



Approach

THE NEW ZEALAND AIRCRAFT OWNERS AND PILOTS MAGAZINE
SPRING 2019



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Approach

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AOPA Committee 2019-2020

President: Stephen Brown
Ph: 03 310 3051, Mb: 027 224 0003
Email: president@aopa.co.nz

Vice-President: Graeme Donald
Ph: 06 323 1285, Mb: 021 498 613
Email: graeme.donald@aopa.co.nz

Administration: Mary Bruce
Ph 0272 940819
Email: admin@aopa.co.nz

Paul Hood: Northern Nth Island
Mb: 0272 848 481
Email: paul.hood@aopa.co.nz

Don Ryder: Southern Nth Island
Ph: 04 479 1367, Mb: 027 442 0016
Email: don.ryder@aopa.co.nz

Geoff van Asch: Northern South Is
Ph: 021 767 744
Email: geoff.vanasch@aopa.co.nz

Andrew Bowmar: Southern South Is
Ph: 0274 339177
Email: andrew.bowmar@aopa.co.nz

Ian Sinclair
Mb: 027 432 4150
Email: ian.sinclair@aopa.co.nz

Murray Paterson
Ph: 03 489 5175, Mb: 029 335 3277
Email: murray.paterson@aopa.co.nz

Ivor Yockney
Ph: 03 347 4292, Mb: 027 201 5279
Email: ivor.yockney@aopa.co.nz

Ian Andrews
Ph: 03 546 6939; Mb: 00274 324 995
Email: ian.andrews@aopa.co.nz

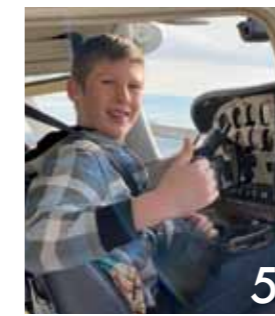
Coming events

- Winter fly-in v.III, Omarama 6-8 Sept: rain, hail or snow!
- AOPA Darfield fly-in 20-22 September
- Wairarapa Aero Club 90th Anniversary, 20-22 September
- Tiger Moth Club 50th fly-in 13-15 October, Taumarunui
- SAA Black Sands fly-in 4-5 November, Raglan
- AOPA Summer Safari 8-14 March, nth South Island
- AOPA 50th AGM 7 March, Motueka

For more information visit www.aopa.co.nz

Cover photo: Fish River Canyon, Namibia - see story, page 12

(Photo credit: Martin Crysell)



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Editor: Anna Mackenzie ph 027 3345466; amack@airnet.net.nz

Advertising enquiries: Don Ryder ph 04 479 1367 / 027 442 0016 / don.ryder@aopa.co.nz

Administration: Mary Bruce ph 0272 940819 / admin@aopa.co.nz

Postal address: AOPA NZ Inc, PO Box 659, Wanaka 9343

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Deadline for ads, articles and photos for the next (Summer) issue: 20 October 2019.



President's Report

As I write this, the frosts still have our garden trapped but the days are lengthening, so spring is imminent. The snow has fallen and looks very pretty; sadly it fell on the weekends we wanted to all meet up at Omarama... that is weather; we love it, but we cannot control it.

I have been taking particular note of our place in the international AOPA movement. With over 400,000 pilots and owner members world-wide, we are a small nation and a small group, but we are made welcome in this international aviation fraternity.

One of the privileges of my position as President is that I receive a number of magazines and communications from around the world. The UK AOPA mag is always a good read and Martin, their CEO, is happy to chat. The issues GA has in UK and Europe make our problems look small. However out of this pressure come some very good solutions. Our CAA has been following Europe's lead, and we are very comfortable with this.

Canada's COPA will be hosting the International AOPA Conference next year and a number of us are planning to go. They are a very active group operating in a country which really cherishes what GA can do.

AOPA USA is our big brother, ignores us most of the time but is very generous when our paths cross. USA AOPA leads

the world in advocating for GA's 'freedom to fly'. I really enjoy exploring their website and watching all they get up to. Plus our weekly 'AOPA Live' fix from Tom and Melissa is not to be missed. I would encourage you to have the occasional browse through this website; you do not need to be a USA member to access most of it. www.AOPA.org

That brings me to our other big brother across the ditch. AOPA Australia has had some hard times over the last decade or so. However it is now back on a strong footing. We have more common interests with Australia than any other country. Australia is arguably the county where GA flying has the most benefit to the community: massive distances, great weather except for the thunderstorms, dusty roads, and hardly any mountains to fly into. The reality is different. GA aircraft numbers in Australia have fallen drastically over the last couple of decades. GA service industries have closed or are struggling; District Councils have trimmed or closed airports. All in all, the authorities have not valued the resource that they had.

AOPA Australia is fighting back. Membership is growing strongly and they are taking an aggressive approach to lobbying authorities at all levels. They have great ideas to inject proper evidence into the aviation medical issues, they have a team working to protect airfields, and they are actively promoting the community benefits which GA brings. Hopefully the industry can be turned around. I enjoy my interactions with their board members and Ben Morgan, their CEO, who is full of energy and pushing GA interests firmly. I read their magazine articles about wild and isolated destinations; these stories are inspiring. At present the AOPA Australia web page and magazines are only available to their members, but we are endeavouring to work more closely together so, hopefully, we can arrange access to more of these articles for our members. Watch this space.

Some housekeeping: Please get some photos to Murray so we can make our next Calendar even better...

The Exec decided at our July meeting to hold our 'Winter Fly-in' on a fixed date each year. This is expected to be a four day event run over Queen's Birthday Weekend at Omarama. We will hope to get a weather window to fly on at least one of the days. However, many of us are quite happy to have a chance to chat and catch up with friends and members if the weather is unfriendly, nothing wrong with coffee at Wanaka... We will have some other activities and presentations during this time too.

Some of you might remember that our AOPA is fifty years old in 2021. We have been wracking our brains about how to mark the occasion of our 50th AGM. Well, Murray had a brainwave and we have decided to go to Walter Peak, where one of the first pre-AOPA group fly-ins occurred. We can fly to their strip, have our meeting there, and then enjoy one of their excellent meals. The Steamship Earnslaw will be able to ferry us across to Queenstown for accommodation for those who do not fancy camping... Not quite booked and confirmed yet, but I am getting excited already. Watch this space. Date is 6 March 2021.

Safe flying and have fun out there.

Steve Brown, President

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AOPA News

AGM meets Summer Safari: heads up 2020

Kicking off with the AOPA NZ AGM on Saturday 7 March, the Top of the South annual AOPA Summer Safari promises sun, surf, good food and chat, and plenty of flying and non-flying options. Note it in your diary now.

The 2020 AGM will be held at 3.30pm in the conference room of the Motueka Top Ten Holiday Park, on Saturday 7 March 2020. Annual dinner and AOPA prize giving will follow on site.

Get into the mood with aviation chat over a leisurely afternoon and evening, as the following morning sees the gaggle head off on our annual Summer Safari.

Running from 8 -14 March, the Safari will take in Golden Bay and Abel Tasman National Park, D'Urville Island, Blenheim, Awatere and Wairau Valleys, Clarence, Waiau and Kaikoura.

Accommodation will be two nights in Motueka (8-9 March), two nights in Blenheim (10-11 March) and two nights in Kaikoura (12-13 March). Non-flying options will include boats, canoes, walks, wineries, whales, dolphins and sea swimming in such scenic destinations as Mapua, Abel Tasman, Kaiteriteri, Picton and Kaikoura.

The Safari will wind up on Saturday 14 March. Non-fliers are welcome and there will be options aplenty if the weather proves unco-operative. Watch for notifications on the AOPA website.

AOPA Aviation Calendar 2020

Did you receive a 2019 AOPA Calendar with your spring magazine last year? Have you got it hanging on the wall?

The calendar was introduced by your Executive last year as an additional benefit of membership and, given its popularity, we're keen to make it a regular fixture.

All the images are taken by AOPA members - and now is the time to choose the best of your best and send it in to the selection panel. Please email your image (high resolution files only please) to Murray and Claire Paterson at murray.paterson@aopa.co.nz. Photos must be submitted by 30th September 2019.



AON Promo winner

You may recall AON's recent promotion for a Lightspeed Zulu headset.

The winner was announced in July and proved to be our very own Life Member Brent Ferguson.

Congratulations Brent; the word is that he was already a Zulu fan, and is stoked. And well done AON and Lightspeed too!



A warm welcome to new members:

Allan Cowan, Timaru, Rans S6 ES; Greg Doran, Queenstown, Van RV4; Mike Evans, Arrowtown, Bolkow 209; Tristan Evans, Oxford, Hughes 269B; Ryley & Shane Fleming, Takaka; Kurt & Margaret Frauenstein, Kirwee; Caroline & Garth Goodwin, Hastings; Kathleen Haigh, Taupo, Cessna 172P; Denis Heenan, Lumsden, Cessna 172; Elliot Hudson, Hamilton, Hughes 300; Danny Hyland, Hampden; Sam Jones, Opotiki; Rod & Rosalie Miller, Warkworth, Cessna 172; Robert Payne, Taihape, Bantam B22J; Dale Radford, Tauranga, Cessna 180; Edward Scott, Hamilton; Wayne Stables, Wellington; Aidan Swale, Timaru, Europa-XS Mono; Scott Walsh, Wellington; Helen Watson, Christchurch, Cessna 172 Hawk XP11; Greg Wood, Motueka.

AOPA NZ webcams

A new page has been added for cameras in the Central South Island because the number of cameras available was getting too large for the two existing pages.

The availability and serviceability of cameras changes over time and is always a bit of a moving target. Several cameras have been added or removed recently.

Thanks to Derek Harding and the Marlborough Aero Club for making the Omaka Airfield towards Taylor Pass camera available. Brendon Price and Geoff van Asch have added a second camera close to Omaka, looking towards Cook Strait from an elevated position. We have been working with the wifiguys in Canterbury and their cameras are again functioning on our site.

