

The newsletter of the Sport Aircraft Association (Auckland Chapter) Inc

Sport Aviator

February 2019



Committee 2018/19

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FRONT PAGE

John Crawford's immaculate Midget Mustang ZK-MMI. Judged Grand Champion at Great Plains 2019. MMI had just 2 hours on the clock when John landed at Ashburton.

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Next Meeting

WHEN: Thursday 28th February 2019
WHERE: Auckland Society of Model
Engineers Club Rooms
Peterson Road, Panmure Basin
Mt Wellington
SPEAKER: TBA

3 President's Report



Hi All.

We're well into the new year now and the Great Plains fly in was well attended by the Auckland Chapter members who received quite a few of the awards. Congrats to all of you!

I flew down in my Sonex which was quite an adventure as I have never been further South than Raglan. We hit a front on the way down that we had to pick our way through.

Cook Strait was also blowing a gale and when we arrived in Omapa it was just 13 deg. but from then on it was perfect weather.

I flew some thirteen hours in the Sonex and saw parts of the South Island that you would never see without an aeroplane. The highlight would have been flying through the Whitcombe Pass.

I would like to thank David and Don Wilkinson for all their moral support and planning. Without them I probably would have got cold feet and canned the trip.

Cheers

Gary



Hi Everyone.

I am unfortunately a bit pushed for time this month in getting the newsletter out.

Sadly, work has

been getting in the way of life again and I have multiple deadlines from various directions coming at me simultaneously.

That said February has still been a very good month with regards flying. As Gary mentioned, the Chapter had a great showing at the Great Plains fly-in at Ashburton.

Delys and I made our way down on the Sunday preceding the event with Delys flying Air New Zealand while I took ZK-ZXZ. My flight was pretty uneventful but covered parts of the country I have never seen. I departed Whitianga at 7am and flew across to Raglan and then south on to Hawera for my first stop 1.5 hours later. A quick refuel and I then flew directly over the Strait towards Takaka but turned off at Farewell Spit to track down the West Coast, landing at Hokitika 2.5 hours later. There is certainly nothing like flying over water for nearly an hour o focus the mind on flying the aircraft as close to the GPS course as you can and monitoring the engine instruments like your life depends on it.

After refuelling at Hokitika with the assistance of the local aeroclub instructor and having a bite to eat, I took off and flew up the Whitcombe Pass to follow the Rakaia River and out onto the Canterbury Plains. Spectacular scenery along the West Cost and through the Pass with calm weather all the way. Could not have asked for better.

The Great Plains fly-in itself was excellent. The Ashburton Aviation Museum staff once again proving to be wonderful hosts and making everyone more than welcome as well as providing excellent meals and events and seminars for participants to attend. The weather was also superb for the four days of the event with the temperature reaching the high thirties on the Saturday. The winds were a little gusty on the Friday which put many off attending the fly-away sadly.

Don Wilkinson has kindly sent me a write up of his trip south with David to GP and I have included some photos from the fly-in as well.

We can now look forward to next year's Sport Avex 2020 fly-in which is to be held at Hawera with dates yet to be finalised. Stay tuned and I will keep everyone advised.

For this edition of the newsletter, Pete Walton has provided an excellent write up of the history of his T.51 and the recent work he has completed to change the engine and get Mustang 95 back in the air. I am sure you will find it interesting reading.



The mystery aircraft for January was provided by Barry Gillingwater and was successfully identified by Steve Stride and Keith Weale as a Northrup YC-125C Raider.



This was a bit of a trick mystery aircraft as while there were A & B Models of the Raider, the C model never actually existed. This was just a clever photo-shop image for marketing purposes.

Enjoy the newsletter.

Cheers
Gavin

PROJECT NEWS

Alan Butler –Vans RV-7

By Alan Butler on Facebook

Have decided 2019 is the year to get my arse into gear and smash out some projects. If you squint it kinda looks like an aeroplane!



MEMBER NEWS

Paul Carran – Vans RV-8

By Paul Carran on Facebook

Feb 24.

Departing NE for lunch at My Fat Puku, NZGB.



MEMBER NEWS

DCM / Scott Montagu – Corby Starlet

By Scott Montagu on Facebook

Great shot of Scott Montagu in Corby Starlet ZK-TNT and his Dad Gary Montagu in Corby Kestrel ZK-SJM at Great Plains in Ashburton.

