than any useful position reporting function.

Passing the northern tip of Palawan, in the pirate-haunted Sulu Sea of the Philippines.

Apart from a few hundred miles in the middle, we were never all that far from land and there was a prodigious amount of shipping, which I enjoyed listening to on the marine VHF we have mounted in the panel. The warm, tropical water below made this feel much less unpleasant than crossing the cold North Atlantic and it seemed a very short time before we were passing just to the south of the Philippine-owned Batanes Islands, which sit in the middle of the Luzon Strait between the Philippine island of Luzon and the southern tip of Taiwan.

At no time did our fuel at destination show as less than 35 gallons, or three hours' endurance, on this 840 nautical mile leg. A later model Cessna 185 with 30 gallon tip tanks and 114 gallons total usable fuel is a phenomenally versatile machine. Running lean of peak at about 2200 RPM and 20-23" of manifold pressure (depending on altitude), you can expect a fuel burn of around 11.5 GPH and a true airspeed of about 122 knots, rising to 128 knots as you lighten up, giving you a still air range of about 1150 nautical miles, accounting for fuel used in the climb. Our machine has the larger 8.50 wheels, an Aerocet belly pod and an aftermarket 14" tailwheel, and it still does all that with an after fuel useful load of over 370kg. That's the legal useful load, of course. Ask any 185 cowboy what load the aircraft will really fly with (but make sure to mind that CofG - it's easy to load it too far aft!). At the same time, you can operate it with a load out of the tiniest and sketchiest of backcountry strips in the Landsborough Valley and Fiordland, as we would go on to do just before the pandemic hit in early 2020.

The IFR route took us to the northwest tip of Luzon then due south along the coast to Clark International Airport at the city of Angeles, not far north of Manila. This kept us to the west of the imposing and mostly cloud-covered Cordillera Central mountain range, which runs north-south for over 350km in this part of northern Luzon and reaches its highest point at nearly ten thousand feet.

Looking down on the Philippines, it was immediately apparent that this was a poor and crowded country. We had reached South East Asia proper.

Clark Field, as everyone calls it, harking back to its days as a US airbase, soon came into view, and our roughly US$2500 landing and handling fee was soon being spent in the form of a few sleepy officials coming to cast a disinterested eye over our paperwork before wandering off once more whence they had come.

If one 'Aviation Monetary Unit' is generally reckoned to be US$1000 in the Western world, then it is at least US$5000 in Asia. I'm afraid that's the exchange rate, folks. I don't recommend flying for fun in Asia.

And so we had arrived, reeling from the fact that our faithful little aircraft had once more transported us through what felt like a wormhole in space. Slowly but surely we were eating up the earth's surface and would soon run out of earth to fly around. The realisation that the earth isn't actually all that large is striking and sobering.

The next day was a short leg of 350nm to Puerto Princesa on the island of Palawan, a stop that Barry and Sandra had again managed to omit because of their prodigious range, enabled by a rather complex affair of eight or so fuel tanks. Such a system is something I trust them to operate without a moment's hesitation. Myself? Less so.

It was a stunning flight over a tropical ocean and then down the forested spine of the island of Palawan. The knowledge that the southern Philippines, and especially parts of Palawan and the islands of the Sulu Sea, were the haunt of pirates and Islamic guerrillas lent the already exotic experience an extra frisson. We were in tiger country alright.

Everything went smoothly at Puerto Princesa airport and a pristine drum of avgas turned up on cue, which Tom hand-pumped before we were driven into town. This had much more the teeming feel of Asia than had Angeles City and, even though the airport itself sits plonk in the middle of town, it took ages to drive the short distance to the posh hotel where the expats stay. My imagination ran overtime. It felt like the kind of place that Islamic terrorists would storm and hold everyone hostage, but of course we had a very pleasant and uneventful stay and wandered the local streets, reveling in the tropical warmth and humidity, and in just at being in Asia.

There had been some kerfuffle over the fact that our course took us briefly into Malaysian airspace over Sabah, but the excellent Mike Gray of White Rose Aviation was sorting all our permits by this time and it had been resolved shortly before we were due to take off.

We departed to the east over the ocean following a Cebu Pacific Airbus, climbed straight to 10,000ft and set course to the south-southwest over the sinister-sounding (and sinister in reality) Sulu Sea.

It was calm up high over the sea, as it generally is. We passed the time peering down at the smattering of islands and the few tiny craft making their way between them, speculating as to what fearsome characters might inhabit them and just what a bonanza we would present if our trusty Continental were finally to give up the ghost and we should fall into their laps. Aye, there would be feasting and jubilation aplenty!

I tried to come up with a plan against this eventuality, but failed. Tom's solution was just to switch off the engine instruments screen on the G500TXi and listen to his playlist on Spotify. Sometimes, denial really is the best strategy.

Like almost everyone, I suspect, I underestimated Borneo. It sits there, a large blob in the middle of the map of South-East Asia, and you tend to ignore it, but it's big. Really big. It's the third largest island in the world after Greenland and New Guinea. You didn't know that either, did you? Well, we were now finding out. The leg from Puerto Princesa to Balikpapan, far down on the southeast coast, was over 650nm. We started flying past Borneo then just kept flying.

The morning wore on as we trundled along and the usual equatorial cumulus began to build up over the land to our right. Ahead of us lay a finger of a peninsula jutting out into the Makassar Strait. The cumulus was building on that too, and we had to cross it. It was about 50nm wide. A diversion around the eastern tip, which would keep us over the ocean and thus free of cloud, would add about 75nm to the trip. I wanted to divert, Tom didn't. He thought we could get across before the clouds got too high. We pressed on.

Handlers, fees and paperwork at former US airbase Clark Field and Luzon island, Philippines.

Dear reader, the clouds bubbled up around our ears like bubblebath under a gushing tap. We climbed then climbed some more. We took ever more eccentric diversions around ever more towering pillars. We kept saying things like "not long now" and "they can't get much higher" and eventually, with a sigh of relief, we had squeaked through and were once more over the coast and cloud-free.

