

...Contact!



January 2022



Tyla and Gaby Puzey with the C 150 they helped restore

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President's Column

Paul Lastrucci



Greetings!

Trust everyone had a great festive season where our homes and hangars were open to great festivities, tables were full of delicious food and all the customary beverages that tend to colour our lifestyles at this time and of course the mandatory afternoon naps for some that recharge and point us toward a December again for another revolution around the sun. For those that have signed up for Gym membership as a result of the indulgences, this always features high in most New Year resolutions, just think, you've lost a couple of hundred bucks already!

Over the December break I saw some great pics of flying coastwise and many pics of our great land from the air over this time which was splendid!! The pandemic seems to be getting a bit kinder since the O variant and there was quite a bit of flying activity which is a good sign.

Hopefully we can resume to a near normal where we can have the more interactive meetings pre Covid which was great. However, the Zoom meetings also allows for greater time flexibility, for folks with busy schedules and suites a large portion of the membership and also encourages international participation with topics that are extremely interesting.

From a National perspective, we are renewing the ARO in February which will see us good for another year. We will also have representation at the various forums through the Aero Club as well as participation in various initiatives that are already on the table. The initial stages of the DOP strategy (Devolution of Powers) from the SA CAA requires industry participation whereby we have and will provide input from the EAA as to where the gist of the process will follow.

Marthinus Potgieter, vice Chair at the Aero Club, sent an email to all Sections on their wish list of what Assignment of functions would be wanted within the DOP. Deadline was 10 Dec. Our input will also feature as input for a Part 149 overhaul. We submitted a brief overview of Part 103 which is well established in the USA and UK and expressed our interest to establish this part within the recreational aviation realm that would be beneficial to experimental and amateur built aircraft in South Africa. There are further workgroups scheduled for 2022 which we will attend and provide feedback.

ATF renewals remain problematic – primarily due to inconsistencies in service levels – this is being addressed for the ARO's that are affected by on a case-by-case basis, this remains a fundamental issue. Furthermore, the SLA turnaround of 20 days is being mooted to be increased to 30 days- this has been taken up with the CAA by the Aero Club with input from our ARO to ensure the current SLA is upheld.

There will also be a plan to further enhance the youth project through the SRSA funding available at the Aero Club for the various ARO's and to support our recent pilot bursary program through Alan Stewarts flight school at Panorama. This will be promoted further and through this avenue will be possible. We will also concentrate further on our youth initiative through the Young Eagles Project which slowed somewhat, however the EAA can support, partner and assist with the many

youth encounters through the various schools who promote learning and leadership within the aviation environment as subject matter for aspiring pilots.

We also can look forward to our major calendar events this year again, and work will start shortly to facilitate the process for our annual convention and AGM. We look forward to an action packed year with many of the regular features, and lots of fly away breakfasts, hangar flying, safety initiatives and I know of a few projects that will fly this year. Let's perpetuate the usual camaraderie amongst our members that keeps us as one of the most active ARO's in South Africa today.

We were up on membership 2020 vs 2021 so let's do what we can to increase the momentum and share the fun.

Stay Safe
Paul

**RENEWAL
REMINDER**



It's time to renew our EAA Memberships!

Membership fees have stayed unchanged for the past 3 years and will once again remain the same! EAA and Aeroclub are committed to protecting our freedom to fly – we need your help! By joining an EAA Chapter and EAA National you stand a chance to win a trip to Oshkosh 2023 in our MACH Rewards program! Draw to take place November 2022

**CLICK HERE TO
JOIN OR RENEW** 



Please join us for our first Chapter Gathering for 2022!

- Dale de Klerk's Safety Talk will discuss Va (Maneuvering Speed), a much misunderstood and ignored but extremely important airspeed limitation selected by the designer of the aircraft
- Gary Stevens from Sarasota USA, a regular visitor to our virtual gatherings, will cover highlights of their chapter, Chapter 180 and present a program on airports in the States
- Karl will be reporting back on the many activities our members got up to in December

18h00 for 18h30 Wednesday 12th January 2022

Join Zoom Meeting 

Meeting ID: 869 0076 5391 Passcode: EAA322



BREAKFAST AT KITTY HAWK



SATURDAY 15TH JANUARY 2022

You are invited to joining EAA Chapter 322 for a breakfast fly-in to Kitty Hawk Airfield this Saturday morning @ 07h00

OUR FIRST SOCIAL GATHERING FOR 2022!

FAKT 800m x 18m Tar Runway Elevation 4 586ft
Frequency 120.65

Pilots to broadcast intentions on 120.65 when E of FAWK CTR. Power lines 2000m S of AF at approx. 300ft above runway elevation

Chapter 322 Zoom Gathering

Wednesday 1st December 2021

With the Covid 4th Wave numbers rising fast, what we thought could be a face to face social gathering at the EAA Auditorium at Rand Airport, had to be hastily reverted to a virtual only gathering once again. But wow, with nearly 65 attendees on line, it turned out to be a great “get together” to end the year!

Our mystery aviation personality was a bit of a challenge to all, some guessing it to be Amelia Earhart, another great aviation lady, but unfortunately wrong. The personality turned out to be a much wilder character, Pancho Barnes. Amongst her claims to fame was she was the first female stunt pilot, friends with Chuck Yeager, Buzz Aldrin and Emelia Earhart and owner of the notorious “Happy Bottoms Riding Club” situated near the Edwards Air Force Base during the early supersonic X Flight program in the ‘50s.



Pancho Barnes and Emelia Earhart

Next was welcomes to our guests and members, one new member for the month, Warren James. Welcome Warren!

Ten members celebrated birthdays during the month of December, we trust you all did this in style!

The upcoming events slot included David Le Roux giving us info on the Steady Climb Fly-in at Rhino Park on the 4th December, the Tranquillity Lodge

Breakfast on the 5th December and a breakfast fly-in to a destination to be announced on the 15th January 2022. The date for the private viewing of Top Gun Maverick will be announced once we have confirmation from the cinema.



Dale de Klerk

Next up was Dale de Klerk’s Safety Talk, the subject “Airmanship and Safety”. Dale took us through a regular-type flight from start up to shutdown and emphasised things we should be thinking about, such as prop blast and cluttering up the airwave. Chapter 322 Vice Chairman, Sean Cronin presented a wonderful talk and slide show titled “Tug on my Wing”. Paul Chase, who worked with Sean’s brother in law, John, in Bristol, UK as a maritime ship pilot, was taken up in a Bat Hawk over the Pilanesberg Game Reserve. Sean shared some great low level images of game and scenery taken from the aircraft.

The gathering concluded with Karl’s regular and entertaining events report back for the previous month. Despite lockdown restrictions it seems we were able to aviate in a safe and Covid compliant manner!

Thanks to all who presented and attended!

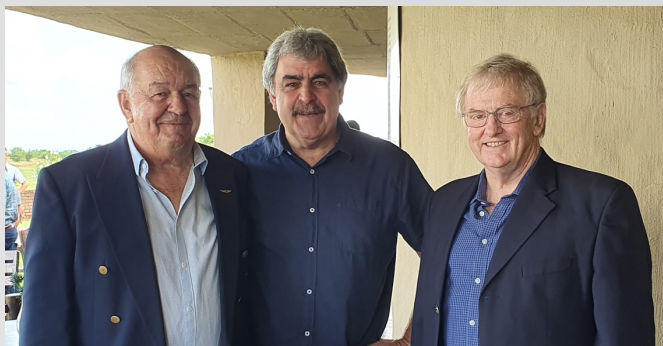
Glen Warden Memorial

Kitty Hawk Airfield 7 January 2022



Glen Warden was a highly respected Aviator who so tragically died in an accident while competing in the Ace of Base Aerobatic Competition held at Baragwanath (Syferfontein) on 11 December 2021. Glen had received National Colours by representing SA in the World Advanced Aerobatic Championships

Glen attended school in Pietermaritzburg and joined the SAAF Pupil Pilots Course 2/75. He qualified as a pilot and flew numerous jet fighter types. He was seconded to the Chilean Air Force where he learned to speak Spanish fluently. It was here that he was given the callsign GRINGO. His fluency in Spanish, involved him in the peace negotiations at the end of the Angolan Bush War as a Lt Colonel. Glen was an active pilot of the SAAF Museum displaying the Mirage IICZ 'Black Widow', the Vampire T11 as well as Harvards. Glen was to have retired from Comair from flying duties the following Wednesday on his 66th birthday as Head of Flight Operations. He was very much a family man and has left behind 5 children. The final B737 flight Glen was to have flown on 16 December, was given the callsign **4Glen**. The flight



Karl Jensen, Cobus Toerien, Mark Clulow

received the traditional water canon salute on arrival at OR Tambo.