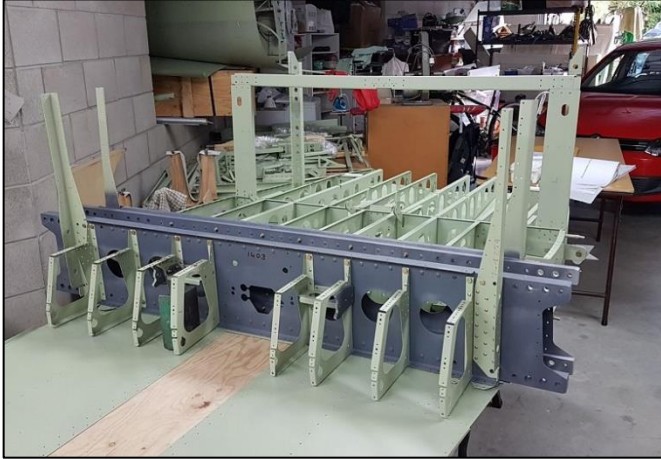


PROJECT NEWS

Chris Wade / Pete Walton – RV-14

By Chris Wade

Some more progress photos from Chris Wade on Pete Walton's RV-14.



PROJECT NEWS

David Wilkinson – DR107

By David Wilkinson

Paint scheme being considered for the DR-107.



MEMBER NEWS

Peter Jackson

By Peter Jackson

Teenagers!

Yesterday I flew a teenage girl to Raglan, gave her lunch and then flew her back again. Not long after take off from Raglan and at 1500 feet she decided unbeknown to me the pilot of the 2 seater Foxbat, to make a live video call to her girl friend. She got such a surprise that it worked she screamed in delight and at the same time suddenly pulled her legs up. Unfortunately her left knee slammed in under the yoke making the plane lift and go over sideways at the same time. For a moment I didn't know what was causing the yoke to jam but I had no hesitation in slamming her knee out of the way to regain control when I noticed. She had no idea why I hit her knee with such force and was initially quite upset by it. Teenage years should be banned!

MEMBER NEWS

Vale Leonard William Alric Woodgate

By Nev Hay

Obituary: Leonard William Alric Woodgate

Retired Chapter member Len Woodgate died peacefully in his sleep on 12 February 2019 aged 82.

He will be remembered by long-time members of the Chapter (1980's era) as the owner of Isaacs Fury ZK JHR which he purchased on 21/5/85. The aircraft was subsequently syndicated and then later purchased by Rex Carswell.



Len also owned at various times a Piper and Cessna aircraft and was a licenced aircraft engineer.

He was a qualified coach builder and his meticulous workmanship can be seen in the many vintage automobiles he has restored.

Len was farewelled from Morrison Funeral Home Henderson on 16th February

Ironically the last restoration he completed was a 1917 Dodge Hearse for Morrison Funeral services which carried him on his last ride.

Our condolences to Joy and his family. May he rest in peace.



PROJECT NEWS

Rob Fry – Lancair 360 MkII

By David Wilkinson

Rob's Lancair 360 N817S going back together.

Rob reckons it will be faster than my RV???



SAFETY NEWS

EASA Safety Information Bulletin

By Steve Chilcott

EASA SIB No: 2019-01R1

Subject: GPS Rollover Date

Applicability:

Pilots and air operators who use global positioning system (GPS) receivers in on-board systems, air navigation service providers, competent authorities.

Description:

The purpose of this SIB is to raise stakeholders' awareness concerning the potential adverse effects of the GPS week rollover on systems that are used for navigation or time synchronisation. The GPS provides position, navigation and timing information to many systems used in aviation: on-board Global Navigation Satellite Systems receivers, Flight Management Systems, Enhanced Ground Proximity Warning Systems, Air Traffic Management Systems, and Surveillance Systems.

Among other messages, the GPS transmits the date and time in a specific format that consists of the current week and the current number of seconds in the week.

However, the field that contains the week number is a 10-bit binary number. This limits the range of the week number to 0 – 1023, or 1024 total weeks. The GPS week zero started 06 January 1980, and the first reset of the 1024 weeks counter happened on 21 August 1999.

The next reset of the week counter from 1023 to zero will be on 06 April 2019.

To mitigate any adverse effects of the GPS week rollover, GPS receiver manufacturers often shift the 1023 window with reference to another date within the receiver. One common method is to use the date of the firmware as a reference. Using this method, the problem could also occur, but on a different date and in a different year from the actual GPS rollover date. More details can be obtained from the US Homeland Security Memorandum.

As the GPS time is ahead of UTC time by 18 seconds, the GPS week rollover will occur on Saturday 06 April 2019, at 23:59:42 UTC.