Our attention was soon diverted by the sad sight of the extensive palm oil plantations in areas of cleared rainforest in this part of the country, and before long we were starting our descent into Balikpapan, another leg ticked off.

Australia was so close we could almost smell it.

2022 AOPA NZ Awards

Above and Beyond Award:

Murray Paterson

Murray Paterson receives his GA Champion Award from AOPA NZ President, Sue Kronfeld; behind them charts show briefing group details at this year's Darfield fly-in – evidence aplenty!

Murray's involvement with AOPA NZ goes back to the days of the Kittyhawk Club and has continued unabated since.

He has served three separate stints on the Executive Committee, specialising in organising social functions and mentoring new aviators into post-PPL, real world flying. Although lobbying and advocacy are less of a passion, when Murray gets a bee under his bonnet about an issue, he becomes relentless in his drive to rectify it. He was almost solely responsible for getting rid of the annual radio registration fee that aircraft owners had to pay for the privilege of operating a VHF.

Murray flatly refused higher office in AOPA NZ, despite multiple attempts to get him to take on the President's role. Life Member and former President Richard Bradley once set off from Hawke's Bay on a mission to convince Murray to stand for President. He become delayed midway by weather and was forced to ring Murray to put his case. "You're wasting your time; turn around and go home," Murray said.

The Paterson family has been a key part of Murray's contribution to AOPA. His wife Claire has assisted with much of the behind the scenes work on projects that Murray has taken on. Son David serves on the Safety Committee and also coaches new members in the art of backcountry aviation. Daughter Louise is a regular at AOPA NZ events, initially accompanying Murray but now attending with her husband, Gerald Aubrey, in their newly restored Cessna 180.

Murray's award was presented at the Darfield Fly-in in early October, with 70 plus members looking on.

Maintenance Shop of the Year:

Elevate Aviation

Richard McKay and Ray Hibbs with AOPA's Murray Paterson.

Ray Hibbs and Richard McKay are both former employees of Oceania Aviation and its predecessors. Together, they founded Elevate Aviation when Oceania shut down its operation at Dunedin Airport in 2020.

Ray, formerly the manager of Oceania at NZDN, now specialises in general fixed wing and helicopter maintenance. He is happy to undertake work away from Momona, and often travels to where an aircraft is based to make things easier for the operator.

Richard is well-known as an airframe rebuilder and has been responsible for getting a large number of damaged aircraft back into the air, often in a 'better than new' condition. Sadly, he has had to re-build some airframes more than once! The reality is that most of us cannot afford to buy new aircraft and we rely on people like Richard to keep the GA fleet viable. A good example of his work is ZK BUQ, a Cessna 180 that Richard transformed from a worn-out sky-diving workhorse to a mint private aircraft that is the pride and joy of Gerald and Louise Aubrey at Ben McCloud Station.

Most Helpful Control Tower:

Dunedin Tower

Dunedin Tower's Chief Controller, Mike Smith accepts the AOPA Most Helpful Tower Award 2022 from Life Member Kevin Anderson

Dunedin Control Tower operates in a tricky spot at Momona, south of Dunedin city, surrounded by hills and with the busy Taieri GA airfield close by.

Despite the challenges of this location, staff at Dunedin Tower are invariably welcoming of GA pilots passing through or landing at either Taieri or Momona.

The Tower's core group of very experienced controllers can switch from dealing with complex IFR traffic at Momona to simple VFR operations at Taieri in a way that makes everyone feel safe and comfortable.

The controllers are active participants in the Taieri Airfield Users Group and always send representatives to the twice-yearly liaison meetings. Some of the best interaction takes place after the meeting over a few beers, where GA pilots and controllers can talk informally.

Dunedin Tower welcomes local pilots into the control room, believing that putting a face to the voice is important in garnering respect between the controller and the operators.

One initiative that has come out of the user group meetings is to encourage Taieri pilots to make a call to Dunedin Tower before entering or departing the area, even if they do not intend to enter controlled airspace. Transit Lane T958 is very close, both horizontally and vertically, to NZDN, and if the Tower knows you are in the area, they are likely to keep an eye on you and advise you of any nearby commercial traffic.

The Most Helpful Control Tower and Maintenance Shop of the Year awards were presented at a function put on by the Dunedin Airport Company and AOPA NZ at Dunedin Airport.

GA Champion: Carlton Campbell

Carlton is a South Island Aviation Safety Adviser with CAA, and received the GA Champion Award in recognition of his ability to transcend the divide between the regulator and the GA community.

From developing a four-day Instructional Techniques Course to delivering AvKiwi safety seminars around the country, not to mention as an examiner, instructor and pilot, Carlton has impacted on many Kiwi pilots' lives. For more on his contribution to GA, see the profie on his flying career in the Spring 2022 issue of *Approach* magazine.

Best Watering Hole: Salmon Farm and Café

Located on the Haast Highway near Paringa, South Westland Salmon's 'Salmon Farm and Café' came to the attention of AOPA NZ members during an early Haast Winter Fly-in when owner Ben Monk offered to pick pilots up from a nearby airstrip and ferry them back to the café for lunch. That arrangement has continued, although visiting pilots should phone first to check whether the strip is useable and transport available.

The café is open 8.30am-2pm, with many dishes featuring salmon produced at the adjoining farm, including salmon chowder, a top seller. They are also well-known for their 'Huge Whitebait Sandwich' using Paring river bait. Visitors are welcome to purchase salmon to take home - fillets, cold Manuka smoked, sashimi and, with prior notice, whole fish. For further details contact the café on 03 751 0837 or Ben on 027 751 0899.

Fulfilling a dream

Jay McIntyre is the owner, LAME and IA of JEM Aviation, Omaka

By Jay McIntyre

I was going to pen another article of doom, gloom, disaster and financial ruin, but instead decided to write something uplifting in nature – which may or may not include one of the aforementioned descriptors... I'll let you decide which one is apt!