I have never known anyone where not a bad word was said about the man, an exemplary leader and a person who embodied the concept of a true aviator. He always had time for all and made everyone feel special. Glen had more than 14,000 flying hours logged and has left a large shadow for so many of us.



Col TC Schultz EAA 322, Frank Van Heerden, Chairman Kitty Hawk Trustees and Athol Franz EAA 322

I attended Glen Warden's Memorial held at Kitty Hawk Airfield on Friday 7 January 2022. The event was well patronised by a large gathering, further testimony to Glen Warden's reverence by all.

Karl Jensen



The Goodyear Eagles who performed the Missing Man Formation at the Memorial -Glen of course was very much part of the team



ENJOYABLE AVIATION!

Some Enjoyable Aviation Events during December 2021 – Karl Jensen

On 4 December I was a guest at Bill Harrop's Original Balloon Safaris (helluva long name). This fine operation is now owned and successfully operated by partners Dale De Klerk and Tracy Robb (both EAA Chapter 322) and Gerry Broberg. The special event was to witness Semaleng Mathube, a marketing executive at Ford SA and the first black lady to be licensed on hot-air balloons, receive her licence.

The invitation required a sign on time of 05h15. This necessitated me departing my home in Sandton at 04h00 which was the end of the pandemic night curfew that day. That was a shock for me, not unlike regular crew call time and pick up during my wonderful career at SAA where I departed almost 20 years ago.



Bill Harrop's Original Balloon Safaris restaurant

Bill Harrop's is in the Skeerpoort Valley just 4nm SW of The Coves in a beautiful setting and with a



Sema gives Department Sport, Arts and Culture official a short, tethered ride

delightful restaurant. Arriving at 05h00, three large commercially operated balloons were already being inflated while their passengers enjoyed a coffee on the patio overlooking the launch area, watching their pilots and helpers who fussed about like mother hens. One of the professional pilots is Tracy Robb who has been an EAA 322 member since way back. I understand she is the most experienced hot-air balloon pilot in the world. Tracy has, excluding tethered flight, more than 5,700 hours of hot-air balloon time. Until recently, Tracy also flew her Dornier 27, ZS-LLU. When the commercial balloons had launched, Sema and helpers readied the BAFSA (an affiliate of the Aero Club of SA) blue training balloon. This is the balloon that was made to celebrate the

Centenary of the Aero Club of SA earlier this year. Soon she was airborne while the National Anthem played, the spectators cheered, toasting her with flutes of donated pink champagne. Sema controlled the balloon beautifully and managed to land it close to the take off point after about 20 minutes. Rob Jonkers, the Chairman of the Aero Club, handed Sema her licence with hordes of media capturing this newsworthy event. Her training was paid for in part by the Department of Sport, Arts and Culture. Several of their representatives were given brief tethered flights by Semaleng.



Sema getting airborne

Similar funding that Sema received, is available to EAA if we provide motivation via the Aero Club. Dale de Klerk has the space and plans to establish 2 runways at Bill Harrop's which will make this an ideal destination for EAA fly-ins. The runways have been marked out, but DO NOT attempt to land on them until we are advised that they are safe – the ground is viciously undulating at present. I have walked the lengths of both runways and advise that any attempt to land there is likely to cause severe damage to your aircraft.



First outing for Neil Murray's RV 3, ZU ITY with shoes and socks!

I tried to organise a breakfast fly-in to Tranquillity Lodge on Sunday 12 December, slightly outside my regular regard for Saturdays as my Sabbath, a day I reserve for flying. I was not able to stick to my plan, so I suggested flying on the Sunday. I advertised on our EAA groups on WhatsApp and registered 16 confirmed RSVPs. Unfortunately, the weather was not that great on the day with a bit of low cloud and a few sprinkles of rain. Only five aircraft pitched up, despite the weather. I would never take it askance for anyone not flying because of their view of the weather. This event was the debut of Neil Murray's RV3 – what a superb build. Big congratulations to Neil for what to me is a definite Concourse winner when we have an event where our members aircraft are judged. The standard of homebuilt aircraft is improving to an astounding level in our EAA Chapter 322.



Dan and Greg departing Tranquillity Lodge for Krugersdorp

The following weekend on 18 December, we were able to entertain Dan Petrovich (EAA USA) who had flown to JHB as his penultimate flight as Chief Check Captain of United Airlines on their 787-9 Dreamliner fleet. He was doing the final line check for Greg Madonna as Captain Boeing 787-9.



Eugen lands his Alo II at Fly Inn



Interior of Karl's Hangar Pilot Cave

The show here was choreographed by Marie Reddy, who collected Dan and Greg from their hotel at Melrose Arch at dawn and rushed them to Krugersdorp. Eugene Couzyn had his helicopter fuelled and awaiting their arrival.

All 4 of them flew off immediately in Eugene's Alouette II to Bill Harrop's Original Balloon Safaris. They arrived too late for a hot air balloon ride, so a coffee and a yak had to suffice. Eugene then flew them to Fly Inn where Dan transferred to Derek Hopkins' RV8 and Greg into my delightful (of course) 170, to fly to Tranquillity Lodge. Eugene and Marie followed, after fuelling the Alo.



Greg Madonna and Dan Petrovich outside Karl's Pilot Cave at Fly Inn

Awaiting Dan and Greg's arrival at Tranquillity, was a game drive vehicle and crew who took them and myself - I was along too for SWAT cover - on a quick one-hour game viewing escapade around the conservancy. The weather was cool after good rains, with little dust with plenty of game for our visitors to see, including lions at Kevin Richardson's Lion and Cheetah Sanctuary. Sadly, time



Derek Hopkins with Dan Petrovich aboard departs Fly Inn

constraints for Dan and Greg precluded an interaction with Kevin's magnificent lions.

Back at Tranquillity, there was time for the rest of our friends and EAA members, who had flown and even driven to Tranquillity, to meet and chat with our special guests. We were also able to congratulate our newest member who had joined Chapter 322 the previous evening, Col (USAF and US Air Attaché - Retired) TC Schultz, certainly an honour for our Chapter.



TC Shultz, welcome EAA Chapter 322 member



Dan receiving his Commemorative Certificate

There was a lot of chatter of course and, as it was Dan's 2nd last flight prior to retirement from United, we presented him with a certificate commemorating his visit with us and wishing him well for his retirement.

During the morning, Dan electronically signed off Greg as a fully-fledged United Airlines Captain after his successful check out from New York to JNB. I don't know of any pilot, at that professional level, having the unique experience of being signed out in the African Bush.

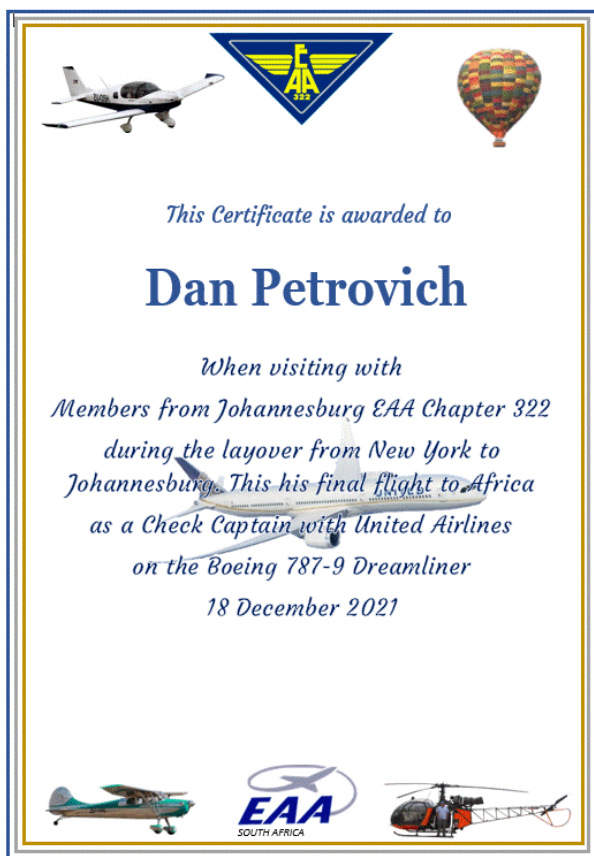


Eugene, Marie, Greg, Dan at Tranquility

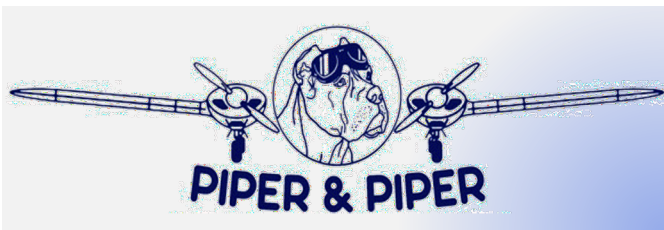
With midday approaching, our guests boarded Eugene's Alo to fly directly to Krugersdorp and then be delivered to their layover hotel by Marie. Judging by the appreciative correspondence that followed from Dan and Greg, as well as the chit chat on WhatsApp, it was a memorable day for all who were able to take part. After Dan's retirement, we expect Dan and probably Greg, to come back and visit South Africa properly at a far more sedate pace, along with their wives and families



Giraffe during the game drive



Dan's Certificate



24 December saw a group of us holding an impromptu breakfast fly-in to Aviators Paradise. The restaurant at the airfield 'Piper and Piper' has recently been taken over by new and seemingly enthusiastic people. Sean Cronin and many of the Bathawk Swarm nesting at Silver Creek Gorge, just 16nm distant, regularly visit Aviator's and have asked us to support the new proprietors who will endeavour to remain open 7 days a week – good on you Sean!



