

KiwiFlyer™

Magazine of the New Zealand Aviation Community

Issue 63 2019 #3

**Images
from
Omaoka**

**Women in
Aviation**

Ballooning

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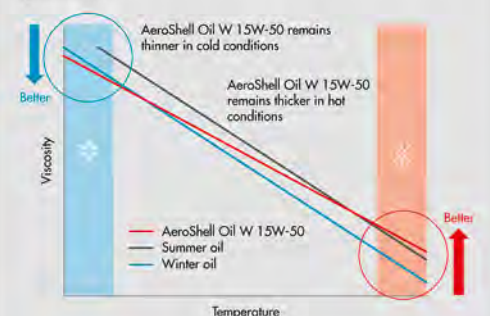
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From the Editor

We've got the spectrum of aviation fairly well covered in this issue of KiwiFlyer with articles on everything from WWI fighters to hot air balloons to jets. Two of those articles are from new contributors. Thanks to Trevor Schmidt who went ballooning from Hamilton during the Balloons Over Waikato Festival and then wrote of a most enjoyable experience. And supported by Gavin Conroy's photography, John Lanham explains just what it's like to fly a WWI fighter using The Vintage Aviator Limited's Fokker D.VIII as an example. Thanks also to John for sharing his pilot seat with KiwiFlyer readers.

At the other end of the fighter scale is the F/A-18A Hornet of the RAAF, recently here to display at the biennial Classic Fighters Omaka Air Show. Never missing an opportunity, especially as it would likely be the first and last occurrence of such an occasion, Gavin Conroy arranged an air to air photo shoot of the Hornet over Omaka, using another aircraft with naval history, Brendon Deere's Grumman Avenger as camera ship. Gavin writes of the Hornet's outstanding display at Omaka and of flying alongside with camera in hand.

The theme of this year's Classic Fighters was 'Saluting Women in Aviation'. Many such pilots in New Zealand's aviation history were honoured at the show with displays and programme information. Jill McCaw attended with notepad to hand and met with numerous women who have high achieved highly in their chosen sector of New Zealand aviation. Her article follows on from five pages of Classic Fighters imagery contributed from several photographers at the show. We're spoiled for choice with high quality images to print and although that makes selections difficult, it does make for a great spread of photography in the magazine.

Other content in this issue includes event coverage of taildraggers at Waipukurau, more balloons – this time over the Wairarapa, and of two autogyro gatherings in the South Island. One of the latter events was additionally newsworthy due to Paul Scherrer fulfilling a long held ambition to cross Cook Strait in his open frame home-built autogyro. Enjoying perfect flying conditions, he flew from his home at Upper Hutt to Havelock, enjoyed lunch and some scenic Marlborough Sounds flying with the locals, and then flew home again in the afternoon. As an open frame gyro pilot myself, I'm very qualified to say Congratulations Paul. That was surely a memorable trip and well captures some of the enthusiasm for aviation we try to share in every issue of KiwiFlyer.

Enjoy reading. Fly safe.

Michael Norton

Editor | Publisher
KiwiFlyer Magazine



Features

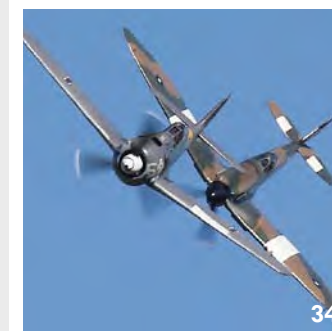
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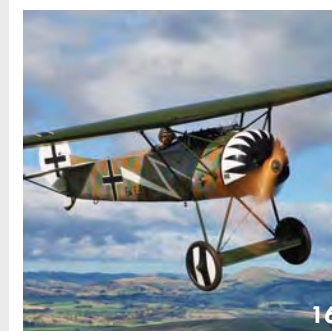
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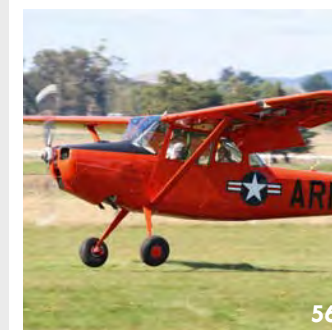
Jason Easthope waves to the camera from his RAAF F/A-18A Hornet near Omaka. Gavin Conroy image.



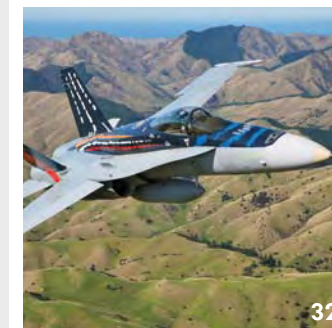
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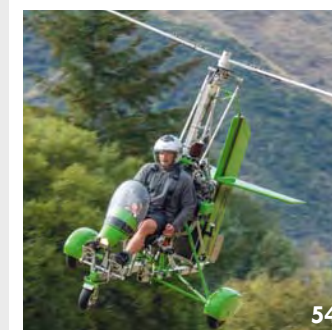
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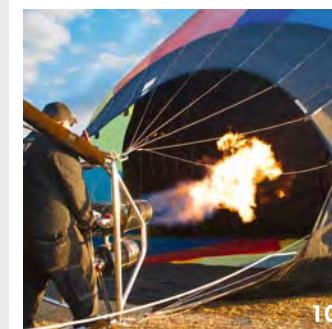
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Garmin Service Centre for South Island

Avionics Canterbury Wide has become an approved Garmin Service Centre. Based at Rangiora but offering an additional fully mobile service since 2006, the company provides a full range of avionics servicing and installation across a full spectrum of aircraft types.

Owner and licensed engineer David Harnett says the new approval allows him to offer far greater support to customers in the South Island, including supply of all Garmin products at competitive prices. As well, the company can now liaise directly with Garmin whenever required, and can carry out software and firmware updates for all Garmin products including GNS & GTN series Com Nav GPS units, all GTX and GNX series transponders, G3x, G500 & G600 display systems, G3x, GFC500 and GFC600 autopilots, G1000 systems and more.

The Garmin Service Centre appointment is not the only recent development at Avionics Canterbury Wide. David and his team have also been progressively upgrading their hangar and facilities at Rangiora. As well, they welcome a new Avionics Technician, Kelly Philips (previously with Fieldair Engineering) to the company. Kelly joined in May and brings with him 30 years of avionics experience on light and medium fixed wing and rotary wing aircraft. www.avionicscanterbury.co.nz

Oceania Aviation prepares Right Hand H125/AS350 Cargo Pod STC and becomes an Approved Airbus Supplier

Oceania Aviation's manufacturing division, Airborne Systems, has been approved as an Airbus Supplier and is in the final stages of achieving a Supplemental Type Certificate (STC) amendment for their Cargo Pod, allowing

its use on the right-hand side of H125/AS350 series helicopters.

Airborne Systems have been supplying H125/AS350 operators with their cargo pod following its first NZCAA certification in 2011. It has since achieved STC approval by Transport Canada and the FAA.

Russell Goulden, General Manager of Airborne Systems says, "We have complete confidence in our cargo pod and the commercial value it brings to an operation. Since our FAA STC, Airbus USA and NZ have purchased several of our cargo pods resulting in our approval as an official supplier. The next step was to make our cargo pod available for both sides of the H125 and we are actively working on this with flight tests set for May 2019. A CASA Approved Flight Test Delegate who has attended the Empire Test Pilot School in UK will be completing these. Our experience with cargo pods goes as far back as the 1990s for the AS350, AS355 and BK117, making us confident in the outcome."

The cargo pod has been specifically designed to provide an optimum user experience. Produced from lightweight material, it is pilot-removable, reduces drag due to its aerodynamic design and protects its contents from the elements. A single cargo pod offers 120 kgs (265 lbs) extra capacity and the new STC amendment will allow operators to optimise their carrying capacity with functionality by choosing between three configurations; left-hand only, right-hand only and both sides.

There are future plans to also certify the pod for the EC130B4, Bell 205, Bell 212 and Bell 412.

Visit www.oceania-aviation.com/airborne-systems/ for more information.

Ardmore Flying School launches dedicated Flight Instructor Training Unit

In recognition of the current and growing pilot shortage which is now impacting on flight instructor supply, Ardmore Flying School has moved to counter the problem with the launch of its own Flight Instructor Training unit.

This unit within the organisation is dedicated to training new 'C' Category instructors under CAANZ Regulations and is headed by experienced Flight Instructor trainer Glenn Drower. Glenn has trained well over 100 flight instructors and has a first time pass rate second to none. "I am excited and privileged to be able to head up this important development at Ardmore Flying School – to be able to focus on developing, improving and fostering the next generation of flight trainers is indeed a challenge and a pleasure to me," says Glenn.

The unit will not only train instructors for Ardmore's own employment, but also for other organisations that do not have the skill level or capacity to train

their own. Bespoke training plans can be accommodated to suit. At this early point CAANZ Flight Instructor ratings will be issued following flight testing by NZ Civil Aviation designated Examiners. Training capacity will be limited to 10 per course with up to 4 courses a year available depending on demand. All training courses include Instructional Techniques training to equip the new instructors with skills to teach effectively, whether in an aircraft or classroom.

CEO, Ian Calvert says "We want to emphasise and focus on training instructors that are truly effective in their training delivery, not just trained to say their lines with mechanical flying skill to pass the flight test – they must be able to identify learning issues and have a complete toolbox available from day one so that their students receive the training quality demanded in delivery airline focused courses".

Organisations or individuals wanting to know more can contact Ardmore Flying School via enrolments@ardmore.co.nz or contact Glenn direct at glenn.drower@ardmore.co.nz

Hercules flies Vietnam War Veterans to reunion in Christchurch

NZ Army veterans took a trip down memory lane on May 7th when they flew to Christchurch on the very same Air Force C-130 Hercules aircraft that flew them to the Vietnam War 50 years ago.

The veterans, former infantry soldiers from the Victor 4 Company that deployed to Vietnam on 8th May 1969, were accompanied by their families.

Flight Lieutenant Tim Leslie, an aircraft captain from RNZAF No.40 Squadron, said about 90 veterans and their families were flown from Auckland, Tauranga, Ohakea and Wellington to their 50th anniversary reunion at Burnham Military Camp.

Veteran Geoff Dixon, 70, said for wives, children and grandchildren to fly in the same aircraft that flew their husbands, dads or grandfathers to war was a very emotional trip. Fellow veteran Phil O'Connor, 71, said the flight on NZ7002 – the Hercules that flew the 120-strong contingent from Singapore to Vung Tau in southern Vietnam 50 years ago – brought back a flood of memories. "What





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AIRCRAFT OWNERS AND PILOTS ASSOCIATION OF NEW ZEALAND

nostalgia! It could not get any better," he said.

Mr Dixon had just turned 20 when he went to Vietnam and was second in command of a rifle section comprising 10 soldiers. "It was physically and mentally challenging. You had to carry heavy loads of ammunition and spent each day on edge," he said of the year-long deployment.

During their first operation, which Mr Dixon described as their "baptism of fire", they came under heavy attack from the Viet Cong and suffered their first casualty – his best mate Jack Williams. "I saw the flashes from the muzzles of the enemy's rifles. That was how close and intense the gun battle was," he said. "Initially, it was nerve-racking for all of us. But after a few weeks we became attuned and learnt from our experience."

Apart from the threat of landmines, operating in a tropical jungle meant the New Zealand soldiers also had to deal with venomous snakes and scorpions, leeches, termites, mosquitoes and red ants, he said.

Operating as part of a combined Anzac battalion with the 6th Battalion, Royal Australian Regiment, the New Zealand troops went into the jungle for a month of operations, tracking down hostile forces, and then returned to the Australian base at Nui Dat for a respite. During their week-long breaks, the soldiers either went to the Australian base in the seaside city of Vung Tau or the United States base in Saigon, where they would then have the option of flying to Japan, the Philippines, Taiwan, Thailand, Hong Kong or Singapore.

"We would have beer or lemonade and have a sing-song at 'The Never Inn' bar in Nui Dat," Mr O'Connor said. "Or watch the occasional movie shown on a Bell and Howell 16mm projector in a tent. There were no emails, Skype, Instagram or tweets in those days, so all letters were written by hand."

The New Zealand Government sent troops to Vietnam from 1964 to 1972. Only half of Victor 4 Company's 120 personnel remain. Seven died in combat or from sickness while in Vietnam, and 57 others have died over the past 50 years.

Flight Lieutenant Leslie said it was a great honour to fly Victor 4 Company personnel and their families as they commemorated the 50th anniversary of their deployment. "Together with thousands of others who served in Vietnam and other theatres of conflict, they made a contribution to the freedom we enjoy today."

Tecnam celebrates 70 years and 51 sales at AERO 2019

Italian aircraft manufacturer Tecnam, represented in NZ by Ruth's Tecnam Aircraft Sales and Service based in Haast, celebrated 70 years and achieved 51 sales at Aero 2019 in Germany recently.

Aircraft displayed included the P2006T twin, the four seat P2010 and the newest addition to the fleet, the P2002JF two seat IFR. This two seater premiered at AERO 2019 featuring the new Garmin G500 Txi is a most affordable solution for IFR training with major international flight schools placing initial orders. Also receiving a lot of interest were the new P92 Echo MkII together with the low wing Sierra MkII, developed particularly for the new European Union 600kg ULM category. Tecnam officially received the type certificate at the show, for their new flagship 11 seat P2012 Traveller that was certified last December. They also presented their H3PS project to research a marketable solution for a parallel hybrid aircraft based on the Tecnam four seat P2010. First testing flights are scheduled for 2021.

Ruth is undertaking a national demonstration tour with a P92 Tail Dragger during June. See also page 27 of this issue.

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Up, up and almost away from the Hamilton launch site.

A ride-along of a lifetime

This year witnessed the 20th anniversary of the Balloons Over Waikato Festival with 17 balloons and pilots from as far away as Europe and the United States. More than 130,000 spectators attended this annual (five day) event. One of those attendees was Trevor Schmidt, a self-proclaimed non-aviator, whose visit to get the low-down with a view to writing an article, turned into an unexpected high-up when he inadvertently scored a free ride.

This year witnessed the 20th anniversary of the Balloons Over Waikato Festival with 17 balloons and pilots from as far away as Europe and the US. More than 130,000 spectators attended this annual event (now spanning five days) on the NZ ballooning calendar event. One of those attendees was Trevor Schmidt, a self-proclaimed non-aviator, whose visit to get the low-down with a view to

writing an article, turned into an unexpected high-up when he inadvertently scored a free ride. I'll confess that when it comes to heights, I'm an inveterate coward. Balloon pilot Mark Brown advised me that there was a spot available in his basket for the following morning's flight and I nervously sensed an invitation coming my way. My stomach did a quick flip coupled with a squirt of adrenaline to prepare me for fight or flight (no pun intended). My carefully prepared list of questions pertaining to the technicalities of balloon manoeuvring and meteorology morphed into impromptu enquiries pertaining

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After partial inflation with cold air, warmth is added.



Pilot Mark Brown in the 'office'.



The annual Balloons Over Waikato Festival Night Glow always draws a huge crowd. Check out Darth Vader to the right.

to occupant safety. I was going ballooning.

6.30am next morning I found myself in the still dark Café Fresca carpark watching the pi-ball with its flashing green beacon ascended heavenwards with a slight drift to the south-east. The fog was light and lessening - the flight was on.

Five tourists, myself, pilot and ground crew hopped into the van and made our way to the launch site at Innes Common in Hamilton.

After a safety briefing, dummy-run for landing positions and passenger weigh-in the balloon envelope was spread out, the basket tipped on its side, attached and the process of pre-inflation with a cold air fan commenced. Mark removed his shoes and entered the inflating envelope checking for tears and straightening out lines. With the balloon sufficiently full of cold air Mark then went to the burners and began directing judicious blasts of propane fuelled fire into the envelope. Slowly it began taking shape and rising to vertical, fully inflated.

Mark shouted, "All in."

We climbed over the side and into the basket. There were more blasts of hot air. We waited. More sustained blasts of the burner and then almost imperceptibly - movement - just a nudge at first and then incredibly delicately we shucked off the shackles of gravity and were floating.

Hot air ballooning must be the purest form of flight and it's the total absence of sensation that makes it so sensational. Apart from the intermittent roar of the burners there's no noise. Because we're moving with the wind there's little perception that we're actually moving at all. There's no window to look from, just wide open 360 degree panoramas as far as the eye can see to the horizon. When you're in a hot air balloon, you're not flying, you become part of the sky.

Owner, Director and Chief Pilot of The Kiwi Balloon Company, Mark Brown, has been flying balloons professionally for 10 years and has logged in excess of 1000 hours in the air. Weather permitting, he averages nearly four flights per week.

"Balloons actually fly far more frequently than people realise. It's just that we're up and away and down again before most people are even out of bed," says Mark.

Hamilton's inland topography and gentle weather are ideal for

ballooning, frequently drawing Aucklanders from their not so ballooning friendly climate.