Soon to take to the air for the first time since 1958, WACO UOC ZK-AEL is one of the coolest 1930s biplanes ever to see service in New Zealand (in my humble opinion anyway!). It has been a fourteen year project to return this magnificent machine to airworthiness, and as usual there is quite the story behind it.

WACO built our UOC as S/N 4336 in late 1935, when she was ordered by the Marlborough Aero Club to complement the older generation, British-designed aeroplanes in the Club's fleet. She was delivered for assembly to de Havilland in Wellington in early 1936, and was on line in Blenheim by May of that year. Kitted out to be able to provide an ambulance stretcher service, she was soon plying her way and proving very popular.

Impressed into RNZAF service with the Communications Flight in 1939 as NZ575, she was said to be the pilots' most popular mount, and later in the war became New Zealand's first radar-equipped aeroplane, with a Pye TV mount in the back for radar trials!

Returned to Marlborough in 1946 as ZK-ALA, she returned to her original duties until a landing accident in 1948 saw her written off. I was fortunate to spend many hours talking to now deceased Club members, John Wright and Henry Gluyas, who were there the day the right-hand main landing gear collapsed.

Purchased by Blackmores Flying Service, ZK-ALA was relocated to Rotorua and served in a very popular scenic flight business. Ultimately this business was bought out by James Aviation, but it's unclear whether they continued the scenic flights or just used her as a company hack.

In 1958, whilst on conversion training, she was flipped on her back at Rotorua and written off. Bought by the Giltrap family, she became part of their motor museum and was ultimately moved to Coolangatta in Queensland with the rest of the collection. There, plans were made to return her to airworthiness but, as the type did not have a Type Certificate in Australia, this proved not to be legally possible at the time.

Moved up and down the eastern seaboard over the next twenty years, ALA finally came to rest in Sydney, where, with the rules having relaxed somewhat, restoration was eventually started.

The wings were rebuilt, the woodwork on the fuselage repaired and fabric applied to the fuselage, however by about 1985 work had ceased and the aircraft went to hiding for another twenty years.

For some reason, I had always been fascinated by the WACO cabins, though I'd never seen one in the flesh. Perhaps it was the wind-down windows, or that my Aero Club had bought her brand new. Graham Orphan planted a seed that would not stop growing and, while in Australia with the RNZAF, I searched off and on for ALA/AEL, but no one seemed to know her location or status. Eventually, in 2005, I sent a letter to the last-known owner asking if he would be keen to sell.

Nothing came of it and I moved on, starting my own business and getting engaged. One Sunday night the fax started going at midnight and, low and behold, the WACO was for sale. Darn it: what to do? I went to the Marlborough Aero Club bar one Sunday night, and a couple of weeks later I'd rustled up two partners. A trip to Australia to look at her (waste of time really, as the decision was already made – you know how it goes!) and then back a few months later to pack her up.

ZK-AEL returned to Marlborough fifty years after being written off.

I had great ideas about working on her while my employees carried out the business of JEM Aviation… how naive! Some sporadic work was carried out over the next few years, but it was not until around 2016 that one of my partners, Rex Newman, observed that if we did not get cracking, he'd be too old to fly her. Thus it was that a concerted effort was launched, with Rex pretty much working full-time on her over the last four years to bring her back to her former glory.

Perhaps, after another tale of woe and despair, I'll write about the actual restoration…

WACO UPC ZK-AEL in her early glory days (left), and as NZ ALA, on the road to recovery (above).

In praise of passengers

By Russell Young

Who can remember their first solo?
Or, put another way, who could forget their first solo?

We can all recall, can't we, that moment in our first solo when we noticed that the plane climbed so much more willingly once the instructor had vacated the passenger seat, and we wondered how long it would be before we would be allowed to take our first passenger.

I am lucky that my wife Julia often accompanies me on AOPA trips, where a second pair of eyes is very helpful in busy airspace, and a second opinion on weather decisions usually errs on the side of caution. Passengers often query what is meant when aircraft are requested by the controller to squawk, and Julia has been known to provide our own squawk. I confess to occasionally having disabled the intercom when battling turbulence, as not many passengers enjoy it. That is probably the reason why rather few wives come along as passengers.

So it was at the Darfield fly-in October. Julia arrived by car while I flew our Cherokee 180 from Omaka to the Kimberly Road strip in perfect weather.

While waiting for more planes to arrive, a pair of red-band gumboots approached with somebody in them. It was Charlie Draper. Charlie is one of those people who, once you've met, you stay met. Out came a 1967 Chev Impala with bench seats that allowed six beefy pilots to sit side by side with elbow room.

Julia and I elected to stay at the hotel and had no complaints.

At the Friday evening BBQ we were invited to nominate our preferred group for the following day's strip flying. I chose 'easy & fun', while the tail-dragger guys signed up with big grins for the more difficult strips.

After the first strip landing at the Intake on the north bank of the Rakaia River, the Canterbury nor'wester was starting to let everyone know who was in control of these parts. After being biffed around a bit I pulled out and dropped in to West Melton, unaware that, after the second strip, Nell's, most of the others had also pulled out and landed at Ashburton. Just for members' information, should you land at West Melton, you may find yourself confronted with several pages of VFG printout and be reminded that, if you have not done so, you should telephone first. A different kind of camaraderie.

As always, one of the more enjoyable aspects of these outings is the socialising. The Friday evening BBQ was at Aylesbury, with several tethered aircraft nosed in. If anybody knows the story of the Mobil Mustang which flew around New Zealand in the 1970s, the story goes that for quite some time the owner flew in and out of a large paddock at Aylesbury. The owner had to buy large quantities of fuel to run the Merlin occasionally, rather than inhibiting it. And I love the story of the owner, Ron Fechney, who had only ever flown Austers, asking the RNZAF-trained Mustang pilot if he 'could have a go'. Without any dual he flew the Mustang in and out of a Canterbury paddock. I never got around to asking the locals the whereabouts of this paddock, but I believe Brian Fechney still flies a C185 out of the strip.