Aviators Paradise - Visitors for breakfast

There were 17 aircraft there on the day for breakfast, no doubt their biggest crowd to date, to subject the new restaurant management to a baptism by fire – they managed well. The weather was delightful after the good rains this season and the countryside is looking awesomely green.

The last organised event I was involved in during December, was in response to Barry Haremse and Sean Cronin's invitation to indulge in a breakfast fly-in to Barry's Airspan airfield on 26 December. The airfield lies 7nm SW of Rustenburg with tarred taxiways and an 855m runway.



Lineup of some of the visiting aircraft

The name Piper was derived from a friendly and gentle Boerboel pooch whose name was Piper. Sadly, the animal died of cancer recently. Piper is fondly remembered by many. He has been cleverly incorporated into the restaurant's new name and logo in combination with an abandoned Piper Aztec that stands near the restaurant.



Airspan Owner Barry Haremse

Barry has a lovely hangar adjacent to his home. The hangar bifold doors open 90% of the airside of the hangar which has quality facilities and is often used as a wedding venue, for initiation ceremonies, Bar mitzvahs, ritual devil worshipping gatherings, solstice celebrations, Carnivals, Mardi Gras, Halloween, St Patricks, Bastille Day, Oktoberfests etc. The hangar presently even houses two Jabiru 4s.

Despite the short notice for the event and the unstable weather prevailing, 8 aircraft flew in. All



Larry Beamish's Extras make a debut in their new livery



Airspan airfield

their occupants were treated to a generous breakfast of stywe pap and savoury mince, with sous. Hot beverages were also available – all free of charge. All consumables were served on traditional enamel plates and mugs – lovely. Thanks Barry, we'd like to come back soon.



Some of the visiting aircraft at Airspan

The skies were darkening toward the east, so I departed early with thunderstorms threatening at my base at Fly Inn. My flight home was totally uneventful, with the rain holding off until late afternoon. A non-participant suggested to me that we arrange these fly-aways to the many close to Johannesburg venues more often, huh? Please don't stay away next time, the more of you who join in, the greater the camaraderie becomes!



Happy visitors at Airspan



Crossing the Magaliesberg

Karl Jensen EAA Chapter 322

C 150 PROJECT

A PLANE FOR MY CHILDREN – By Mike Puzzey



So here's the challenge....

Find an old aircraft from 60's 70's or 80's that has some sentimental to you OR classic value in the aviation market OR possibly was once a popular machine that many remember and flew years ago. Then restore it with passion to be as close to the day it was new. It's hugely rewarding, and your aircraft passions will be totally restored again !!

Rebuild project #1 ~ Cessna 150 1977.

Got a panic call from an ex owner "Mike they gonna scrap our old plane, help save her". The 150 had been sitting in a hanger for some time, Out of C of A for over 2 years and the owner couldn't afford to get her airworthy again as there were too many expensive things that needed doing. Such a waste to abandon her but that's what happens if it's not economic to repair.

Called the owner and chatted the key points to get an idea of the machine as would be buying it unseen assuming the facts and price made sense. All made sense so paid him over the phone, the



... out of C of A and too many things that need doing

deal was done now so had to get her fetched from another province.

The logbooks arrived and we took them to the AMO for review and instructed an urgent application for a flight permit to bring her home. The Covid delays were frustrating, but the permit eventually arrived and off we went to get her.

We opened the hangar and there she was, so good to see the new project especially when you buy a machine unseen. After a good look over her it appeared all was well enough to fly her back to JHB.

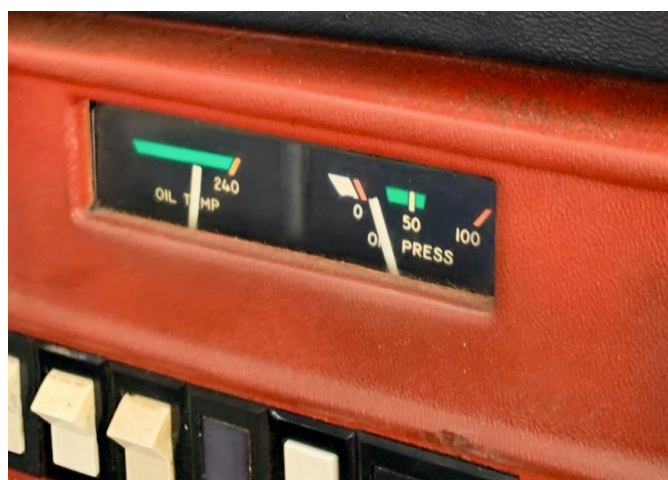
Took her out for a test flight to make sure all was good. After a jump start, she fired up perfectly and the vitals all looked and sounded just right. Taxied out for take-off and short a circuit.

Only the air speed indicator and altimeter were not working but in a 150 these are "nice to haves" I thought to myself. So will feel the air speed and GPS the altitude, that should be fine.

Weather was not great to JHB so 2 days passed then it looked good to go so we refuelled the machine and taxied for take off. After take off clearance she climbed perfectly leaving sea level

And I settled in for the fun adventure.

After 40 mins it became apparent that things were not so perfect. The oil temp was climbing as I got to 6500", but at the same time the oil pressure was dropping way below the green arc and becoming a big concern.



Temperature creeping up and oil pressure going down!

Just clearing the gaining ground and mountains below I was watching the oil temp closely and even closer the pressure, well what little pressure I had at this point. Now keeping a keen eye on roads below for an emergency plan should i need it with the low oil pressure.

Let's say the concentration on the low pressure was now the focus off the day as I just cleared the terrain below still trying to climb after reducing the engine power settings and making a richer mixture to optimise the situation.

The pressure situation was not getting better, and I was flying in bad weather with only 50-60% power max, anything more and the oil pressure would drop to almost nil and cause a huge vibration up front... just a little nerve racking I confess and as we all know flying a 150 on half power can be interesting, they usually need more than 100% just to maintain height normally.

I decided to divert to Ladysmith about half-way to JHB so I could check the oil levels and look over the plane and decide whether to go on or the trip was over at this point.