Like many pilots, Mark started his foray into flying as ground crew for another pilot. Over two years he accrued the skills to fly solo, obtain a pilot rating and offer commercial excursions. At that point he purchased a quarter-share in a balloon and not long after was able to purchase the Kiwi Balloon Company.

More than any other type of flying, ballooning is entirely weather-dependent and by implication, balloon pilots become quasi-meteorologists. During our interview Mark was regularly checking his phone for weather updates and making predictions about wind directions and fog patterns (which next morning proved to be spot-on). "In many respects the weather is the boss and as a pilot I'm just an employee doing what he's told," he says.

Mark recalls an instance when he was sponsored to fly at a promotional event but had to make a last minute decision to abandon the launch due to rapidly deteriorating weather. "There can be significant pressure to fly from sponsors and passengers and negative financial consequences if you don't. Safety has to come first. In ballooning, safety's not just a consideration, it's an obsession."

Prior to a flight, a small helium filled pi-ball (short for pilot balloon) is sent aloft with a flashing beacon attached. From this the pilot deduces wind speed and direction and works out an appropriate take-off zone, approximate course setting or whether they'll be flying at all.

Flights are generally (if not always) undertaken early morning before the ground has had a chance to absorb heat and start generating turbulence-inducing thermals. While turbulence and up draughts may be exhilarating for experienced pilots, ballooning is generally best enjoyed without them. Regulations preclude flying after dark.

Steering is achieved by ascending and descending into wind currents that vary in direction at different altitudes. Flying a balloon is more difficult than appearances suggest, and pilots need to anticipate executing a manoeuvre well before the immediate need to do so presents itself. "Flying a balloon is not like flying a plane. Balloons will react immediately to any change in wind direction or speed but will take several seconds or more to react to a blast of gas to avoid an obstacle," says Mark.

Some landings do have to be aborted, maybe more than once and for this reason Mark limits flight time to an hour while carrying enough gas for two.

Getting it wrong can have serious consequences, however the odds on an incident involving a hot air balloon are rare. I see a Boeing 737 as a collection of 2.3 million heavy non-flying parts assembled in such a way to facilitate flight. Compare that to the three primary components of a balloon (envelope, basket and burner) and the chances of mechanical failure drop drastically.

Commercial hot air ballooning in New Zealand is governed by CAA Rule Part 115 pertaining to Adventure Aviation. Pilots must hold a Commercial Pilot Licence (Balloon) and the balloon is subject to normal annual airworthiness inspections and certificates. Although less complicated, balloons aren't appreciably less expensive to own and operate than other forms of light aviation. An envelope will need replacement after approximately 400 flying hours as repeated heating and cooling, sunlight and stresses exerted in flight lead to fatigue in the stitching and rip-resistant nylon. A traditionally shaped hot air balloon (think

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lightbulb) and basket costs approximately \$100k with costs rising for complex custom-shapes.

As we fly Mark scans for a suitable landing spot. A balloon needs to touch down in a field free from obstructions, with enough surrounding space to collapse the envelope and have access for the chase-team and vehicle. A suitable paddock is identified, and the balloon is vented to commence descent. We brace ourselves for landing with our knees bent, bums on the side of the basket and hands on the basket's edge. Running landings, when the balloon still has sideways momentum on touch-down, are to be avoided and ideally the basket should gently plop down perpendicular to the ground.

Five metres, four, three, a good blast on the burner to arrest the descent, a tug on the vent line, two metres, one and... touch-down.

Safe and sound back on the ground. Would this self-confessed acrophobic do it again? You betcha - in a flash.

Trevor Schmidt



Early morning serenity over the Waikato.

General Aviation Insurance Rate Trends

Many aircraft owners will be noticing that insurance rates for General Aviation are increasing. Arden Jennings from Avsure explains recent trends in underwriting and their relevance to events over the last twenty years:

There are two parts to the world Aviation market, Airlines and General Aviation.

Both markets are in a situation where rate increases are inevitable as insurance companies need to turn around losses they have been accumulating over the past several years. In fact over the past five years the aviation market has generated no underwriting return on capital after costs. This statement applies to the overall aviation market not just the airlines. Some of the largest losses in recent years have arisen within General Aviation which normally provides a balance to the volatile airline sector. The indication is that increasing rates alone will not be sufficient to generate adequate returns. Costs need to be addressed too.

The other issue affecting rates over

the past two years is that several major aviation insurers have withdrawn from the market due to poor profitability which puts pressure on the remaining markets - resulting in the reduction of available capacity as lines get combined - and therefore reducing the markets we have to negotiate with.

Whilst not an issue in NZ due to ACC Legislation, 21 years ago you expected a maximum award of US\$1 million per person in aircraft losses. The airlines current budget is about US\$3 million per person. However there have been a series of aviation related judgements each awarding US\$100 million to a single individual.

After the catastrophic 9/11 events in the USA, aviation rates increased for the next 2 years, then in 2003 rates began to level out. Over the following 15 years, aviation rates went down as reinsurance capacity allowed new primary insurers to enter the market, more than doubling the number of aviation insurers during this time - and the battle for market share heated up. However by the end of 2017 many of the insurers were being affected by global events with several

hurricanes, wildfires and catastrophic natural disasters impacting reinsurance premiums. These higher reinsurance costs unfortunately came at a time when loss ratios for many aviation insurers were already hurting profits.

Most insurers who have decided to continue in the aviation market have increased their underwriting terms and conditions. Some are declining risks and others are reviewing their flexibility on pilots, flying clubs and training organisations. It is important for aircraft owners and operators to keep in mind that the long term health of the aviation industry is at stake and maintaining a viable market is in everyone's interests.

We would also mention that while no market likes to see prices going up, it's remarkable that insuring your aircraft in 2019 may still cost less than in 2000.

To discuss this topic or any other aviation insurance questions, or to seek quotations, contact Arden Jennings or Bill Beard at Avsure on 0800 322206. Full policy wordings and other information is available at www.avsure.co.nz



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What were they like to fly?

Fokker D.VIII Pilot's Report

John Lanham in The Vintage Aviator Limited's Fokker D.VIII

Gavin Conroy has been spending more time with The Vintage Aviator Limited at Masterton recently, adding some exceptional photographs to their image portfolio. TVAL pilot John Lanham complements some of those images here with an informative article on flying the Fokker D.VIII. What were they like to fly? John writes:

One of the great privileges of flying with The Vintage Aviator is being able to compare contemporary accounts of flying in the Great War with one's own experience of the collection's various aircraft. I have been fascinated with WWI machines since first reading 'Biggles of the Camel Squadron' at about age 10. I

soon got over the 'Boys Own' sentiments in such books but the primitive nature of the aircraft, the savagery of the air war and the raw courage and skill of the early aviators have remained with me. As I gain more experience in flying WWI aircraft I continually revisit written accounts, histories, piloting techniques and my own experience in order to understand more about how it was in those early days of air fighting. For these reasons I have particularly enjoyed flying the Fokker D.VIII, a relatively little known aircraft due to its 11th hour arrival on the Western Front, which left it no time to have any significant impact on operations.

Too Few Too Late
The Fokker E.V parasol monoplane fighter was specially designed, by the company's Chief Designer Reinhold Platz, for the Second Fighter Competition convened between 27 May and 21 June 1918 at Adlershof, the German aircraft test centre. It was powered by an Oberursel Ur.II 9-cylinder rotary engine of 110 HP. During the Competition the E.V showed good performance, excellent all-round visibility, a good climb rate and good manoeuvrability. Some pilots even preferred it to the Fokker D.VII. An official contract followed. The first production E.V aircraft were shipped to Jagdstaffeln 1, 4, 6, 10, 11, 19, 23, 24, 35 and 36 in late July 1918, although

“ I would confidently engage in a dogfight with an SE5a or Camel in the expectation that only pilot ability would determine the outcome. “

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no units were equipped completely with the type. Jasta 5 was issued a single aircraft which the ace Erich Lowenhardt flew at least once, although he continued to favour the Fokker D.VII. Leutnant Emil Rolff scored the first kill in an E.V on 17 August 1918 but two days later he was killed when his aircraft's wing failed in flight. After two more fatal accidents due to wing failures, all too reminiscent of the Fokker Dr.1 wing disasters, the aircraft was modified and renumbered D.VIII, under the company's re-designation system.

The first unit to receive the new machines, on 24 October 1918, was Jasta 11 commanded by Ernst Udet. The D.VIII also went to Jastas 1 and 23 and one naval aviation unit, commanded by Theo Osterkamp, one of only two Germans (to my knowledge) to become aces in both WWI and WWII. Osterkamp scored two victories in the D.VIII. Reportedly one of its more successful days was 6 November 1918, on which D.VIIIs supposedly shot down three American Spads. Dubbed the Flying Razor by Allied pilots, the D.VIII is claimed to have the distinction of scoring the last aerial victory of the war. However, both these claims cannot be verified.

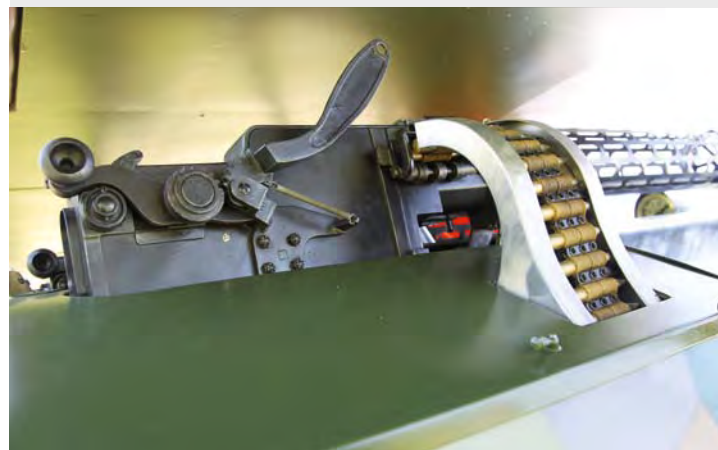
A total of 381 aircraft were produced but only some 85 aircraft reached front-line service before the Armistice. Some eventually reached Holland, Italy, Japan and the United States as trophies but most were scrapped in accordance with the terms of the Armistice. In France and Belgium they were left to rot and pilots were even discouraged from flying these 'dangerously fragile' monoplanes with their untrustworthy cantilever wings. Italy and Holland were more realistic and operated the type successfully until the mid twenties.



Oberursel Ur.II 9-cylinder rotary engine of 110 HP.



"The view along the two 7.92 mm Spandau MG08 machine guns is magnificent."



Both guns are fired together by a trigger on the right hand grip.



The D.VIII's immediate and very successful predecessor, the Fokker D.VII.

Pre-Flight, Start and Taxi

On approaching the aircraft, the first impression is indeed one of simplicity, even fragility. In fact, the design has great structural integrity. A very recognisable Fokker fuselage, tail assembly, undercarriage and auxiliary wing supports a clean and modern looking wing, held up by two rigid, widely spaced tripods for the front spar and two adjustable struts for the rear spar. The fuselage is tube-welded and the wings are plywood covered throughout their span. The wing has a thick but aerodynamic profile and is placed at the pilot's eye-level. This placement reduces forward and upward visibility, which is otherwise excellent. The aircraft is small even by the standards of the time and very light, weighing only some 600 kgs.

In summary, although the parasol configuration was far from new, the Fokker D.VIII is a very mature and capable design. Platz himself claimed that he had achieved his aim of designing the cheapest and simplest single seat fighter ever built.

With such a clean design, pre-flighting the aircraft is straightforward, and mounting is accomplished in typical Fokker style, left foot in the stirrup and right leg up and over. The cockpit is spacious, comfortable and airy but austere, even spartan, in terms of equipment. Only the necessities are provided, a fuel gauge, air speed indicator, non-sensitive altimeter and the all important RPM gauge. No temperatures or pressures.

Another Fokker characteristic in the cockpit is the separation of engine fuel and air valves. The fuel valve (tampier or fine adjustment) is mounted where you would normally find a throttle quadrant and the air valve (or throttle) operates as the left hand grip of the control column. As with anything, one becomes accustomed to this arrangement. The view along the two 7.92 mm Spandau MG08 machine guns is magnificent and the two are fired together by a trigger on the right hand grip. Having done a fair amount of air to air and air to ground gunnery over the years I often itch to fire them!

Starting the Oberursel is straightforward (as rotaries go). First the slip ring is cleaned as a precaution and the cylinder head valves are oiled and primed. When the mechanic calls 'fuel on' the aircraft fuel cock is turned on and the fine adjustment opened until fuel runs out. The mechanic calls 'fuel flow' whereupon the fine adjustment is closed, the air valve opened to about one third throttle and the mechanic calls 'contact'.

Ignition on, the prop is swung, the engine fires, the fine adjustment is opened to introduce fuel and the two levers adjusted to find the maximum RPM position of the day. Having found the full power run setting the two levers are retarded, until the happy position is found where the engine runs at a manageable RPM.

After a second brief run to full power to confirm control settings, we are ready to taxi. A little experience soon suggests that this machine is much happier in the air than on the ground! Taxiing is not easy, as the rudder has little authority in light winds or at low engine RPM and the aircraft has a huge turning circle. The aircraft rolls readily even throttled right back and occasional 'blipping' is needed to control speed. Taxiing in confined spaces is a heart in mouth affair, with the aircraft having a mind of its own unless one has the courage to use large amounts of power. Wing walkers are a great help and it is a relief to line up into wind.

In Flight

At full power the tail is up almost immediately, and the aircraft is eager to fly. As always during take-off, it is important to check that the rotary engine is developing full power (1300 rpm) and



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John Lanham in The Vintage Aviator Limited's Fokker D.VIII.

running smoothly. Official figures have the D.VIII climbing at about 1600 feet per minute and able to reach 13,000 feet in about 10 minutes. Certainly, at the lower altitudes we fly, the aircraft has one

of the best rates of climb in the collection, matched only by the Gnome engined Sopwith Camel.

Established at altitude the aircraft is a pleasure to fly. It is fast and light on the

controls in all axes, especially roll. Like the Fokker Dr.1 it has little inherent stability and is therefore extremely manoeuvrable. As with many WWI aircraft it is tail heavy but not annoyingly so. Stalling is unremarkable and the aircraft can be flown with confidence close to handling limits with no feeling that it might depart controlled flight (unless mishandled).

As I noted earlier, visibility is much better than in biplane or triplane aircraft. Having flown modern jet fighter aircraft (where 90 percent of the aircraft is behind you) I have always admired the courage of Great War pilots in dogfights involving large numbers of aircraft. Wherever you wish to look there is always a wing in the way. In the dogfight melee, pilots must have lived as much in fear of collision as anything else and, indeed, collisions were far from uncommon.

The Hard Part

Unsurprisingly, focus and concentration are required in returning the aircraft to terra firma undamaged! Flying the circuit is simple enough, engine RPM is retarded to 1100 downwind to reduce speed and retarded further on base/final to minimise the need for 'blipping'

the ignition. A high, side slipped approach is wise, as with all rotaries. As a precaution, I briefly check for full power availability at about 200 feet before blipping the engine to flare and land.

The aircraft requires great care on touch down. It is directionally unstable and short coupled. If bounced, an unpleasant fore and aft oscillation is possible. The aircraft must be kept deadly straight, as its undercarriage track is very narrow, the rudder is ineffective at low speed/power and the machine has a high centre of gravity. If landed out of wind, directional control will be lost as speed reduces. The aircraft will swing readily into a ground loop and, as it swings, it leans outwards to the point of tipping over. It is necessary to bring all proceedings to a halt, before attempting further progress!

Overall Assessment


As with all rotaries, the pilot spends as much time 'managing' the engine as he does flying the aircraft. This is particularly so on landing, where the engine cannot necessarily be relied upon to produce full power on demand, if needed. Care is also necessary when manoeuvring at low speed, as the rotary engine torque

and gyroscopic effects can counter the aerodynamic controls. However, unlike the higher-powered Camel and Snipe, these characteristics in the D.VIII (and Nieuport and Sopwith Pup) do not cause particular concern.

My overall impression is that the D.VIII would have been a difficult opponent in the right hands. From my experience of other TVAL aircraft, I would confidently engage in a dogfight with an SE5a or Camel in the expectation that only pilot ability would determine the outcome. With its excellent manoeuvrability the aircraft would have been more than a match for a Snipe.

My only reservation is that the D.VIII is noticeably under-powered with the Ur.II. In any serious manoeuvring, full power is necessary, the aircraft's energy decays quickly and the nose must be lowered. Inevitably, its fighting qualities diminish rapidly with power reduction. This was recognised by the High Command and it was intended that the Oberursel Ur.II rotary engine of 110 HP would be replaced by the Ur.III of 145 HP. However, it seems that no example of this variant reached the front before the Armistice.

The Fokker D.VIII is forever overshadowed by its immediate and very successful predecessor, the D.VII. It remains an intriguing question as to what effect this advanced and capable aircraft might have had, had it arrived at the Front in significant numbers, been powered by the larger engine or if hostilities had continued longer.

