

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

Sport Aviator

March 2022



Committee 2021/22

EXECUTIVE COMMITTEE

President: Peter Armstrong

Vice President: Gary Briggs

Secretary: Keith Weale

COMMITTEE MEMBERS

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Gavin Magill David Campbell-
Treasurer Morrison

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Newsletter Editor Technical Library
Gavin Magill TBA

Safety Officer Airspace Users Group
TBA TBA

Tool Library Webmaster
Manfred Scherbius Warren Sly

Catering
Chris Wade

TECHNICAL MENTORS

Wood & Fabric - Mike Tunnicliffe
Composites - Alistair McLachlan
Metal Skin - Kevin Paulsen
Avionics - Liviu Filimon

FRONT PAGE

Oskar Stielau prepares his electric helicopter to fly last Saturday at Parakai. Many thanks to Oskar for hosting the visitors to his hangar and to Keith Morris for organising the day.

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Next Meeting

WHEN: March 31st 2022

WHERE: Auckland Society of Model
Engineers Club Rooms
Peterson Road, Panmure Basin
Mt Wellington

WHAT: Meeting

WHO: TBA

3 President's Corner



From the Presidents corner

I hope we are turning the corner regarding Omicron infections; it would be nice if we are able to have a near normal meeting for April. In the meantime, most may not be aware that some of the road tax that we pay in Mogas is being returned to some of us. The Ministry of Transport is funding the development of low level IFR routes throughout NZ (I did say – some of us) and is currently being used to create new instrument approaches to several smaller airports. It has been agreed by the Ministry for a 2-year pilot program to create a "safety" budget to be put in place using some of this road tax component. MOT believe this amount to be \$500,000 annually, within the Federation they believe this number to be on the low side. They are going to fund \$250,000 per year for the next 2 years.

The idea of a refund system will not be considered, the Aviation Federation is endeavouring to have this funding expanded for the benefit of all GA, Sport, and Microlight Flyers, at this time its focus is narrow. It is a start.

Raglan issues appear to have been put to bed, time will time will tell. Thanks to those who attended the local meeting and met with Ra Puriri (the main protagonist) and his supporters. Stop Press: I have just learnt that the fence has been vandalised again and the airfield is closed for the maintenance of this!!!!

At a personal level I flew with our Starlet Lane Developments hangar group and friends to Great Barrier for a "\$100 cup of coffee" last month. What we did not know is that for one of our group, Gordon Spence, it was to be his last flight in his RV-6 VGS. One-week later Gordon suffered a stroke passing away 7 days later, for those who knew Gordon and that was many, he was a good friend and will be missed. Photo is the Cessna Mustang jet that Gordon flew for Alan Drinkrow and his RV-6.

Please make the most of your time, tomorrow is the unknown.

Cheers Peter



Hi All

This past weekend I was fortunate enough to be able to get to Parakai to attend the presentation and demonstration that

Oskar Stielau gave on his electric helicopter. Oskar developed his helicopter from an Innovator Mosquito Air kitset that he built in the mid 2000's and which has now been adapted to electric drive. I have included a few photos in the newsletter from the day and links to where you can read more about the project online and see some Youtube videos. For me the most impressive thing was just how quiet the helicopter was and how manoeuvrable it is in flight. Oskar did a great autorotation demo and threw it around for around 15 minutes in a great display.

Oskar said he is now looking to build a second helicopter which will be designed from the ground up as an electric helicopter instead of being adapted from a petrol-powered airframe. He said he is aiming to try and bring the new design in under the US Ultralight empty weight limit of 254lbs (115kg) so it can be flown in the US without a licence. He believes that if he can achieve that weight, he could potentially get interest in producing kits for the US market. He has already ordered the carbon fibre tubes for the airframe so development is underway. This will be a very interesting project to keep an eye on in the future. Many thanks to Keith Morris for organising the day through the Northern Aviators Club. It was very much appreciated, and I think all those who attended would agree it was well worth it.

On to other matters. No doubt everyone is aware that Daylight Saving ends this coming weekend. We have been quite fortunate over the past month or two to have had a very pleasant late summer and early autumn. Fingers crossed for a few more weeks of clear and calm weather but I won't hold my breath. For those who fly to Whitianga occasionally, please be aware that there are significant ground works underway at the airfield with the main runway now divided into two parallel strips of about 20 meters width and the northern strip has been roto-tilled and graded this past weekend. New grass seed will soon be sown and will be given a long period of time to grow and bed in properly. Please read the Notams if you are coming to visit NZWT.