The Saturday night function was in the Kirwee Recreation Centre. After a few wines, Julia declared that AOPA Executive Committee member Ian Sinclair bore quite some semblance to Eric Clapton,

the likeness increasing with each glass of wine. However, when he pulled up in a ute with Charlie Draper next morning, he was just like any other bloke.

by John Evans

The low-down on fly-ins

AOPA fly-ins provide a great opportunity to catch-up with fellow aviators and to explore new places... but safety is key.

If you've had the chance to participate in fly-ins over the years, you may have noticed that a lot goes on in the background – and there will probably have been details and considerations of which you're not aware. When you've registered for a fly-in, you'll have read the disclaimers before you checked the box. We facilitate gatherings, with pilots operating under Part 91, but we do not own your risk.

What are the important elements concerning a fly-in? Put simply: a plan, communication, registration, committee catch-ups, briefs, contingencies, places to go and, most importantly, good airmanship. Let's dive a little deeper into those elements.

At a fly-in, there is likely to be more going on (traffic, new people/places, human factors) than when you're flying on your own or with some of your mates. I wrote about 'Being Heard not Herd' in the winter issue of *Approach*, and much of that is relevant here. A key benefit of an organised fly-in, however, is that your experience, potentially of new environments, is supported and enhanced by the sharing of knowledge and experience of other members, both during briefings and casually.

Plan. We communicate with our members as early as possible regarding our intention to run a fly-in, including details of the main venue, date and a general overview so you can register online, pencil it in and book accommodation.

Communication. Leading up to the date, there are prompts about booking accommodation, registration, and the Fly-in App being live. Close to kick-off time, a call will be made regarding weather suitability as the pertinent weather systems become clear. Sometimes this can lead to a cancellation. During the lead-up week, details of places to land are confirmed through our members and contacts; as with weather, this can be a little fluid as circumstances change. We do our best to manage this unpredictability with the likes of caterers and accommodation providers, but it is not always easy. The week leading up to the event is also the time to get the waypoints on your Electronic Flight Bag (EFB) application up to date.

Detailed registration. We like to gauge who is coming in advance to ensure we can best accommodate everyone's needs (transport, catering, accommodation, intentions, currency, etc). We also ask for information about your key contacts, whether you would like to participate in a Fly-in group chat (via WhatsApp), and links to satellite tracking services, if you are willing to share them. We don't hold this information, it is merely for your support on the day.

Briefings. We have a standardised briefing template that group leaders can refer to. It is important to listen to the briefings even if you've previously been to the planned destinations, because there will be additional considerations for joining, local requirements, up-to-date conditions, parking space and so on. There will also be information about which radio frequency should be used, etiquette when flying in a group, and contingencies. Like everyone else, group leaders don't know everything. As a fly-in participant, you might have an important nugget of information that hasn't been considered, so your participation at briefing time is vital, both listening and contributing. Finally, and most importantly, you should never land somewhere unless you are totally comfortable doing so. Alternatives that will work for you – and allow you to meet back up with everyone else – will be discussed and noted.

Contingencies. Emergency contingencies and plans have been a focus of the AOPA Executive and what material we have is freely available for any groups. Please reach out. We do not offer wrap-around services, but in the case of an accident/emergency, we have plans, all within our recreational capacity as volunteers supporting us doing what we love.

Concessions. We cannot access the landing areas on conservation land under the Recreational Back Country Pilots concession as it precludes fly-ins. Fortunately, we have a concession through AOPA for certain areas on public conservation land. The details are important to understand and these are discussed in briefings.

Private permissions. Leading up to the event, owners of private land are contacted. Conditions and requirements vary over time, for example, they might be impacted by farming activities, changes in fences/ground conditions, or simply being unavailable, for example, at lambing time or during grazing. The permissions we have only apply for the fly-in. Our access relies on our respect for the private property we obtain permission to visit. In the past, we have lost access to airstrips because pilots have visited, subsequent to a fly-in, without permission. This is unacceptable and has significant consequences for everyone else.

General flying etiquette. Fly-ins require etiquette that goes beyond our individual flying pursuits, particularly in the absence of promulgated AIP airfield detail and joining procedures. Firstly, we are all aviators who want to enjoy aviation, but foremost is the social camaraderie. Keep that in mind. There may be delays in fuelling up – so go have a yarn. There may be folk who take more time than you to start up, taxi and roll, or who do extended circuits. Keeping an order is key. Many fly-ins will group similar capability/speed aircraft. But if it means slowing down, just do it.

Standard conventions apply in the absence of other factors: right side of valleys, left-hand circuits and the give way rules. This alleviates excessive radio chat. When it is your time to join, take what time you need to do inspections/overshoots, communicate what you are doing and never forgo your right to a go around, up until your decision point of course. Those flying behind need to anticipate that and leave ample room for those in front, even if that means orbiting well overhead before entering the circuit/approach. Communicate if there is any uncertainty around others holding/backtracking. If you are the 'tail end Charlie' at the back, let those ahead know you're airborne and make sure no one gets behind you.

Your preparation

- Get current! A day of flying in new places/environments is not the day to get current. Some circuits at your local airfield prior to the event are encouraged if you haven't flown in a while. This also increases your familiarity with your aircraft (including instruments and EFB). At the fly-in, with other aircraft and people around and lots of information to digest, your attention is best focused outside the aircraft. You can't afford to be behind your plane at a fly-in, fiddling with gadgets and getting airspeed/power settings/engine cooling under control.
- Review plates and the airspace you are going to be operating within ahead of time.
- Get familiar with your EFB and how to upload waypoints and display traffic. Get some help in advance if you need it.
- IMSAFE: We all know the drill. Do not come if you are sick/not up to it. But also, while flying is a great escape from the hustle of life, it is not sympathetic if there is a lot on your plate or you are negotiating weather and/or a tight schedule to make the fly-in and get home.
- Insurance: you are required to have a minimum of $1 million Public Liability insurance to attend a fly-in.
- Read the information we provide in the lead up and be prepared to listen throughout the fly-in.
- Take equipment suitable for you destination(s). This includes warm clothing and rigid footwear; you may be flying around the mountains and landing in remote areas, even though our aircraft are typically toasty warm inside. You could end up going down anywhere you fly over. Tie downs always go with the plane so they are not a hazard left in the ground, and so your aircraft can be secured wherever it ends up.
- Take a handheld radio if you have one.
- Consider your fuel load. Full fuel load will obviously reduce your performance margin, so take what you need depending on where you're going. Fuel stops are generally worked into the day, but fuel loading is principally a PIC responsibility and, while some may have ample fuel for an intended route, others may not. Regularly check your fuel, as you can't rely on your usual enroute cruise burn rate if you're doing a lot of short legs.
- Brief your passengers and utilise them for traffic lookout and ground movements. Make sure they know how the doors shut and lock, the emergency equipment, the ELT/PLB, where it is appropriate to push/pull when ground handling, and the propeller (or rotor) hazards presented. Passengers who fly with you frequently may be better able to raise your attention to things going on that look out of place.