This SIB is revised to correct the reference to Commission Regulation (EU) 1034/2011.

At this time, the safety concern described in this SIB does not warrant the issuance of an operational directive under Commission Regulation (EU) 965/2012, Annex II, ARO.GEN.135(c), nor any safety directive under Commission Regulation (EU) 1034/2011, Article 13.

Recommendation(s):

In order to mitigate any safety risk related to the GPS week rollover, EASA recommends taking the following proactive measures:

- Assure that the latest software update is installed on potentially affected GPS receiver(s).
- Request information from the GPS receiver manufacturer regarding its robustness against the GPS week rollover.
- If possible, perform tests that simulate the GPS week rollover, e.g. using a GPS simulator.

If it cannot be confirmed that a particular type of GPS receiver is not affected by the GPS week rollover, it should be assumed that a failure of the systems that rely on data from that GPS receiver might occur, and appropriate mitigation measures should be established.

Contact(s):

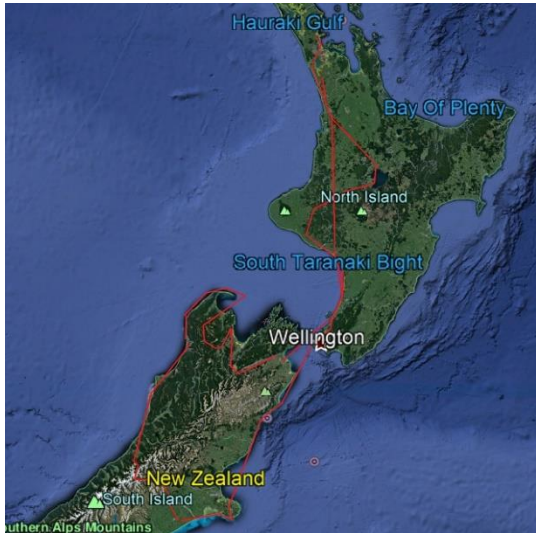
For further information contact the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

MEMBER NEWS

Don Wilkinson – South Island Trip

By Don Wilkinson

Have a bit of time this morning, Sunday 17 so will tell the good story.



We left North Shore heading to Whanganui, Wed 6 Feb. Met up with Scott Montagu in Corby Starlet TNT and Gary Briggs in Sonex SXR about Raglan on the West coast and tracked on southwards but encountered low cloud and poor viz so diverted to Taumarunui to wait it out.

Two hours later there had been little improvement, so we pressed on now accompanied also by Lloyd Morris in Glstar MPO, Peter Armstrong and Jon Farmer in DynAero PSA and Paul Carran in Vans RV-8 EYT.

Dodging cloud with hard lumps in it we all meandered through thick and thin onwards to Whanganui. Weather was now cold. Just 15degC, down from 26, following the southerly wind change and very windy.

Lunch at Whanganui and then we were off to Omaka. Quite rough in places.



Crossed directly from Paraparaumu, 40 miles north of Wellington, to the SI and into Omaka. Even colder at Omaka.

We stayed overnight at Omaka and departed on the 7th for Motueka via St Arnaud. We headed north through thick bushfire smoke, IMC in places, and on to Motueka on the western shore of Tasman Bay near Nelson for fuel and lunch.

Heading for Karamea well north on the West coast, we flew over the Cobb Dam high in the Kahurangi National Park and south of Takaka, then over a pass west of the Cobb (David, Alfred and I had an Easter up there camping 8 years ago) and on down into Golden Bay Collingwood. We flew out to the tip of Farewell Spit and round the top and down the coast to Karamea.

We stayed at the "Last Resort" in Karamea. Great food, White Bait fritters 20 mm thick the size of side plates, all fish and just a little egg. Venison Steaks 40 mm thick still kicking and a bottle of Whisky we nibbled at afterwards.

Friday 8th we departed, fuelled up at Greymouth, and headed for the Whitcombe Pass inland from Hokitika. Never been through it before. Four thousand feet, very steep and confined. The pass drops over into the top of the Rakia river and down to Ashburton. This was a great trip, but I would not want to try it in windy conditions.

Great flight into a very warm 37deg, Ashburton. Gary Montagu came up from Dunedin in his Kestrel. David did a flight over Mt Cook with Gary Briggs on board later on the Saturday. The fly-in was well organised and the WX was brilliantly hot and fine.