AERODROMES

NZWT (WHITIANGA)

A1135/22 FROM: 26 MAR 2022
18:00 TO: 24 JUN 2022 03:00 EST
GRASS RWY 04/22 WIDTH REDUCED TO 20M.
NORTH WESTERN EDGE GRASS RWY 04/22 CLSD DUE RE-SEEDING.
AREA MARKED BY WHITE MARKER BOARDS

A1137/22 FROM: 26 MAR 2022
03:22 TO: 26 JUN 2022 03:00 EST
GRASS TAXIWAYS B AND C CLSD DUE WIP.
ACFT ACCESS TO GRASS RWY 04/22 SHALL BE VIA GRASS TWY A ONLY

A1144/22 FROM: 26 MAR 2022
23:38 TO: 04 APR 2022 00:00 EST
GRASS RWY 16/34 SOUTHERN 300M CLSD DUE WIP.
THR GRASS RWY 34 DISPLACED 300M, MARKED BY WHITE MARKER BOARDS.
DTHR GRASS RWY 34 DISESTABLISHED.
AMEND EFFECTIVE OPR LEN:
GRASS RWY TKOF DIST (1:20) LGD DIST
16 438M 410M
34 438M 438M

A1145/22 FROM: 26 MAR 2022
23:49 TO: 04 APR 2022 00:00 EST
INCREASED AD BIRD ACTIVITY DUE GRASS RE-SEEDING

Thanks once again to all the contributors this month's newsletter. Sadly, the **"Upcoming Events"** section of the newsletter is pretty much non-existent this month. I would appreciate assistance with collating upcoming events for the newsletter if someone can help with this.

Cheers

Gavin

PROJECT NEWS

Oskar Stielau – Mosquito Air (Electric)

By Gavin Magill

Here are a few photos I took of Oskar's Stielau's helicopter this past weekend. As I noted in my Editors blurb, Oskar developed this version of the helicopter from a two-stroke petrol version of the Mosquito Air helicopter. There is a good article at the following link <https://evtol.news/stielau-electric-helicopter> which has some background reading plus links to other articles and videos on Youtube.



Keith Morris introducing Oskar to the visitors

Oskar explained that the two-stroke engine that came with Mosquito Air kit caused numerous issues due to engine vibrations and the electric conversion was undertaken to try and cure some of these issues. Initially Oskar just replaced the engine with an electric motor, but he said there were still significant vibrations caused by harmonics affecting the drive shaft to the tail rotor. Removing the gearbox and driveshaft and then replacing the tail rotor with the motors from a seven bladed drone mounted on its side fixed that issue.



The sideways mounted drone tail rotors.



The overall footprint of the Mosquito is tiny.

Oskar said flying the helicopter now was like riding a magic carpet because it was so quiet with virtually no vibration and little to no downdraft caused by the rotor. He said the inner part of the rotor turns slowly so creates little downdraft with most lift being developed by the outer part of the rotor.



Oskar demonstrating an autorotation.

With the current batteries he is using Oskar is getting flights of a maximum duration of around 17 minutes. He said that replacing the relatively low quality batteries he is currently using with better ones would likely increase that duration to around 30 mins.



Demonstrating the handling.

PROJECT NEWS

Rosmini College – Savannah Project

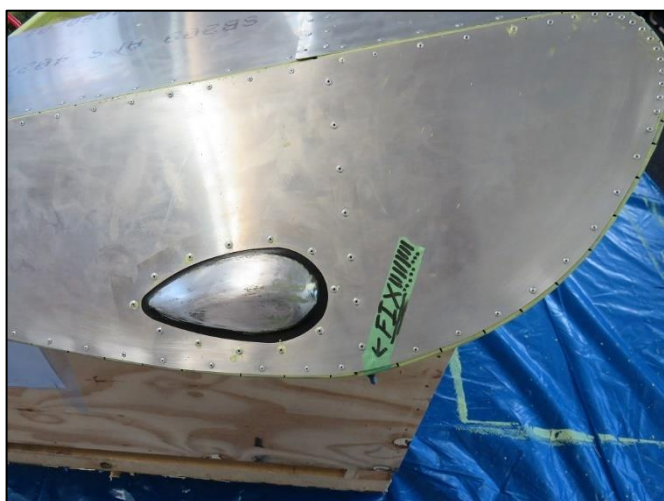
By Steve Williams

It's been a while since I wrote an update however over the past few months, the project is now starting to gain some momentum so a good time for that.

The boys are working well together. When it comes to prepping surfaces for priming and subsequent assembly, they work as a team.