John Lanham
The Vintage Aviator Limited 



John Lanham



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GAA Matters



Brian Mackie of the General Aviation Advocacy Network comments on recent GAA undertakings:

On 9 May, a draft for consultation on the Civil Aviation Bill was released. It's an opportunity for stakeholders in our aviation system to have their say about changes they would like to see.

Back in 2016, the GAA knew this review was being conducted and - as a starting point to gain opinions from the CAA's client base - in December that year, we wrote to the Ministry of Transport's CEO, suggesting that a client survey be conducted. The MoT replied that it was up to the CAA Board to ask its Chief Executive to determine the type of surveys it undertakes.

In January 2017, we followed up with a letter to the CAA Board's Chairman. Nigel Gould told us that management was planning to supplement its general public 'Feel Safe' survey by splitting it to provide more information from the aviation sector. He said that management was also introducing a 'balanced scorecard' to improve the information available on organisational performance, because management and Board recognised the importance of such information from the sector.

Fast forward two years later, and no new CAA-initiated client satisfaction surveys have been conducted. A survey with feedback and actions arising would surely be a beneficial undertaking towards improving CAA's relationship with its clients.

The New Zealand Civil Aviation Authority and Australia's Civil Aviation Safety Authority perform virtually parallel roles. Until quite recently, their approach to customer relationships was also similar - as were some demonstrably negative consequences of those relationships.

However, in Australia, the 2014 Aviation Safety Regulation Review identified the need to improve service delivery and the relationship with industry stakeholders. CASA accepted that it must confront manifest difficulties with its customers and tackle inconvenient truths head-on.

In March 2018, the GAA conducted its own independent CAA Client Satisfaction survey. There were some significant findings:

- Distrust of, and lack of confidence in, the Medical Unit. More than 90% of survey respondents want an independent Aviation Medical Panel.
- A clear mandate (almost 90% in favour) for a voluntary, confidential incident reporting system that is non-punitive and administered by an independent organisation such as TAIC.
- Slow recognition and little or no promotion by the Authority of new initiatives that do not compromise safety, developed and adopted by other countries - principally in the medical area such as changes to PPL medical certification. Changes to how colour vision deficiency in pilots is assessed have taken 10 years to achieve!

The need for change and improvement is accepted by the Authority who has recently publicised their actions relating to failings in governance identified by TAIC.

There are numerous other aviation governance improvement opportunities in New Zealand. On behalf of our members we will participate in the consultation process of the Civil Aviation Bill. We can hope that Transport Minister Phil Twyford is ready to listen, learn and act for everyone's benefit.

More on this and other topics of importance to General Aviators at www.caa.gen.nz

Brian Mackie / GAA

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Flying over water with confidence

Of course the engine won't stop, but if it does, then surviving a cold water ditching requires specialist gear and knowledge. After recent examples in the news, Lloyd Klee, owner of Aviation Safety Supplies has put together this informative article for readers:

If you have an off airfield landing into cold water there is a response called a cold shock. You will start to hyperventilate immediately. For several minutes you breathe very fast and deep, uncontrollably. If you go underwater, then swallowing water is highly probable to occur, as is dying. But if you can survive the cold shock you will be okay for a while depending upon time in the water and the temperature of the water.

Subject to various factors such as clothing, a person can survive in very cold water for 10 to 20 minutes before muscles get weak and you lose coordination and strength. This occurs as your blood moves away from the extremities and toward the centre and core of your body. Factors contributing to your cooling time include body fat (insulation), what you are wearing and if you have a personal flotation device (PFD) on. Anybody that is obese will have a lot of soft tissue that provides insulation. If that sounds like you, you are likely to last longer than a tall and thin person.

Another issue is how far your actual body is underwater. Water conducts heat away from the body much faster than air does. Consequently, the more you are submerged, the faster the heat will be dispersed. If you have to swim, then the rate of heat loss is multiplied by much more as you are dragging cold water across your body thereby cooling it faster. Most heat loss is from the groin area and head.

Even water temperatures of 22 degrees C can be dangerous. Hug yourself to keep as much of your body away from the water as possible. If you keep your arms and legs in tight, close to the core of the body, you will keep your limbs from being exposed to the cooling water.

Clothing is crucial and if undertaking overwater flights you should wear an Immersion Suit. The Immersion Suit is not a nylon 'Deck Suit', or coverall type which has built in flotation as you see the Coastguard wearing but it is a purpose manufactured aviation suit that is flameproof and breathable. It is also fitted with insulated and waterproof socks. Be aware that the coverall style recently seen on a rescue with built in flotation is no better than a wetsuit when it comes to insulation and also has the added potential problem of too much flotation. This will make it difficult egressing from an inverted aircraft. In addition, these flotation / coverall suits need a 300N PFD to overcome the inherent buoyancy. A standard 150N PFD does not have enough buoyancy to turn oneself over onto your back from being face down if wearing a deck suit type coverall.

Treating hypothermia

If your body temperature is above 35 degrees and you're healthy, your body will warm itself up without treatment. If your body is 32 to 35 degrees C and you look okay, a warming blanket around you will be enough. If your temperature drops much lower, you may need an IV with warm fluids, and a breathing

tube to supply the lungs with warm air. Heating from the inside helps warm the body's core tissues faster than heating the body from the outside (by using blankets or putting a person in a warm environment. Cardiac arrest often occurs in this temperature range. Even if it appears someone has passed away, it is still important to warm them (using the techniques described above), because with this degree of hypothermia the heart can slow to a point at which doctors cannot even detect it. Thus, they could make the mistake of presuming someone dead who is actually still alive. For unconscious patients, CPR should always be undertaken.

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Waiheke Island with the main wharf at Matiatia in the foreground.

Fly yourself to Waiheke Island

Waiheke Island is New Zealand's most densely populated island and the second largest in Auckland's Hauraki Gulf. Ruth Allanson found a friendly airfield and plenty to do for this edition of Places to Go:

Waiheke Island is New Zealand's most densely populated island and the second largest island in the Hauraki Gulf. The airfield is located east of the main settlement of Oneroa at a height of 445 ft. It is 630 m long with a grass surface and a 2 degree slope up to the north. NZKE is unattended (120.40) and you do need a briefing if

you are not on the approved operators list. Contact Chris on 021 280 0964 or email info@waihekeairportmanagement.co.nz. There is overnight, weekly and monthly parking available but pay your landing fees on arrival to prevent an admin fee.

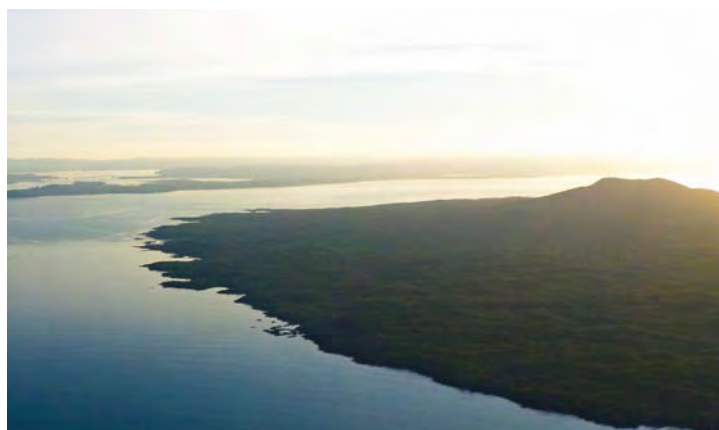
The island is about 20 km from downtown Auckland and was voted by Lonely Planet as the 5th best destination in the world, so we have no excuse not to visit this paradise in our own back yard.

Waiheke Island's history is long. First settled around 950AD, there are 50 Pā sites on the island. 1826 was when the first shipment of kauri spars left Man-O-War bay, with land trading with Europeans beginning in 1838. Matiatia Wharf (now the main gateway by boat) was built in 1924 and regular services were made in the 1960s by a Hydrofoil vessel.

On some walks you can view concrete bunkers that were built during World War II to assist in defending the country's shores. The one on the ocean side was used as a viewing platform to spot enemy vessels entering the harbour. A radio signal was linked across the channel to Motutapu where it was then relayed to the gun emplacement at Stony Batter on the eastern end of Waiheke.

In the 1920s and 1930s many city notables were guests at the Alison Homestead, even the famous actress Vivien Leigh ("Gone with the Wind") paid a visit. The Alisons left the two-story Homestead in 1972. It is still a prominent building at Matiatia, and is now administered by the Auckland City Council.

Flying to Waiheke is a joy as it is a very pretty island, with a lovely coastline including long sandy beaches and rocky bays,



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perfect for seaplane flying and of course there's the friendly little airfield. The Waiheke Lodge positioned halfway along the runway is run by Trevor Dance and his wife. Trevor is both a pilot and aircraft home builder, so if you are flying in give him a call at the Lodge as there may be room to stay and in any case Trevor always loves to chat about aviation related stuff – he may even lend you his car.

There are often interesting aircraft flying to the field - anything from a Stearman from Tauranga to a Chipmunk from Ardmore. There is also a locally based Piper Cub and a Cessna 180 which

are often active. Each year or so, the Gordonton Microlight Club have a 'rum run' to Waiheke with a BBQ at the airfield as both a fun-raiser and fund-raiser to support a worthy local volunteer cause.

Positioned in the centre of the island, NZKE runs north/south, high up on a ridgeline surrounded by vineyards and native bush. It's perfect for flying on sunny days with light winds or when there is fresh northerly or southerly; tricky landing or taking off in a strong south-westerly or easterly. As the AIP says - possible severe turbulence in easterly wind conditions on short finals RWY 35

and possible severe wind shear in strong south-west wind conditions on short final RWY 17. Whilst Waiheke Wings and local operators land and take off in most conditions, if you are new to the field, stick to flying-in with easier winds.

This is a private airfield and you should get a briefing before arriving, read the AIP and make sure to avoid overflying the Onetangi residential area to the north of the extended runway centreline to keep the locals on-side. Don't be one of those pilots who ignores the rules and upsets locals. The field can get soft in winter so check NOTAMs. You can always give Trevor a call at the Lodge on 0274 896 988 and if he is there working, will check the airfield conditions and give you a pilot report.

Waiheke airfield was owned for many years by cheerful Emirates A380 training captain Neil Greer, who sadly died in 2017 of a heart attack during a cycling race in Dubai. At the time, the field was up for sale and there was interest from developers wanting to build luxury houses there. Fortunately two keen pilots stepped-in and now operate the airfield with plans to improve it. So if you feel like complaining about few dollars for landing fees, remember that having a multi-million dollar property set aside amongst exclusive real estate for you to use as a runway is a privilege – they could make a lot more money doing something else with it!

The Waiheke Lodge can sleep up to 22 people in the one house. Nightly rates start at \$50 per person. Contact booking@waihekelodge.co.nz for a quote. If you find yourself rather peckish at arrival there are wineries right on the field, as there are all over the island. The Batch Vineyard has the Waiheke Explorer bus stopping every 30 minutes which will get you in town after you have filled up on their delicious traditional family food with a fresh twist. Try their High Tea, perfect for a late lunch or early evening meal, served with a chilled glass of the vineyard's own bubbly.

The Waiheke Explorer bus is an easy way of getting around the island. Purchase a 1 or 2 day ticket which includes 15 stops to hop on and off, or just stay on the bus for the full 1.5 hour tour of the island with interesting local commentary from your driver. There are also taxis (Island Taxis ph. 09 372 4111) or rental cars (Waiheke Auto rentals 09 372 8998) who will pick you up from the airport.

For a variety of accommodation options and a good all round website to introduce you to Waiheke, check out www.kiwihousewaiheke.co.nz. Although

the main tourist centre is Oneroa on the western end of the island with cafes/restaurants, shops and galleries, there are a number of other smaller centres such as Onetangi and Ostend. Ostend has a local market every Saturday morning which is well worth a look if you are stopping over for the weekend.

The beaches are plentiful here. Oneroa beach being a beautiful white sand, safe-at-all-tides beach. For a family safe beach, the Little Oneroa beach is perfect for swimming, has a covered playground and Free BBQs and picnic tables. There is the Oneroa Takeaways or the Dragon Fired Pizza Trailer for if you would like to buy your lunch or dinner there.

There are vast walk and bike trails on the island and for those of us that would like some assistance you can rent electric assist mountain bikes from Bikes & Barbers, Ph. 022 050 2233. The Te Ara Hura walking trails are all linked, meaning you can explore any part of the 100 kilometres of trails in either direction.

As well as golf and paddle boards, you can also go on a Jet Ski tour, visiting the unspoiled coastlines with a passionate local guide, something to put on your bucket list: www.waihekeislandjetskitours.co.nz.

For a big family group, try something different by checking out www.wildonwaiheke.co.nz, a multi activity centre complete with food and wine. While you are having fun shooting clay birds here send Granny and Grandad to the flicks at the Waiheke community Cinema at Oneroa.

My experience of Waiheke locals is that they are caring and friendly people with a very much can-do attitude, typical of NZ's smaller islands. Give Chris a call today at the airport, and start planning your flight over to Waiheke Island.

Ruth Allanson 



Located at the runway midpoint, the Waiheke Lodge sleeps up to 22.



Trevor Dance on the field at NZKE.



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Grant Benns performing a Half-Cuban in a Falco

Aerobatic Turn Arounds

Most competition flying requires turn-around manoeuvres of some kind, often at speed or in a confined space. In this continuation of his aerobatics series of articles, Grant Benns describes the commonly utilised options:

A sporting competition invariably pitches competitors (individuals or teams) against each-other, either directly, such as in a running race or a rugby match, or indirectly, such as darts or gymnastics. In the case of the latter two examples, you may be judged or scored objectively by points awarded for accuracy (darts), or subjectively by a group of judges, against defined criteria - in this case the person who scores the highest points against that criteria becomes the winner.

Reno

In the world of 'sport(ing) aviation', or perhaps aviation-sport, there are only a few examples of direct competition. Glider Grand Prix racing is one. Another well-known example is the National Air Racing at Reno, Nevada. Here we have pilots competing directly against each other, going fast (VERY fast) and VERY low around a pylon racecourse, with the winner being easily identifiable as the one to cross the finish line first. As you may be aware from the exploits of local pilot Graham Frew in his Yak 3, this is very exciting, addictive and not without a degree of risk. Putting a group of 70 year-old aircraft in close proximity to each other at

400+mph, less than 100 feet off the desert, whilst pulling 6g in near-constant turns is not for the faint hearted.

Red Bull Air Race

An outsider might view the Red Bull Air Race (RBAR) series similarly, however a key point of difference is that you never see the aircraft directly racing against each other, although, through clever technology and a big production budget, the television coverage will occasionally show the current race aircraft 'racing' against the ghost digital image of a previous competitor. There are also criteria that must be met, such as 'wings-level' through certain pylon-gates (judged externally), and certain speed or manoeuvre requirements, all of which attract time penalties for infractions. The winner is the pilot with the lowest time though the course.

Competition Aerobatics

Unlike Reno or the RBAR, competition aerobatics is generally an untimed event. There are a group of judges on the ground assessing the pilot's ability to fly a series of prescribed manoeuvres, called a sequence, in accordance with a known criterion, to generate a score (from zero to 10) for each manoeuvre. The winner is found by being the competitor with the highest overall score. In this regard, competition aerobatics is much more like gymnastics, or even Dancing with the Stars. Some competition pilots would even like to consider themselves as sky-dancers, and most definitely 'stars'.

The Arena

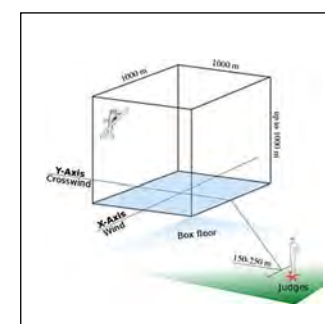
Common to Reno, RBAR, gymnastics and Dancing with the Stars is an arena in which to perform and/or display your talents. Keeping the competitors in sight is good from a spectator point-of-view but also very important from a judging perspective, when having to apply subjective scoring criteria.

For competition aerobatics our arena is the 'Aerobic Box', also described in the rules as the 'performance zone' (where we 'perform'). The Box is 1000 m x 1000 m when viewed from above, and up to 3300 ft high, and is within which the competitor must contain their aerobatic sequence - no more wandering around the wild blue yonder. This creates a constrained arena enabling the ground-based judges to view the flight of the competitor with relative ease, although a little Pitts Special at 3300 ft on the far side of The Box can create challenges - 'was that a roll or a snap?'

The challenge for the competitor is containing their sequence within The Box, a problem made worse by winds aloft and airspeeds of 200 kts or more in the higher-performance aircraft. At 150 kts it takes just 12 seconds to fly from one side of The Box to the other, and there may be up to three manoeuvres to be flown across that distance.