If there is a camera we don't have on our site that you find useful, please let us know. We are always keen to add cameras with a good sky view.

Please do not hesitate to let us know if you find a camera is not working: contact webcams@aopa.co.nz

New flight bags

Lightspeed Headsets has recently added a new range of top-quality leather pilot flight bags to their inventory. Ideal for headsets, iPads and charts, etc, they additionally offer a handy insert to facilitate packing and retrieval of items. Check out the ad on page 18 for more information.



From the Vice-President

Hi all. Winter took a while coming then arrived with a vengeance.

A real pity the challenging weather couldn't have held off for another week for the Omarama winter fly-in, especially with all the work put in by the organisers. But attempt III is going ahead rain, hail or snow on 6-8 September: hope to see you there.

If you happen to need fuel and a stop-over in the lower North Island, I'd be pleased to welcome you to a spot out of the weather: Feilding. The

Aerodrome committee has supplied funds to construct a small building that has been grandly named 'The Transit Lounge'. Found at the fuel pumps, and unlocked, you are able to help yourself to refreshments. It also houses a wc for that part of the field. A great place to stop!

Several of the Executive have been beavering away on your behalf to ensure you can continue to get the best from your flying. That the process, and progress, is slow is a reality, however the system is such that we must not despair, and the gains that are achieved are essential to continued recreational flying.

Another task underway is a comparison

of fuel prices at different locations nationwide. The Z discount appears worthwhile; it's an area we're working on.

Flying lately with ADS-B out has seemed to make some transitions through controlled airspace a little easier. Being directly identified in a position to look out for a distress signal is a first. It would be great if the powers that be appreciated that the sector as a whole are beneficiaries, and provided some financial help to the GA fleet uptake. There is still many owners who remain dubious about the benefits. We're waiting and trying.

Enjoy the good winter days flying.

Graeme Donald, Vice-President



From the Editor

Reading the current issue of *Approach*, you may notice a theme – advocacy.

Advocacy forms a significant component of AOPA's work on

its members' behalf, but tends to sit out of sight to most of us most of the time. It is undertaken across a broad range of issues and in a number of different ways, both led by and supported by your AOPA Executive.

In this issue we look at various aspects of AOPA NZ's advocacy work: who does it, how we might maximise its effectiveness, when we win and when we don't, as well as looking at some of the issues currently on the advocacy agenda for GA.

Continuing this approach of providing you with comprehensive coverage on some of the larger issues, next edition we'll take a look at aircraft ownership models.

If you have something to share on that topic, or if there's a particular subject which you'd like us to take an in-depth look at, please do get in touch with either me or your President – contact details on page 1. Naturally, we'll still be bringing you the full range of aviation stories and information, from flying adventures to aviation news and technical tidbits. Feel free to contribute those as well!

Also in this issue, you'll find an article about my recent flying safari in south-west Africa. While not a pilot, I have over the years gone from being a slightly reluctant passenger to an enthusiastic one – and this trip saw me enjoying flying for the sake of flying: possibly going beyond both Hamish and my expectations! But it is a thing to consider: happy passengers are as important to flying as happy pilots.

Keep it safe.

Anna Mackenzie, Editor

Café and Tower: AOPA Awards 2019

Ohakea Radar Sector this year won the coveted AOPA 'Most Helpful Control Tower' Award. Russell Taylor and Ruth Orbell were delighted to make the presentation, and to get an inside peek at the Tower's operation. Security is tight: CAA Security card presented and computer interrogation complete, Team Leader Darren Myers and Surveillance Manager James Evans escorted them to the main radar room.

From here the whole country is controlled via the various sectors, with three controllers – terminal controller, planner and area controller – at each console. "It was amazing to be looking at one console where Bay sector traffic was being worked, then to see Queenstown traffic on the screens further along," says Russell. "Technicians constantly check the nav aids to ensure they're within tolerance. It was easy to see the passion the controllers have for their profession."

Discussing the introduction in 2021 of ADS-B and phasing out of the old radar system, Darren noted the safety spinoff for GA, with controllers' surveillance greatly enhanced, enabling faster search and rescue. A new building will accommodate the upgrades when Airways goes live on ADS-B.

The final AOPA Award presentation, a little delayed by weather, was made by Granville and Marion Jones, Richard Bradley, Dave and Jane Dymock and Dave Wiseman. Seeing the wandering horses off the strip, they landed at NZ's most easterly airstrip, Te Araroa, and were ferried by the Aerodrome caretaker to enjoy the fine fare, hospitality and welcome of the 'Best Watering Hole' winners, Kath and Mark Kerr of the East Cape Manuka Visitor Centre and Café.

After a lunch that confirmed the Café's deserving win, the group made the award presentation. In addition to the café, the Kerrs operate a factory making manuka honey and other products, adding to the interest of a visit to Te Araroa – though Granville notes that there is work currently underway on the airstrip.



AOPA News

Wanaka Airport under siege

A community group in Wanaka is fighting plans by Queenstown Airport Corporation to build a large-scale, jet-capable airport at Wanaka, which will ultimately have twice the passenger movements of Queenstown.

The Wanaka Stakeholders Group includes local pilots, business owners and residents who are deeply concerned about QAC's plans.

Local pilot Shaun Gilbertson believes there is a great deal at stake. "This proposed development is probably the single biggest issue Wanaka will face in our lifetime," he says.

"It will drive out most of the existing GA in the area. It will also open the floodgates to millions of tourists per annum, which will have an irreversible impact on

our community. There is no way our infrastructure can keep up with this kind of growth – it's already under significant strain. As one of New Zealand's fastest growing communities, we can't cope with the huge volumes of inbound visitors this airport would bring."

Wanaka offers a unique GA environment, including access to some of the best mountain flying in New Zealand.

"If the airport is developed and the airspace becomes controlled, it will have a serious impact on GA," Gilbertson says.



The group has set up the Protect Wanaka campaign, and there's a specific page for AOPA members – please visit it to find out how you can show your support: www.protectwanaka.nz/aopa

Blue Light Day South Canterbury



Another successful AOPA Blue Light outing saw four aircraft meet up with eight young people and six supporters at Timaru airport on an overcast but stable morning, 9 June.

After a brief chat with the team the group got airborne, tracked south and around Timaru city, the port, Fonterra then on to land at Rangitata Island, where they spent some time browsing the sheds and getting a background talk from Russell.

Back in the planes, pilots and youngsters headed upstream to the Arundel ponds, Geraldine, Pleasant Point and back to the airport. Snags on the barbie and a cuppa. Smiles all round, great fun. Thanks to young aviators, Janfre and the BlueLight supporters, our pilots Ross, Dave, Simon, and to Russell for hosting us.



ADS-B ground-based receiver



Ian Sinclair reports that his ground based ADS-B receiver installation (see article, last issue) has been moved to its permanent site, and is up and running happily.

The addition of a high gain outdoor antenna and a 1090mhz inline filter increased the coverage, as you would expect. It can see traffic over a large portion of the Canterbury Plains down to 1000ft or lower. The low level coverage is completely dependant on line of sight. Happily, the receiver site is slightly elevated.

High altitude targets can be seen over two thirds of the South Island – the above image shows Radbox24's coverage graphic.

The receiver has been configured to feed six different aggregation sites. Data volumes vary greatly for each receiver site depending on the number of aircraft seen; Ian's is uploading about 200MB per day. Feeding fewer aggregation sites would reduce the traffic proportionally. Ian has MLAT turned off in the configuration wherever possible. His receiver can see an Airways ground based ADS-B transmitter at Mt Studholme, which accounts for a high portion (around a third) of its daily traffic.

The process has seen Ian build a reasonable set of notes about the software install and setup, which he is happy to share: just get in touch, ian.sinclair@aopa.co.nz

Advocating for AOPA members

By Ian Andrews, President NZAF

I've never thought of myself as a lobbyist or advocate, because those terms make me think of Washington DC and the dramas that go on over there. I try to avoid drama; however, if the cap fits, I will wear it.

Much of my time is now spent advocating for GA, from the model aircraft sector to commercial Part 135 operations. The NZ Aviation Federation now has fourteen member organisations, up by four since I became President. Below I outline, in no particular order, some of the issues we are currently dealing with.

ADS-B funding

Since 2015 I have taken the stand that we must be compensated for the installation of this equipment, as it is part of the infrastructure that provides a safe aviation system which is predominately set up for commercial and fare paying users of the system. Users includes anyone who gets their feet off the ground by being in an aircraft.

We are waiting for word from the Ministry of Transport, but are also dealing with the Associate Minister for SOE, as we believe Airways holds the key to achieving the goal of spreading costs over all users. This is not a general taxpayer issue but an aviation

user issue. Engagement continues at all levels of government.

Drones

Even the Minister of Transport likes playing with drones. It is a pity he doesn't know how to fly an aircraft. This falls under the model aircraft banner as the proposal is to register all drones so that the one or two that may break all the rules can be identified and brought to justice. Yeah Right!

Colmar Brunton did a survey for CAA a year ago and concluded there were already 280,000 drones in NZ, growing by 70,000 per quarter, with 200,000 coming in with tourists every year. On that basis there would be currently be over half a million drones in New Zealand. It took some pressure, but they appear to have revised that figure in this NZ Herald report from 17th July 2019.

'The Government has today released a plan for drones, which Transport Minister Phil Twyford said are estimated to be worth up to \$7.9 billion to the economy. Last year fifty times more

drones were used in New Zealand than there are planes in the country – 77,000 by Kiwis, and more than 200,000 by international tourists – compared with only 5000 piloted aircraft.'

There are more resources going into drone issues than we can get into the existing GA industry. Fortunately, Air NZ are starting to ask who is paying for those resources.