Sunday, we tracked North for home going through Akaroa Harbour on Banks Peninsula where in perfectly calm and sunny conditions we found a big cruise ship at anchor. Beautiful! Then directly overhead Kaikoura where we crossed over TNT and SXR refuelling. On to Whanganui for fuel and food then home to North Shore about 3.00 PM

A trip to put up there with some of the best.

TOY sadly had to stay behind but I now have the motor running well following an intake leak making it lean.

Fixed with a new gasket by the Carb and now it's ready to secure all, sign off and go fly. It's been a while. Nice having a spare in TNT.

WX has been great, settled and warm though we did get a day on the trip south when it got a bit grubby.

PROJECT NEWS

Peter Walton – T51 Upgrade

By Peter Walton

My T51 and the LS3 V8

ZK-WSV first flew back in 2009 at Matamata. It started its life in 2006, at Austinburg, Ohio, which is about 60 miles east of Cleveland, as its many parts were packed into a zillion boxes at the Titan factory. I received the kit at my business, Walton Special Vehicles, (hence the rego, Whiskey Sierra Victor), at East Tamaki, Auckland.

Warren Sly came over and helped me check off the parts list as we unpacked the boxes and it was at this time I realized that I did not really want to build an aircraft. Jeez there were a million parts, and I did not really recognise any of them. Anyway, the NZ agent had confirmed that they only take about 600 hours to build, so it should not be too bad, if my foreman and I put 30 hours a week into it, in six weeks it will be done.

Heck, what is it about the aircraft kit business, they all lie about the time it takes to build these things.....I guess if they told the truth, no one would buy a kit to start with!

Anyway, after about two and a half years, Miss B'Haven was in the air. Don't be impressed with how quickly I built the aeroplane, because I didn't do too much myself. Mike Crene did most of the work, while my wife and I swanned around on our boat in the US after our retirement in mid-2007, and time has proven that all of the work that Mike did was excellent. Not a spot of corrosion found yet and it has spent its whole flying life at the beach town of Whitianga.

My T51 has what the CAA calls an "Identifiable Paint Scheme" which means it does not need to display its registration marks and has an approved personal call sign of "Mustang 95". Yep. I get lots of questions about where the rego....., but it's all legal.

Mustang 95 was built with a Suzuki H27A engine, an all alloy quad cam motor of 2.7L and producing 185 hp at around 6000rpm. We governed it at 5000 for take-off so probably used about 160hp. On a good day, with its young slim pilot (OK a touch of exaggeration there) we could achieve 1400 feet per minute climb, and a max straight and level speed of about 140 knots.

I was very pleased with how the little Suzuki went and the whole performance of the H27A, however I suspect the boy doing a man's job scenario came into play and about 135 hours was about all the little exhaust valves could handle. This meant that every third year I had to pull the engine and give it a birthday. Bugger.

At the Titan Factory, the T51 aircraft started life with a Rotax engine, then the Suzuki H25A came along at 2.5L, followed quickly by the H27A 2.7L, the 3.5L Honda V6, then a 5.3L GM V8 and now the current engine is the 6.2L LS3 Chev V8. Their mule aircraft, Camel Smoker, has had each of these power plants installed and removed over the years. Now that would make an interesting read, seeing how the performance and fuel changed on the same aircraft with the various engines!

Titan then developed a kit to retro-fit the LS3 into older aircraft like mine. The quest was not so much for more performance, but to get a less stressed engine doing the job, Lycoming like, lots of cubic inches doing little work. Reliability is such a nice word when it comes to aircraft. As it is often said "it's not that flying is unsafe, but it can be very unforgiving".

This was not a simple swap, we spent five months pretty much full time on the conversion, which included fitting up the brand new alloy block and headed 6.2L LS3 engine, new Auto Flight re-drive, Link computer, reinforcing the firewall, fitting a 20lb Odyssey PC950 battery under the horizontal stabilizer instead of the original 2lb Aero-Voltz against the firewall, 23lbs of lead just forward of the rudder and the myriad of other tasks that you all know about.

At the same time, the 12 year old MGL Enigma EFIS was changed out for the latest Dynon HDX Touch screen by Darren from ICEA Avionics. This guy is a real worker. He would arrive at Whitianga at 8am having travelled from Ardmore, work like a Trojan all day through to after midnight, then refuse a bed and head back to Ardmore. And never once let the smoke out of the wires. Thanks Darren.