Fly-ins can be a fantastic experience, and will remain so if everyone remains focussed on staying safe.

Learning experiences

By Malcolm Campbell

Malcolm and his late wife, Joan, at one of more than forty NZ Airwomen's rallies they attended.

Reading about the AOPA winter fly-in brought to mind my first flight to Haast – and the importance of learning the tricks and tips for mountain flying, ideally before you set off!

I first flew to Haast on April 11th 1967 in Piper Cub ZK- BKU. Accompanied by my late wife Joan, we set off from Te Aroha (TA) for a grand tour, flying down the centre of the North Island, across Cook Strait and on down the South Island's east coast.

I'd just got 200 hours up, and had been reading up on requirements for a commercial licence, including material on weather systems which raised the issue of SMOG. As we lived not far from Auckland and, despite being New Zealand's biggest city, it never had smog, I expected there wouldn't be any in New Zealand.

After passing Rangiora, all we could see was a huge mass of grey-white sort of nothing. Christchurch city was completely invisible. We were supposed to follow Two Chain Road. There were plenty of roads fitting that description. We kept edging out to the west because I had visions of a Boeing 707 hurtling out of this murk-ridden blob, turning BKU into matchwood. The tower called to ask my present position. I replied honestly, "I am unable to define any landmarks."

"Have you crossed the Waimakariri yet?"

"I'm crossing a riverbed now," I said.

"That will be the Waimak."

"I don't think so," I replied. "The riverbed is stony dry."

There were some stony silences in this exchange. A moment later we crossed the Waimakariri and I could see a pine forest, and reported this to the Tower. Tower had had enough of me by then and asked me to climb to enable radar contact. Tower further said there are no pine forests near here.

Well, there were, the 'Eyrewell State Forest'. So we were radar ushered into Christchurch and instructed to land to the west side of the concrete blocks, again completely invisible. However, a Cherokee was in front of me and I followed him, hoping he knew where he was going. The aircraft behind me asked for the tower rotating beacon to be turned on.

Next day, parked ready for departure, I happened to look down and the Cub wheel was sitting on about a metre square of concrete more or less hidden under grass and soil debris. Christchurch was definitely a learning experience.

After stops here and there we got to Cromwell, landing on a plateau well above the town. There was a partly constructed concrete shell with no roof or windows and another wreck of a building, less than two metres square, no door, which appeared to have been hit by a bulldozer. A crank handle phone sat on a lopsided 44 gallon drum. I gave the handle a very tentative turn and, lo and behold, a sleepy female voice said "Number please."

Another feature of the site was a great big levelling bar, about four metres long, that would have needed a big tractor to move it. The DC3s used to operate there, and on the levelling bar was a wad of load sheets, pinned in place by one of the many available rocks. Another learning experience.

Our next destination was Haast. Having never before flown in anything like this terrain, I planned the flight very carefully, with my wife urging me to hurry up lest we not get away before lunchtime. Finally airborne, ten minutes on this heading, four minutes on the next, then six minutes, and so on. I was worried about turning into the wrong gorge, in the back of my mind a war story I'd read where a spotter plane, harassed by a German fighter, used its agility to lure the German into a dead-end gulch where the fighter crashed into a sheer rock wall. A good yarn!

With utmost caution we eventually turned westward toward Haast. Extreme care was taken (don't laugh) to keep the port and starboard wingtips exactly the same distance from the rocks and snow on either side. We arrived at Haast one hour and twenty minutes later, relieved to fly through the Alps unscathed. The shingle runway was another learning experience.

As we dismounted from the Cub and looked back down the runway, a very large Hereford cow strolled casually across our wheel tracks. Our thoughts about the consequence of hitting a cow were interrupted by a telephone ringing. The only building was an old school shelter-shed type of building. My wife, ever helpful, said, "You'd better answer it."

No introductory phrase. "Why didn't you call me?"

"Who are you?" I asked.

"I'm Haast Radio."

"Where are you?"

"A few miles down the coast."

So I gave him a friendly call when we left Haast.

In many ways, the flight through the Alps was a non-event. If I'd stood a glass of water above the Cub's dash on leaving Cromwell, not drop would have spilled. Silky smooth. Lucky!

We headed northward up the West Coast with stops at Hokitika and Nelson, then to Wellington where a very brisk southerly was blowing straight up the runway. No problem. Well, not yet. The Cub had to be powered up or we would have been forever getting to the threshold. Having got safely onto the tarmac we were instructed to "Taxi straight ahead and take the right turn-out to the Aero Club." A minute or so later: "Can you please speed up."

Not very happily the Cub was stoked up and and bowling along nicely when "Expedite left immediately!" was advised.

We managed to turn off without ground-looping the Cub and, just on the turnout, we clearly heard 'ker-thump' as a DC3 hit the runway right behind us. We never saw the DC3, but that DC3 wing may well have passed over our fin and rudder.

Back at the farm I was walking up the race when my wife called out, "Hurry up, come and listen to this man."