What's rewarding for both John Smith and myself is that they are learning out mechanical skills which can be transferred into future careers. A week or so back, I was teaming up with Nico, one of the students. As we were counter sinking some holes and then pop riveting them, I asked him if he had ever done anything like this before. He stated that he had never picked up tools before, let alone help build an aircraft. This is huge and hard for me to comprehend. I can recall as young as 10 years of age spending my school holidays in my dad's garage building stuff. My father used to be a fitter and turner before becoming a teacher, so he had many tools of the trade.

These boys are learning how to control power tools and they have a keen eye for detail. If something appears wrong, they make it known so it can be ear marked for attention. (you will notice a picture of a pop rivet that does quite look right.) They know the standard required as we have drummed that into them, and it is accepted by all.



The boys have divided themselves into categories, some keen readers of Italian English instructions and task themselves with making sure everything makes sense.

There are others that plod away and prep work and then others that have become very hands-on with assembly.

Every team needs a "blame agent" and that is Josh. If something goes wrong, Josh is blamed whether he was present that day or not. Good banter is just part of the fun.

The boys are working every Wednesday and most Saturday mornings. The progress was quite slow at first but now milestones are being met. We have had a couple of mishaps – but these are carefully rectified. One of note was a 6 mm nut and bolt that was damaged on torquing and required removal. Located in a tight spot on a rear wing strut mount, it proved a challenge however with the aid of a reciprocating saw, John carefully removed it. These mishaps steal building time but rewarding when they are correctly rectified.

To date the fin and rudder are 100% complete.



PROJECT NEWS

Chris Wade – Sonex ZK-VDB

By Chris Wade

Progress on Victor Delta Bravo

As noted last month whilst waiting for material for the fuselage, I would concentrate on the wings. When I collected VDB from the previous owner in Whangarei, there were two scrap wing leading edges from a previous mishap. I thought of leaving it behind as scrap, fortunately I brought it with me, and managed to get enough material from the undamaged areas to repair the current leading edge damage.

The left wing top skin was damaged (I believe it had been walked on during the recovery of the pilot) so it was removed and replaced. The wing tips have now been repaired and both wings are ready for painting.



Port Wing. Top skin replaced



Wing tip repair



Fibreglass end cap repaired



Starboard. Leading edge ribs replaced.



Fitting leading edge skin.

PROJECT NEWS CONTINUED

Chris Wade – Sonex ZK-VDB



Leading edge riveted in place.



End cap ready for painting.

I have purchased a Rotax 912 80 HP engine and intend to replace the Aerovee with it. The good news is that Lianne from Aviation Performance Parts has managed to procure the aluminium angle I require so I will be able to work on the cockpit area next.



The Rotax engine I have purchased for ZK-VDB.

I require an oil tank & an engine ring mount. If anyone knows where one is available, please contact me.

MEMBER NEWS

Free to a good home.

By Jon Farmer

Motley collection of harness and seat belts. Might be just the fitting you were looking for. If no takers, the lot will go to the tip. jk.farmer@xtra.co.nz or 027 3490053



MEMBER NEWS

**Keith Morris – Jodel D9 ZK-KMM
1000hrs**

By Keith Morris

**1,000 hours flying for my Jodel D9
ZK-KMM "Honey Bebe"**

On Saturday 12 March I bought up 1,000 hours of flight time for the Jodel D9 that I built over a 10 year period back in the 1970s and 80s. I never flew her when she first flew in January 1984 but after having purchased her back in 2017 and reconditioning the VW engine (which took ages), I flew her up to Kaipara Flats from Stratford in January 2020 and I have now flown 65 hours in her, enjoying the magnificent scenery around the Warkworth area both on the East Coast and West Coast.

As I wanted to do something special to bring up the 1,000 hours I flew up to Dargaville for lunch in fabulous weather, and after refuelling I flew further on up past Kai Iwi Lakes and then down the beach from Maunganui Bluff to Muriwai – 75 miles at 800 feet. It was amazing just sitting there in smooth air and enjoying the passing views for just over an hour. At Muriwai I flew out around the gannet colony rock which is about a half a mile offshore, and then back home. And when I touched down the 1,000 flight hours clicked over. I don't think many of the first generation VW powered homebuilt aircraft will have made it to 1,000 hours (Don Wilkinson in TOY excepted!) so I am feeling pretty chuffed.



Foxpine in late 1983

(Both of the 1983 and 2022 photos were taken by my mate Ray Deerness)



Kaipara Flats – March 2022



Flying up the Western coast of the Kaipara Harbour



Flying down the beach with Kaipara Harbour ahead



Around the gannet colony Oaia Island and heading for home

SAFETY NEWS

A lesson in communication.