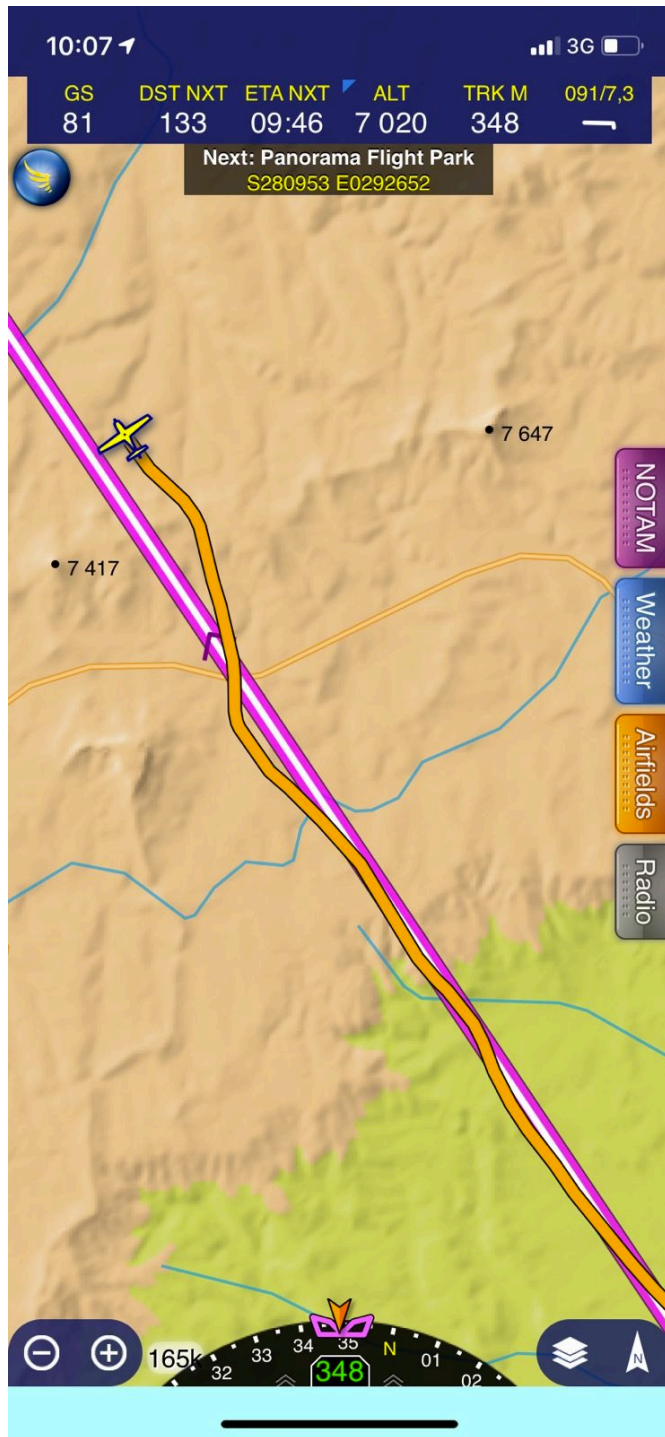
Found FALY and landed then taxied to hangers. Opened the top cowl to look for the oil leaks as the bottom of the plane was now covered in oil and the dip stick showed we used 1.5 liters of oil per hour, ha ha, so that was not a good sign.!

Couldn't find or stop the oil leaks there were so many, so made a spot decision to over fill the engine oil and fly on for JHB in the morning early when it's cold to get best performance under the circumstances.

Logistically it was too complicated to strip the plane to move her to JHB and I felt we have come this far I'm sure we can get another 2 hours out of her and live to tell the tale.

Dawn struck and I pre flighted as the sun came up then Jumped in and taxied out. She sounded great in the cool morning. Powered up enough to fly and off we went with a very slow climb to Drakensberg 45 mins away. Mmmm, climb was slow, and Drakensberg is high hah, and the weather was still not great with low cloud and bad haze not helping. I needed 6500" to be 1000" AGL and I'm coming up to the high ground and I'm just going thru 5000" so little stress and added more power and watched the temp climb fast, Needed the power so had no choice. Now just above the ground weaving thru the mountains just a few feet at times I did my best to keep the temp as low as possible and keep oil pressure just off zero.

I felt like I was flying a weed whacker just a few feet off the ground at times but every time the vibration got bad, I would throttle back slightly to bring the temp back just enough to keep the sewing machine working to get me home. She purred along for the next 1.5 hours and next thing I could see JHB south and knew we home now - what a great feeling!



Low level thru the mountains!

Over JHB CBD and Ponti passed above me I headed for home. Landing was a great relief and now I knew the work could start.

THE STRIP DOWN

Next day with the excitement we got working on her, laid the tools out, tupperware waiting for the bolts and hardware. Koki pen and plastic bags for bolts nuts 'n screws, all-ready for organising the strip down.

The prop and engine came off first. Few hours of removing cables and fitting. Everything covered in old oil and patch up silicone all over this engine.

Installation, wow. I do love looking at all the different maintenance techniques on these machines when they get into disrepair, it's shocking to see sometimes wow. Ha Ha.

Then all the control surfaces came off next. Ailerons, flaps, elevators, Rudder. All removed then carefully marked and hardware sorted.

The cabin interior came out, seats carpets along with the old damaged plastic panels, some instruments with fittings and some wiring with the related bits.

Next all the covers and closures like wing tips and undercarriage fairings off, fuselage panels, fairings and covers out. Undercarriage covers and boots all removed. She was starting to look decidedly slim now and the age was showing as we got her more and more open.

Left her on the wheels so we could move her at all times.

LET THE WORK BEGIN

Engine shop took the engine to pieces and washed every part for full inspection. In a few days it was lying on the table in many parts.

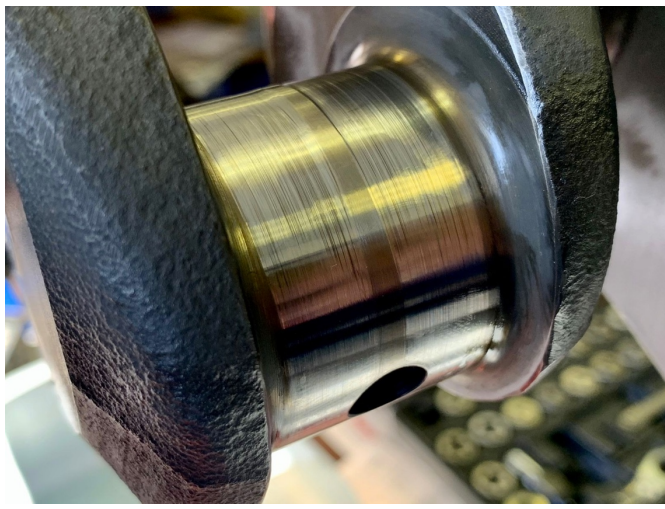
The crankshaft was done and that's over 100k on its own so the first big expense.



New crank shipped from USA - 120k!

It's was max undersize and well worn past the limit. So, the main reason for no oil pressure. After reviewing all the parts, the spares list was generated and costed. We decided to go ahead and order all the new parts for the full rebuild back to zero time.

Prop went for an inspection and that was well within limits and just needed some paint.



Engine mount went to X-Ray and was cracked. So that had to be paint stripped, welded and repainted. They re X-Rayed and it's was fine the second time.

Then I had the same corrosion and crack specialist reviewed the air frame from front to back. Every structural bolt was removed one by one to make sure every hard point was safe and not damaged.



The engine mount was cracked and had to be re-welded



Crank badly damaged. Not even touching the bearings properly. Someone had fitted bearing to get the pressure up and they were the wrong size

All the engine components went for review or overhaul to the specialists. We ended up overhauling mags, carb and exhaust system to meet the rebuild requirements.

The air frame was now being paint stripped, and we were dealing with some small corrosion issues while preparing her for undercoat and new paint. Few small repairs were done here and there but she was not in a bad way, so the prep went well. I make it sound simple, but many many hours went into the air frame in preparation for the paint, needed to make her absolute perfect.

Interior was being fully redone now at the fabric shop. All the ugly old PVC carpets and fabrics now being replaced for modern woolen carpets and leather seats as these material can pass the fire tests. They came out wonderful and they looked so much better that the original parts we removed.



Upholstery modernized in wool and leather

New tires and new brakes were fitted. Hubs repainted to look new. Then new wheel bearings installed with all new dust seals also replaced and reassembled. Always looks so good when the work is done.



Painting started and its base coat was a stunning brilliant white base paint. Looked wonderful. Always amazes me how just how new paint can make something so much better looking. Fuselage was done. Wings next then tail sections along with all the control surfaces. All the glowing white parts just looked so good – wow!

Now the fun part haha ... the lines and masking that off. Was great to line her off, the new paint scheme just came together so well and just flowed, working well on the body, wing tips and spats. Put the blue on first - OMG how amazing is that colour. Then put the red on.

Putting paint colours on always sounds so easy but to those that have done it they will know it takes a serious amount of time, wow, but when those tapes come off it's looks so good !!

Then there were several vinyl stickers we wanted to add to "VIP the design" up that had to go on before the final gloss clear coat was laid down next.

OMG - the clear coat went on and it's was just next level beautiful to look at - wow wow wow! That shine was so good she looked like a big piece of candy after that in front of my eyes. I can't explain how good she looked after the gloss coat was added – wow!

REASSEMBLY

As a rule, to reassemble something usually takes about 3 times the time that it took to strip. So off we went piece by piece with lots of love and





care.... Oh, and all new screws and hardware of course. The details make the finish look right. As she went back together, she just looked so good.

Eventually we have all the flying parts back. The engine was hanging. New wheels and brakes all fitted. All the fairings now going back. The interior was now reinstalled and looked great.

Just the cowls need to be fitted now after the new engine baffles were installed and trimmed. Getting the baffles to fit right takes time but it's a critical part as you don't want the new engine to overheat, and a well baffled engine usually runs at the right temps. So, I always pay attention to this part.

Finally, the cowls were fitted and OMG one takes like an hour just walking around look at the work of art. It's such a rewarding moment when she's complete at last!