I got my head through the door in time to hear, "In the mountains you never fly in the middle of a pass." It was a womens' mid-morning programme and the interviewee was legend Popeye Lucas. He went on to explain that, in the event of need for a reverse heading, you may need the full width of the pass to turn. He also said there were frequently air currents descending on one side of the pass and rising on the opposite side and it was important to fly in the ascending air and to keep out of downdrafts. Another tip was to not approach a pass saddle head on, but at right angles to the saddle, as at 45 degrees, if conditions are not favourable, another 45 degree turn will enable the aeroplane to turn away. We should have learned all of this before entering the mountains.

A former RNZAF Kittyhawk pilot later told me of two Kittyhawks which were heading for the window that sometimes appears above a pass under heavy stratus, but the severe downdraft on the leeward side caused the crash of both aeroplanes. If they'd approached at 45°, might they have escaped?

Some aspects of safe mountain flying can only be learnt in practice, ideally in the company of an experienced instructor or pilot, but a lot can also be gleaned from listening to the know-how and experience of others.

AVGAS:

where from, where to...

By Steve Horne

Avgas, or aviation gasoline, grew out of the need to reduce detonation and increase horsepower in aircraft engines during WWI.

As military strategists realised how important aviation would prove, headlong improvements were made to aircraft and engine design. Improved performance and increased power were key – but while supercharged engines offered increased power, it soon became clear that the gasoline available at the time was not reliably up to a suitable standard to avoid detonation at high power settings.

The source of the fuel was important, with product from the Dutch East Indies offering relatively high aromatics and, critically, the aromatic Toluene, which gave aviation gasoline high anti-detonation properties. Toluene was also a key component of TNT, which meant the nascent aviation industry also faced competing demand for supply.

Shell was, at the outset, the Allies' sole supplier of aviation fuel, with the product initially supplied in two gallon cans. By the end of WWI, fuel tankers had come into use.

In 1917 the British started receiving aviation gas from the USA, with Pennsylvania refined fuel offering the highest quality. Germany, meanwhile, had to source most of its fuels from Romania due to allied shipping blockades. The fuels used by both sides were in the 70 to 80 octane rating.

In early August 1917, the US Bureau of Mines, in co-operation with the Aviation Section of the US Army Signals Corps, began studying fuels for aircraft engines when it was found that no reliable data was available on the most suitable fuel. Flight tests were conducted at Langley, McCook and Wright airfields, while the US Bureau of Standards erected an altitude chamber to study performance at conditions encountered at high altitudes.

Results revealed that, in certain types of aircraft, motor gasoline gave as satisfactory a performance as Pennsylvania 'high test' gasoline, while in other types the pilots reported hot-running with this fuel. An experimental fuel composed of 70% Cyclohexane and 30% Benzene appeared to be most satisfactory for fighting aircraft.

The war's end changed the focus but not the world's enthusiasm for the future of aircraft. The 1930s saw many new developments in aviation gasoline manufacturing processes. Knock engine tests would become part of all aviation gasoline specifications, as well as other quality control tests such as gum (actual and potential). Higher octane and performance would be achieved through the addition of Tetra Ethyl Lead.

There is a significant difference between aviation fuels and motor spirits used in automobile engines. The remarkable improvement in aircraft engines that took place in the years after WWI could not have been achieved without a correspondingly rapid improvement in the technology of fuel production. During this period, the power of the aircraft engine increased by 150% without any increase in cylinder capacity. Brake-mean-effective-pressure increased by 100% and engine speed by 21%, whilst fuel consumption at cruising was reduced by 30%. By far the most significant leap forward would be the development of 100-Octane Aviation Gasoline.

WWII saw further advances in the refining and production of 100-Octane Avgas. Production of all grades of aviation gasoline expanded rapidly in the USA during 1943 and 1944, reaching an average of 500,000 barrels daily. During this period, 100-Octane gasoline constituted about two thirds of total production.

Post war, as aviation became dominated by jet aircraft, there was less demand for AVGAS 87 and AVGAS 115/145. A worldwide move towards unleaded gasolines, together with recognition of emerging environmental issues, also had an impact on the composition of motor gasolines.

The environmental pressure for low lead motor gasolines saw the development of a new grade of aviation gasoline, Aviation Gasoline 100LL (Avgas 100LL), which had a lower lead level than the traditional Avgas 100/130. To distinguish it from the green Avgas 100/130, the new grade was coloured blue. It was introduced in USA in 1975, but was not available in Australia and New Zealand until the 1980s.

Today significant progress has been made towards unleaded Avgas. At EAA Airventure this year, AOPA USA President Mark Baker noted this as the most important issue facing general aviation today. "The industry is committed to moving forward. We need to remember that this is not just about fuel; it's about safety."

The issue of unleaded fuel has been a hot button in the GA industry, with some regions in the US having banned or threatened to ban 100LL during the unleaded fuel transition.

In New Zealand we are starting to hear and, in some cases, see moves towards following suit. Kapiti Airport comes to mind.

Since EAA Airventure 2022, a major step forward has been made in the manufacture and certification of an unleaded 100 Avgas. This has come after a decade-long effort from GAMI and George Braly to develop and test a substitute.

According to Braly, Ann Arbor, Michigan-based fuel supplier of Avfuel, is standing by to manage the logistics and distribution of G100UL, and is open to partnerships. "Our arrangement is that any qualified refiner or blender of existing aviation fuels will be eligible to produce and sell it, subject to the quality assurance requirements that the FAA has approved."

The timing for when G100UL will reach airports is still uncertain. "It's going to take a while to manage the infrastructure, including manufacturing and distribution," Braly says. The supply chain "is still a very wounded infrastructure, and that's not going to make the process any easier, but we have a handle on how to do this and, with the support of the major players, I think we can. It's going to be limited to begin with, but it can be ramped up rapidly."

The question is, when will we see this in New Zealand?

AOPA NZ will be closely monitoring developments in the USA, and potential supply of G100UL to New Zealand. We are already in dialogue with CAA on this issue. However, there is another issue looming on the horizon for GA in New Zealand. Carbon neutral by 2050. A topic for another day!