By Robin Hickman

I got this from an aviation mag. Some lessons in communication, standard procedures and eventually good teamwork using check lists.

Robin.

A Malaysia Airlines Airbus A330 took off from Brisbane Airport with covers still attached to all three of its airspeed sensors, a report by the Australian Transport Safety Bureau has found.

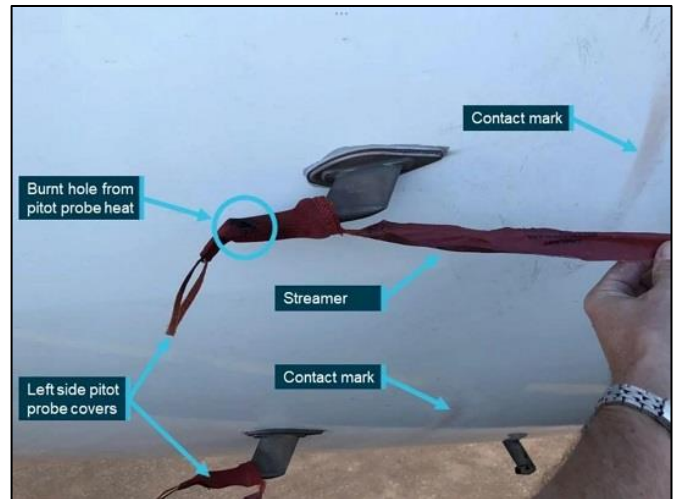
The jet, 9M-MTK (c/n 1388) departed the Queensland capital on the night of July 18, 2018, bound for Kuala Lumpur, Malaysia with 14 crew and 215 passengers on board. Covers had been left on the aircraft's three pitot probes which resulted in the flight instruments showing a red speed flag in place of the airspeed indication from early in the take-off, and unrealistically low airspeeds afterwards.

The report said the pilots did not respond to the speed flags until the widebody's speed was too high for a safe rejection and the take-off was continued. After lift-off, Tango Kilo climbed to 11,000ft and circled while the crew performed troubleshooting and other procedures which led the pilots to shutting down the aircraft's air data systems.

Doing so activated the back up speed scale (BUSS), a safety function which displays safe flight envelope information to the flight crew instead of airspeed.

With this system, assistance from air traffic control (ATC) and airspeed management procedures, the flew crew conducted a safe approach and subsequent landing back at Brisbane.

The ATSB said that for technical reasons, the main landing gear doors did not retract and were slightly damaged on landing. In addition, nose wheel steering was unavailable, and the aircraft remained on the runway for a short period after landing before it was towed to the gate.



The evidence.

Analysis

Investigators concluded that covers were attached to the aircraft "in accordance with a local informal procedure and recommended practice" by a support engineer to prevent them from becoming blocked by wasp nests (a particular problem at Brisbane Airport) during a three-hour turnaround.

The airline's certifying engineer – who is primarily responsible for the jet's airworthiness – did not initially know about the covers due to a "miscommunication" with the support engineer.

The flight crew, engineers, and dispatch coordinator are supposed to carry out pre-departure checks, meant to identify unsafe conditions such as the installation of pitot covers. However, according to the ATSB, these checks were omitted entirely or only partially completed, for a variety of reasons including "inadequate communication and reduced diligence".

The support engineer who fitted them, left to work on another aircraft and was unable to return before the jet was dispatched, while the certifying engineer saw the covers early in the turnaround but forgot about them.

The captain – who conducted an exterior walkaround prior to departure – did not "expect or detect" the presence of the pitot covers. Investigators found that the commander did not include several the required check items, including the right-side pitot probe, and looked at the left side sensor area only briefly during the walkaround.

SAFETY NEWS

A lesson in communication – continues

By Robin Hickman

The ATSB identified that the pitot probe covers used were different to those approved by Airbus and the streamers were not prominent enough to be noticed by ground crews during pushback. This increased the risk during turnarounds if other methods failed to ensure their removal prior to flight, investigators concluded.

The report said the captain, as pilot monitoring, did not assertively announce the presence of a problem or clearly specify its nature when detected, delaying the first officer's response. Both captain and first officer were aware of the issue with the airspeed, but according to the ATSB, there was limited coordination between them which reduced their ability to interpret the information and delayed their decision making long enough to make a safe rejected take-off not possible.

Investigators noted that during the take-off, the flight crew attempted to troubleshoot the airspeed problem without first completing the required memory items, and they did not complete the after take-off/climb procedure. However, their coordination and management throughout the rest of the flight was labelled as "effective" by the ATSB.

In response to the incident, the ATSB issued a safety notice advising operators who fly to Brisbane to consider the use of pitot probe covers and if used, ensure there are rigorous processes in place to ensure they are removed before flight.