ENGINE RUNS AND TEST FLIGHT

Switched the fuel on and one prime. Mags on both. "Props clear" and as I pushed the start button, she fired up immediately and gurgled away so happily. Great moment. Warmed her up checked vitals and she had great oil pressure now. Thank goodness. Then shut her down to have a visual inspection for any problems or oil leaks. She was perfect - not a thing wrong as I inspected all over and smelled that hot new paint smell.

Re-cowled her. Dipped the tanks. Did a last preflight check over and into the air we go for a 60 min full power flight to bed the engine.

Taxied out. Everything working great. It's such an exciting moment when your about to test fly thousands of pieces you just assembled one by one and hope it's not about to kill you.

Love this moment so much, it's like a first date never know what gonna happen. It's the test of your attention to detail and faith in your work I guess right - haha.

Ran up at the threshold. 10% flap and all good. Called take off clearance. Full power (which in a 150 is nothing exciting - must admit but still a great moment) and off we went.

Held her down till 60 indicated, then rotation and off she went like a home sick angel - wow I was impressed how she felt now compared to the inbound flights. They couldn't be compared; it was like two totally different machines.

Watched the temps as we climbed. All was totally normal. I was even surprised and climbing at a steady 500" per min, she just felt so good. People always laugh at any stories of flying a 150, haha, it's like telling people you like ABBA or you wear Crocs OMG – haha.

But I absolutely loved flying her, She's not a sports plane but she is just lovely to fly !! 60 mins later all still going perfectly, not one snag as I approached for landing. Proud moment. Brought her down to a super smooth two finger touch down and a full stop in just a few meters, was just awesome!

NOTE 1

Her nick name is "Tiger", the original owner was a lady who loved that name. So, we still call her Tiger I just spelled it slightly differently now TYGA after my daughters who will fly her - Tyla and Gaby.

NOTE 2

During the rebuild I flew through the work. The whole job from stripping to shipping parts to rebuilding everything. Then the final paint and assembly all happened in just 2.5-3 months. Yea 3 months.

THEN the docs and paperwork - OMG. That took another 3-4 months. I could not believe the physical work went so much quicker than some docs. Anyway, there is politics in everything I guess – right? 🤔

NOTE 3

I have built planes from scratch in my time. I have refurbished many a plane as an engineer years ago for customers.

I can say without doubt rebuilding a classic machine back to its former glory was just the most enjoyable thing I have done in a while. Very enjoyable and personally very rewarding !!

"To the sky's and beyond. No mission impossible".

Till next time - Mike Puzey



BUSH PILOT'S COURSE

By Tony Kent

It has been a good year, having just completed the 8th course this week for 2021.

The full course runs for 6 days, 5 nights, but can be tailored to suit the client's pocket or time constraints.



Kromdraai crop-sprayer strip, South of Thabazimbi. The main strip half a NM to the North is most interesting, having powerlines crossing about a third of the way, necessitating landing 27, turn around and take off 08 under the powerlines

We base ourselves at Kunkuru Safari Lodge, around 10 minutes flight time north of Brits. This is ideally situated for fuel from Brits and Rustenburg, as well as for planning sorties to the north. Geographically, we stretch as far east as Entabeni, North to Ellisras, and west to Derdepoort on the Botswana border/ Madikwe area.

I have been flying these courses for 20 years and have built up good relations and trust with airstrip owners; some are farmers, lodges, or private strips, and we look for the unconventional types, especially if they offer some sort of challenge or obstacles. Some require Indemnities, others just a heads-up, in case of game heli ops, crop-sprayers, etc. Obviously, we also make use of public airfields en route.

Petit's grass strip has powerlines on one end, trees the other. Bapsfontein (grass) has a great big tower on final approach 02, Zynkraal has powerlines approaching 027 and is particularly narrow (8m) and short at 900m (half of Brakpan's 1800 full length). In addition, there is always a crosswind. Rhino Park's sand 11/29 has fences each end and is short at 750M, and everyone knows about Kittyhawk not being too forgiving! In addition, most of them have non-conventional joining procedures, and various circuit restrictions.

Before heading off for the fun-stuff, I will spend about 3 hours briefing the client in preparation of how it all will work, re-capping known (but usually forgotten) stuff, such as forced & precautionary landings, steep turns (rudder pedals = footrests?), the dreaded RTO briefing & EFATO, go-around, short & soft-field landings & take-offs, crosswind technique, FREDAS checks, safely flying low-level, etc.

Then we move onto low-level field inspection technique to check surface, for animals or other obstacles, the square search (for when lost, no GPS!), Canyon turns, ADM & TEM, my pet subject – AIRMANSHIP, prop-swinging (only, if possible, with the aircraft being used), W&B, mountain flying, and more.



Where is the airstrip?

Most important is knowing your aircraft speeds, and these are drilled into the client in order to maximize the various exercises. Lastly, the prepared nav logs & maps are studied, with accompanying pictures of all the airstrips, highlighting appropriate procedure, obstacles, etc. Then it's off for some fun and learning – guaranteed. No cowboy stuff, just introducing you to stuff you were not aware of.



Sometimes we fly lower than choppers! Low level along the Crocodile River, waking up the feet for balanced turns / ball in the middle

I unfortunately have not kept count of how many courses I've completed, but it numbers in the 80's by now, and around 1 500 hours of (unlogged) time. The client logs PIC for all the flying. Other than suffering the odd flat battery or puncture, no other incidences to report in all this time!



Final approach farm strip, Liverpool 29 uphill, turn around at the top and take-off 11, picture doesn't do justice to the steep slope up, and also the side-slope. I have witnessed 2 aircraft with the tails in the air and their noses in the bush, having been taken there by gravity when you dare stray off the centreline

Some statistics for you to give you an idea of what we manage to achieve:

Month	Client	Days	Hours	No. Strips	Landings	Aircraft
March	Rayhaan	5	20,1	38	60	C172 (Rented)
August	Gerhardus	6	24,1	43	67	C172 (Rented)
September	Charles	2	10,1	29	50	TB20 Trinidad (Own)
October	Ulf	3	14,3	31	42	C206 (Rented)
22 000 - hour Lufthansa A340 Captain, planning and guiding only						
November	Dale	3	11,3	33	43	C172 (Rented)
December	Yaseen	3	8,1	30	42	C175 (Own)
December	Thomas	5	18,3	48	77	C172 (Rented)
Swiss National, I just did the planning and guiding. This course was based out of Mongena, as Kunkuru closed for a Christmas break.						

I still thoroughly enjoy imparting flying skill and get great satisfaction when I see the clients' improvement and their enjoyment while learning. I can honestly say I have failed with only 2 candidates, both happened to be German ladies, both in their 60's. I really tried for them! Obviously, I'm punting myself, and invite you to look at my website www.tonykentflying.co.za for more information, as well as Facebook "tony kent flying" for more news, and client feedback. Otherwise, please feel free to call me on 082 442 0866.

Paid-up EAA members receive a 50% discount for my time!



Lucky Impala, or lucky C206? landing at Mabalingwe RWY 04, turn around take-off 22. East of Zebula



Right-base for low-level inspection grass & gravel RWY 03, followed by 45 degree, 30 second procedure turn to do T & G 21. Ant's Nest , private game lodge North of Vaalwater/ Waterberg, about 25 NM South of Ellisras



Low-level inspection RWY 06 at Rundu Bundu, a private game farm, nestling between the Boshoffsberge, South of Rooiberg, along the Warmbaths/Thabazimbi main road.