Article researched from websites, in particular 'The history of Avgas'

Update on SBAS

By Ian Andrews

Lobbying for changes to rules and improvements to systems that we as aviators rely on is an important part of AOPA NZ's function. Changing a rule can take from two to five years, while for significant changes – those affecting not only aviation but our daily lives – Parliamentary approval is required, dramatically extending that timeframe.

This was the case in lobbying to get a Satellite Based Augmentation System (SBAS) installed to cover New Zealand and Australia. It involved a constant process of agitation for ten years to get a bi-lateral agreement committing the two countries to a multimillion dollar investment in a system that will take another five years to complete, but which will greatly improve the accuracy and safety of our navigation system.

As an IFR pilot I became interested in this topic and wondered why we did not have the ability to fly an ILS-like approach using GNSS, when in the USA it was becoming normal practice and was being established in Europe and other countries as well. Through our AOPA connections with IAOPA and AOPA USA there was a lot of information available, so it became just a matter of convincing Government of the benefits. Our biggest opposition came from the major airlines, who considered they did not need it and would not pay for it. Fortunately, it quickly became apparent that the real benefits went far beyond aviation, which made the enormous project cost a 'New Zealand incorporated' proposition.

It also became apparent that New Zealand could not go it alone, and our logical partner would be Australia. Again, through our IAOPA contacts, we partnered up with AOPA AU and quickly discovered that work was already being done with AUSROADS for land transport functions. LTSA in NZ was also interested, but were considering localised systems that were of no use to aviation. For road transport or surveying on the ground, if there is an interruption in the signal you can pull over and stop. Flying at 200kts we don't have that option, which is why an 'aviation grade' system was required, even if it cost more, and it needed to be compatible with ICAO requirements.

SBAS is nothing new. USA has had WAAS operating since the 1990s. Europe has a system called EGNOS, Russia uses GLONASS, and there are other systems for China, India, Japan and South Korea. All these systems do the same job. They take the GNSS orbiting satellite navigation system signals and correct them for errors that occur in the ionosphere, or for other errors, such as clock and satellite positioning, and correct them using specific ground reference stations on the earth's surface. Then via smoke, mirrors and pulleys, the correction is relayed to a geostationary satellite that sends the corrected signal back to our GNSS receivers, which use algorithms to provide the accurate position of the aircraft on our flash new moving map display, or it will alert the pilot if that accuracy is out of certain pre-set parameters. That by the way, is the basic principle behind Performance Based Navigation (PBN). Monitoring and alerting are the basics. SBAS is simple stuff that makes your position accuracy improve from tens of metres down to the sub-centimetre. All done in the blink of an eye and no animals are harmed in the process.

Note that I refer to GNSS signals when you most likely still use the term GPS in your everyday conversations. GPS is the term given to the American Global Positioning System (GPS) that we all use in New Zealand, while the other systems are collectively known as Global Navigation Systems (GNSS). There are around thirty operational satellites in each system, so there are hundreds of satellites up there circling the earth at about 20,000km up and sending signals to receivers that can decode them. Currently most of our avionics are made in the USA, so the GPS system is favoured. However, in future we, like many other commercial receivers, will be able to receive Multi Constellation (MC) signals. To add confusion, they transmit on two frequencies, L1 and L5, known as Dual Frequency (DF). Eventually our avionics will be 'DFMC', as are many non-aviation receivers now.

By now you will be getting sick of all these acronyms, so let's stick to what is happening here and Australia.

It has just been announced by our respective Governments that New Zealand has signed a joint agreement with Australia to install a system that will be called 'SouthPan' (short for South Pacific Augmentation Network); SBAS by another name. The Australians are leading the project with LINZ the co-ordinators for New Zealand. This is a multi-million-dollar project that will have an impact on everything requiring accurate Positioning, Navigation and Timing (PNT). Yes, timing: it will affect ATM money machines and power networks; anything that needs accurate timing. Positioning that will allow a drone to deliver your pizza to your front door and not to the dog next door. GNSS controls so much that you don't know about that it is scary.

AOPA NZ has played a major role in this project, starting back in 2012 when we made a joint presentation with Airways NZ to aviation people regarding the benefits of SBAS. Many professionals didn't then know what it was. Surveyors have always been able to correct the signals, but only over a short distance and line of sight. By using the geostationary satellites to send the data back to earth, it is available line of sight to that satellite, which is in a stationary orbit above the equator.

In 2013 AOPA NZ teamed up with AOPA AU and worked with Thales Alenia to convince our respective Governments of the massive benefits to the country's economy. This involved many

SBAS in action

trips to Canberra and Wellington and much lobbying at not only aviation events but 'intelligent transport' and 'precision agriculture' ones also. By 2015 we had a good idea of what was required, but a lot of lobbying still to do. SBAS was starting to be seen as a viable and not so expensive possibility. A cost benefit analysis showed that aviation alone would return 70 cents of benefit for each $1 spent. That wasn't enough, but adding improved efficiencies in road transport and agriculture srengthened the argument. Using SBAS corrections, the GPS in your car will be able to position you accurately in the lane you're travelling in, instead of just showing you're on the highway. Eventually this will be the way to charge road user fees, instead of paying fuel tax – it's time on the road, not fuel burnt, that should be used for that calculation.

AOPA NZ lobbied hard through the New Southern Sky program (NSS) and many presentations were made at conferences to do with aviation. We even had a panel at the Sydney Satellite conference, which was more about TV and Wi-Fi than aviation. We were lucky that the Ministry of Transport had an aviator on board, John Macilree. John has now retired, but his belief and help in getting Ministers to listen was invaluable.

The main team was Phillip Rees, ex AOPA AU President, Andrew Andersen, also ex AOPA AU President, David Bell from the Australian Business Aviation Association, and me from AOPA NZ. I got to meet a lot of Australian politicians along the journey. Andrew Andersen and I are still on the current Government team for New Zealand, led by Matt Amos at LINZ, and we keep a watching brief on what is happening. https://www.linz.govt.nz/products-services/geodetic/southpan

The signal is available right now but cannot be used for aviation because there are more safeguards and protocols that must be met for the 'safety of life' service required by ICAO. We have been told that by 2028 service will be available, and planning for approaches with vertical guidance is currently underway to ensure we can immediately avail ourselves of that service. All new aircraft will be able to utilise the technology, and avionics refits done now will also be capable. It will give any properly equipped aircraft the ability to fly a coupled approach down to minimas with an accuracy that even a normal ILS cannot provide.