Turns

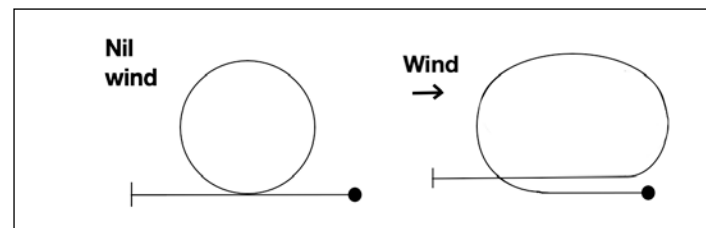
To keep within the arena - The Box, in our case - requires making turns. The dancers and gymnasts have flourishes that achieve this, the Reno-racers bank-and-PULL, while competition aerobatic pilots generally carry out manoeuvres with funky names like stall-turns, rollers, Immelmans, half-Cubans, shark's-teeth, humpties and goldfish. Occasionally they will carry out a plain-Jane banked turn, albeit to strict criteria, or, even worse, a banking turn mixed with a continuous roll, called a rolling circle (a 'roller'). In previous articles I have described stall turns and rolling circles, so now let's consider these other oddly named manoeuvres.



Part-Loops

These manoeuvres all require, at their initiation, a pull-up or push-down using the stick. Every time you pull back on the stick with wings level you are carrying out a part-loop. Some stop fractions of a second after you start, in which case you may have initiated a climb or arrested a descent. If you sustain it for longer your aircraft will prescribe a curving flightpath that may result in, for example, a vertical climb, a 180 degree direction change, or, ultimately, finishing you up in the same direction you started.

The Perfectly Round Part-Loop



In competition aerobatics, the curving vertical flightpaths/partial loops must always have a constant radius, when viewed from the ground. This means as well as the pilot having to adjust the pitch inputs (using the elevator) for differing speeds throughout the looping segment, they must also take account of the effects of the wind component too. How hard can that be?!

With nil wind and practice it's not too hard. Understanding the interaction between speed, required g and stick position for your particular aircraft type will result in reasonably consistent results. Generally, most pilots new to aerobatics don't quite pull hard enough at the beginning and end of a complete loop, resulting in a tall, egg-shaped manoeuvre. Having established the correct entry g (at least 4g) the trick is to then hold the stick position constant whilst varying the stick pressure as the g changes throughout. Once that underlying technique is sorted you will have capacity to consider the effect of the wind - a loop into wind requires more 'pull' when the aircraft is flying the into-wind segments of the loop, and less 'pull' when flying the down-wind segments. See - told you it was easy!

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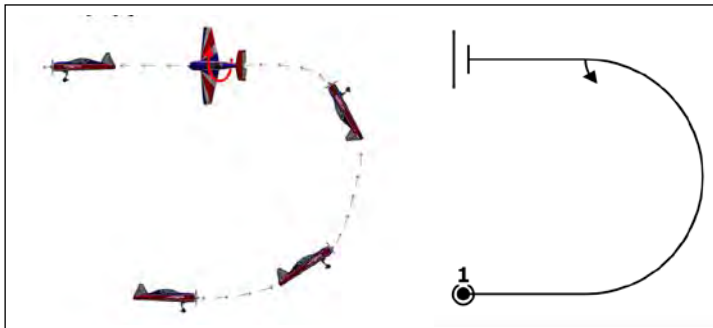
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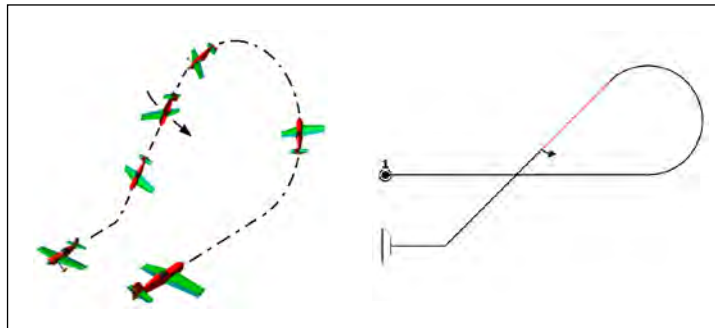


Also known as 'a roll off the top', this is probably the most basic and easy-to-visualise turn-around manoeuvre. If only it was that easy to fly!

A full loop has the aircraft pitching through 360 degrees and finishing in the same direction it started - it follows that a loop which is only half-completed will result in the aircraft flying in the opposite direction, albeit upside-down. In order to correct this uncomfortable turn of events, a half roll is skillfully inserted at the completion of the half-loop and thus the aircraft has returned to straight-and-level flight. You need at-least the normal looping entry speed for your aircraft to perform an Immelmann, but another 10-20 knots will make it easier and safer. Rookie mistakes? A poorly flown half-loop - not enough g at the start - will result in less speed at the top of the loop to fly the half-roll. Pulling back on the stick through the roll will pull the nose off-line, and possibly stall the wing. Pushing forward will have the same effect, but in a 'inverted' sense. Add to that poor rudder control whilst rolling and you have the recipe for a spin entry (but at least you should be up high). Not judging the correct time to commence the roll will result in either a climbing or descending flightpath out of the manoeuvre. All-in-all, plenty to go wrong and evidence that good dual instruction and plenty of practice at altitude is required for this seemingly simple manoeuvre.

In terms of keeping within The Box and changing EVERYTHING about the aircraft's velocity, the Immelmann is a winner - you have made a 180 degree direction change, plus climbed and slowed down dramatically, which would be great if your next manoeuvre was, for example, a spin. But what if you need plenty of speed for your next manoeuvre? The Half-Cuban Eight fits the bill nicely.

The Half-Cuban Eight



Named for no other reason than it was first flown by an American barnstormer in front of the Cuban Airforce during the early 1930s, the Half-Cuban Eight is closely related to the Immelmann, and could even be seen to be a very poorly flown example of the Immelmann.

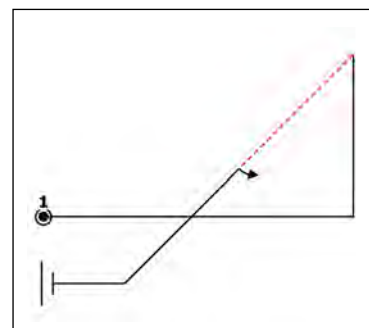
It contains two elements – a 5/8ths loop, and a half-roll on the 45 degree down-line that follows the looping segment.

Flying the Half-Cuban Eight commences from horizontal flight, at the appropriate looping speed (or higher) for your aircraft type. You pull back on the stick to perform the loop in your usual manner until such time as you perceive you are about to reach the 45 degree inverted attitude. You must now push the stick forward a tad to briefly maintain this attitude - cue momentarily 'hanging in your straps' and other engine/fuel/oil anomalies! A half-roll to upright - but still on the 45 degree down-line - is now commenced, and because the aircraft is pointing downhill and the airspeed is increasing this is relatively easy to complete. Just don't let the nose drop too much or use too much elevator and 'pull' the nose off line. Ideally, if you look over the spinner as you commence the roll, the spinner (and the plane following it) should neatly roll around a point on the ground.

Once the roll has been completed, a short pause is required, so that a 45 degree line of equal length to that at the completion of the 5/8th loop, but before the commencement of the roll, can be displayed for the judges. Typical errors seen by the judges are pinched/egg-shaped looping segments, incorrect 45 degree lines, 'pitching' rolls (that look like barrel rolls) and differing line-lengths before and/or after the roll.

Shark's Tooth

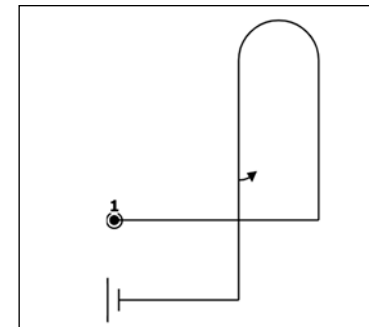
They sound dangerous, but the family of Shark's Tooth manoeuvres are essentially a Half-Cuban Eight flown with a vertical line inserted within the looping segment. The arresti symbol shows this quite clearly, however it also shows what appear to be nigh-impossible sharp corners to fly. Don't be fooled into thinking you have to pull your wings off to make your flight path match the symbol - the tightness of the corners is not the judging criteria for this manoeuvre as these are merely looping segments and must only be a constant radius, as mentioned above, and don't even have to be the same radius as each other within the manoeuvres. Apart from the usual errors made with constant radius looping segments, the 45 degree line and roll-centring, the most common error with this manoeuvre is pilots holding the vertical line for too long and running out of



energy/speed and thus elevator control to 'fly' the top looping segment - the top of the Shark's Tooth can look (and feel) like a fall or collapse back down to the 45 line.

Humpty-Bump

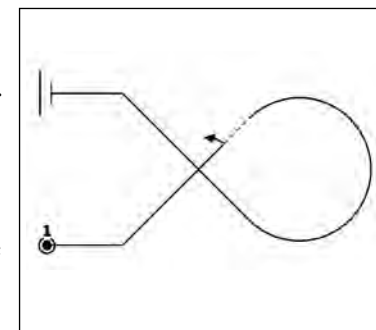
Don't ask me the origins of this name, however it is another manoeuvre that is not flown 'as-drawn' - you don't have to pull the wings off to make the corners square. A bit like how a poorly flown Immelmann becomes a Half-Cuban Eight, if you fly a loop really REALLY badly, i.e. with a vertical up and down line, you end up with a Humpty-Bump. To make it work in this conversation about turn-around manoeuvres, we must add to it a half-roll on the vertical down-line, which isn't particularly difficult with an increasing airspeed although it can use up a bit of altitude. Like the Shark's Tooth and Half-Cuban eight, you should finish this manoeuvre with plenty of speed.



Goldfish

Closely related, the Goldfish (or Three-quarter Loop) is really just an extension of the Half-Cuban Eight, but instead leaves you high-and-slow, which may suit your energy needs for your next manoeuvre. In this example of the Goldfish, you must pitch up to the 45 degree line, complete the half-roll of that line, then hold the inverted line briefly (cough, splutter!) before 'pulling' through

the loop. A Half-Cuban flown in this manner works too, and is called a Reverse Half-Cuban. In both cases, this has the potential to go wrong if you don't pull up steeply enough before commencing the roll, or let the nose drop toward the horizon through/after the roll, or don't extend the inverted 45 degree line long enough, or don't pull hard enough approaching the bottom of the loop, or all of the above. Starting high and knowing your 'gates' is important - it would be wise to have an entry gate of 4000 ft and a 'pull over the top' gate of 4500 ft in the early days of practicing these potentially dangerous manoeuvres.



Other variations

What has been described in this article are the basic foundations of each of these manoeuvres - there are many more variations which serve to reverse the entry and/or exit speed/heights and thus the energy of the aircraft.

Getting to know the basic manoeuvres - their shape, what they should look like from the judge-line, what they will feel like from inside the cockpit, where to put your eyes/head at various times, and where they can go wrong - will give you with a large repertoire of potential turn-around manoeuvres to keep your show front-and-centre for your chosen audience.

Grant Benns



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The Hornet and the Avenger

Jason Easthope in an RAAF F/A-18A Hornet near Omaka with Cape Campbell in the background.

One of the highlights of the Classic Fighters Air Show at Omaka over Easter, was the appearance of RAAF F/A-18A Hornets flying out of Woodbourne for the event. Not one to miss such an opportunity, Gavin Conroy worked hard to coordinate an air-to-air photo shoot. Here's how that came together:

We were very fortunate to have a McDonnell Douglas F/A-18A Hornet putting on a solo display at the recent

Classic Fighters Air Show. The Hornets that came for the show are based at RAAF Williamtown in Australia and operated by 77 Squadron. Their Commanding Officer is Wing Commander Jason Easthope, a former RNZAF pilot who flew Skyhawks and has an intimate knowledge of RNZAF Base Woodbourne from his time flying Skyhawks in and out of there. Some landing trials were completed in the Hornet flight simulator, calculators came out, and the numbers crunched

successfully. At the beginning of 2019 we learnt the Hornets would operate from Woodbourne for the duration of the show. This was pretty exciting for the locals. It would be the first (and most likely the last) time Hornets had ever operated from Woodbourne. As Omaka is only 2.5 nautical miles from Woodbourne transit times would be minimal! Three Hornets arrived on April 17th. With more fuel onboard than planned they flew a few circuits to burn off excess, then landed with plenty of runway to

spare. Wing Commander Easthope (better known as Easty) said later, "The Hornet was designed for aircraft carrier use. The undercarriage is strong. You can basically point it where you want it to land, and if the landing is hard it doesn't matter. It has good brakes and they didn't get that hot landing here, so it was easy really." On the Friday and Saturday of Classic Fighters Easty put on a display like few in the crowd had ever seen. It was the best Hornet display I have ever seen anywhere. I had followed Easty's career for



RAAF F/A-18A Hornet overhead Omaka.



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several years after being told by other RNZAF pilots that he was one of the very best fighter pilots to fly the Skyhawk, something I've heard from several senior pilots. Another RAAF pilot told me, "Easty is one of those few guys who has the natural gift. If we are flying against him, we have to be at our very best to have any chance of taking him out, and if we don't, he will. He never has a bad day. When flying the Hornet it's not just the flying that the pilot needs to do well, they also need to be able to take in all of the information coming from the aircraft, from controllers and other pilots, make sense of it and apply it to the fight. Easty does this very well."

With the Hornets here for the show and operating from Woodbourne I thought I should make the most of the opportunity, and endeavour to take some air to air photos of one of them. I had also read that the RAAF are retiring the A model Hornets and moving to F-35s. 2019 would see the Hornets' last air show performances, and Classic Fighters could well be the last time we see this type in New Zealand skies.

I went through the approvals process and ten days before the show we got the

green light for some photography on the Friday afternoon while the Hornet was in the air for its display at Omaka.

It was a thrill to find out that Easty would be flying the Hornet for this flight. We had a face to face meeting at Omaka on the Friday afternoon where I showed him several examples of the type of shots I was after. We briefed the flight with camera ship pilot Sean Perrett, who would be flying Brendon Deere's Avenger. This aircraft is normally flown by Jim Rankin but as he is the RNZAF Display Director he had to be in the tower for the duration of the military displays (including for the RAAF Hornet).

There were two main reasons for using the Avenger: one the Avenger could fly at just under 200 kts which made things a bit easier for Easty, and secondly, we could photograph the Hornet head on which always makes for more dynamic images.

Although Jim could not fly he was instrumental in making what I had in mind turn into reality. I wanted to stage a Heritage Flight style join up and pass over Omaka to the area where we would photograph the Hornet. It made a whole lot of sense due to the naval pedigree of both aircraft.

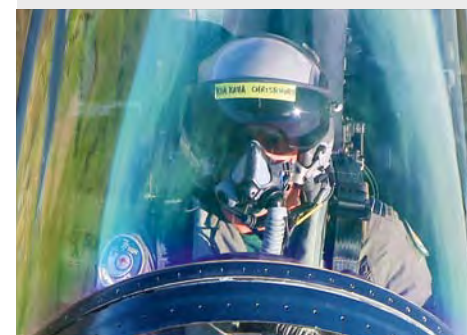
It also meant we could get a photo of the crowd with the Hornet in view, plus it let the audience see a rare formation together as we passed overhead. We were not part of the flying display but were transitioning to where we needed to go to get the photos.

At 1545 hrs on the practice day we started up and trundled out to the runway at Omaka. We were in the air bang on time, as was Easty. We were to join overhead the Vernon Works in a right hand turn, fly over Omaka to the west, take the photos and then Easty would display the Hornet for the crowd. We planned it that way so that by the time the photography was finished the Hornet would be as light as possible for his display. Our cue to land was the Hornet's last pass where Easty would make a fast pass and go vertical to 12,000 ft!

Unfortunately, the Avenger had a technical issue soon after take-off so we returned to Omaka and that was that. It was not all bad as I got to see the fabulous Hornet display from the ground and was amazed. Although it was disappointing it was by no means the first flight I have had cancelled. When it comes to safety there is nothing more important. Once the



Jason Easthope beside a Skyhawk at Omaka.



Jason Easthope at work.



Gavin's office for the day.



Gavin and daughter (and trainee aviation enthusiast) Leah debrief the Hornet flight alongside the Avenger.

dust settled, on the Friday evening, I asked Jim Rankin if he could check to see if we could have another go on the Saturday. Jim phoned Easty and he agreed. This time it went like clockwork.

Again, we were in the air bang on time, the join was perfect, as was the pass over Omaka. Then we headed west for a few photos. Easty informed us how much time we had to run every few minutes and that allowed me to move the Hornet around to suit the backgrounds and make the most of the time we had. At the two-minute mark I asked for a few break-aways and then that was it. Easty blasted away back to Omaka and we were done.

The Avenger is a fabulous aircraft to fly in. I have used them a few times for photo flights and while Easty was tearing up the sky over Omaka, I had a few minutes to enjoy the ride and look through some images. Down the back it is dark, hot and very noisy. Photos are taken through a small hole in the Perspex while lying on the wooden floor, but boy it works well.

When we returned to Omaka we started getting a response I hadn't expected. Several people said that one formation pass was the highlight of the show as it was so different. Even a lot of Aussies commented on the rarity of what they'd seen. It felt good, as not only did we get some good photos, many people got to see a formation that they may never see again.