PPL medical

This is an example of what I have just said about resources. The policy team (under-resourced) has this in their charge, and should soon produce a Notice of Proposed Rule Making (NPRM) for us to look at. I argue that this is not in accordance with the Government's policy on transport rule-making, as we should by now have had more of an idea on what they are considering, particularly at ACAG (Aviation Community Advisory Group) level. We are pushing this as hard as we can.

ACAG (Aviation Community Advisory Group)

We are a group of twelve organisations who represent the aviation sectors. We are bogged down with pointless issues that should have been sorted by now. Some go back to 2015 and others are just pointless issues that could be sorted by reading the rule correctly. We have scheduled an all-day meeting to get to the bottom of the issues and try to make some progress.

PBN (Performance Based Navigation)

This is the be all and end all of GPS navigation, something that most of you do not use but, for those that do, it has been a trip down the black magic path with mirrors on both sides and smoke billowing out of the trees. Yes, we needed to do it right, but it seems to have been forgotten that we are already doing what they are trying to write rules about. It has taken three or four years to hammer out small issues on definitions when they should have been sorted in one afternoon in a locked room.

VNC Chart Book

AOPA has been working with the team at Aeropath to get an 'AA road map' style chart that we can use in the cockpit and still look out the window. More on the inside front cover of this issue. Unlike other issues, achieving this has been straightforward and timely. It has been a pleasure pulling this project together with Aeropath (an Airways Ltd company).

Road user tax rebate for aviation

Constantly pressing on this.

Act review

Again, a constant process that started in 2014. Next step will be Select Committee.

SBAS (Satellite Based Augmentation System)

A huge win, as we are working with Australia to have this implemented within four years. AOPA NZ and AOPA AU led the charge on this for the aviation industry. More on page 8.

Is it all worth it?

Yes. Emphatically yes. I like the the old saying that 'If you are not at the table, you are on the table'. We have had many successes. They should be easier to get, but I think we are making progress. You will not see too much from me in the media as I prefer to stay in the background, but rest assured, there is someone from NZAF working on these issues all the time. And that is what advocacy is all about.

**MORE OFTEN
THAN NOT,
AVIATION
REGULATIONS
ARE DESIGNED
TO BENEFIT THE
BIG AIRLINES!**



In the interests of the GA sector, AOPA representatives have attended more than 50 meetings with aviation authorities in the last 12 months! That includes the CAA, MoT, Airways, DoC, ASPEQ and the Aviation Federation.

We small guys need to be constantly alert to what's going on out there to ensure we get the chance to influence the decision makers before it's too late.

If you're a recreational pilot who appreciates a bit of positive advocacy and active representation with the powers that be, **then check out our website:**

WWW.AOPA.CO.NZ

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AOPA integral to intro of SBAS

SBAS – Satellite Based Augmentation System – is a means of improving the accuracy and integrity of GPS, to the benefit of all GPS users, pilots included. Integrity, or reliability, of data is a critical quality in aviation systems.



In the 2018-19 Australian Government budget, Geoscience Australia was allocated \$160.9 million to develop an operational SBAS, with New Zealand's Government also committing funding in its 2019 budget. AOPA NZ played an integral role in gaining government support for the implementation of SBAS.

"AOPA NZ was instrumental in gaining the attention of both governments through highlighting the benefits of implementing SBAS," says Ian Andrews, past President of AOPA NZ. "The recent announcement that New Zealand will adopt SBAS, in conjunction with Australia, demonstrates the value of engaging closely with government agencies in a positive, productive way. Together with AOPA AU and the Australian Business Aviation Association, our combined efforts to promote SBAS will deliver safer IFR flight to GA pilots in both countries for decades."

In aviation, SBAS enables instrument approaches with vertical guidance. Currently, satellite navigation in both countries relies on RAIM to assure integrity, but without corrections for GPS errors (largely due to ionospheric interference), the resulting integrity is insufficient for vertical guidance. SBAS provides corrections to an aircraft equipped with a TSO C146 navigation system, resulting in sufficient accuracy to display an ILS-like glideslope when flying RNAV approaches in poor weather.

The system uses a network of geographically dispersed reference stations, surveyed to very high levels of accuracy, to determine the errors that effect GPS in each location. Each reference station is connected to a central computing facility which calculates corrections that apply to zones within the coverage area. Corrections are then broadcast via satellite to SBAS-capable GPS receivers. In aviation, these are TSO C145 and C146 GNSS navigation systems, which use the corrections to calculate a more accurate position that is then displayed to pilots and used by navigation instruments such as an HSI, PFD or OBS/CDI indicator. Due to improved accuracy, TSO C146 navigation systems are able to guide aircraft both laterally and vertically, even on an instrument approach to minima comparable to an ILS.

In addition to improving instrument approach safety and reducing diversions and delays, the joint project also demonstrates what can be achieved through collaboration.

"Through a co-operative approach, New Zealand and Australia are now well on the way to implementing SBAS," says former AOPA AU President, Andrew Andersen.

Phillip Reiss, Pacific Region Vice-President of IAOPA and past President of AOPA AU, agrees. "The hard work done years ago by AOPA AU and AOPA NZ will deliver great benefits to the

whole aviation industry, and especially to the pilots and operators of general aviation and business aircraft that fly IFR. The lack of approved vertical guidance for instrument approaches outside major airports has left Australia and New Zealand well behind comparable countries in Europe and North America. These benefits will also flow to medevac and air ambulance operations, freight and cargo, voluntary community flights and many regional services. It has been especially gratifying to see progress achieved through close co-operation with AOPA NZ, AOPA AU and the Australian Business Aviation Association. By working so closely together, the three associations were able to make a strong, consistent case for the technology."

The development of a single SBAS covering both countries will make it possible for many aerodromes to have instrument approaches with vertical guidance comparable to an ILS, but without the cost of the ILS equipment or associated infrastructure. And because aviation uses of SBAS are just a small part of the benefits available, the infrastructure will not incur additional costs for the aviation industry. In both countries, IFR GA aircraft are being equipped with TSO C146 navigation systems to satisfy PBN rules and to provide reliable position information for ADS-B, so most IFR GA aircraft are expected to be able to utilise SBAS without additional avionics.

The USA, Europe, Russia, India and Japan have all invested in SBAS, providing baseline data on implementation.

"The best models for New Zealand and Australia are the implementation of WAAS (Wide Area Augmentation System) in USA and EGNOS (European Geostationary Navigation Overlay Service) in Europe," Andersen notes. "In both cases, the service was introduced in a two-stage programme with initial and full operating capabilities, conforming with the certification requirements defined by ICAO. Once the system is launched, a well-defined test programme can be applied to validate its performance."

Most people depend on GPS on a daily basis, whether for navigating their car or boat, hiking and tourism, surveying, mining, commercial maritime activities, agriculture, or simply using other services that rely on GPS for timing, such as ATM networks. SBAS will add greater accuracy and integrity of information to these services, while emerging technologies, such as driverless and driver-assisted road and rail vehicles, port operations, device location and many other services will also rely on the improved accuracy of SBAS.

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Advocating for your rights: The right to take off and land

By Vance Boyd



For the past four years Jules Tapper and I have had the job of representing AOPA as we battle with the Queenstown Lakes District Council (QLDC) over aircraft landing rights. While the process is both interesting and frustrating at the coalface, it can be hard to explain the ins and outs without having people's eyes glaze over.

Simply put, while many of us operate from public airports, equally we dream of being able to operate our aircraft from a home base private landing strip, or we occasionally enjoy landing on private, and sometimes remote, airstrips and helipads. AOPA has an active 'Fly-in' programme which provides opportunity for rural and backcountry landings, coupled with social exchange with other aircraft owners.

Many will have taken the right to enjoy fly-ins for granted – after all, if the landowner has no issue, what could be the problem?

Well, unfortunately, potentially quite a lot! In 1991 Sir Geoffrey Palmer introduced the Resource Management Act (RMA). At the time we all thought of subdivisions, hydro dams and other big stuff. One of the requirements of the Act is that Local Bodies, i.e. Councils, must produce a District Plan and review it every ten years. There are 61 of these bodies, each covering their patch of New Zealand. It's probably fair to say that the first District Plans, which took quite a few years to produce, did tend to focus on the big stuff but, as they've been reviewed, all sorts of controls have crept in. Plans have become more complex and can be hard to understand, even for Council staff (see side story).

Of particular concern to AOPA are sections of District Plans which, in our view, seek to limit where and how often we can land or take off, how much noise our aircraft can make, and how that noise should be measured.

The District Plan review process moves in cycles, so many Councils are currently partway through the process or are about to start a review. There seems to be a move for Councils to standardise at least parts of Plans, making them similar nationwide.

Presumably this comes about as a result of planners sharing ideas, and as a result of persons (in our case anti-aircraft submitters) citing how things are done in other districts.

In 2015 the QLDC notified proposals to modify its District Plan, and the AOPA Executive decided that we should take part in proceedings on behalf of our members. Little did we know that the process would still be continuing today and would involve comprehensive submissions, five hearings and hundreds of emails.

It was important to get involved with the Queenstown plan. It was one of the first so called 'second generation Plans' and was likely to set a precedent for others. The district is large and it includes areas at the head of Lakes Wanaka, Hawea and Wakatipu, where members have long enjoyed fly-ins to places like The Branches Station and Dingle Burn, as well as to private landing places on rural land surrounding Wanaka and Queenstown.

The Council proposed that any landing places other than public airports would be called 'informal airports'. No more than two landings or takeoffs per day would be allowed from informal airports (exit fly-ins) and, furthermore, these informal airports would have to be 500m or more from any dwelling other than that of the property owner, and 500m or more from any road – beyond these limits a resource consent would be required. Now 500m may not sound very far, but a look at Google Earth will quickly show that it is pretty much impossible to achieve in most rural lifestyle areas, not only in this district but throughout the country. If this idea was to spread nationwide, aircraft operations would by and large be restricted to public airports.