Definitely one-way in, turn around, take-off downhill 24



Skotsekar Game Farm, West of Thabazimbi, North of Dwaalboom. Note Powerline pole at beginning of RWY



Tweeloopfontein, a farm at the foothills of the Welgevonden mountains, North of Thabazimbi. Land uphill 32, Take off 14



PrimeCo in the Brits GFA. Note power lines bottom-left corner



Low-level inspection Aerosands (North of Cullinan Dam) – Impala on the runway

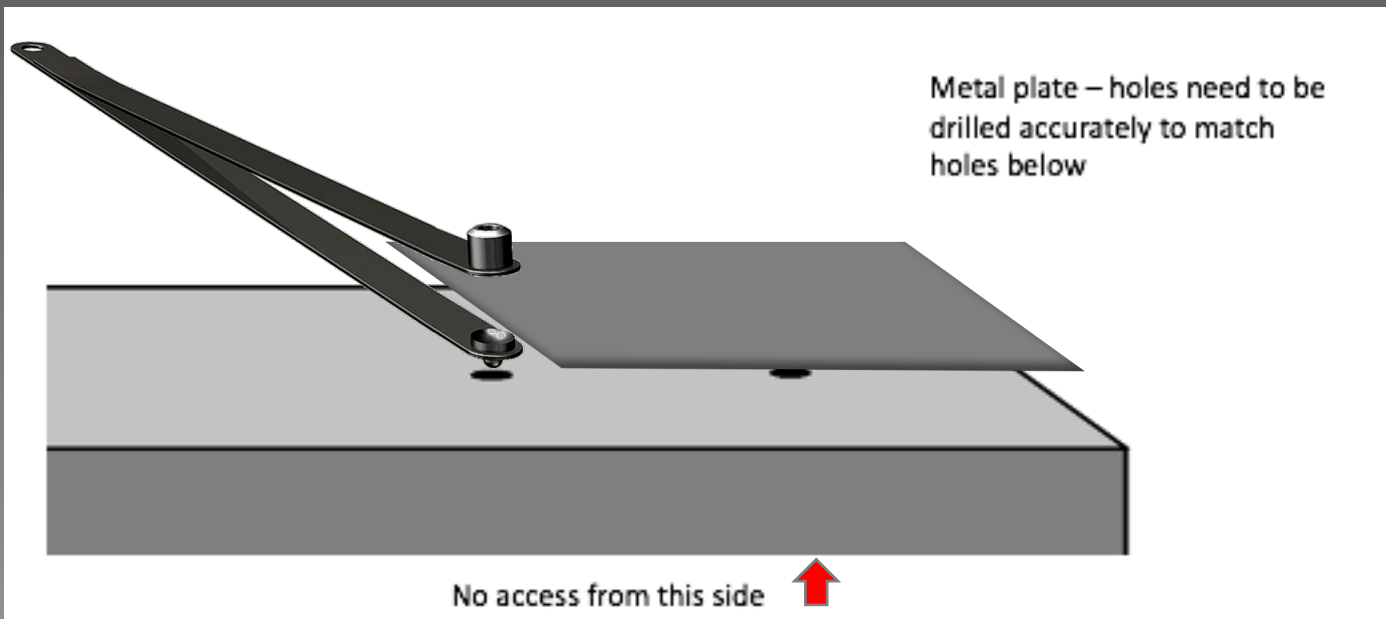


Mongena RWY 11, our base for the latest course between Christmas & New Year. Encounters with wildebeest & zebra a common occurrence, so proper low-level inspection mandatory to check for game



Jupiter, grass, land uphill 07, take off 25 (or T & G 25) Powerlines on final approach 07 invisible this picture. Prior permission needed to use this strip

MATCH DRILLING HOLES – ACCURATELY!



Often in aircraft building, restoration and repairs the situation requires us to drill holes on a part to match existing holes accurately. One can try measuring and marking the new part, but this method never works out 100% accurate. A good method is one using a “Strap Duplicator”

Strap Duplicator or Hole Finder

For drilling an accurate hole in overlapping sheets. The Bushing type duplicator is used by sliding the end with the pin between the sheets and locating the hole to be duplicated from inside. The bushing will give an accurate guide to the drill bit. Strap duplicators are available in different sizes depending on your hole size. If a series of adjacent holes need to be located and drilled, as on the edge of a replacement undrilled skin, the duplicator is repeatedly used for each hole. Make sure you Cleco the previously drilled holes to hold the skin accurately in place while advancing the duplicator.

The duplicator can be homemade or purchased inexpensively from most aviation tool supply stores.



The pad of a steel brace needs a hole drilled for attachment to the existing hole in the airframe



The pin of the duplicator is placed in the airframe hole; the steel pad is placed underneath the bushing. The new hole is drilled precisely above the airframe hole.



BALLOON RIDE

Bucket List Item Ticked – Alan Evan-Hanes



It is one of those things on most people's bucket list (the things you have to do before you die) and luckily it just so happened that our planned trip over Christmas to the UK got cancelled and I was now at a loose-end to produce something spectacular for Kathy's birthday.

A post on Facebook by Dale de Klerk gave just the answer – a hot air balloon ride. Interaction with Bill Harrop's Original Balloon Safaris in the Skeerpoort Valley were helpful and friendly. It was supposed to be a surprise – I told her we were going for a sunrise game drive.

On her birthday the weather was awful. Cold drizzle all night with 100ft ceilings. We were up at the unholy hour of 03h00 and following a shower and cup of



Alan and Kathy's Birthday Celebration

coffee with rusks, out of the house by 03h30. I had wanted to wake up the residents of the Hadedu hotel we have in the tree outside our bedroom, but this would have annoyed the neighbours so left it alone.

Curfew was still to 04h00 but I had packed copies of the paperwork. At 03h45 we got a call from Tracy Robb; the flight was cancelled. So,

it turns out balloon pilots do not know that much more about the weather than I do. As we got off the highway to turn around my rear-view mirror was filled with blue flashing lights. A cop got out in the wet to query us and I confidently told him what we were up to and showed him the papers. Our story checked out and it was 10 minutes to the end of curfew which translated into too much trouble for him to bother with, so he let us go.

Having the worlds greatest assortment of dear friends who had unbelievably fought to invite us to make up for our revised itinerary we were no short of invitations to fill the UK Christmas gap. The next date we had free was over a week later and at least the weather looked promising. I made the call and was rebooked in seconds.

You have to be on-site at 04h45 which is awfully early, even for me. We made it on time, but the route was marred by some low-level fog in some of the valleys. It was still dark. Arrival procedures were pleasantly handled by the staff which included more coffee and a pit stop.

Dale de Klerk and our pilot for the day - Tracy Robb were on hand. Three balloons were in the process of being inflated, first with cold air by a ceiling fan attached to a lawnmower engine. A sky always looks better with a colourful balloon in it and this would allow us not only to be in a balloon but also witness the spectacle of another two.

I do not recall where or when I met Tracy, we differ on this point, but it is a friendship of over 30 years. To my shame I had not been ballooning with her yet. My first exposure was on a windy day with the Pomp & Jive renegades from Baragwanath which only succeeded in me having singed hair (another story altogether) and the second a superb quick ride that I had badgered out of Aero Club director Hanke Fourie at the Airweek in Middleburg.



Ready for Launch!

Tracy kindly allowed us to view the initial inflation up close as we were aviation minded. Once the balloon is inflated with cold air on its side it is warmed by bursts of gas flame until it and the basket is upright. It looks like a difficult process that requires a lot of skill. Once upright the aeronaut (correct terminology for a balloon pilot) does a pre-flight checking for things like spare lighters, fuel quantity and all burners are operational. A handheld radio and cellphone for contact with the three-man groundcrew was also checked.

As an aside, it is not unusual for the pre-flight to include a bottle of fine champagne. It is not to bolster the fortitude of the aeronaut but rather intended to pacify a disgruntled farmer should you land in his prize veggie patch. It really is the champagne and caviar side of aviation.

Once the pre-flight is over the passengers are loaded. Our balloon had capacity for 16 although we were one below that. You need to climb over the near shoulder high wall of the basket using in-built steps. Skirts are probably not ideal attire for this although one of our passengers wore one successfully keeping her dignity through boarding and alighting. Tracy conducted a passenger briefing that included a practice of landing positions and covid protocols.

Then Tracy kept burning the gas inferno in short bursts and suddenly with absolutely no sensation whatsoever, the ground peacefully fell away. The smoothest take-off ever. The wonder set in. Peaceful, calm and bewildering, interspersed by random bursts of burner which is

pretty loud. By complete serendipity we had chosen a particularly spectacular day. The valley had ribbons of mist to accentuate the early morning kaleidoscope of hues on the Magaliesberg valley pallet. My ability to describe it is nowhere near adequate, but the accompanying photos give some idea.

Tracy kept up with a humorous verbal commentary of events and the surroundings, being unexpectedly knowledgeable about the area, its history covering the formation millennia ago to its various inhabitants from centuries to current day. Among the issues covered were the balloons assisting to identify

local criminal activity to friendly chats with farmers as we passed over their breakfast. I fell into the teenage trap of taking some selfies with the other balloons in the background. We flew for a bit over an hour covering about 12km. Each balloon has a dedicated crew of three who follow it in a recovery bus with specialist trailer into which the 900kg+ balloon and basket is loaded for retrieval. Unbelievably Tracy commanded the crew to a field and then managed to land the basket softly onto the trailer. I was expecting a teeth and bladder jarring touchdown, but it was smoother than that of an elevator.

Absolutely unbelievable!

Whilst the crew quickly set deflating the balloon and packing it into the basket, we were treated to some champagne and orange juice. We climbed into the bus back to the clubhouse for a breakfast feast and making new friends. The conclusion of which was each passenger being awarded a bravery certificate!

It was worth waking up twice at an ungodly hour and travelling to the middle of nowhere in the cold. I liked it so much I might have to secretly add it again to my bucket list. At least Kathy enjoyed her birthday present!