Sadly, we didn't get a Hornet display on the Sunday due to weather. A few days later the Hornets flew out of Woodbourne one last time and met an RAAF tanker over the Golden Bay area before heading home.

I would like to thank the RAAF and RNZAF for making this flight possible but in particular Brendon Deere, Sean Perrett, Jim Rankin, Jo Deere, as well as Jason Easthope and the RAAF ground crew.

Gavin Conroy



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Classic Fighters 2019

Images from Omake

Spitfires making a low pass; Doug Brooker led in the TR 9, Sean Perrett in Brendon Deere's Mk IX, and Liz Needham in the Chariots of Fire Fighter Collection's Mk XIV.

Garvin Conroy image


With a theme of 'Saluting Women in Aviation', the biennial Classic Fighters Air Show at Omake held over Easter weekend included the usual extravaganza of aircraft from all eras. Plenty of KiwiFlyer contributors were there to help share the event with our readers. Words are from Jill McCaw. Gavin Conroy, Paul and Jared Le Roy, and Geoff Soper sent the images.

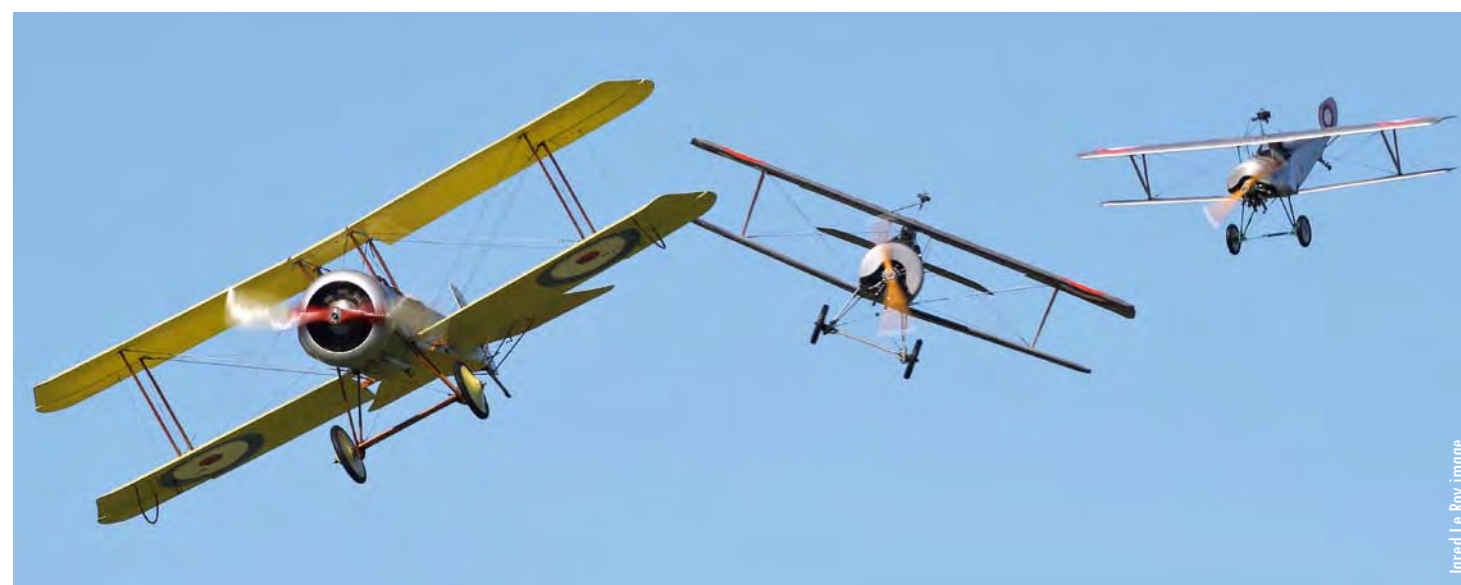
Visitors to Classic Fighters this year enjoyed a very full and frequently exciting programme, even though the TVAL collection of WWI aircraft was unable to attend. By far the loudest and fastest star of the show was the RAAF's F/A-18 Hornet. The F/A-18 gave a great

tight display, turning on an impressive dime over the flight line before climbing straight up. We know the pilot is dialling back the power and only alluding to what the aircraft can do, and yet it is still so impressive. Sqn Ldr Kate Bint, commenting for the NZ Defence Force display which followed said it was really hard to talk up the Texan's tight turns after that. There was so much to enjoy; three Spitfires, the Mk IX two-seat trainer and the Mk XIV made a lovely sight (and sound) flying together alongside and against the FW 190.

The 'Roaring Forties' Harvard display looked great and sounded fantastic as always, and the Yak-52 Formation Aerobatic team, again as always, was

equally polished and a treat to watch. The Catalina and Avro Anson showed that larger old aircraft are exciting too and the two DC3s were busy flying passengers the entire weekend. There were so many other aircraft, fighters and civilian, old and new and the reenactors who created wonderful scenarios and pyrotechnics to go with the 'fight' scenes. A real crowd pleaser was something that didn't even get off the ground. The huge semi-restored Bristol Freighter made a lumbering taxi run in front of the crowd to great applause. Imagine if it flew.

Sadly, the Sunday show was rained out but there had been plenty of action on the Friday and Saturday and everyone went home quite happy. *Jill McCaw* 



Sopwith Scout leading a Nieuport 11 and Nieuport 16.

Jared Le Roy image



Great weather, warbirds & the Hornet drew big crowds.



RAAF F/A-18A Hornet was a star attraction and certainly impressed.

Jared Le Roy image



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Geoff Conroy image

The Hornet was based at Woodbourne for the event, transiting the 2.5 nm to Omana in a matter of seconds.



Geoff Soper image

A winning demonstration from the RNZN SH-2G Seasprite.



Geoff Soper image

RNZAF C-130H Hercules NZ7002 on approach.



JLR

RNZAF T-6C Texan II.



JLR

RNZAF Kiwi Blue Parachute Team



PLR

De Havilland D.H. 104 Devon lifting off.



PLR

RNZAF NH90.



Paul Le Roy image

Consolidated PB-5A Catalina.



Geoff Conroy image

Graham Bethell's opening pass in his P-51D Mustang.



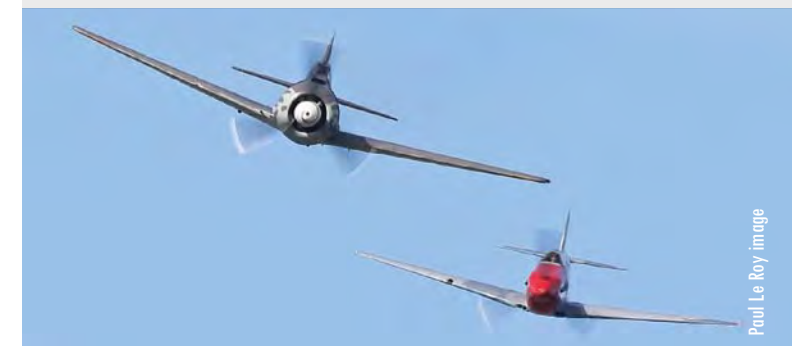
Geoff Conroy image

John Luff put on a superb DH 112 Venom display, a rare machine to see anywhere.



Geoff Soper image

Chariots of Fire Fighters together. Mk XIV Spitfire in pursuit of Focke-Wulf Fw190.



Paul Le Roy image

And then the Fw190 was pursued by Graeme Frew's Yak-3.



Geoff Conroy image

Ryan Southam shows off the Anson. In the right seat was owner Bill Reid.

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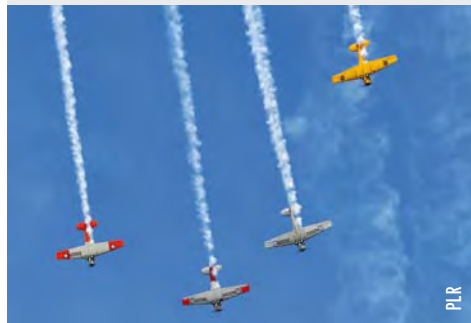
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Ronan Harvey's 1945 Beech 18S.



Andy Love lying the Pitts Special knife edge.



Roaring Forties Harvard Display Team in action.



Doug Brooker and his MXS always impress.



The Yak-52 display team excelled as always.



DC3's were kept busy on scenic flight duties.



Ground reenactors were out in full force.



One of two German tanks built especially for the show.



Pyrotechnics are always done well at Classic Fighters.



The VI is blown sky high after an attack from the air.

Saluting Women in Aviation

contributed by Jill McCaw

The focus of this year's Classic Fighters Air Show was 'Saluting Women in Aviation' and there were lovely big sign boards around the ground and pages in the programme detailing many extraordinary women from around the world who have influenced the world of aviation. Early pilots were mentioned, Amelia Earhart, our own Jean Batten, Louise Thaden and Florence Lowe. There was a salute to women at war, the Air Transport Auxiliary Air Force (four

Andrew Love flew Pam's competition routine while Pam commentated for the audience. Pam inspired many people to come along to the New Zealand Association of Women in Aviation tent where copies of the Association's book, Silver Wings, updated by Pam, were flying out the door.

As an aviation woman myself I set out to find other airwomen at the show.

The 'Airwomen' tent was a great place to start. One fascinating visitor, wearing



Tia Warwick, Andrew Love and Pam Collings.



Captain Christine Clarke



George Magdalinos

New Zealanders were ATA pilots), the American WASPs and Germany's Hanna Reich (who after the war became a record breaking glider pilot). The Russian Night Witches were a well-deserved inclusion. Google all of these people to discover some extraordinary stories.

In the more modern era Pam Collings was well celebrated. In 1976 Pam was the first New Zealander to qualify to fly at a World Aerobatics Championship. The competition was held in the Ukraine and involved a huge logistical and fundraising challenge to get her and her Pitts Special to the event. While she only placed in the middle of the competitors it was a tremendous achievement for a New Zealand pilot. At the air show, pilot

a magnificent gold braided uniform was Captain Christine Clarke, Australian Defence Advisor. While technically a sailor rather than an airwoman with 30 years in the Australian Navy, Captain Clarke was there to support the RAAF personnel who were at the show. "New Zealand and Australia are each other's closest allies and how we support each other goes beyond what we do in conflict." There are 23 Australian defence force personnel working throughout New Zealand. Captain Clarke enjoys being a role model for women and girls. "It is not only about the fact that if you can't see it you can't do it, it's also about creating awareness of opportunities." She praised our RNZAF 'Schools to Skies' programme

for doing just that.

SQNLDR George Magdalinos, an engineer by trade, is one of the airwomen behind the 'Schools to Skies' programme. "We recognised a critical path and a need for recruiting for diversity. Ultimately it's about providing the opportunities that allow everyone to fulfil their potential." The residential technical and aviation course for Year 13 girls introduces girls to the possibilities available to them in the Air Force and aviation in general. There

is also an on-the-road version aimed at Years 7 and 8 students. "The philosophy is to foster confidence and curiosity in aviation. It's about helping young kiwis recognise the possibilities involved in aviation careers, science, maintenance, leadership, engineering, aircrew and piloting. It's about encouraging them into STEM classes so that when they're old enough they've got the right background to become involved in aviation careers."

SQNLDR Kate Birt's voice has become very familiar to thousands of air show attendants over the years as she commentates the NZDF's displays. This began when her husband (then boyfriend) was flying as part of the RNZAF Red Checkers Aerobatic Display Team. Kate

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Karina Chipman and Kate Bint

is English and started her career in the RAF. Before her boyfriend 'recruited' her to New Zealand in 2006 she was with 70 Squadron operating Hercules and then instructing on the Grob Tutor. Once in the RNZAF she instructed on the Beech B200 King Airs of No 42 Squadron, and subsequently became Executive Officer of Flying Training Wing HQ. "I've been in FTWHQ ever since, with two children along the way and a husband who is a pilot. The Defence Force is exceedingly supportive of staff with family responsibilities. They're a fantastic employer."

Assisting Kate with the commentary was SQNDR Karina Chipman. She is not flying at present; her current role



Bernice Hintz

is Staff Officer – Aeronautical Systems. By trade, she is an Air Warfare Officer and has flown on the P-3K2 Orion as a Tactical Co-ordinator. Karina joined the RNZAF straight from school and over her 16 years' service has had many different jobs. "What I love most about the RNZAF are the opportunities it has given me. I have ended up in places all around the world working with amazing people." She loves to see that more women are joining up now, particularly in the flying trades, and of course that means more females in senior leadership positions. "This is a really positive change for the RNZAF, for us to have senior female role models and more peers to turn to for support."

Air New Zealand had ten Ambassadors, female and male at the show. This group was fabulous; its enthusiasm and passion providing inspiration to the many young people visiting the Air New Zealand tent. The most standout uniform award would go to engineer Bernice Hintz for her lilac work overalls. Bernice wants to point out that engineers can be girly if girl engineers want to be. "I want to promote more females into piloting and engineering by being a working model of a female engineer. The only way to get more females is to be visible and talk about what I do. Girls need to know the door is open." Like George Magdalinos, Bernice talks about the need to focus on the right things at school. Bernice's father was an engineer and both her parents flew. She says it didn't occur to her not to be an aircraft engineer. Although she now owns her own plane and can fly it, that came after a career in electronics and radio, then teaching and lastly aviation. Now she has a job that combines all three.

Hannah Mallard pilots Air New Zealand's 787 Dreamliner and is involved in Air New Zealand's WINGS Network. "WINGS is Women Inspiring the Next Generation. As a pilot ambassador it's about encouraging as many female pilots



Hannah Mallard

as we can. Air New Zealand is committed to raising the visibility of women pilots in the media, for instance in the Air New Zealand inflight magazine, and at career expos and schools. We're working toward better rostering around parental responsibility for both sexes and easing the transition for women coming back to work after parental leave." Hannah started her flying career at the Walsh Flying School in 1996. She trained at Ardmore, worked as an instructor for the Wellington Aero Club and then flew for Capital Air, flying Wellington to Golden Bay. "That was fun. There were five potential weather systems to work around." She had eight years with Air Nelson and has been on the Dreamliner for three years.

Angela Cronin is a Captain for Air Nelson and has been in Air New Zealand's regional fleet for five years. She has been flying for 22 years and moved to Air New Zealand, after time in the Air Force. "I got excited about aviation from meeting some amazing women. They had all had challenges but with others' support made it through. I'm involved with the new support forum PAN – the Peer Assistance Network. PAN has an arm that is the Women's Assistance Forum as women have other challenges on top of flying. PAN aims to offer a confidential helping hand."

A small potential airwoman arrived at the Airwomen's tent looking for Catalina pilot Dee Bond. Anna Amelia Cookson, who proudly told the air women her middle name, had been so impressed by Dee and the Catalina at the Wairarapa Air Show that she made her Dad bring her to Omaka especially to see them again. She had drawn Dee a picture and was so excited to present it to her. Dee was deeply touched to find herself an unexpected role model for the next generation.

Prior to flying the Catalina, Dee had had a seaplane rating, having bought a Lake Buccaneer and learned to fly it.



Angela Cronin

When the Catalina project came up, she got a multi-engine rating and then a conversion onto the big flying boat. Although it's much bigger it has a very similar approach to a Lake Buccaneer she says.

She and her husband Neil Young who is the one flying the Catalina displays, have owned the aircraft for 25 years, the longest anyone has owned her. They are the people behind the Mercer Airfield and the aviation hospitality venues surrounding it. The runway is being improved at the airfield and a large WWII hangar is being shifted on to the site and rebuilt to give the Catalina a permanent home. The hangar will become part museum of aviation and will also house the Airwomen's archives and memorabilia. "Our mission, as part of the 'Warbirds' is to keep aircraft flying so that people connect to them."

Air New Zealand Boeing 777 captain Liz Needham was probably the most noticeable woman pilot at the show, displaying the Mk XIV Spitfire,



Dee Bond and Amelia

Kittyhawk ZK-CAG and flying in the NZ Warbirds Association's 'The Roaring Forties', Harvard Display Team. Liz has been a display pilot with 'The Roaring Forties' for a decade. "It is commitment with consistent practice that is needed to be a display pilot." She has an instructing background, gaining the first 'A-Cat' issued to a woman. "The Classic Fighters air show was superbly organised. We had a few weather delays getting home to Ardmore but that's aviation."

One of the youngest airwomen at the show was Oxford Area School student Tia Warwick. She has won the Gateway ServiceIQ Flying NZ Flight Training scholarship for 2019. Tia joined 88 Squadron Air Training Cadets and in 2016 attended a flying weekend. Despite her fear of heights, she had a go and was so impressed she decided then and there to become a pilot. She gained a trophy that gave her 10 hours flying, in which she went solo. Later she may attend Massey for a Bachelor of Aviation degree. Airlines are in the plans with an interest in Flying

Doctor Services.