As is required by the RRMA, we made written submissions to Council seeking relief from their proposals and asking to speak before their independent hearing panel. Other aviation groups and members made similar submissions, while, as could be expected, the anti-aircraft lobby went the other way.

In May 2016 we had our chance to speak before the hearing panel. By that time Council had conceded on the 500m from a road requirement, representing a small victory, but we were left with the two landings per day and the other 500m requirement. The panel of course heard submissions on all aspects of the Plan, so it was not until May 2018 that we found that our submissions had been in vain.

To further complicate matters, we discovered that during this waiting period Council had decided to separate the rural part of the Wakatipu Basin from the remaining rural area, such as that around Wanaka, and that fresh submissions should be made with regard to the Basin. The notification of this was obscure and we found out about it only after the 'new' deadline date for submissions had passed. Council's solicitors objected to our submission on this basis, and they were 'struck out' by the Chair of the hearing panel. Using a section of the RMA, we applied to a Commissioner for a review of that decision. Jules and I had no experience of this process but simply told our story as we saw it. Our argument was successful and the Commissioner issued a detailed decision which required Council to take our Wakatipu Basin submissions into account. At least that made us feel good for a short while!

Meanwhile we were still faced with an unpalatable decision



Proposed amendments to the QLDC District Plan would end fly-ins

regarding the rural area other than the Wakatipu Basin. After much discussion, the AOPA Executive decided to lodge an appeal with the Environment Court. The RMA is quite complex, but fortunately we were able to instruct an experienced RMA legal solicitor, sharing costs with a non-member private aviator who shared AOPA's concerns.

The court prefers parties to try and resolve issues with the help of a court-appointed mediator, and so it came to pass that in April this year we found ourselves in a room with a mediator, our solicitor, Council, parties who supported our point of view and those who opposed it.

This was an interesting process and I would like to think that all parties, including ourselves, emerged with what we thought was a workable compromise. The process now is that the outcome has to be considered and ratified by a judge of the Environment Court, and remains interim and unreported until that stage. So the result will have to be reported in a later and, hopefully, much shorter article.

The Wakatipu Basin decisions have also now been notified. I'm sorry to say that despite our submissions, these also reflect no change to the Council position, and an appeal, which will lead to mediation, has been filed there also. More on that later.

So, how do you maintain the freedom to choose where you land in your district? Well, firstly, Councils start thinking about what they will put in plans well before the notification stage. Content can arise because another district has done it and someone thinks it's a good idea. That's one of the reasons we are fighting this. Beyond that, restrictive provisions arise as a response to complaints. Not everyone likes aircraft, so remember to fly neighbourly and, if need be, take your neighbours for flights, shout them beers or whatever it takes to help them understand our point of view.

Go online and have a look at your District Plan or, more importantly, your Proposed District Plan, if it has got to that stage. If it's hard to follow, call the planners and ask if there are any aircraft landing restrictions. If there are aircraft noise restrictions, ask how these are measured. There is an NZ standard for fixed wing and helicopter noise. If it is used there should be no problem with most operating noise, but it can be impossible to comply with other types of measuring methods.

Remember there are 61 plans out there, so the Executive cannot keep on top of all situations; they are doing what they can to limit the spread of the Queenstown situation but it is up to all of us who may wish to operate off-airport to do their bit. Good luck.

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When the planning process goes wrong...

About ten years ago, members Chris and Helen Watkins made a decision to relocate the family from Northland to the lower South Island.

After several years of searching they found what seemed to be the ideal piece of land in Central Otago. As well as having the right climate for the couple's honey processing business, the land was rural, had plenty of room to build a house and other buildings and, importantly, could accommodate an almost 400m long airstrip from which Chris could operate his Jabiru J-200.

The whole project would involve considerable expenditure, so Chris took the precaution of checking that there would be no obstacles, particularly with the airstrip, before committing. Should be fine said the land vendor. Next step, the Central Otago District Council (not the Queenstown Lakes District Council). The Consents Planning Officer responded that she had checked the District Plan and that, as long as the noise standards were complied with, it would be fine. Noise measurements were taken and showed that the plane was quieter than a lawnmower, so Council was happy and the family was happy.

In 2016 Chris and Helen purchased the land and a year later commenced construction of the house, hangar and buildings for their business. It seemed ideal: the family and business would be in one location and Chris's plane would be hangared on site also. Then in 2018, a bombshell. An email arrived from a different Council employee. Apparently there had been complaints from neighbours and further study of the District Plan had found a section that required the airstrip to be further than 500m from neighbouring houses. It wasn't, so resource consent would be required for its use.

Chris discussed this development with the Mayor, the response was basically "Sorry, our earlier advice was wrong, but Council will charge no fees for processing the consent application".

The outcome of this was that in November 2018 Chris and Helen attended a hearing to determine the matter. Objecting neighbours attended also. Chris was feeling slightly confident as a Council planner's report had recommended that Council grant the consent subject to a number of conditions that Chris could agree to. A large part of the objection related to neighbours' 'safety concerns'. Evidence to support these concerns was given by a person from an aviation consultancy hired by the neighbours. Strangely this person's listed qualifications didn't include holding a pilot's licence. On the other hand, Chris considered the airstrip to be safe and presented a letter from a CAA safety advisor who had inspected it and commented: "The airstrip is certainly long enough and wide enough for the aircraft proposed, approach from the north is excellent and, while it is not obstacle free from the south, it is not dissimilar to others in the country, including the Cromwell aerodrome," which is in the CODC district.

The application was refused. Although a number of reasons were cited, the first was that the panel accepted that safety was a concern. Chris and Helen were devastated. Council and the Mayor have gone into non-communications mode and the couple are still considering their options.

Obviously none of this would have happened if the 500m separation section had not been in the CODC District Plan.

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Namibia & Botswana air safari

By Anna Mackenzie

Arid, spectacular and vast, Namibia offers jaw-dropping geography, incredibly varied dryland landscapes and wildlife, and an infectious warm welcome, while Botswana's contrasting ecosystems promise riches that it does not fail to deliver, whether on the ground or in the air.

In 2015 Hamish and I joined a group of AOPA pilots on a flying safari from Pretoria through Zimbabwe, Malawi and Tanzania (see *APPROACH*, Spring 2015). The licence validation Hamish had completed for that trip was creeping towards its expiry date. Perhaps it was time to squeeze in another flying adventure?

Early in 2018 we began planning, talking to Markus Möllmann of Bushpilot Adventures about heading west from Pretoria into new territory: Namibia and Botswana. We planned our itinerary and locked in dates. Two local flying couples, Steve and Amanda Shepherd and Stephanie and Bruce Governlock, were keen to join us, along with one of my sisters and her husband, Sarah and Martin Crysell.

The planes and lodges were booked a year in advance, our longhauls four months out. Bruce and Steve completed their licence validations at Wonderboom and we were off – with a slight delay at the last minute, as we swapped one of the four 182s for a 206 to give ex-professional photographer Martin – and in particular his impressive camera kit – a little more room.

With permission granted we took off. It's not often that you hear an ATC wax lyrical

on the job: "That looked beautiful!" came over the airwaves as we executed our first formation take-off.

Five hours flying took us west across South Africa, over downtown Johannesburg and Soweto, past the first of many solar collector farms, and over increasingly arid and challenging looking farmland. Hard for us, used to the dry of Hawke's Bay summers, to believe people persisted in farming such arid land. The lush stretches of the Orange River, at the end of the day, provided welcome relief.

Uppington was our customs-out stop, its 4900m runway not providing any challenge. We cleared customs into Namibia at Keetmanskoop, where Markus had a healthy discussion with Border Control about whether leading our gaggle in the air constituted working in Namibia.

At 825,000km², Namibia is more than three times the size of New Zealand with a population of just 2.5 million – which becomes entirely explicable as you traverse its arid landscapes. We flew 3000 nautical miles, south-east to south-west, up the fog-ridden Skeleton Coast, along the northern border with Angola and down through the wildlife enclaves of the centre.

Fish River Canyon, second only in size to the US's Grand Canyon, was a highlight of the south. Our simple but stylish lodges clung to the lip of this 160km long, 27km wide, half km deep rift in the stony landscape, while our wing-mounted GoPros brought on – not for the first or last time during the trip – a burst of 'dog-fighting' up its twisting, water-carved valleys. Efforts to secure the perfect touch-down shot became a feature of the trip.

We dropped into Luderitz, where the country's forty years of German rule remains visible in the architecture and lingering attitudes, and abandoned diamond mining camps and towns are slowly being swallowed by the sand.

The Skeleton Coast owes its name to the dense bands of sea fog that regularly clothe the coastal strip, and the resulting shipwrecks that lie rusting on the beaches and off-shore shoals. We trekked north, wreck-spotting, along the edge of giant dunes that drop straight into the Atlantic.

The 55 million year old Namib is the earth's oldest desert, and the geological jewel in its crown is Sossusvlei, a vast region of salt and clay pans surrounded by giant, shifting, red sand dunes. We flew over in late afternoon and early morning, when the ridges are razor sharp, the shadows deep, and the colours of pan, dune and sky offer a surreal contrast. Between times, we explored the Kulala Wilderness



Area, walked up the ridge of the 325m high dune 'Big Daddy', sand-strode down into Deadvlei, where 800 year old acacias stretch dead arms skywards, unable to decay without moisture. Temperatures were cool at first light but rose to over 30° by 11am – significantly cooler than the summertime highs.