The Breakfast Feast and "Bravery Certificate" Award Ceremony at Bill Harrop's



The Bateleurs.

Flying for the environment



About Us.

The Bateleurs is a 20+yr old not for profit registered NGO, with an unblemished record of having provided hundreds of missions (flights) in meaningful and useful aerial support to SA conservation and the environment.

The preservation of the environment and conservation routinely requires the aerial perspective on matters, whether to search for a radio collared wildlife, or to survey, to assess, to monitor, educate, or to patrol and to protect, then this is where we step in.

Very seldom do environmentalists and conservationist even have access to aircraft and when they do approach the air charter companies, then you are unable to afford charter rates and this is where we get involved. Our "environmental air force" will support any qualifying conservation applicant with their aviation needs and at no cost to you the applicant.





How Does It Work.

We consist of a Board of volunteer Directors, two staff and 200+ volunteer pilots, making up what is fondly referred to as an Environmental Air Force. Our financials are independently audited annually, and all missions (flights) are only conducted after review by our Board – who are a group of highly respected business and conservation people and who assess every flight for its' conformity; namely the missions being non-profit, not for the benefit of any commercial enterprise, making sure that any conservation protocols and permits are adhered to and above all, that the effort is directly beneficial to Southern African conservation and the environment.

Our Pilots

We never pressure our pilots and no one is ever directly called to undertake a flight. Rather we post out Group Call-ups and those who are willing, able, keen and interested will put up their hand. We then make a marriage of persons – applicant and pilot and thus Shepard the process along.

Of all our supporters, it is the pilots who make the biggest give up, where they are reimbursed for their fuel burn only and the remaining (approx) 75% of the costs of aircraft operation being carried by them. For this, we and our Users are hugely grateful and respectful.



Background & Funding.

It is impressive, that the vast majority of our donors have approached us and not the other way around. Our supporters quickly become comfortable and stick with us, largely because their Corporate Social Investment does not end up nourishing the outstretched hand of Africa in some unaccountable way. With The Bateleurs, their contribution remains very green, impeccably managed and with every activity recorded and accounted for.

Where We Stand.

Our organisation is exceptionally well respected in the environmental and conservation world and we have a 20+ years record of an impeccable and free delivery of >100 missions flown per annum - making a fantastic 'win-win' for everyone involved. The pilots love to fly with a purpose and to give up something for 'king and country', the conservationist is thus "empowered" to do their good work and then lastly, the corporate sponsor has a tax deductible satisfaction of involvement, without them having to actually do any hard work - It's perfect. Perhaps the only reason that The Bateleurs are not universally renown within the environmental arenas, is that we can't be going and using donor funding to 'promote' ourselves and hence our incredible work always remains out of the limelight.



www.bateleurs.org

Follow our story



@thebateleurs



[Click here to watch our incredible video](#)



The Bateleurs - an introduction to our forthcoming book... by Steve McCurrach

Mike Cadman our appointed author/editor visited in Durban during August, where I took him on a visit to meet our book cover and DTP design team. We workshopped the book as best we could and then Mike and I have been hard at work. If the sample teaser is anything to go by, then we have something great in the making. With, Mike a seasoned author as the editor, along with the most Pro possible imaging standards, with the DTP design standards as exhibited by Shaun here and then add in plenty of 'Feel Good' stories throughout - and we are supremely confident going forward.

Along with a lot of note taking from related stories, Mike was also fed with archival material and at least one current mission. We certainly do not want this book to make any one individual prominent ahead of others, so fear not the possible impression here, of a Steve centric publication, we merely used a my/Steve mission in the sample book, because its one which was on hand and with accompanying images. Nevertheless, Mike's writing style has already

revealed itself in the passages used in this sample book. The mission example is one of these, where Mike took my 'reporting' style of delivery and morphed it into a 3rd person's story of what went on. This applied skill converts the mission accounts from being rather mundane reports, into a more juiced up reality style read.



Great care is being taken to be totally apolitical and there will never be a pic of anyone wearing cammo or carrying automatic weapons, as this is not about anti poaching militia, but it is rather all about conservation. Mike has also deftly warned us that the inclusion of any quasi-military imagery, could easily have prospective collaborators/partners not touching the book, for fear of them later being associated with some 'mercenary group'.

At the end of any read, the book must have been uplifting, of us The Bateleurs and also all those who we worked for and who we worked with and who flew for us. Having read the book and on putting it down, any donor, pilot, conservationist....., must be left with the overwhelming feeling, that they want to do more.



The physical book will be A4 size, landscape format rather than portrait format, 150 pages and with accounts of many noteworthy missions flown, but also being image rich – not quite a coffee table photo book, but inclining in that direction...

We confidently believe that the physical book will reach unimagined destinations and readers from all walks of life and it will also be passed from hand to hand, given as a gift and also left on many a coffee table. Our own patron of The Bateleurs was the late Ian Player and there could be no greater endorsement of The Bateleurs than this, along with a 23 year history of an amazing contribution to conservation in S.A. The stories of our Delivery, along with the endorsements, will give the book tremendous Cred, added to which is that it is perfectly sized and an easy read. This book will qualify for that line of “Drop it on the table and where it falls open, you can start reading, because every chapter is independent of the others and amazing.”

partner would have their branding on the cover and taking an active role. This could even be ‘Owned’ by some corporate/institution, perhaps along the lines of say the Sasol Birds of S.A. We would also hope – and it won’t take long, before the right very well heeled philanthropist reads the book and says “I want IN with this great squad!”



There will be multiple avenues for book sales; these being, our own Web, the Webs of our users and benefactors, the curio and gift shops of reserves, aviation interest groups e.g. EAA and our Printer/Publisher in CT has facilities for hosting online sales. There will also be the eBook version, available through Amazon and other platforms.

Thanks for reading through and I look forward to your responses

Cheers for Now! Steve McCurrach

The permutations for support, endorsement, partnership are still being explored and we are actively seeking a partner for the book and this



New Guinness World Record

... in an Ikarus!



The RAF has set a new Guinness record for the world's first successful flight using only synthetic fuel.

In a world-first, an Ikarus C42 aircraft flown by Group Captain Peter Hackett, completed a short flight powered by synthetic gasoline.



RAF Group Captain Peter 'Willy' Hackett flew the Ikarus C42 on a short test flight

The record - set at Cotswold Airport earlier this month - was achieved in partnership with Zero Petroleum.

"The way we power our aircraft will be a big part of achieving that goal, and this exciting project to make aviation fuel from air and water shows how it might be done."

Whilst green technologies like electric and hydrogen power generation are viable for many RAF platforms, high-performance aircraft require a liquid fuel alternative. Paddy Lowe, CEO of Zero Petroleum, said "This unique project with the Royal Air Force demonstrates the validity of our synthetic fuel and the potential it has to eliminate

fossil CO2 emissions from a number of difficult but critical sectors, including transport which currently accounts for 23% of the global total."

This innovation is part of the RAF's Project MARTIN and has the potential to save 80-90% of carbon per flight, according to the Ministry of Defence.

And working towards the government's Net Zero by 2050 goal, the RAF plans for its first net-zero airbase by 2025, and goal of a net-zero force by 2040.



The Ikarus C42 flown in the mission



The Rocket Flies Again!

By Neil Bowden



Wednesday 8th December 2021

Despite rather rainy weather, a small group of EAA'ers, aviation enthusiasts and media headed out optimistically to Jack Taylor Airfield, Krugersdorp to witness Derek Frasca's beautiful Radial Rocket's return to the skies.



Derek helping Nigel familiarise himself with the aircraft

Nigel Hopkins had agreed to take on the first flight after some repairs and modifications following an incident during initial test flying at Baragwanath. It seems the problem could have been caused by a faulty tail wheel; this has now been replaced by a much sturdier assembly. The engine was sent to Hungary for a shock load and the propellor was completely replaced.

As Nigel had never seen the aircraft before, he spent a a long time familiarizing himself with the aircraft, while also waiting for the weather to clear!

Eventually we could see the end of the storm system clearing from the west, calm winds and



Jason, Derek Hopkins (Nigel's father) and Nigel make sure they are happy with the aircraft

and high clouds made for favourable conditions for the test flight.

Start up was effortless and Nigel taxied up to FAKR runway 26 for the take off. Jason Beamish, who had arrived at Krugersdorp earlier in his Extra, loaded up owner Derek Frasca in the passenger seat so that he could get a good view of his baby flying.



Ready to go - Nigel brings the plane to life!



Attention to detail is the hallmark of this beautiful machine

After an smooth take off by Nigel, the two aircraft formed giving Derek an opportunity to get some arial footage. However, the excitement was too much, and it seems a little finger trouble on the camera prevented him getting the videos he was hoping for!