When the time came, the LS3 roared into life and settled into a smooth purr. With some help from Link and a good friend of mine, Colin Short, a fuel and timing map was developed for the engine as it only came with a start-up program. We did 5 hours of ground running, then changed all the fluids. Kevin Paulsen dealt with certification and mid-January, David Gill from CAA issued the "Special Experimental Airworthiness Certificate" and we were ready to fly

Although I had 10 years of flying Mustang 95, the horse power increase was such that I felt it would be prudent to have a more experienced driver at the controls for the first couple of flights, and as they don't come much more experienced than Gavin Trethewey, I phoned him. You won't find a nicer guy or more of a real gentleman than Gavin and he was happy to step up to the mark. After a very thorough inspection and a couple of high-speed taxi runs, Gavin did the business and Mustang 95 was back in the air. A great sight and a great sound.



Gavin, ever the consummate professional, went through all the basics over a couple of flights to ensure all was well and declared that it was a success story.

He gave me a pilots briefing then it was my turn. Advance the throttle smoothly to 21 inches, hold it on the ground to 60knots, and go.

Well it certainly goes! You can feel the engine torque pushing the left wheel against the runway as you accelerate, and it needs a bit of aileron as it comes off to counter the torque roll. Even at only 21 inches manifold pressure, the aircraft accelerates very quickly and air loads will prevent gear retraction if you get too fast before the gear is fully up.

I now have fifteen hours of reliability test flying on it and the conversion is a real success story. There have been no real issues, OK I did get a puncture at the end of 22, about as far from my hangar that you can get on the airfield, bummer. The performance is outstanding. I am still going through the test flying regime, and have not yet used full throttle, but how does 20" at 3000rpm, 140knots and 25" at 3500rpms 160knots sound. At my reduced throttle and manifold settings, I have seen 2500ft/min on the VSI and other owners in the US of A claim they have achieved over 3300 ft per minute, (and Americans never exaggerate do they?).

My most recent flight took me from Whitianga, over Pauanui, then on to and over Thames, then an approach and over shoot at Coromandel, then over to Matarangi and back to Whiti. Forty minutes engine start to engine stop.

But it's not all about speed, earlier in the day I accompanied Doug St George and Martin Little in their Fly Synthesis Storch to Waihi Beach for the fabled \$100 coffee, and Mustang 95 was happy both ways at 88 knots. (OK, I flew with one notch of flap on coz its easier!)

This is not an aircraft that you take off, climb to an altitude and fly at a fixed throttle and manifold settings. This is an aircraft for flying. One hand on the throttle, one hand on the stick, don't bother about the auto-pilot. It's just fun.

I have been monitoring fuel burn, and the 40minute flight around the airfields noted above (OK, I know Matarangi is not an airfield any more, but I can still dream) used just 20L. Half a litre per minute is something I cannot complain about buzzing about at 140/160 knots.

This is 24 miles per gallon in real speak and at 140knots! My boat does 2 miles per gallon at 7.5knots and half a mile to the gallon at 23knots!

One very pleasant surprise is that no longer can my wife hear Mustang 95 start up and take off while she is in the local theatre with her friends watching a movie! No sir, I am not the owner of the noisiest plane in Whiti!

Ahhhh, there is something just wonderful about burning dinosaur juice on a still evening, just cruising around over the spectacular scenery around the beautiful bays of the Coromandel Peninsula!

Pete

A sample of images from Great Plains 2019



The new old Ashburton control tower.



The view from the control room



Early arrivals Thursday above and below



Gary Briggs Sonex



Evan Wheeler managed to score hangarage.



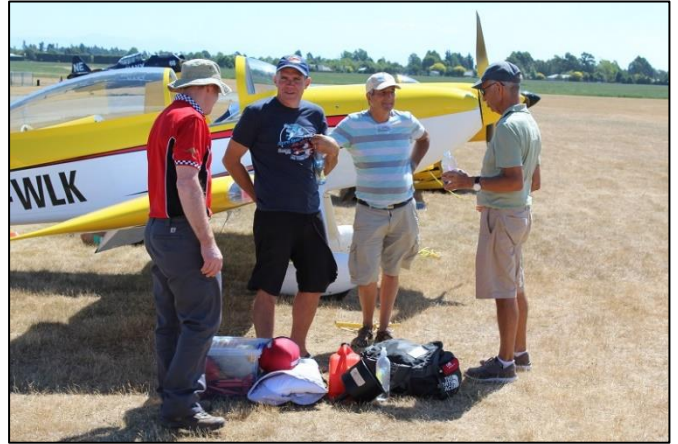
Shade was at a premium



Making use of all available shade.



David having a sieta.



Solving the problems of the world.



Paul Carran parking EYT



The view from the tower of a busy airfield.