For its part, Malaysian Airlines added procedures requiring the placement of a placard on the flight deck notifying crew when covers are installed. It also made changes to engineering arrangements at Brisbane to reduce the likelihood of error and published a flight safety bulletin to flight crew about vigilance during walk-arounds.

Sent from Robin's fast new iPad

SAFETY NEWS

Hazardous Attitudes

By John Ashman

When we become overconfident or complacent, our attitude subtly changes and our safety margin begins to decline.

Without realising, one may find oneself in a dangerous situation. When hazardous attitudes manifest, one more hole in the "Swiss cheese model" is aligned for a mishap.

We all know anti-authority, impulsivity, invulnerability, macho, and resignation. "get-home-itis" is often added to the list; an irrational urge to get to the destination despite obvious risks.

It's easy to think these are reflections of people's character (that they are born with it) but I have known from my own experience that anyone can develop hazardous attitudes under the pressure of the situation.

When we feel justified to bend the rules,
When we believe accidents happen to other pilots,

When we believe we can stretch the limits of our abilities,

When we are truly overwhelmed by a situation,

When we feel the reward of getting to the destination outweighs the risks,

we can all display any of the above.....

Whether we can maintain a safe attitude or not depends on our ability to recognise situations which emphasise these hazardous attitudes.

Being aware of when you might be particularly vulnerable to these attitudes may save the day.

13 In the News & On the Web

ON THE WEB

ICAO World Map

John King

I'm not entirely sure how to reduce this to the basic information of the ICAO World Map, but it's the entire world's airfields in one document.

It can be expanded to a high degree, and the NZ locations include such nice places as Gorge River and Big Bay beach.

There must be hundreds of thousands, if not millions, of airfields here, and the armchair aviator can get completely lost among them.

Cheers,

John



The graphic features the ICAO logo at the top left, followed by the text 'AIRPORT MAPS' in large blue letters. Below this, there are silhouettes of an airplane, an airport terminal, and a control tower. At the bottom, there is a blue button with the text 'ACCESS THE MAPS NOW'.

ICAO World Airport Map

The ICAO World Airport Map tool has the world's largest airport dataset including ICAO's official DOC 7910 Location Indicator. Users can search by ICAO airport code, IATA code, airport name, state/city name, and address. The airport map is updated every three months.

Explore our user-interactive web-based map now for free* and discover all the features.

We are open to receiving feedback and suggestions to help us improve this service. After you've had the chance to explore the features of this tool, we invite you to [submit your feedback HERE!](#)

ACCESS THE MAPS NOW

<https://mailchi.mp/newsletters.icao.int/icao-world-airport-map?e=2d2a9e4ab6>

https://applications.icao.int/airport-map/?utm_source=International+Civil+Aviation+Organization&utm_campaign=62b1cee0f6-Newsletter+-+Product+-+World+Airport+Map&utm_medium=email&utm_term=0_bf5ba6bf53-62b1cee0f6-344987285&mc_cid=62b1cee0f6&mc_eid=2d2a9e4ab6

ON THE WEB

John Smith Collection

Robin Hickman

A great view of the collection.



https://www.youtube.com/watch?v=Uhr_ZBYuT4

ON THE WEB

Tips from the Ancient Pelicans

Gavin Magill

I read this article on the AirFacts Journal website and found it funny and relevant so thought I would share.

Fifty years ago, life was simple: aircraft rentals were \$10 per hour and the latest technologies in trainer aircraft were nose wheels and VORs. And before there was "Aeronautical Decision Making" (which still sounds to me like a TV game show) we were taught "judgment", an ominous term with biblical undertones. "Maintain thy flying speed, lest the earth reach up and smite thee" said my first CFI. "Good judgment comes from experience" said the early aviators, "and experience comes from poor judgment."

Fifty years later, I still hear the voices of those Ancient Pelicans who had learned in taildraggers or biplanes—many of whom had flown in the big war. Though they are long retired, their hard-won wisdom still instructs us today, such as these nuggets.

<https://airfactsjournal.com/2022/02/tips-from-the-ancient-pelicans/>

Chapter Events

2022

Mar 31	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

2022

Every Sat	Dargaville Aero Club – Catered Lunch 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. These lunches have been cancelled due to the Covid restrictions but pilots can fly in with their own picnic lunch.
Every Sun	Whangarei Flying Club Sunday Lunch Penny burgers every Sunday \$5. Contact Rusty 021 173 8942 Burgers are off the menu until the Government moves Northland to Orange.

Aviation Calendar

2022