Rhona Fraser came to the show for the Saturday. 60 years ago, Rhona was the prime mover of the establishment of the New Zealand Airwomen's Association (NZAWA), now called the New Zealand Association of Women in Aviation. Rhona was a welder who loved to fly. She learned to fly at Rongatai, doing most of her student flying in the mornings before going to work. In 1958 she had a trip to Australia, flying at a gathering of the Australian Women's Pilots Association. She thought of the money she had spent going to Australia to fly with women and decided she'd be better off spending that sort of money setting up something similar here. The AWP only accepted members from powered flying pilots and she saw New Zealand having a much more inclusive membership, including ATC members, glider pilots, balloonists and parachutists.

I asked Rhona what she felt about her association now. She said, "It has been beyond anticipation."

What a great weekend Classic Fighters turned out to be.

Jill McCaw

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Flying the FW 190 and Mk XIV Spitfire were two of Frank's numerous 'jobs' at Omaka this year.

Busy Times for a Warbirds Pilot

With airshows, events and flypasts over the last few months, there hasn't been much rest time for NZ Warbirds pilots. Frank Parker provides an update of NZ Warbirds Association displays, flypasts and activities, including on the logistics of supporting southern events from Ardmore.

One of the highlights of my association with NZ Warbirds is the annual Easter Air Show which alternates between Wanaka and Omaka. This time the event was at Omaka. Planning for these events starts more than 12 months ahead and for the air show staff it is a very busy six months leading up to the show. NZ Warbirds is often involved in a support role where we can lend our expertise, and in the case of

this year's Classic Fighters, authorise the show under our CAA Part 149 Authority.

Our main contribution is aircraft and for Omaka we had the Roaring '40s Harvard Team, Mk IX Spitfire, P-51 Mustang and P-40 Kittyhawk attending. This may read 'easy', however, each air show is a little different with display lines and local restrictions so the pilots need to 'tune' their display to the Omaka

footprint. This year the Roaring '40s Team has a new line-up and had spent a number of months putting a display together and practising for the event.

An additional contribution was two of our WWI aircraft, the BE.2 and recently acquired Bristol Scout. Of course it's not reasonable to fly these aircraft from Ardmore to Omaka so they had to be disassembled and packed into a 40 foot container for the trip south, then reassembled on arrival to be disassembled again when the show was complete... you get the picture.

The air show is not the only challenge; you have to get there and back and there is often a weather component to contend with. For the deployment before the show the weather Gods were in a settled mood and with a sustained high over the country we had a leisurely jaunt to Omaka in the Spitfire and P-40. I went a couple of days early as the locally based FW 190 and Mk XIV Spitfire which I was flying required maintenance test flying. No sooner was this complete it was time for 'photo flight' commitments which seem to be an integral part of the show preparations now.

To the air show; another well organised

event by the Team at Classic Fighters. The Saturday display was held in excellent weather. Unfortunately, despite collective wishes to the contrary, Sunday's forecast rain arrived and curtailed the flying display after a few events.

The next challenge was the return to Ardmore. Sunday's weather hung around for a few days necessitating endless viewing of various weather websites just to be sure nothing was changing. A few venturers managed to 'escape' and a few returned. I have defined weather minima to fly our 'grandmothers' and often in jest suggest that I have learnt how to fly in bad weather, and I don't really need to practice more! In the end we had an uneventful flight north on Wednesday with the Spitfire, P-40 and P-51 keeping each other company. Another Easter done and dusted.

Hot on the heels of Omaka we had the ANZAC Day flypast in Auckland. This is now commissioned by Auckland Council and Auckland RSA and we aim to flypast a number of area RSA Parades. This year many Parades were cancelled, nonetheless we covered Howick, Waikumete, Point Chevalier, Waiheke and of course the main City Parade at the Auckland

Cenotaph.

Almost time for a rest, however Saturday 27th was a special occasion with the unveiling of a Statue of Sir Keith Park at Thames, his birthplace. Once again we mustered a fleet of aircraft (2 Fighters, 7 Harvards, 6 Yak 52s and an Airtrainer) befitting of this occasion to provide a flypast.

The next item on the Warbirds agenda was "Puttin' on the Ritz," a social event with a splash of '30s nostalgia much appreciated by members.

To signal the end of the flying 'season' we have our first annual Open Day planned for 2nd June. Not surprisingly the theme is 75 years since D-Day, the start of the invasion of Nazi held Europe. The format will be along the established lines with three flying display slots and lots to see on the ground between times. These days are an important fundraiser for the Association and make for a great family outing.

Come winter I think I will have earned a wee break.

Regards, Frankly@xtra.co.nz



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Passing downtown Wellington on the return leg to Paraparaumu.

En route: An inter-island excursion

Before departing our shores for work opportunities in Australia a couple of years back, Nick Ashley contributed a regular series we called 'En route', each article being about looking for interesting things whilst flying about, rather than just straight-lining it on a GPS track from A to B. Nick recently returned for a short time and couldn't resist the opportunity of going for a fly and writing about it:

A long overdue university graduation ceremony, and a nice big high pressure weather system created the perfect opportunity to try flying in a different part of New Zealand. Peering out the window from the back of an Air New Zealand A320 on finals for Wellington, trying to spot the tell-tale signs of fog forming, all I could see were just a couple of stratocumulus tufts hanging in the still air.

My brother Zac, also a Private Pilot, was to be my Cessna 172S co-pilot for our planned crossing to the South Island the

next day and in the morning we wasted no time heading out on the 45-minute drive north to the airport. Zac's friend Kaitlin was joining us, and she was suitably excited about her first experience in a light aircraft.

Kapiti Coast Airport, found in the AIP as the nearby town of Paraparaumu (NZPP), was once the main airfield serving Wellington and one of the busiest in the country. However, with the advent of jet aircraft the field became less suited for commercial traffic due to rising terrain to the east and west, and so the more suitable but still sometimes precarious field at Rongotai was developed into what we know today as Wellington International (NZWN).

NZPP is now mostly a busy GA airport, with only occasional scheduled air transport services. When we arrived at the airfield its reputation of heavy traffic seemed unfounded. There simply was no activity. Zac and I busied ourselves with preparing the 172, and by the time we were done there was another pilot pulling

his Cessna over to the fuel pump and an R22's growling Lycoming disturbing the silence.

By the time we were ready to taxi just a few minutes later, the radio was alive with calls from pilots both inbound and outbound, clearly eager to make the most of the conditions. One callsign stood out from the rest though... a Dash 8 was inbound to land. The response was amusing, as pilots of the slower GA aircraft scrambled to stay clear of the comparatively big turboprop; holding short and making orbits to allow the airliner to touch down unobstructed. It was almost like an intrusive shark scattering a shoal of nervous fish, but with the service's subsequent cancellation, will no longer be seen at NZPP.

Once the Dash 8 was off the runway the airfield operations were quickly back to business as usual, with a light twin entering and backtracking to cut in front of us and make a quick getaway. We weren't in a hurry and waited for a twin-seat Cessna to make a touch-and-go before lining up. The

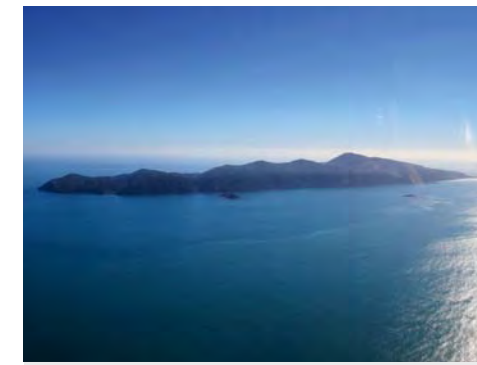
favourable density altitude did wonders for our take-off performance and the 172 surged down the runway, its propeller eagerly biting into the thick air.

Our left turn to follow the coast to the south highlighted one of the reasons that Kapiti Coast Airport never became Wellington's air transport hub – an obtrusive island of the same name. Kapiti Island looked like a surfaced sea creature, and while it seems innocent enough from the perspective of a Cessna, the island was considered a potential hazard to early jet aircraft. It is a sanctuary for native birds, but some metal flying machines may have struggled to clear its bulk if they'd been unlucky enough to lose engine power on take-off.

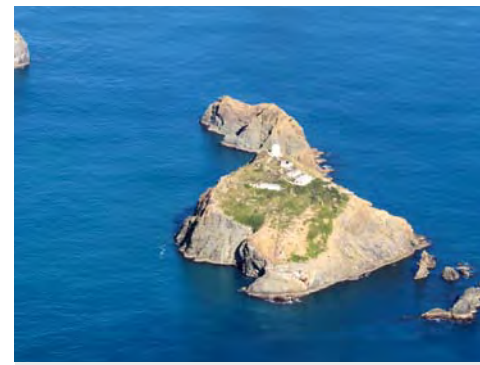
I was busy checking over the sleek G1000 glass cockpit instruments when Zac, on lookout duty, pointed out the mirror-like Porirua Harbour off to our left. The high-pressure system was still doing an excellent job of keeping the winds down, which was perfect for Kaitlin in the back seat who was happily taking photos.

By now we were overhead Mana island, which was a cue to start thinking about airspace. A corner of NZWN's controlled airspace juts out off the coast, and while it's possible to scoot underneath through the transit lane, our plan was to go higher, rather than descend.

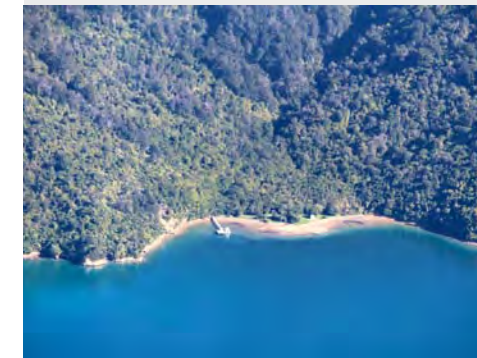
Rather than shying away from the layers of Class C above, the safest way to traverse the twelve or so miles of Cook Strait is actually to climb up past 2,500 ft; with a



Kapiti Island (2)



The isolated Brothers' Island lighthouse (7)



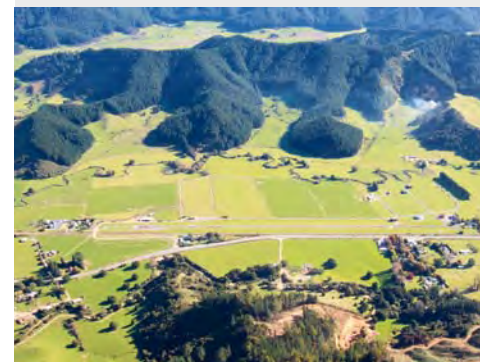
Cook Monument is a white dot on the shore (9)



An interislander ferry on the way to Picton (12)



Waikawa Bay with Picton behind (13)



All quiet at Picton Airport (15)

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clearance first of course. Unfortunately, after making enquiries with the friendly approach controller it turned out that we had hit the morning rush hour at NZWN, and we'd need to remain in Class G. While our brief crossing was tracked by radar it turned out to be wholly uneventful, with the Cessna's engine continuing to produce its monotonous yet comforting drone. The first bit of land we approached on the other side was The Brothers, a cluster of rocky outcrops most notable for a lighthouse perched atop, which was built to replace a less effective beacon on our last waypoint of Mana Island.

While we were now technically over land, the Marlborough Sounds' topography is only slightly more suitable for an emergency landing than Cook Strait but at least the airspace is less restrictive, facilitating a cruise climb up to 3,500 ft as we tracked towards Ship Cove. The ship in question was HMS Endeavour which first anchored there 248 years ago. A monument to Captain Cook was visible as a white dot near the shoreline as we soared ever-higher overhead. The most common large ships seen in the area today are inter-island ferries shuttling back and forth, one of which we were now chasing down as it cruised through a calm Queen Charlotte Sound towards its berth in Picton Harbour.

There was no sign of the other regular transport link between Wellington and Picton. We had evidently passed through between the regular Sounds Air turboprop services and all was quiet at Picton Airport. Our destination airfield was a little further to the south near Cloudy Bay - these days probably better known from the vineyard of the same name, which was now visible off to our right near Woodbourne Airport (NZWB). Also known as Marlborough or Blenheim Airport, NZWB shouldn't be confused with Omaka Aerodrome (NZOM) just three miles to the southeast. But we were headed to a small grass strip near the coast; a more recent addition to the AIP as Cloudy Bay (NZCL). Being located just within Woodbourne's control zone, but also barely outside of the nearby transit lane (NZT654), a brief conversation with the local controller is needed to use the field. This awkward airspace arrangement was reviewed in 2018, but the strip's proximity to NZWB's instrument sector unfortunately precluded any changes.

The 800 metres of dry grass was more than enough to get the Cessna down, and a herd of cattle in the neighbouring paddock greeted us, clearly familiar with occasional winged visitors. In addition to a generous length, the simple strip is well maintained, and has recently been improved with solar lighting on both the runway and nearby high-voltage power line hazards. There's little else to see or do though - not even facilities for a hundred-dollar hamburger. After a quick stretch it was back into the 172 for our return voyage.



Nick's route. Numbers relate to images along the way.

Our route back home would be slightly different, crossing the strait further south towards Karori Rock, which is home to yet another lighthouse, highlighting the treacherous nature of this stretch of water. Kaitlin spotted another ferry in the distance manoeuvring into Fitzroy Bay as we crossed the southernmost group of West Wind's 62 wind turbines.

Despite the ATC restrictions imposed on our earlier crossing, we were cleared straight into the Wellington Control Zone via the Karori sector, and Kaitlin again pointed out a local landmark, this time hidden amongst the native bush below. Wrights Hill Fortress was one of many WWII coastal defences constructed in the 1940s, and like all the others it never fired a shot in anger. Ironically, the two guns were subsequently sold as scrap metal to a Japanese company. Barely two minutes later the scenery had changed completely, and we were out of the hills and in the middle of downtown Wellington, from where a route following the coast was necessary to avoid the airport's instrument departure sector. Thanks to the stable and still decidedly non-Wellingtonian weather in the harbour, it only took a couple of minutes to cruise over to the easterly Hutt Sector, and our transit also corresponded with a lull in the action at NZWN making things a little less stressful.

The home of one more lighthouse passed by just to our right. Somes Island's lamp was the first in New Zealand to guide ships within a harbour. The island is also a refuge for a Tuatara variant introduced from The Brothers, amongst other vulnerable wildlife. There are also similarities to islands near Christchurch that I passed by in a previous flight, being a home over the years to Māori Pā, a quarantine station, and a WWII heavy anti-aircraft battery.

We said goodbye to Wellington Tower, and once clear of the control zone the Class C's 2,500 ft lower limit was high enough to allow a direct track. However, with plenty of fuel remaining we decided on a scenic routing, following Hutt Valley on a more easterly heading. The twin Stuart Macaskill lakes further up the valley are a major part of the region's water supply, and an excellent navigation waypoint. The water is drawn from the upper Hutt River at the filming location for Rivendell in the Lord of The Rings trilogy, and so just might have magical properties.

We made a turn to the north just before the lakes though, to head back via the Akatarawa River. Further along the valley, we crossed the westernmost tip of the Tararua Forest Park, the first to be managed by the Department of Conservation, and now the largest in the North Island. I had travelled to the Wellington region many times before, but only really appreciated the vast extent of native bush nearby after viewing from the air.

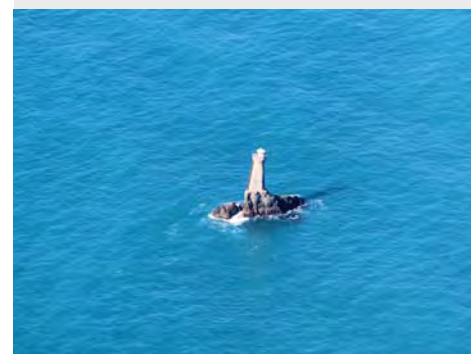
The first sign that we were heading out of the wilderness was the CFZ at Akatawara saddle, shortly followed by the MBZ at NZPP. Our lunchtime arrival meant that aircraft movements had died down, but in their place was a light easterly from offshore, providing the very first couple of bumps after what had otherwise been a perfectly smooth ride. Touching down just two hours after our departure earlier in the morning, we had managed to cover a lot of ground - and water - in a short time, passing many interesting sights along the way.

While the fortunate weather certainly made for an easier trip, crossing the strait is quite straightforward with some prior planning. As it turned out, the high-pressure system hung around for just long enough for my commercial flight back home (currently that's Sydney). I have still yet to experience any of the famous winds in the skies around Wellington, and while it's surely inevitable, with more places to explore in the area I'm happy to wait for that day a little while longer.