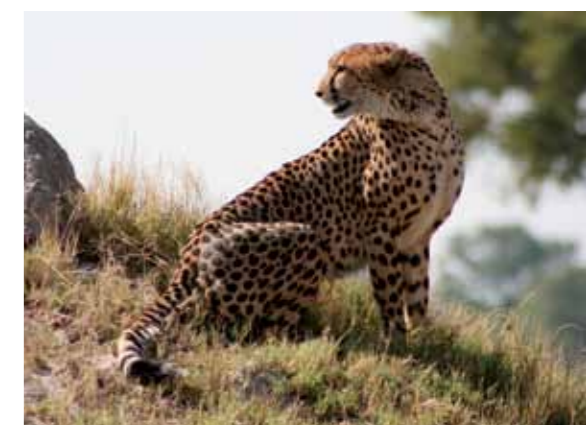
As we headed further north, the desert began to change, red sand giving way to white, dunes flattening into vast rippled plains, sand falling back to expose rock seamed in multi-coloured striations. Namibia's rivers were largely dry. In many places the last rain was in 2015; in some it was 2008.

In Damaraland's arid mountains we tracked down a herd of endangered desert elephants. Compared to those we saw later in the trip, they were thin, ignoring our truck as they focused on the serious business of stripping leaves in a constant battle to find enough to eat.

We headed north: more than 2000km from Fish River, after a week of flying over desert and rock, we arrived at Okahirongo on the Kunene River, Namibia's northern border, revelling in our first sight of flowing water since we entered Namibia – we hadn't realised how much we'd missed it.

Landscape had been the main feature thus far but, from here on, it would be wildlife. Etosha is one of the top ten parks in Africa, and it didn't disappoint. We landed at Mushara Lodge strip and the following day, under the care of our guide-to-be reckoned-with, Imelda, the park yielded cheetah, lions, giraffe, antelope, zebra and elephant by the score.

Early in June, we farewelled Namibia at Rundu and cleared customs into Botswana at Maun. Via social media, Hamish had tracked down one of the graduates of Air HB's flight school, Charlotte Oliver, now Chief Pilot for Air Shakawe, flying Cessnas





out of Maun, and we met up for a meal and a chat. Markus's wife Carmen also flew up commercially to join us for the last week, rounding out the group nicely.

Verdant and teeming with life, the land-locked Okavango Delta covers 6000km², increasing to 15,000km² in the wet season – though wet seasons are no longer as reliable as they once were. Our camp, Shinde, had its own strip near the tree-set lodge, and from the first musical welcome to our last night sharing stories and laughter around the firepit, it proved a magical place. Though drier than it should have been at this time of year, wildlife was bountiful, and we could take it all in at a leisurely pace, in trucks, on foot, and in makoro dug-out canoes.

Reedbuck, waterbuck, zebra, gazelle, baboons, elephants, cheetah, lions. The critically endangered wattled crane put on a mating dance display. Jacana skipped over lily pads as we poled through the lagoon. A bull elephant topped a show of size one-upmanship by stripping branches from the trees above our heads – it's not often you get to stare into the open mouth of a six ton mammal less than an arm's length away.

On our final morning, en route the airstrip, two lionesses decided to stage a hunt for our benefit. Sated, we loaded up, waggled wings, and flew south-east towards Mashatu. En route, Markus had a surprise in store: Carmen had smuggled packed lunches into the 206, and Markus led us in to land at Kubu Island, an ancient granite mound rising from the Makgadikgadi Salt pans. As we lined the

planes up for a photo shoot, two figures wavered towards us through the mirage – the park wardens come to collect fees.

It was hot. We ate lunch, took photos, bemoaned the idiocy that would cause someone to graffiti one of the rock island's baobab trees. As we flew on we saw elephant tracks crossing the pan, arrow straight then abruptly curving into inexplicable swirls.

For Kipling aficionados, the Limpopo River proved a disappointment: neither great, grey, green, nor greasy, but (another) dry riverbed. Mashatu tented camp was a long and bouncy 45 minute drive from Limpopo airport. So bouncy that Hamish's bag disappeared. It took us a

while to convince the lodge manager that it existed, but it was eventually located 8km back along the road.

That night we watched a leopard hunt, lost to us as night fell; lost to the leopard when a jackal yipped a warning from the skyline. The next days brought more leopards, jackals, eland, kudu, and a plethora of elephants. Even crusty and hardened old aviators could be reduced to 'Aaaww!' at the antics of baby elephants.

We flew home via the escarpment, separating the high from the low veldt, and Blyde River Canyon, tipping our wings to the side valley, and arriving into Wonderboom in the deep burnished gold of the setting sun. 🦅



Makgadikgadi Salt Pans. Above, clockwise from top left: dry rivers in Damaraland; first of many touchdown photoshoots at Fish River Canyon; daily briefing on the wing; Skeleton Coast shipwreck; Shinde airstrip, Okavango.



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Thoughts on safety from Paul Hood



There have been a couple of fixed wing aircraft accidents in the media of late that may have been avoided with a focus on safety and airmanship.

The mid-air collision at Hood Aerodrome, Masterton certainly raises red flags from which we can all take some lessons. All our public airfields have procedures which are published in the NZ AIP, which is available to all pilots, both in booklet form and via the Aviation apps that most of us use nowadays. When flying to a unfamiliar aerodrome, it is essential to spend a few minutes studying the AIP for that particular aerodrome. You should also regularly revise the procedures in the AIP for your local aerodrome, as things do change from time to time.

It is also important to read the NOTAMS. These are available on the IFIS website, and there is also an IFIS mobile app which gives the latest NOTAMS, ATIS, TAFS and METARS. First released by Airways in late 2016, this app is a great tool to have on the phone and iPad, allowing access to NOTAMS anywhere you have reception, including in the air.

Most of our aviation apps also have current NOTAMS, but you need to be online to receive the latest. You can request the latest updated NOTAMS from the FISCOM CH INFO while in the air. FISCOM channels are well displayed on our area maps.

There are exceptions to aviation standards, the classic example being aerodrome circuits. While the standard circuit is left hand, many of our aerodromes will, for a number of reasons, such as terrain or keeping the air traffic clear of built-up areas,

have right hand circuits for particular vectors. Taupo is an example where procedures differ from the norm, with parachute aircraft using a different circuit to the rest of the air traffic. Also, as at some other aerodromes, the overhead rejoin is forbidden.

So, fellow pilots, please read and study those airfield plates.

With our AOPA and other fly-ins becoming more and more popular, it is paramount to keep a very good lookout, with regular 180 degree scans. If you have a passenger, have them scanning for traffic close to airfield as well – two pairs of eyes are better than one.

The radio is also a good situational awareness tool, so keep a good listening watch and when making calls, keep them short, concise and accurate. Always keep eyes outside the cockpit: do not get distracted by the flash new avionics you've had fitted. While we're getting some great technology in our aircraft, when on approach and flying VFR in busy airspace, our focus needs to be outside the cockpit – VFR, after all, means Visual Flight Rules.

In high traffic areas, have patience and show respect for your fellow aviators. If you are following an aircraft on approach to an airfield, stay in that sequence until on the ground and clear of the runway.

Keep safe and happy flying. ✈️



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Five factors

By Andrew Hogarth

After years of hard work, in the week I celebrated my 40th birthday, I purchased my dream aircraft. Dreams don't always turn out the way you plan them.

Through owning and operating a top-dressing business in Gisborne, I have accumulated about 15,000hrs in the air, of which 1600hrs is tailwheel, around 1000hrs on 185s, and the rest accumulated on Tiger, Cub, Fatman, Ag Cat, 180, Porter, and Harvard. I've completed two Tasman Sea crossings in single engine aircraft, hold an Instrument Rating and have flown commercially in New Zealand, Australia, America, Canada, Africa and Asia. Rather than to blow my own trumpet, I mention this to provide context for this story – which is not the story I originally intended to write.

November 2017, I found an inconspicuous post on Facebook advertising a Cessna AgTruck and A185F in Australia. Deciding it was worth an enquiry, I got in touch with Geoff, the engineer, who was selling on behalf of the owner, who bought the aircraft sight unseen two years previously. When he turned up at Geoff's shop, saying 'look what I've bought', it turned out to be a machine with cracked prop hub, cracked elevator hinge mount, worn cables that were routed incorrectly, l/h strut worn beyond limits, flap tracks worn beyond limits, vertical fin attach bracket corroded, r/h gear box corroded, Geoff immediately grounded the aircraft. After \$80,000 was spent, UJT was wheeled out of the shop airworthy.

A bit of homework confirmed that Geoff was well-known and respected, so when in early December the weather looked poor for topdressing, my engineer Scott and I travelled to Ingham, North Queensland to have a look.

We arrived in Townsville Sunday then drove up to Ingham early the following morning, about 1.5hrs north through

sugar cane country. Owner Jason and UJT duly arrived at 9am and, after a quick flight, we decided to carry on with the inspection of the airframe and logbooks. The logbooks confirmed two previous accidents I'd found online, one thrown propeller blade and vapour lock on take-off resulting in a collapsed gear leg.

UJT is an Agcarryall and was imported new by Hazeltons. It did 3000hrs topdressing before going into private ownership. The hopper outlet structure that the gatebox attaches to was still in place and would need removing by modification in New Zealand, as no technical data was available for its installation. A severely corroded r/h gear box, which Geoff had provided photos of prior to our arrival, was of some concern, as was the possible extent of corrosion elsewhere, but the airframe was clean with a couple of spots of surface corrosion. The likely cause was that this component had been installed PWS, so could have come from anywhere in any condition unknown to us.

After two days of logbook and airframe scrutiny, Scott and I both felt happy we had a solid airframe with 5500hrs, factory reman engine 600hrs, new Hartzell 3 bladed prop, old panel and in need of interior at some stage, 9yr-old paint and a heap of money spent on it in the last two years. By 3pm Tuesday, I'd bought myself the best birthday present ever, and drove out of Ingham with the intention to return late January when Geoff would have the last few items of SIDS finished off, gear legs NDT, new battery installed at my request, and the export C of A complete.