Lloyd Morris letting others tackle the hard work.



Russell Brodies Fokker EIII Eindecker replica.



Pete Armstrong talking to the tourists.



Two T51's and Ivan Campbell's Mk26b Spitfire

The mystery aircraft this month was provided by Barry Gillingwater. If you can identify it in time for the meeting this week you will earn yourself a chocky fish.



ON THE WEB

eVTOL Air Taxi Prototype

Keith Weale

The Beta Technologies eVTOL Air Taxi Prototype.

(Not sure I would trust that nose wheel leg)



<https://youtu.be/GBcLIr-pc4k>

ON THE WEB

Awesome Pedal Plane

Gavin Magill

One for all those of you with Grandkids. Check out the neat little instrument package in the video.



<https://www.chonday.com/34337/plabuiax7/https://www.chonday.com/34337/plabuiax7/>

ON THE WEB

Happiest Day of My Life

Anon

**Happiest Day Of My Life.
That's Me in the Supercub.**

ON THE WEB

Little car, huge engine

Barry Gillingwater

This is what you get when you put a huge radial engine in a tiny Euro car



<https://worldwarwings.com/this-is-what-you-get-when-you-put-a-huge-radial-in-a-tiny-euro-car>

Chapter Events

2019

Feb 28	Chapter Monthly Meeting Last Thursday of the month 7.30pm at the Auckland Society of Model Engineers clubrooms, Petersen Dr, Panmure Basin
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Aviation Calendar 2019

2019

Every Sat	Dargaville Aero Club The place is buzzing every Sat, wet or fine, windy or calm, and the catered lunch at 12.30 is good value, just don't be late! Club website is http://dargavilleac.weebly.com/ . If going as a group, please ring in advance so the cook expects you. Ph. Murray 027-478 4308 or club house on 09-439 8024.
Mar 2-3	Tiger Moth Club AGM Fly-In Hawera Annual Summer Fly-In, competitions, dinner. AGM. Contact Graeme Wood. Ph. 027 293 2318. Email. ruffchops@gmail.com.
Mar 3	Model Airshow 2019 Highbrook Model Park Pukekiwiriki Place, Highbrook. Open Day & Fun Day. Flyers to be MFNZ members with a wings badge. Setup from 7:30am and starting from around 9:00a. BBQ & Drinks Available
Mar 15-17	AOPA AGM. Rangiora Contact Stephen Brown. Ph 027 224 0003. Email 1956.steve@gmail.com
Apr 19-21	Classic Fighters Omaka 2019 Omaka Aerodrome, Blenheim YEALANDS CLASSIC FIGHTERS AIRSHOW The Classic Fighters Airshow has a proud history of entertaining large numbers of visitors with cleverly themed airshows dating back nearly two decades. In this year of the 125th Anniversary of New Zealand women's suffrage, the organisers are proud to be 'Saluting Women in Aviation' at our next three-day aviation-based entertainment spectacular!
Apr 27	Sir Keith Park Bronze Unveiling Thames Civic Centre, Thames See flyer below for details.
Jul 22-28	EAA Airventure Oshkosh 2019 Wittman Field, Oshkosh Wisconsin, USA Celebrating 50 years of annual conventions at Oshkosh. The worlds greatest aviation celebration. www.eaa.org/en/airventure

Aviation Calendar 2019

2019 Continued

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Air Chief Marshall Sir Keith Rodney Park

Arguably one of the world's greatest unsung heroes...

'If ever any one man won the Battle of Britain, he did. I don't believe it is realized how much that one man, with his leadership, his calm judgment and his skill, did to save not only this country, but the world'. Marshal of the RAF, Lord Tedder 1947



11AM
27 April 2019
Thames Civic Centre
Thames

A bronze of Sir Keith Park will be unveiled by the Deputy Chief of Airforce.



This will be followed by a presentation by Dr Adam Classen an expert in NZ aerial warfare and author of “Dogfight: The Battle of Britain” & “Fearless: The extraordinary untold story of New Zealand’s Great War Airmen”

This will happen because one very private little old lady decided it should. As a proud New Zealander, she felt Sir Keith deserved greater recognition in his homeland. So, she left a bequest of NZD200,000.00 to create a bronze of Sir Keith to be installed in his birth place of the township of Thames. To do justice to Sir Keith and my Aunts bequest I am working hard in conjunction with Thames-Coromandel District Council to make this an event we can all be proud of.

I hope you will join us to celebrate this great New Zealander and his achievements.

Wendy Hare (Executor Estate Miss Y E Hare)