Nick Ashley



Marlborough's vineyards stretch into the distance (16)



Karori Rock lighthouse was tilted to withstand wind (20)



Wellington Airport (25)



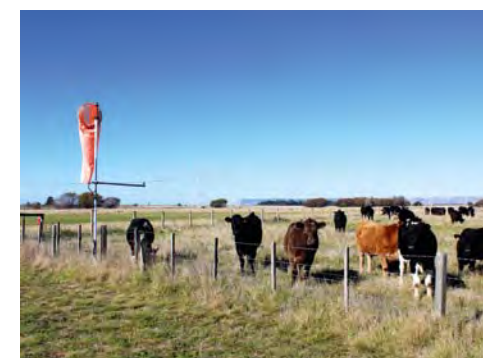
Approaching Cloudy Bay NZCL (17)



The southern-most West Wind turbines (21)



The Macaskill lakes provide drinking water (27)



Visitors at NZCL (18)



Wright's Hill Fortress (23)



Downwind at Paraparaumu (29)

Event Guide

August 4th - 7th

Aviation NZ Conference / Trade Expo
Cordis Hotel Auckland. Themed 'Personal Health, Business Health'. Speakers, Divisional Meetings, Networking, Awards Dinner, Trade show Monday and Tuesday, Claude Vuichard Training Day on Wednesday. More info: aviationnz.co.nz

August 17th

Hawera Aero Club 90th Anniversary Dinner
The club invites all past and present members to attend an anniversary dinner on Saturday 17th August. All enquiries and registration of interest to secretary@haweraaeroclub.org.nz or 06 278 6301

August 18th

Hawera Aero Club Annual Dawn Fly-In
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Ascension from the Soldiers Memorial Park at Greytown

Drifting above the Wairarapa

Another regular fixture on the NZ ballooning calendar, the 20th Wairarapa Balloon Festival was recently held at various sites from Masterton to Carterton, Greytown and Martinborough between 18 and 22nd April. Phil Craig attended and wrote this report for KiwiFlyer readers:

This year's Wairarapa Balloon Festival attracted two special shape hot air balloons, one of which was from overseas, although overall the number of balloons partaking was down on recent years.

Known as 'Busby the Queen's Guard' the foreign special shape was Cameron

SS Bearskin-100 G-POMP flown by Paul Burrows from Bristol, England. The second special shape balloon, flown by Aucklander Daryl McKee, was the Mike Pero House.

The first event this year was the More FM First Flight that launched from the cricket oval at Queen Elizabeth II Park in

Masterton. With Nicholas Oakley flying Cameron A-210 ZK-FAT acting as the 'hare', the hounds chased him successfully over Masterton for some time under calm and grey skies. Most successful 'hound' was judged to be Ross Sale flying 'Bittersweet'. Later that evening the main streets of Greytown and Carterton witnessed the Transit Burner Parades where balloonists drove through town with the balloon baskets on trailers while their gas burners were ignited, lighting up the night sky.

A stunning, crystal clear morning along with a frosty start on Friday provided a great opportunity for the balloonists to enjoy more flying. That day's event was the Mass Ascension from Carterton's Carrington Park.

It was the turn of Greytown on Saturday morning to host the Resene Park to Paddock Challenge that saw balloons ascend from Soldiers Memorial Park. Light northerly winds allowed the balloons to drift south over the town and southwest toward Woodside, while two of the balloons remained tethered at the park.

Unfortunately, the popular and spectacular Trust House Night Glow on Saturday evening held at the Solway Showgrounds in Masterton suffered from breezy winds that made conditions unsuitable for the event. This meant that only 'Busby the Queen's Guard' was inflated, however this could not be sustained. However, several of the balloonists were able to light up the night sky to music by igniting their burners.

Mother Nature stepped in again on Sunday for the Te Kairanga's Meander over Martinborough when rain prevented any balloons inflating, while the Burger King Farewell Flight at Wairarapa College on Monday was also cancelled due to unsuitable weather conditions.

The three top placings at the 2019 Wairarapa Balloon Festival were awarded as follows. First place went to Chris Bangsgrave from Hamilton flying 'Remax' with second place getter Gail Dryland also from Hamilton in 'Lollipop' (for the second year running) while third place was taken out by Wellington-based pilot Scott Cursons in his balloon 'Oh Lar Lar'. In addition Craig Scott flying 'Jellybean' was awarded the Spirit of the Festival Trophy, while the four 'lead balloon' recipients were Paul Burrows flying 'Busby the Queen's Guard', John Clifton piloting 'bel Tasman', John Snodgrass in command of 'Wildfire' and first-day winner Ross Sale.

Phil Craig



Gail Dryland in 'Lollipop' leads 'Busby'.



Paul Burrows flies 'Busby the Queen's Guard'.



John Clifton brought his new balloon 'Abel Tasman'.



'Wildfire' piloted by John Snodgrass.



Based on these images, anyone seeking balloon sponsorship would do well to speak to Ray White or Barfoots.



L-R: Pilots Ross Sale, Peter King & Mark Wilton are away.

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Yvonne Loader

Extraordinary Women Pilots through the years

Jill McCaw continues with the Women in Aviation theme for her contributions to this issue, here in regards to her regular Soaring page. Jill writes:

'Saluting Women in Aviation' has become my theme this month. This article is an abridged version of an article appearing, along with quite a few stories about and by women pilots, in the current issue of *SoaringNZ*. All records referred to are gliding records. A great deal of

the information for this article comes from the New Zealand Association of Women in Aviation's book 'Silver Wings' compiled by Shirley Lane and updated by Pam Collings with further information provided by gliding historians Roger Brown and Peter Layne.

Helen Georgeson set several New Zealand firsts in the 1950s. Helen was the wife of Dick Georgeson, a well-known pioneer gliding world record setter. In September 1953 she became the first woman in the country to solo in a

glider. Just over a year later, in December 1954, she became the first person, male or female to gain the FAI Silver badge, something which the men were not very happy about. She said she did not expect accolades, but she would have appreciated gracious acceptance. Helen took a break from flying while her children were young but in April 1961 set an absolute altitude record of 18,000 feet. Later in the year, she climbed to 22,000 feet over Mt Cook in severe turbulence but on landing discovered that someone had forgotten

to start the barograph which would have recorded the flight. She and Dick went on to set several out and return world records and their daughter Anna was also involved in some record attempts with her father.

Ann Johnson from the Piako Gliding Club was the first woman in New Zealand to gain a diamond height award but she is best remembered for a record setting 1979 flight from Tirohia to Gisborne – achieved using an AA road map as aviation maps weren't easy to come by.

The Gatland family of Auckland had several women pilots, mother Ann and daughters Margaret and Rosemary. Rosemary gained her instructor's rating in 1967 and also took up power flying, later becoming a tow pilot. Rosemary and Margaret set a NZ Women's multi-seat gain of height record of 7,600 feet, flying to 10,000 feet in easterly wave over Matamata. In 1968 Rosemary set further women's records for out-and-return, straight-distance flight and distance-to-a-declared-goal. In 1969 she gained her FAI gold and diamond badges in the Kaimai wave, climbing to 25,000 feet and setting a new women's single-seat gain of height and absolute altitude records. She could have gone higher, but she'd achieved her goal and came home.

Ann Gatland also established a multi-seat record for speed around a 200 km triangle, flying with her husband Frank.

In December 1983 Trudy Morris set a record speed over an out-and-return course of 200 km with a speed of 94.99 kph, flying from Paraparaumu. I have been

unable to find out any more about her, so if you know of Trudy, please get in touch.

Sue Ritchie, previously of the Canterbury Gliding Club was the first New Zealand woman to achieve all three diamond awards and set three New Zealand records, flying in Australia.

Fellow Canterbury pilot Yvonne Loader had an extraordinary aviation career. Yvonne came to gliding as a successful aerobatic and competition pilot, forced landings was her speciality. She soon gained her gold and diamond awards, became a tow pilot and instructor and proved formidable behind the scenes of competitions, committees and recently, Youth Glide. In 1981 she broke Rosemary's Gatland's absolute height record with a flight of 29,650 feet and in January 1988 established a world gain of height record of 33,506 feet and a New Zealand absolute height record of 37,114 feet. Yvonne also set three multi-seat records. She was the only female tow pilot during the '95 Gliding Worlds at Omarama and continued towing, instructing and inspiring new pilots for many years. She was awarded an FAI Tissandier Diploma in 2013 in recognition of her services to gliding.

Power pilot Jenny Wilkinson was influenced by Yvonne, meeting her at an 'Airwomen's' rally in 1987. She came to give gliding a go and stayed. Jenny joined Yvonne in the world record stakes in 2009 with a 500 kilometre out-and-return flight at a speed of 157.97 kph. Jenny was the first woman in New Zealand, and only

the fifth or sixth in the world to complete a 1000 kilometre diploma flight. Jenny is currently on the Canterbury Gliding Club's instructors' roster and enjoys sharing her skills and enthusiasm for gliding with budding cross-country pilots.

Youth Glide is inspiring a new generation of female pilots and at a Youth Soaring Development Camp, held at Matamata in 2013 Abbey Delore and Enya McPherson raced along the Kaimais to set a record multi-seater speed over an out-and-return 100 kilometre course of 131.99 kph. They felt they could have done better and were set to 'smash' their own record the next day, but the weather didn't play ball.

More recently, at the 2018 Multi-Class Nationals at Matamata, 15 year old Ali Thompson, flying a Duo Discus with 22 year old Campbell McIvor, became the youngest person ever to get their name on the National Racing Class trophy. Not only a great pilot, Ali has been a driving force behind establishing and organising the Youth Glide Mini Camps.

With growing numbers of girls joining Youth Glide and older women coming back to the sport as their children have grown there will be more feminine records set or broken and I see no reason why we can't see women's names on some of the open records as well.

And, of course, women can just fly for fun. If you're a woman who would like to try gliding, check the Gliding New Zealand website to find your local club.

Jill McCaw 



Helen Georgeson



Ann Johnson



Rosemary Gatland



Frank and Ann Gatland



Ali Thompson and Campbell McIvor




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Congratulations to Paul Scherrer who crossed Cook Strait twice in the same day in RKK to attend the Havelock fly-in and fulfil a long held ambition at the same time.

Southern Gyro Gatherings

There was plenty of autogyro activity in the South Island during autumn, with fly-in fun and adventure happening first at Murchison and then Havelock. Long time Nelson based gyro enthusiast and instructor Lloyd Heslop reports:

Murchison Fly-in

After carefully planning a summer date (camping at Murchison can be cold as the seasons progress), we postponed the Murchison fly-in for fire risk and a pending cyclone weather event. Thus it was a month later on 21st March, that five early arrivals set up

camp on the field – enjoying some flight time during changeable weather. Others, including myself, arrived by air the next day to a welcoming meal, drinks, and an enjoyable evening of relaxation.

Saturday dawned with no valley fog and high overcast. Paul had some trouble with water in his fuel from the local garage. Then after some herding of cats, we all set off towards Springs Junction; five machines headed up the Matakita Valley and crossed into the Maruia Valley arriving at Kelly airstrip in almost zero wind overcast conditions. We had just landed when Simon the local helicopter operator arrived to check us out. He referred to us as his rotary brothers. We then tracked down the valley and into the Maruia gorge where Gary spotted a number of deer and scanned the river for fish. A return to the Murchison strip was made via Dough Boy creek in time for lunch, arriving just before the girls who had enjoyed a Murchison shopping morning. By now, Hamish from Hokitika had flown in with the club's fixed wing closely follow by Evan from Greymouth in his guppy bi-plane.

Numerous others soon arrived and in no time the marquee was filling up. Then it was time for the bombing and spot landing competitions. The former went to yours truly in RAF and the latter to Paul Scherrer in RKK. The rest of the day disappeared into taking people for rides and the usual airfield socialisation.

Sunday's weather was variable and thwarted others from morning flights in. Departures were made in the afternoon and I arrived back at Nelson after a smooth flight home. It had been another wonderful weekend of aviation. So good in fact that a week later we arranged another event, this time a trip to Havelock.


Smoko at Havelock

On the back of our successful annual Murchison event we planned for a day trip to Havelock, and weather dependent an exploration of some Marlborough Sounds scenery. I arrived on Friday afternoon to be on the spot for weather reporting to others on Saturday which dawned with no fog and some scattered high cloud. Paul Scherrer called from his home in Upper Hutt for a weather report as he was determined to come across the Cook Strait in his self-designed and built autogyro ZK-RKK. He declared an ETA of 10am. Fixed-wing friends in Rans, Searey and a ¾ Cub were already at the strip when Paul arrived followed by two more gyros. In total six aircraft and ten friends together for a smoko at Havelock. The weather was amazing and had been perfect for Paul's Strait crossing.

It was also the perfect day for a Marlborough Sounds adventure. Three gyros lifted off with Paul, Ray, Graeme and myself tracking north over Havelock then down to Linkwater, Port Anikiwa, into the Queen Charlotte Sounds. We turned left and crossed into the Kenepuru Sound then checking out some local airstrips before crossing another ridge to Crail Bay, then back to Pelorus Sound and the airfield at Havelock.

On a day like this, flying in the Sounds is awesome. On arrival at Brownlies strip, we found others had arrived by road. In the afternoon Paul prepared to re-cross the Cook Strait for Wellington and at 3pm we all departed for home. I heard Paul call at Tory Channel as I was crossing the Maitai Saddle for Nelson. After landing at Nelson after a very smooth trip, I drove home and just on 5pm as predicted, Paul rang to say he had arrived in Lower Hutt having struck a headwind on the homeward leg but still making good time.

It was an awesome day out in exceptional weather conditions with great company. Cheers from the Mainland.

Lloyd Heslop 



Lloyd Heslop bring his RAF2000 in to land.



Graeme Clarke in REJ is a regular at South Island gyro meets.

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Taildraggers Fly-in Competition

It was finally all on for the Taildraggers Fly-In. Originally scheduled to take place in September last year, put off until December and then deferred again due to unsuitable weather conditions, it eventually took place in late March. Phil Craig reports:

The event was hosted by Hawkes Bay & East Coast Aero Club at Bridge Pa Airfield south of Hastings with the competition flying portion of the weekend run by the Central Hawkes Bay Aero Club at Waipukurau Airfield. The use of this airfield allowed the participants to compete with much lower levels of air traffic than would have been encountered at Bridge Pa.

Unfortunately, the revised weekend did clash with the Cessna 180 / 185 Club Fly-In at Makarora providing a diminished presence from these types of aircraft at the taildragger event. There were also a few pilots and their aircraft attending the AOPA Fly-In at Rangiora at the same time.

After a weather pattern of predominantly northerly winds for the past few months it was decided to set the landing grid up on

runway 02. Of course this only encouraged a light southerly to try and upset the morning.

Central Hawkes Bay Aero Club's Chief Flying Instructor, Ross MacDonald, gave a comprehensive briefing for the day's aerial activities. He advised those gathered to, "Have fun, ensure safety is the number one priority, and to compete with the objective of safety being foremost." Following this the participants were eager to get into the competition flying.


Events started with the short take-off and landing competition. For something a little different, the combined take-off and landing distances for each individual flight were added, rather than using the more common practise of taking the best results of either phase and totalling them to get the shortest distance. Each pilot was allowed two attempts to fly a standard circuit to record their best attempt.

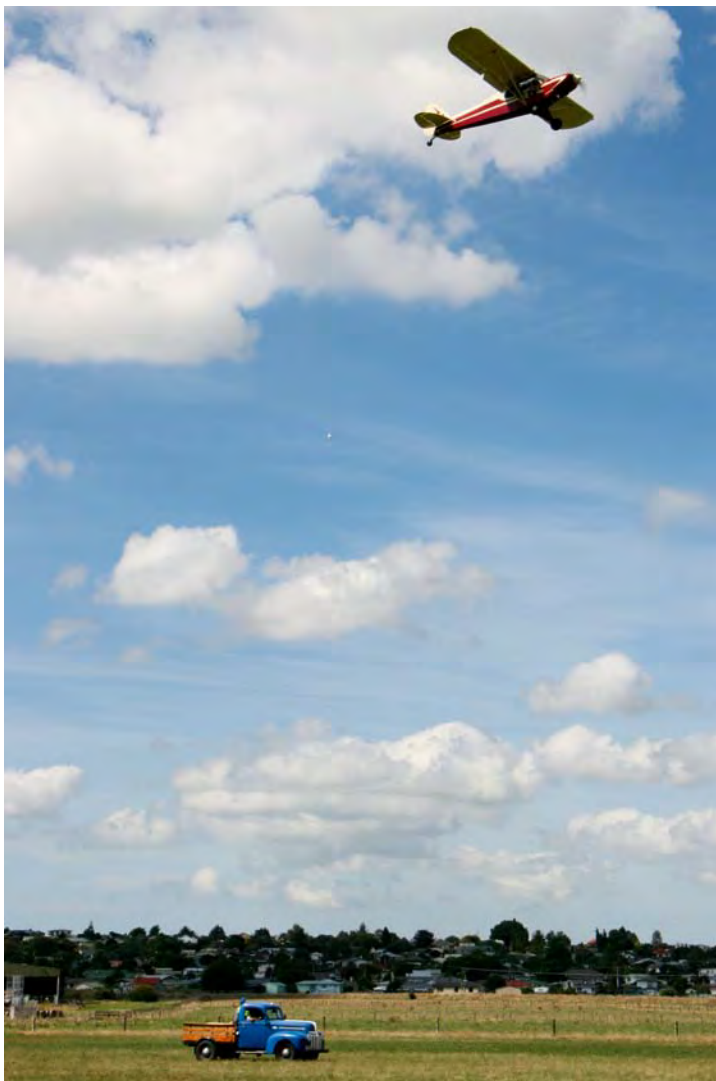
The take-off measurement was taken from the line-up marker to where the main wheels left the ground (for the last time), while on landing the distance was from the marker to where the aircraft's main wheels came to a complete stop. Any landing short of the marker would result in disqualification for that attempt.