The interim was busy, with the additional issue of a young pilot who we'd trained prior to Christmas punching



Upskilling on safety: "I learnt from that..."

through a 50KV powerline on the first day back at work after Christmas. He luckily got the aircraft back on the strip and was unharmed, but the aircraft was substantially damaged. With an aircraft down and workload increasing, pressure began to mount. I'd contacted a couple of ferry pilots about bringing UJT home but, if possible, I wanted to do it myself. Who wouldn't? I reckoned it was just three Gisborne-Timaru flights in two days.

Planning was underway all the while I was topdressing daylight till dark. I wanted to avoid any tropical cyclone weather in Queensland and associated easterlies in the Tasman, so a crossing in the first two weeks of February was desirable.

UJT has 88 gal long-range tanks, so each leg was doable without tanking, provided we didn't get headwinds. Enquiries revealed Norfolk Island didn't have a single drop of avgas until a supply ship arrived in late January/early February. Watching the weather in the Tasman became a daily ritual: get the forecast from windy, then seeing how it matched with the TAF and then the METARS on Lord Howe and Norfolk Islands. The video camera on Norfolk gives 360-degree shots and is excellent for correlating TAF/METAR with actual weather. Week after week, January kept producing beautiful big high-pressure systems in the Tasman.

Because UJT was still on the VH register, I needed to validate my Australian licence, which hadn't been used for about eighteen years and would need to be re-issued under the new rule Part 5. Piece of cake: yeah, right. CASA were very helpful when I rang, and they have a good online portal that gives each participant in the system a status on their licence.

I was starting accumulate equipment for the crossing. I had access to a 600L turtle pac for fuel; I bought a Rockair from Tracplus for satellite tracking (this awesome little unit also allows you to bluetooth to your phone and send text messages via the Iridium network). One of the ferry pilots offered to lend me his portable HF radio; Flightcell lent me a unit that I could install one of our work satellite phones through the intercom system. Ipad with OzRunways and a Garmin 296 for navigation; UJT also had a VOR and ADF, but I wasn't counting on them being serviceable or reliable.

Next bit of equipment I wanted was someone to come with me, to relieve boredom, but also to be of assistance if we needed getting out of the crap. Marty got the call. He operates piston aircraft and is handy on the tools as an aircraft engineer. By begging, borrowing and stealing, we accumulated a four-man life raft, emersion suits and lifejackets.

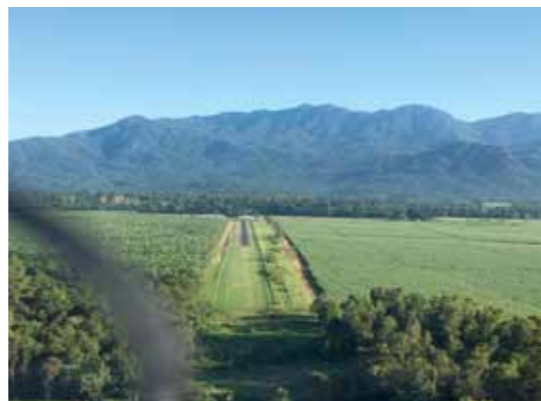
The export C of A was issued on 1 February. The aircraft was ready to go. Then the weather changed. Tropical cyclones brewing in the Pacific were creating easterlies in the Tasman – plus my licence and medical still hadn't turned up. We watched the weather for the next week, but nothing lined up to give us a clear run. Norfolk, like the far North or North Island's east coast, is affected by weather with an easterly component, which creates low stratus cloud, showers and poor vis – not ideal for trying to hit an island in the middle of the ocean with an airfield at 371ft amsl. The end of the following week started to look like a possibility.

Dr Dave, who did my CASA class 2, sent off a concise email asking what the hold up was with the licence. By Tuesday the weather forecast was still okay for crossing on the following Sunday or Monday. A call to licensing at CASA and, to their credit, by lunchtime the following day I had an emailed copy of my licence, valid for thirty days, with the original in the post (CASA issue the licence on special A4 paper that records your ratings, renewals, endorsements, so your instructor or flight examiner records on your licence not your log book). We were on our way.

Marty and I flew into Townsville on Friday, made a quick trip to Bunnings and Jaycar to get a few bits we needed, then headed to Ingham. Geoff had been called away by an emergency, but had kindly left out a key for his hangar, and assured us the aircraft was good to go and full of fuel. We reached the hangar at first light to go over the aircraft and get ready to fly down to Ayr, where I was going to do my flight review with Neil Hoffensetz.

First thing I noticed was that the aircraft didn't have the tailwheel steering cables installed. I'd wrongly assumed they'd have been reinstalled as part of the annual and Export C of A. I don't believe they can be removed legally from a 185 but I understand why they remove them from aircraft doing ag work. I'd flown plenty of types without tailwheel steering, plus it was the weekend and we weren't going to get it sorted now, so 'she'll be right'. (I'd be interested in others' views on operating without steering cables installed).

After a thorough pre-flight we lined up for a departure for Ayr, slowly fed the



power in, with a bit of right brake in lieu of a steerable tailwheel to keep things heading in the right direction, and we were away. Straight through Townsville airspace, which is a full military airfield, but all the F/18 Hornets were parked in their bunkers as it was Saturday. Hoffy gave us the once over and declared us competent. Maybe the fact that we'd be out of the country in a couple of days gave him assurance that we couldn't come to much harm. We shot back up to Ingham to get the aircraft ready for a departure the next day.

The weather forecast for the Tasman was looking more like Tuesday for crossing, so we planned to get as far south as possible on Sunday and out to Lord Howe on Monday, which would cut Tuesday's flight time by 2.5hrs, with one less stop. Rachael, the resident customs officer on the island, who I'd been in contact with regarding our departure out of Australia, found us a room for the night, which was lucky as Lord Howe is a World Heritage site and always booked to capacity.

There was one last thing I wanted to do before we headed south. Jason, UJT's previous owner, owns an Airtractor 402 on a banana plantation in Tully, doing 2500ha every weekend as he can't spray the bananas when people are working in the fields during the week. We got away at first light Sunday, still with a dab of brake to keep things heading in the right direction. Conditions were calm, but nagging deep in the back of my mind was that, if those bloody cables were installed, I wouldn't have to be touching the brakes on the initial part of take-off roll when I am trying to accelerate.

Twenty-five minutes later we over-headed Jason's base strip, where he was already spraying. We landed and stepped into moist tropical warmth, lush

grass, palms and butterflies. There was a massive drive-through hangar in line with the airstrip where you could load under cover out of the heat. The 402 duly taxied in and Jason got out and got the next load pumping into the aircraft. One of the reasons I wanted to visit was to look at a Sorenson belly tank and booms he had for the 185, which I thought could come in handy one day. We chewed the fat for ten minutes then left Jason to get on with his day while we headed back to Ingham and the 500 miles we had to cover.

We loaded the aircraft with all our gear, put 200L of fuel in the turtle pac, which was sitting on the floor behind our seats, and shot into town for breakfast. Marty dropped me back at the airport and carried on south to return the rental car at Townsville, where I'd pick him up on the way past. Putting fuel in the bladder tank simulated our crossing weight and allowed me to get a feel for the aircraft operating at this weight and to see where our fuel burn was at. The take-off out of Ingham was straightforward; a longer run, as expected with the extra weight.

Into Townsville was okay, until the controller gave me a crossing runway on the

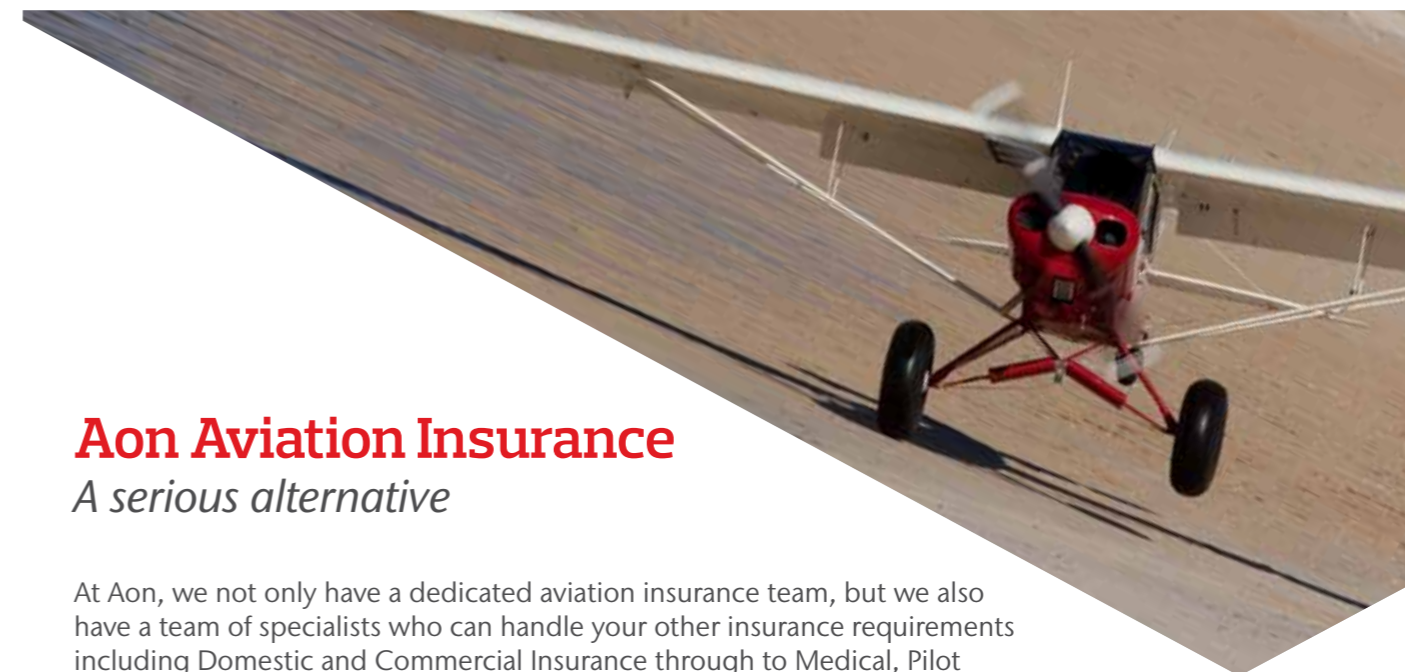


far side of the airfield that had an 8kt crosswind. Maybe he thought that if this kiwi cocked it up, at least he wouldn't close the main runway. A bit of bobbling down the runway in the 28° heat got it on the deck in a positive fashion which caused the tailwheel to shimmy uncontrollably; it wasn't pretty but we were under control and taxiing for the apron, which turned into a bit of a battle in the strengthening sea breeze. I had 1.5km to taxi to the GA apron, which gave the brakes a bit of a hiding. Shut-down on the apron and, with no ASIC card to get back airside, I waited around in the heat for Marty. I had a good look over the brake pads to ensure they'd go the distance, then parked up on the wheel under the shade of the wing to have another look

at the weather, which was starting to look like the crossing would be later in the week, as a deep low was stationed off the NE of NZ, creating lots of humid weather with low cloud and easterlies.