Jason loads owner Derek Frasca into the Extra while Nigel warms up the radial in the background

Most of us on the ground expected a short test flight with maybe a fly past thrown in to keep us happy, however Nigel and Jason proceeded to give us a full hour of airshow quality aviation. The sound of the radial engine and the high-speed formation fly pasts were something reminiscent of Oshkosh! Derek Hopkins could not resist the opportunity to join in and got airborne in his RV 8 with Garth Calitz in the back to join the formo!



The Rocket where she belongs! Photo Garth Calitz



Derek's RV 8 and Derek's Radial Rocket

Unfortunately, fun cannot last forever. It was time to land. After a quick touch and go and then a little bit more flying, Nigel greased the aircraft on the uphill runway, 08. We met him down at Derek's hangar just as he shut down the engine. The grin on his face let us know how much he enjoyed it!



A happy Nigel after the test flight

"What a privilege to fly the only Radial Rocket in SA. Awesome that it is flying again. What a masterpiece you have built Derek Frasca. Thanks to my trusty wingmen Derek Hopkins and Jason Beamish."



Proud owner and builder Derek Frasca with test pilot Nigel Hopkins

Grassroots

AVIATION



The Merlin & The Merlin Lite

Part 103 type ultralights fill an ever-increasing gap in the marketplace, offering affordable grassroots aviation in not only fixed wing aircraft but also “alternative” options such as powered parachutes, gyrocopters and weight shift aircraft. Most of these are open cockpit machines and some handle differently to traditional stick and rudder aircraft. Pilots trained in Cessnas, and Pipers can feel uneasy or may not want to go through the process of leaning to fly a different way. Meet the Merlin aircraft – traditional stick and rudder, all metal construction, tailwheel or nosewheel and enclosed cockpit.



The Aeromarine Merlin Nose Wheel Option

The Merlin

The original Merlin was first introduced in 2013 and attracted much attention due to its sleek lines and excellent performance. On only a 60hp engine, it has a cruise speed of 120 mph and excellent climb and take off performance. Engine choices are the 65hp Rotax 582 or

Aeromarine's 60hp V-Twin 4-stroke engine.

The V-twin is 'red-neck proven' meaning hundreds of thousands of these engines have been manufactured and put to the test in ATVs. These 4-wheel off-road vehicles are run hard in extreme off-road conditions. They have proven themselves to be very durable and reliable.



The Aeromarine V-Twin is a 60HP Liquid-cooled 4-Cycle 800cc 80-Degree Fuel-Injected, Electronic Ignition Engine with Electric Start

Aeromarine have also designed a custom carbon propeller made to match this engine's torque and power curve and the Merlin's speed range. With this configuration they boast a 3 second takeoff, 120mph cruise and 4 hours endurance!

The Merlin is available as a quick build kit, airframe cost is \$18 500. Engine options are the Rotax 582 at around \$9 500 or Aeromarine’s V Twin 4 Stroke at \$10 750. Aeromarine also offer avionics and other packages, the full price list can be seen [HERE](#)

MERLIN SPECS & PERFORMANCE		
SPECIFICATIONS	Ft/Lbs	Meter/Kg
Wingspan	25’7”	7,8 m
Height	6”11”	2,12 m
Length	17’5”	5,3 m
Cockpit Width	27’,5”	0,7 m
Empty Weight	415 lbs	189 kg
Gross Weight	715 lbs	325 kg
Payload	300 lbs	136 kg
Fuel Capacity	12 Gallons	45 liters
PERFROMANCE	Mph	Kph
Stall Speed with Flaps	38 mph	62 kph
Stall Speed	47 mph	75 kph
Cruise Speed Range	95 – 120 mph	153 – 193 kph
Never Exceed Speed	150 mph	240 kph
Rate of Climb	1400 fpm	7,1 m/s

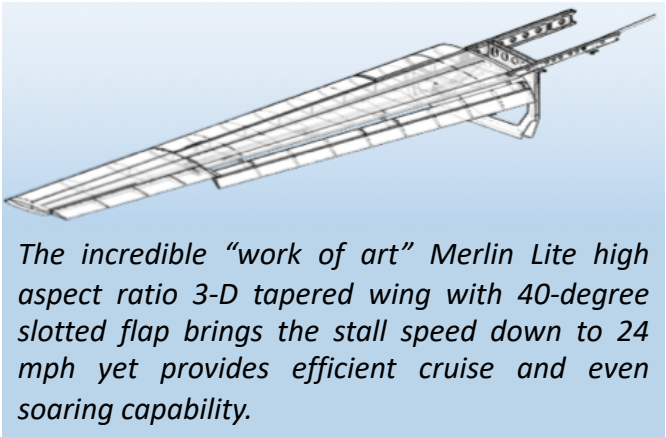


In unveiling the new ultralight, designer Chip W. Erwin made a bold claim: “This is not your ‘1980s ultralight.’ I know. I was there. Our new Merlin Lite has real aircraft features and appeal: Seven windows, a cockpit door, decent baggage capacity and space, an instrument panel with an EFIS and GPS. And the list goes on.”

The Merlin Lite – Part 103 Compliant



Introducing the Merlin’s baby brother, the Merlin Lite. Based on the Merlin, this aircraft was modified to meet Part 103 specs - empty weight of 254lbs and speed range 24 to 55 knots. Main differences are a longer wing (32’) to reduce the stall speed and use of the Italian Polini Thor 2 stroke engine. The Lite also only has one fuel tank installed with a capacity of 4,15 gallons, giving it 4 hours endurance on the Polini Thor 303D 38 hp engine. The Merlin Lite will accept both long and short wings so you can select your preference or even change wings perhaps during soaring season or for a faster cross country.



The incredible “work of art” Merlin Lite high aspect ratio 3-D tapered wing with 40-degree slotted flap brings the stall speed down to 24 mph yet provides efficient cruise and even soaring capability.

The launch at Midwest LSA of this aircraft can be described a a sensation. Many were skeptical. Here was an all-metal aircraft, enclosed cabin, and very different from other popular Part 103 aircraft – does it really make the weight?

Designer Chris Erwin was at the show with 6 sets of scales and a fish scale to prove the fact! However, one must also remember that Part 103 is not only about weight. Some tweaks are still required to meet 103 compliance – speed was mentioned at 75 mph and stall around 30 mph. Speed can be governed by the correct prop combination and stall will be reduced by the recently designed longer wing. Chip is confident that the Lite will meet 103 compliance



The Italian Polini Thor 303D 38hp 2 stroke engine

The Lite is available as a ready to fly model priced at \$31 000 plus a BRS Parachute (required in the USA to be Part 103 compliant) \$4 500. Quick build airframe kits (100% finished airframe) are also available at \$22 000 plus a Polini firewall forward kit at \$7 000.

For more information please visit their website

<https://www.aeromarine-lsa.com>

Also please visit Dan Johnson's website for interesting articles on the Merlin and other aircraft



The Lite boasts seven windows, an enclosed cockpit, Fowler flaps and loads of luggage space



The Polini Thor 38hp powered Merlin Lite seen at Oshkosh 2021

Features of the Merlin Lite

- All aluminium construction
- Large baggage space for a roll-on or camping gear
- Huge 3-hinge slotted flaps
- Push rod controls with double bearings
- Ground-adjustable carbon propeller
- New Polini 303 liquid-cooled engine with dual ignition
- Electric start with EarthX battery
- 5 windows, a windshield and a door with air vents trim all standard
- Panel space for an iPad
- Tundra tires with hydraulic brakes
- Tricycle landing gear, steerable nosewheel
- Epoxy-primed for corrosion protection
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- Cabin heat option, Temper foam seat option
- 3-point seatbelt
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EAA Chapter 322	Johannesburg
Virtual monthly gatherings until further notice 1st Wednesday of the month	
Chairman	Neil Bowden
Vice-Chairman	Sean Cronin
Treasurer	Mark Clulow
Secretary	Ronell Myburgh

EAA Chapter 1502	Durban
Chairman	Alan Lorimer
Vice-Chairman	Russell Smith
Treasurer	Robbie Els
Secretary	Mike Korck

Chapter 1262	East London
Meets last Saturday of the month Wings Park	
Chairman :	Mike Wright
Vice-Chairman	James Wardle
Treasurer	Dave Hartmann

Chapter 870	Kroonstad
Chairman	Niel Terblanche
Secretary / Treasurer	Hennie Roets
Committee Members	Johan Mouton & Carl Visagie

Chapter 788	Port Elizabeth
Chairman	Brett Williams
Vice-Chairman	Russell Phillips
Treasurer	Deon Swanepoel