This is going to be a game changer and it is time that you, the pilot, consider getting an IFR rating to make best use of the huge project that is now underway. The benefits are immense, and the skills you will attain should not be underestimated.

AOPA NZ can be proud of the contribution it has made to this major step-up in the accuracy of our navigation. I've certainly had a great experience leading the challenge.

Flying Getaway...

Taranaki – the best of the west

By Stu Haynes

Taranaki is a region that has come of age, and is making a name for itself as a vibrant destination combining big city luxury with bucolic splendour.

Another drawcard is the climate – in 2021 New Plymouth was officially Aotearoa's sunniest spot, recording a balmy 2592 sunshine hours. AOPA members planning a fun family adventure or wanting a safe (air)space to develop their skills should mark Taranaki down as a 'must-visit' destination this summer.

Taranaki's strong AOPA membership base is always excited to show off their province (by the time this appears in print they hope to have hosted another fantastic One Day Fly-in).

The region has four public airfields for visiting pilots to choose from: Hawera, Stratford, Norfolk and New Plymouth. All but New Plymouth are GA. For pilots who are nervous about flying in controlled air space, New Plymouth offers an ideal, lower-pressure place to gain valuable experience. The region's relatively low air traffic volume and friendly Air Traffic Controllers make it the ideal environment to practise controlled airspace communications and procedures.

The North Taranaki Aero Club is based out of the Norfolk Airstrip (a 5 minute car ride from the township of Inglewood, where you can visit the national toy museum, Fun Ho! Toys, get the kids up close and personal with the animals at Stoney Oaks Wildlife Park, or try the award winning offerings from local vegan ice creamery Little Liberty).

Norfolk is a good choice for pilots arriving from the south through the Stratford Gap. This approach can get lumpy in certain winds – but alternatives abound. A popular option is to come 'around' the coast, which is a scenic approach with great coastal and city views. Visitors from the north generally take a seaward approach with the White Cliffs to the north signalling it's time to start making preparations for landing.

Taranaki Webcams have recently been added to the AOPA website and are a great visual tool to use during your flight planning.

While you can refuel at all four airfields, New Plymouth offers additional AOPA-friendly facilities and drawcards. The aerodrome hosts commercial passenger flights, pilot training and recreational flights. There are mechanical services on the ground and a variety of training options for pilots wanting to develop their skills. Local flight school, Flight Tech, offers training for recreational, private and commercial pilot licencing, plus IFR and MER training and biennial flight reviews. The more daring can really flip things upside down and sign up to do aerobatics training!

If your training has a more DIY edge, New Plymouth is a good place to polish up your skills for flying, landing and taking off in crosswinds.

Avid plane spotters should keep their eyes peeled after landing. Among the GA aircraft are some rarer gems, such as a heritage De Havilland Vampire, an L-39 Albatross, four Yak 52s and New Zealand's only Catalina Flying Boat (currently up for sale, if you fancy trading up!).

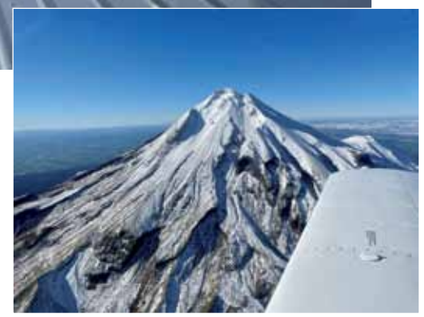
On the ground, Taranaki has plenty to keep the whole family happy. New Plymouth's Coastal Walkway, retail precinct and stunning Pukekura Park are a quiet stroll from an array of smart bistros and cafés, together with top quality local coffee roasters, including Ozone, Escape and Devil's Cup.

On the creative side, the Len Lye Centre and Govett Brewster Gallery are world-class contemporary art galleries, while the Taranaki Arts Trail – which runs alongside the region's annual Garden Festival in October and November – offers a unique opportunity to visit artists in their own studios and workshops.

All around the Maunga, quaint townships and natural attractions beckon. Take a walk in a Goblin Forest, visit Dawson Falls, or explore the region's stunning gardens. The more adventurous might want to pop their surfboard in the cargo hold and tackle the swell around the notorious Surf Highway 45, or try their luck with a fishing rod. Maybe a bit of dam dropping will appeal!

Taranaki offers superb scenic flight possibilities. The 'must do' on any pilot's list is surely a summit flight. Head south-west around the coast before turning inland from coastal Oakura and climbing past the Kaitaki and Pouakai ranges, to the 8262m summit of Mt Taranaki. From there you can fly through the Pouakai Saddle past Bells Falls and Holly Hut and back to the airfield.

Flying north from New Plymouth, there is spectacular coastal scenery heading north-east past Onaero and Urenui to the White Cliffs and Three Sisters rock formations at Tongaporutu. And while a round-trip scenic flight over the central volcanic plateau (checking out the views of Mounts Ruapehu, Ngauruhoe and Tongariro) can be done in two hours, your dilemma will be deciding what to do this trip and what you'll save for your next visit.



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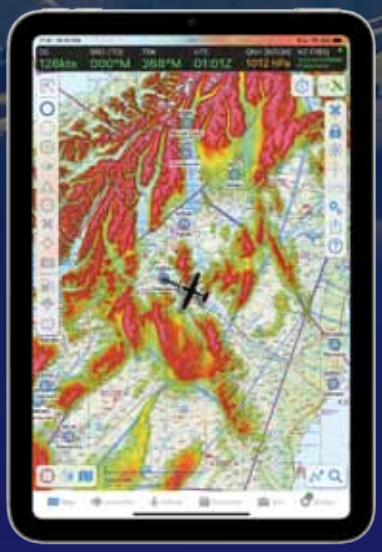

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