Not having ASIC cards, we had to choose our refuelling airfields wisely, as without them it can be difficult to be airside and to get airside again if we left the airport overnight. OzRunways came into its own here: when you open an airfield plate there is a pilot user page, accessed via your user name, which allows pilots to leave notes on their experience or helpful tips at the airfield. Things like "security staff are pricks", "no avgas payable via credit card", "friendly helpful Aeroclub" dictated where we would stop. I'd picked Gladstone as our fuel stop with our overnight to be decided en-route. Marty finally sauntered up to the security gate and we loaded up and got underway. A bit of a dance down the runway in the stiffening sea breeze, but we got away fine with two up, 440L of fuel and gear.

Levelled off at 6500ft we relaxed into the 3hr flight. There was heat turbulence but nothing uncomfortable. To fill the time till the weather came right for



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the crossing, we decided to just cruise around the east coast of Aussie. With this settled, I felt myself unwind. I was flying my 185, with no time constraints, the phone wasn't ringing, and we were having a bloody good time. The only niggle was that my feet were hot in merino socks and leather boots. Marty said his were fine as he was wearing jandals. I recall saying you'd never catch me flying in bare feet as, in the event of an accident, you'd want some protection around your feet. These words proved all too prophetic.

Visibility was marginal with lots of fires around Mackay, but as we got further south towards Rockhampton and our track took us out to the coast, visibility improved again. We let down into Gladstone from the NW to join a left base for Rwy10. The wind was across the runway, left to right, at 13kts. 'You got this' voiced through my headset – I wasn't sure if Marty was asking a question or affirming my skill level. Anyway, we pulled off a tidy tailwheel low wheeler and taxied in, pleased with ourselves.

When we opened the doors at the fuel pump, the 36° heat was stifling. There wasn't much happening in Gladstone on a Sunday arvo; the obligatory airplane spotter turned up for a photo and an amphib Beaver landed and let off a bunch of fishermen. Most of the bowsers and fuel trucks take credit cards and we topped the tanks up and put another 100L in the turtle pac. This would be our crossing fuel load and I thought it'd be good to



see how it handled. We had a small 12v battery with us that would have enough amps to power the fuel pump on the turtle pac and the plan was that we'd top our tanks off at Norfolk with the fuel we'd bought with us, saving us a bit of cash as fuel there is expensive (around \$3.80/L).

Gladstone is one of only three deep water ports in Australia and has all the infrastructure and industry to support the iron ore being loaded onto ships, so it's not an attractive seaside town. It was 15:30 and we still had plenty of daylight, but we'd had a big day and thought we should be looking for somewhere to park up. Out came the iPad. OzRunways advised that the Herne Bay Aero Club was forty minutes south, opened the bar on a Sunday at 17:00 and put on a BBQ. "That's us," I said to Marty.

We had a rearrange in the back to get the turtle pac sitting further forward,

which would help the C of G – we were within range and underweight, but close to their limits – then cranked up and taxied out. To save the brakes I decided to take the short taxi down to Rwy 10, as I didn't want a long taxi and faded brakes with a strong crosswind on take-off. We'd landed on Rwy 10, so shouldn't have any issues with the take-off. We lined up and stopped to reassess, as the wind had picked up and was now 16-18kts with a slight tailwind component. Bugger. Marty said "What do you reckon?"

I did the risk assessment: it was hot, 36°, we were heavy with aft C of G, we went out of Townsville this morning with 13kts from the left, we had 2000m of runway in front of us – what could go wrong? I opened the throttle and got us underway. We had a dance 100m into the roll and I found I was back on those bloody brakes to keep the aircraft straight, which in turn slowed us up. I remember thinking 'get the tail in the air; at least if we're getting pushed around a bit by the wind we can drift off the side of the runway, we'll still get airborne; it'll be untidy but we'll be on our way.'

In goes the yoke to get the tail up; not yet ready to fly. P Factor, gyroscopic procession and the wind all lined up together and gave the 185 one almighty kick in the left-hand rib cage. The right brake at this stage was next to useless as the forces acting on the airframe were greater than the drag on the wheel. We were now at 45° to the left of centreline and nothing I was doing was making any difference, apart from we were getting faster and further into the crap. My training kicked in: "Make the best out of a bad situation; kill inertia and protect life."

I closed the throttle and tried to go with the ground loop, to no avail. At 70° the tyre rolled off the rim, the rim collapsed, the axle dug in, the nut popped off and the gear leg collapsed. Couple of seconds silence thinking 'what the f**k just happened?' then Marty reached over and turned the mags, master and fuel off.

All body parts wanted to move, so I extricated myself out my door and stood in front of the aircraft. A nervous giggle was followed by copious cursing, then I realised, no Marty. Was he trapped? I dove back in and asked what was going on. "I've got bare feet and I can't find my jandals." (Lesson learnt the hard way.)

We got out and we were both uninjured. We soon had the local airport fire truck on site, giving us plenty of cold drinks and

looking after us. Marty kicked into engineer mode (knew I brought him along for a reason), plugging the vent line to stop fuel escaping and getting the local crane operator on his way. I was dealing with the obligatory phone calls to insurance, NTSB and the dreaded call home to say 'You know that aeroplane I spent all that money on? Well, it's rooted.'

We got the aircraft off the runway and into a hangar in a couple of hours, which was good as it was starting to generate a fair amount of attention. As I said, not much happens in Gladstone on a Sunday arvo, but an aircraft lying on its side soon got the yokels to the perimeter fence. Once we'd tidied up it was off to find a cold one and a wee dram to settle the adrenaline.



So what can I learn from the above?

1. Mental state

High workload in business, staff shortages, previous company accidents requiring a lot of my attention. The brain only has a certain band width and can only cope with a certain amount of information before it starts shedding.

2. She'll be right attitude

Accepted the aircraft in a non-airworthy state; flew to Ayr to have flight review done but was not current to do so; opened the throttle without fully thinking through all risks.

3. Currency

I was current, having done 332hrs and about 3500 take-off/landings in the previous 90 days, but I hadn't been commercially current in a 185 for twenty years, and had flown one only off and on in the last ten. We'd totalled 6.5hrs in UJT with only seven take-off and landings. I should have done some circuits. I am almost certain I would have had some level of accumulative fatigue. When I got the aircraft back to New Zealand I wanted to see where the rudder trim was set, it was set to the right for take-off but was not on the stop, as in that position the indicator was hidden from view by the plastic panel; I'd set it to the edge of the indicator slot not the stop, which meant we took off without the trim set full right, which was another turn and a half.

4. Mind not on task

I relaxed on the flight down, which was good for me personally but it led to #5 below, complacency. I was too focussed on getting to destination for a BBQ and cold beer, rather than on the take-off, which did require a certain amount of skill. I read Bill Henwood's taildragger notes before leaving New Zealand, but didn't even consider the forces acting on the aircraft on that take-off.

5. Complacency

Complacency, compacency, complacency. All the above factors come about from being complacent. When I mentioned my experience in the introduction of this article, it was not to showboat, but to show readers that, irrespective of experience, we all have the potential to get complacent – and it's usually the high-time, experienced guys and girls who get complacent easiest.

Taking it on the chin

With most accidents, there tend to be a series of contributory factors. I undertook my own personal accident investigation, because if you can't take it on the chin and learn from an event like this, you're doomed to repeat your mistakes. We enjoy and love these aircraft and they're far too expensive to damage and repair. If my having shared this experience – and the factors leading up to it – can prevent someone else from making similar mistakes, then it has served its purpose.

Some reading this will say 'That should never have happened', and they would be right. It shouldn't have, but it did.

When we go flying we should be in the right mental state, fully engaged with mind on task, current, thinking about nothing but the flight, not complacent with our standards or attitude. Unless we do that 100% of the time, there is always opportunity for human error. If you have the self-discipline to always fly at 100%, well done.

The aircraft is now in the jig. I hope to have it flying by Christmas (insert Tui ad) and to join you all on exploring this great country. I also intend to fly it back to Aussie and finish un-finished business.

Happy to discuss this accident further if anyone would like to; contact me at andrew@farmersair.co.nz

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Flying the Air Tractor

By Matt Anderson



For the past year I've been flying a Fuel Hauler 802 Air Tractor in Indonesia, carting diesel and gasoline to remote villages and towns in Kalimantan and West Papua.

Canadian registered aircraft and company meant I had to do their CPL before the type rating (for more on that experience, see *APPROACH* Summer 2018). Once the job was done, I headed up to Pickle Lake, six hours north of Thunder Bay in Northern Ontario. Snow still covered the countryside and temperatures got as low as minus 20°C.