After lunch the competition turned to 'Jail Bar' bombing. Again, each competitor was permitted two attempts to drop their 'bomb' on to the moving vehicle from a height of 200 feet above the airfield. As the breeze had settled in from the south, runway 20 was used for this competition.

The STOL Cub (light) Class winner was Mike Fleming flying his Piper PA-18A Super Cub ZK-BPM (138 metres total) with Ross MacDonald second (161 metres), while the STOL Heavy Class was taken out by Rob Wilson in his Cessna 180K ZK-EYH (204 metres) with R. Holland in Cessna 180D ZK-RJH second (210 metres). The 'Jail Bar' bombing saw the truck escape being struck for another year although the closest attempt from Jerry Chisum flying Piper PA-18 Super Cub ZK-BRO was only 5 metres away while Mike Fleming was next (5.5 metres) and Rob Wilson assisted by Stephanie Ellers third (8 metres).

Overall a great day of aviating was achieved, with a couple of pilots even competing in more than one type of aircraft. Thanks to the sponsors who provided the prizes: Tukipo River Estate, Alpha Domus Ltd, and Abbey Winery & Brewery.

Phil Craig 



Bombs away by Mike Fleming in Super Cub BPM. The target was the moving truck.



Throwing the bomb from Aviat A-1B Husky RBC.



Jan Chisum gets Tiger Moth BMY airborne in the STOL competition.



About to touchdown during the STOL competition is Cessna Birdog DOG.



Central Hawkes Bay Aero Club CFI, Ross MacDonald, in Rans S-6S Coyote II CHB.



Rob Wilson has the tailwheel grounded already his Cessna 180K Skywagon EYH.

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ZK-PEL Gippsland GA8



A Gippsland GA8 has recently arrived from Australia to join the fleet for Pelorus Air Limited. Cliff Merchant of Pelorus Air says the plane was privately owned by a pilot in Mackay who used it to fly out to his place on Hamilton Island. Even though it is three years old it has only 300 hours on the hobbs. The plane has an executive interior, latest avionics and is full IFR. It will be used for scenic tours around the Marlborough Sounds. It has eight seats, but for passenger comfort will only be operated with the pilot and six passengers.

The GippsAero GA8 Airvan 8 is a single-engine utility aircraft manufactured by GippsAero (formerly named Gippsland Aeronautics) of Victoria, Australia. It was designed to fill a market niche between the Cessna 206 and Cessna 208 models, which seat six and up to fourteen passengers respectively. It is used in various roles, including passenger services, freight, sightseeing, parachuting, observation and search and rescue.

Pelorus Air's chief pilot Tom Ashton and Cliff ferried the GA8 from Australia via Lord Howe and Norfolk Islands then into Auckland doing one leg each

day. They had clear weather all the way although they were pushing daily head winds. When we spoke, the plane was in Omapa for CoA and Maintenance programme finalisation.

Locally owned and operated, Pelorus Air offers a great opportunity to access the Marlborough Sounds and the top of the South Island from their base in Picton. They offer a variety of Scenic Flight options for two to six people.

ZK-POL Polikarpov Po-2



This Polikarpov arrived in New Zealand in 2013 from Lithuania where it had been registered LY-ASZ wearing an all green scheme with a yellow number 46 on the fuselage. Aero Technologies of Ardmore worked on the aircraft over the years and it was hoped to have it at the Classic Fighters airshow at Easter 2019, but it didn't quite make it. The first flight was at Ardmore on the Good Friday prior to the airshow. This two-seat open cockpit bi-plane is powered by a 5-cylinder Shvetsov radial engine.

The Polikarpov Po-2 served as a general purpose Soviet biplane; the reliable, uncomplicated concept of the Po-2's

design made it an ideal trainer aircraft, as well as doubling as a low-cost ground attack aerial reconnaissance aircraft during the war, proving to be one of the most versatile light combat types to be built in the Soviet Union. It is one of the most produced aircraft, and may be the most produced biplane in history, with as many as 30,000 Po-2s built between 1928 and 1959.

The aircraft was designed by Nikolai Polikarpov to replace the U-1 trainer (a copy of the British Avro 504). Its name was changed to Po-2 in 1944, after Polikarpov's death, according to the then-new Soviet naming system, usually using the first two letters of the designer's family name, or the Soviet government-established design bureau that created it. The Po-2 shows that it is a Postwar basic trainer variant.

ZK-CDM Cessna A185F



This Cessna 185 was recently flown into NZ from Vanuatu. Owner Alan Speight performed co-pilot duties for the ferry flight. The first leg of the trip from Vanuatu to Norfolk took 6.5 hours and the second part to NZ took 4 hours. With

ARRIVALS - March / April 2019

BFG	Cessna 172P	Mr G L Bisset	Wanaka	Aeroplane
CDM	Cessna A185F	Mr A R Speight	Drury	Aeroplane
FXC	Cub Crafters CCX-2000	Private Owner		Amat Built Aeroplane
GZD	PZL-Bielsko SZD-55-1	Mr D R Moody	Auckland	Glider
HHZ	Eurocopter AS 350 B2	Mr B J Comerford	Porirua	Helicopter
HVR	Bell 206L-1	Ahaura Helicopters Limited	Ahaura	Helicopter
HXP	Eurocopter EC 130 T2	Advanced Flight Limited	Auckland	Helicopter
IIG	Bell 427	Adventure Helicopters Limited	Tauranga	Helicopter
ILV	Bell UH-1H	T & P Williams Limited	Taupo	Helicopter
IPB	Bell 429	Advanced Flight Limited	Auckland	Helicopter
IPC	Bell 429	Advanced Flight Limited	Auckland	Helicopter
IZB	Leonardo AW169	Auckland Rescue Helicopter Trust	Auckland	Helicopter
KEK	Pacific Aerospace 750XL	Pacific Aerospace Limited	Hamilton	Aeroplane
MCS	Cessna 208B	Milford Sound Flights Limited	Queenstown	Aeroplane
MXV	ATR-GIE ATR 72212A	Mount Cook Airline Ltd	Christchurch	Aeroplane
NAY	Cessna 172S	Nelson Aviation College Ltd	Motueka	Aeroplane
NHB	Airbus A320-271N	Air New Zealand Ltd	Auckland	Aeroplane
NHC	Airbus A320-271N	Air New Zealand Ltd	Auckland	Aeroplane
NNE	Airbus A321-271NX	Air New Zealand Ltd	Auckland	Aeroplane
PEL	Gippsland GA8	Pelorus Air Limited	Blenheim	Aeroplane
POL	Polikarpov Po-2	The Red Star Aviation Trust	Wakefield	Aeroplane
RAD	Cessna 180J	Mr D W Radford	Tauranga	Aeroplane

TRANSFERS - March / April 2019

BAK	Piper PA-18A-150	BKA Partnership	Taupo	Aeroplane
CGM	Evkektor - Aertechnik Harmony	Harmony Partnership	Blenheim	Aeroplane
CJL	Bolkow Bo 208 C Junior	Mr D G Cairney	Motueka	Aeroplane
CKF	Mooney M20C	Mr T G Ashton	Nelson	Aeroplane
CMA	Ultravia Pelican Club VS	Mr J C R Farmer	Waiheke Island	Microlight Class 2
CMR	Classic Aviation Adventurer CA18	Mr P J Trewavas	Richmond	Amat Built Aeroplane
CUL	Piper PA-28-140	Eagle Flight Training Limited	Gisborne	Aeroplane
CXM	Cessna 177B	Airline Flying Club (Inc)	Papakura	Aeroplane
DAY	Cessna 172L	Computer Automation Products	Auckland	Aeroplane
DGM	Titan T51 Mustang U/L	Cloud 7 Aviation Limited	Whangaparaoa	Microlight Class 2
DYK	Aerospool Dynamic WT9	Brunold Family Trust	Winton	Microlight Class 2
EJT	Cessna 172N	Roc On Aviation Limited	Wellington	Aeroplane
EPA	Europa XS	Mr A S Swale	Timaru	Amat Built Aeroplane
FJB	Cessna 172M	Tauranga Aero Club (Inc)	Mount Maunganui	Aeroplane
FJE	Cessna R172K	Mr J L Greer	Waipawa	Aeroplane
FTZ	Stoaken Flitzer Z21a	Mr H A Faulkner	Napier	Microlight Class 1
GFK	Schleicher Ka 6E	Private Owner		Glider
GFM	Schleicher Ka 6E	Mr R A McAulay	Wanaka	Glider
GKV	Schempp-Hirth Nimbus-2	Mr G F O'Neill	Foxton	Glider
GLA	Schempp-Hirth Ventus-2cM	V C Ruddick & P M White	Paraparaumu	Power Glider
HBQ	Eurocopter AS 350 B2	Mr B J Comerford	Porirua	Helicopter
HXC	MBB MBB-BK117 B-2	Search And Rescue Services Limited	Taupo	Helicopter
HLZ	Robinson R44	Rotors in Motion Limited	Taupo	Helicopter
HMD	Eurocopter AS 350 B2	Heliworks Queenstown Heli 2012 Ltd	Queenstown	Helicopter
HQA	Robinson R44	Prosser Heli Ag Limited	Fairlie	Helicopter
HRR	Robinson R44 II	Rotor Work Limited	Te Kuiti	Helicopter
HTW	Eurocopter AS 350 B3	The Alpine Group Limited	Wanaka	Helicopter
HYS	Eurocopter AS 350 B2	Tasman Helicopters 2015 Limited	Motueka	Helicopter
IAY	Robinson R44	Heliflite Limited	Papakura	Helicopter
IDR	Eurocopter AS 350 B2	Outback Helicopters Limited	Pongaroa	Helicopter
IFY	Kawasaki BK117 B-2	Mr C E D Borlase	Palmerston North	Helicopter
IGS	Kawasaki BK117 B-2	GCH Aviation Limited	Christchurch	Helicopter
IUL	Robinson R22 Beta	CJK Consulting Limited	Greymouth	Helicopter
ILS	Robinson R44 II	East Coast Plant Hire Limited	Gisborne	Helicopter
IOB	Hughes 369E	Cranswick Enterprises Limited	Talaga Bay	Helicopter
ITG	Kawasaki BK117 B-2	Helicopters Hawkes Bay 2006 Ltd	Hastings	Helicopter
IWP	Robinson R44 II	Q E & P M Whiting-Okeefe	Coromandel	Helicopter
JIJ	Micro Aviation B22 Bantam 700E	Aero Technology Ltd	Papakura	Microlight Class 2
JNE	Cessna 172R	Canterbury Aero Club (Inc)	Christchurch	Aeroplane
JOA	Rans S-6ES Coyote II	Mr D L Van Reenen	Upper Moutere	Microlight Class 2
JRY	Cessna 182T	Miplane Limited	Auckland	Aeroplane
JVB	Zenair CH701 STOL	Mr N A Ross	Whanganui	Microlight Class 2
LEO	Cessna 182P	Airlift Trading Ltd	Auckland	Aeroplane
LIT	Cessna 172M	Apex Aviation	Auckland	Aeroplane
LPJ	Alpi Aviation Pioneer 200	Global Campers Business Trust	Christchurch	Microlight Class 2
LTG	Pacific Aerospace Cresco 08-600	Ravensdown Aerowork Limited	Wanganui	Aeroplane
MLE	Titan T51 Mustang	Mr G D Tetzlaff	Wellington	Amat Built Aeroplane
MPG	Piper PA-46-310P	Funnell Farms Limited	Taupo	Aeroplane
MPM	Pitts S-1S	Mr D F R McMillan	Kaikohe	Amat Built Aeroplane
NEN	Zenair Zenith CH-200	Mr D W Lucas	Kaipoi	Amat Built Aeroplane
OOI	Micro Aviation B22 Bantam	Jacques/Turnbull	Kaikohe	Microlight Class 2
ORZ	Piper PA-46-310P	Escape Aviation Limited	Taupo	Aeroplane
PCR	Piper PA-22-150	Mr G R Craig	Geraldine	Aeroplane
PTA	PAC CT/4E Airtrainer	AMT Aviation Limited	Tauranga	Aeroplane
PWG	Sea & Sky Cygnet	Mr S B Jones	Taupo	Microlight Class 2
RFX	Vans RV-7A	Mr B G Hungerford	Te Puke	Amat Built Aeroplane
RVD	Vans RV-7A	Mr W R Garrett	Huntly	Amat Built Aeroplane
RVY	Vans RV-9A	Mr L C Renwick	Howick	Amat Built Aeroplane
SIO	Rans S-10 Sakota	Mr I S McPhail	Christchurch	Microlight Class 2
SMI	Beech 76	Mr C K Lam	Auckland	Aeroplane
VMW	Micro Aviation B22 Bantam	Mr R J Cook	Invercargill	Microlight Class 2
WFG	Tecnam P96 Golf UL	GBM Aircraft Holdings Limited	Wanaka	Microlight Class 2
WFG	Tecnam P96 Golf UL	Southern Cross Contracting Limited	Tauranga	Microlight Class 2
WUF	Scottish Aviation Bulldog 121	Mr P D Bayly	Whanganui	Aeroplane
ZAN	Cessna 172S	Canterbury Aero Club (Inc)	Christchurch	Aeroplane
ZZZ	Micro Aviation B22J Bantam	NZTE Operations Limited	Hamilton	Microlight Class 2

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tail winds all the way they were able to maintain a speed of 130-135kts.

Originally build in the US in the '70s and then mainly flown in Canada this 185 was sold and operated by Air Safaris of Vanuatu from January 2011 until December last year when it arrived in NZ.

The Cessna 185 Skywagon first flew as a prototype in July 1960, with the first production model completed in March 1961. The 'F' denotes the year of the particular model, this example being 1973.

Alan said his Cessna will be for private use only and although it is a six-seater will only be flown as a four-seater. The C of A has been issued and Alan says the plane is going well and he is very happy with it.

ZK-BFQ Cessna 172P

Grant Bisset of Wanaka has always had a soft spot for the Cessna 172 so when the opportunity came to own one he and two others decided it would be a great idea.

The Cessna was part way through an overhaul at Wanaka for an Australian customer who decided not to continue with the project, so Grant and team took it over in November last year, with the work being completed by Cullan Smith of

...continued from previous page

DEPARTURES - March / April 2019

COB	Bell P-39F	Pioneer Aero Limited	Papakura	Aeroplane	Exp
HCN	Robinson R22 Beta	Mr R B Arends	Dannevirke	Helicopter	Exp
HDB	Eurocopter AS 350 B2	HNZ New Zealand Limited	Nelson	Helicopter	Exp
HDK	Robinson R44	Heliflite Limited	Papakura	Helicopter	Exp
HEX	Eurocopter AS 350 BA	Reid Helicopters Nelson Limited	Wakefield	Helicopter	Dest
HNN	Robinson R44 II	Prosser Heli Ag Limited	Fairlie	Helicopter	Dest
HNR	Eurocopter AS 350 B2	HNZ New Zealand Limited	Nelson	Helicopter	Exp
HXC	Guimbal Cabri G2	PLC Properties Limited	Ashburton	Helicopter	Exp
IFM	Robinson R22 Beta	Mr R B Arends	Dannevirke	Helicopter	Exp
ILT	Bell 206L3	T & P Williams Limited	Taupo	Helicopter	Dest
MGN	Magni Gyro M22	Moissanite NZ Limited	Albany	Gyroplane	Exp
MYH	Cessna 208B	Air2there.com (2008) Ltd (In Rec)	Paraparaumu	Aeroplane	Exp
OJA	Airbus A320-232	Air New Zealand Ltd	Auckland	Aeroplane	Exp
OJN	Airbus A320-232	Air New Zealand Ltd	Auckland	Aeroplane	Exp
OOH	Cameron US V-90	Mr M L Stacey	Blenheim	Balloon	W/d
ROO	Rans S-7 Courier	Mr H F Scott	Geraldine	Microlight C2	Exp
TIT	Micro Aviation B22 Bantam	Mr J R Bracken	Matawai	Microlight C2	W/d
WZK	Cameron A-210	Adventure Balloons (NZ) Limited	United Kingdom	Balloon	W/d



Twenty 24 Ltd of Wanaka.

The Cessna 172 Skyhawk first flew in 1955 and more 172s have been built than any other aircraft. Measured by its

longevity and popularity, the Cessna 172 is the most successful aircraft in history and as of 2015, the company and its partners had built more than 44,000. The 172P, or Skyhawk P, was introduced in 1981.

Grant says BFQ has undergone the Penn Yan Aero overhaul and conversion to 180 horsepower which will allow greater load carrying capability (MAUW 2550 lb) and should increase the cruise speed.

BFQ recently received its CoA and Grant says it's a pleasure to fly.

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