I was dropped at the staff house and Doug, my company instructor, had me in

the back seat of the two-seater version of the 802 for a few familiarisation flights before I got to sit up front. The first day of circuits was tough. Doug was into me for everything, from circuit heights to radio calls and parking. He really wanted the aircraft flown well and with precision.

An empty 802 is very light and pitchy, with a short couple to the tail plane and a huge 60ft wingspan. Initially I found it easy to porpoise and bounce down the runway. I figured things out later in the day and, once I slowed down on approaches, the arrivals more resembled a proper landing.

Over the following days, things were more productive in both seats, and the flying came together with more time in the aircraft. The next week, loaded training began. This involved fuel loads in 1000litre increments until the max 4000litre payload was on-board. Diesel or gasoline was the cargo, and a full load of diesel was 1000lbs heavier than gas, which makes a difference on take-off and landing. Landing loaded was in many ways easier as, once in the flared attitude, the plane settled solidly onto the deck – although too high or late could easily cause a bounce. A few solid days of productive loads to the customers in Northern Ontario got me up to speed and then it was all done.

Doug drove me back to Winnipeg so I could fly back to New Zealand. A few weeks later, visa sorted in Singapore, and I was straight onto the job in Tarakan city, Kalimantan, Borneo.

We have only one destination airport in Kalimantan; 115 miles inland with a

sealed 1500m runway with a nice hump at about touchdown point, to make things interesting on the usual landing vector. It's a good place to start loaded landings because of the constant thermal winds and wind-shear on landings, crosswinds and some weather en route as well. Generally weather is favourable and winds are light, though with much lower terrain than over in Papua.

I'd been told by one of the guys that you can bounce the hell out of it and still haul her up in a reasonable distance. Since then, mainly to verify his point, I've managed to find every possible way to bounce, and then some that I didn't think were possible.

Being an aircraft that wasn't designed to land fully loaded, we always land three point, as that's really the only safe way to get it down and pin the tailwheel on the deck for early braking and directional control. Hitting tailwheel first causes a very uncomfortable tail bounce that gets you back to horizontal attitudes. So, with the stick fully back, it's a matter of holding on and riding it out. The big spring main gear does not like sudden arrivals either and, like a C185 or similar, will put you back to where you just were. So then it's a quick re-flare to get it back on deck.

Papua

How do you land a 7 tonne aeroplane into a 700m airstrip at 5000ft up a no exit sloping valley? And then have a flyable plane to take home again.

This question went through my mind a few times before I started on the job at our other base in the town of Timika in West Papua. The guys had been at it for

a few years so I was just the next bloke to get a crack. Even so, this job was not for the faint of heart or weak of bowel.

I'd flown into the four Papua destination airstrips for fuel hundreds of times in my previous work with a Pilatus Porter and some Cessna Caravan flying, but this was like starting all over again.

Being well ahead of the plane at all times is a must, because fully loaded in high terrain, there is no surplus power to get out of trouble. So each turn and approach needs to be thought out with committal points and escape options assessed.

As with any strip flying, good approaches tend to make good landings. A few of these strips are one way up dead end valleys, so a landing will be happening once on finals. Having a big load means no 'go around', regardless. If for some reason things go really bad, we have a dump handle which jettisons the load in 15 seconds or so. But that's not the ideal way to deliver fuel.

The most demanding airstrip that we all find quite exciting is at a place called Ilaga. At 7500ft and 600m, it has seen

plenty of accidents over the years, mostly runway over-runs. We take a much smaller 2-2500litre load into Ilaga, and drag the plane in with power.

It was satisfying being back in the familiar mountains of Papua, and good fun flying a new type. The Papua aircraft has the bigger 1450shp engine and, fully loaded, can deal to the 14000ft mountain pass we cross daily in about 20 mins and 60 miles. We use a nasal O₂ system which is simple but works well. Late morning and early afternoon in Papua the weather and huge Cb cells build and most terrain is covered with rain, cloud, turbulence or a mix of everything. Returning to base empty, I would usually go as high as 18000ft to clear the weather. At lower levels you need to pick a route through the weather whilst staying safe above terrain.

The more flying I do in this beast, the more comfortable it becomes. However, as Doug told me at the start of training, "This plane will always let you know you're never the boss, just the mug holding the pole."

Often, after a run of good landings and feeling good about things, reality hits

home. A slight misjudgement at touchdown or high flares can turn what was to be a good landing into a bouncy ride where the main gear and tail springs have a competition to see who can bounce higher and, with stick in guts and eyes as big as saucers, you hold on for the ride. Things normally settle down after 500m, but before then the ticker has hit max rate and the Fitbit has melted. By this time you're trying to retrieve the mike boom, which has jammed under your chin after the first bounce, to reply to the bloke in the tower who has called with landing time and to say in his cheery voice, "See you on departure, Cap." Character building stuff. The good landings make it all worthwhile though.

Unloading is done with small petrol driven pumps and a full load can be pumped into drums or 1000litre tanks on a truck within thirty minutes.

The AT 802 is currently the largest single tailwheel aircraft in production (the larger 1002 model has flown but is not yet produced in numbers). The 802 can be purchased for ag work, fire bombing, fuel haulage and military use. ✈

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'Flying with the boys'

By Margaret (Miggs) Wright



'Back to Basics' Wairarapa offered real flying into interesting airstrips you wouldn't normally get to visit. With my little Cheetah ZK DLL, 'DiLly' hangared at Paraparaumu, I didn't have far to fly - but camping out with a bunch of boys and no showers suggested I might need moral support.



I called airwoman Cathy Heslan, who happened to be finishing up her duties at the Aerobatics competitions in Masterton, and she took less than a minute to agree to come along.

Not being experienced on farm strips and paddocks, I had a chat with Roger Fairbrother, who agreed to help me practise on a couple of strips on his farm early Friday afternoon. I picked up Cathy at MS and we followed Roger in his Cessna 172. On the chat channel Roger directed us in and with a few "roger Roger"s we landed at both Fairbrother 2 and Fairbrother 1 farm strip. All went smoothly and Roger later admitted they were a test to see we were all good to land at Jack Cameron's strip... Phew, passed that one!

We fuelled up at MS then followed Roger to Jack Cameron's strip, 10nm east of Martinborough on an historic sheep and cattle station which has been in the same family for many generations. The strip was easy to spot in a picturesque valley, weather was calm and we joined downwind for the 20 vector. Aircraft were parked at the southern end of the strip; always comforting to know you're on target. The strip was 500m long, so I lined up for a short field approach which all went to plan until a surprise dip in the ground, which DiLly thought was an opportunity to keep flying, but we managed to convince her down.

We were welcomed by the crew on the ground and chauffeured by ute to Jack's woolshed and shearers' quarters. Luckily there was a small bunkroom (which Cathy

and I quickly grabbed) as the tent I'd brought was minus poles! Others had already erected tents and commendations to James Rogers, who arrived with wife Kate, toddler Charlotte and baby Jack, not to mention tent, baby cot, toddler's bike, etc, all in his Cessna 185 ZK CES.

Over the BBQ we caught up with many we hadn't seen in a while and enjoyed meeting some new faces as well.

Whilst the forecast was for temperatures in the high 20s, the night was surprisingly cold (lucky we didn't have tent poles!). After breakfast and a briefing, which included photos of all the strips and discussion on wind/landing direction, we split into two groups of ten aircraft each. PICs were nineteen male and one female: me. No pressure! One group flew north and the other south, meeting halfway at Flat Point for lunch (with a cold southerly wind, the swim was definitely off!).

I was pleased I'd done a practice, as the first landing for our group was Fairbrother 1. Everyone made it in safely and we regrouped then Roger led off to Fairbrother 2. When he radioed to say the wind was 'all over the place, probably 45° across the paddock', and having been in the day before, I opted to head back to F1. The rest orbited for a couple of laps, then one by one we all landed back at Fairbrother 1. The south-easterly had definitely picked up and was now causing some odd windshear in the valley.

After some serious chat about the weather we flew northeast to Castle Point and coastal photo opportunities. The next

strip again had a problematic crosswind, so it was on to Flat Point. A strong 20kt southerly was practically straight in for runway 17 and we pulled up pretty quickly on this well maintained 500m grass strip. Thanks to the McGuiness family for allowing us to fly in to this unique spot, and to our lovely ground crew who delivered man-sized rolls for lunch; half sufficed for us 'girls'.

After Flat Point our group headed south down the coast into murky but flyable weather, improving as we got closer to Lake Ferry where our next landing was extra smooth due to the improved conditions. Next was Jimmy's strip in Carterton. On downwind Roger called with a reminder to stay high on final because of the wires. Of course the boys were all out to watch the girls land, Don later joking they'd rated us. Luckily we managed to make it a smooth one...

After hearing some of Jimmy's exhilarating stories from his days in the RAF flying Tornados from Southern Italy to Libya, we made a short flight back to Jack Cameron's strip for another great evening and BBQ.

The next morning we said good-byes and enjoyed watching the mix of aircraft buzzing out: Pipers, Cessnas, Rans, Murphy Rebels, Tobago, Citabria, Bolkow and our Grumman. Thanks to the organisers, to Roger, the Bradleys and Camerons, and to Cathy for being my perfect co-pilot. We both appreciated AOPA's warm welcome and encouragement on our first 'Back to Basics'.

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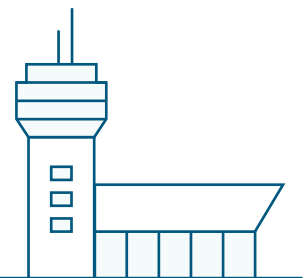


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The option of installing ADSB-IN along with ADS-B OUT which can significantly improve situational awareness

The standards for ADS-B equipment are now set (Civil Aviation Rule Part 91.257). Talk to your Part 66 LAME or Part 145 maintenance organisation to get information specific to your aircraft and start to enjoy the benefits of ADS-B on your aircraft this summer.



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