Fly About

Northam Aero club (Inc.) Newsletter

Vol. 51 Issue No.9 SEPTEMBER 2020



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Hi all,

What wonderful weather we have been having.

The fly in to Ninghan Station was a great success with ten planes arriving. We joined the fly in at Wongan Hills where the pilots were taken into Wongan by Dave McFarlane. Dave was our replacement driver due to the organiser Geoff being stuck in Yalgoo with an uncooperative aircraft. Huge thanks to Geoff for organising and Dave and Marg for looking after us. At Ninghan Station we were able to view several huge nuggets of gold and they were the real thing, very heavy. See Fly in Report.

I caught up with Jason Dunning a few weeks ago just to see how the fuel sales were going and Jason advised me that they were very impressed with the sales. They are now going to install a 24hour card system. Fantastic news we will be able to fuel up anytime.

There have been several reports of people wanting to rent hangar space so if you have any for rent let me know and I can pass the information on.

Alan Shafto from RA-AUS is operational and has completed 12 Flight Reviews with 5 new club members joining. The RA-AUS website is still being built but you can contact Alan on 0497 703 466.

Bernie Rush has got our new Facebook page up and running. The format will be for private group members only so when you search Northam Aero Club it should show you a photo of the entrance to the Aero Club. Join up now so we can share all aviation activities happening in the surrounding area.

Claude advised me that more people need to view our website <u>www.northamaeroclub.com</u> and if you see anything that needs updating let me know.

There have been reports of unauthorised persons using the Airfield in vehicles. If you do witness such an event we need photographic evidence to lodge a report.

A big thank you to Trevor Sangston and Paul Dundon for their time they have taken to maintain the club premises, without people like them the club would not be where it is today.

Cheers,

Errol

Club Captains Report

Hello All, Peter Hill here,

Sunday 13 th September was our Monthly Flying Competition. A Cross Country appr. 40 n.m. within 10 mile radius of Airfield. Pilots,Friends and Family gathered on a lovely spring morning, Morning Tea by our Lovely ladies,Beth,Kate,Marg-Thank You!

All TEAM NAC PILOTS had full Comp Sheets and Maps 30 days prior, and all Pilots flew well ,conditions were great! Lots of aircraft coming and going ,perfect weather for it..... Judges were James ,Jesse and Ashley, -greatly appreciated! Films of the landings were great to watch in de-brief... All Pilots' scores were closely grouped, all flew well and flew safely.

Results

First Place	James Hill	C-152
Equal Second Place	Peter Hill	C-152
	Ashley Smith	C-172
Equal Third Place	lan Berry	C-177
	Trevor Sangston	Bonanza
Fourth Place	Howie Pietersie	C-172
Fifth	Jesse Stewart	C-172

Congratulations to all TEAM NAC PILOTS.

Next Flying Comp is Sunday 11th October - Mark your Calendars.

A mini Air Trial within 15 mile radius of Northam.

All Team NAC Pilots have full details as usual with 30 days to go.

See you all next month Sunday 11th OCTOBER Comp.

Cheers,

Peter Hill NAC Club Captain 0450415947 prh@aurora.net.au

Next Club Competition

Calling all TEAM NAC PILOTS and CREW.

Mark your calendars for a nice little "Flyabout" the Avon **

Sunday 11 th October **

Please see attachments with full Comp Sheet and Map for next NAC Flying Comp. Morning Tea / cakes as usual etc.

Great flying weather , why not do a practice run in the next 4 weeks ! Family and Friends welcome, seats available in Club Aircraft for members etc.



CALLIE FARM RECON A Mini Air Trial within 15 mile radius YNTM.

Rwy 32: Depart, Downwind @ 1,500 Ft tracking 125 degrees.

Radio 124.2

Departing Downwind Maintaining 1,500 Ft. Tracking 125 degrees Northam"

At 14 Miles outbound:

"Northam Traffic ____

Find TRIANGLE just North of Quellington Road: REPORT: is there a WINDSOCK in triangle? Yes / No _____ 10

10

At Corner of CALIE Rd and Quellington Rd: REPORT: How many separate Paddocks ----- 6 or 8? 10

RETURN TO BASE Clearoffs. TRACK 285* CLIMB to 2,600 Ft.

At 10 Miles Inbound:

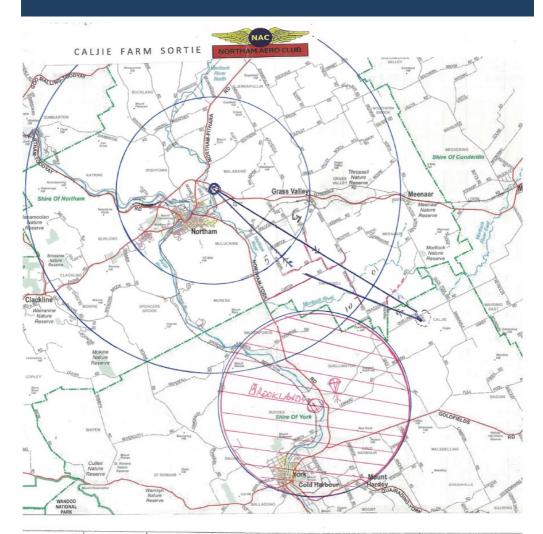
Radio	"Northam Traffic 10 Miles South East	
124.2	INBOUND @2,600 Ft. Estimate Time Northam"	10

At CARTER Rd: approx.. 1 mile on the nose : Locate ====== F==== Boramin Road:

TRACK 320* and Align visually with Rwy 32 Northam.

Radio 124.2	"Northam Traffic 5 Miles South East @ 2,600 Ft. STRAIGHT IN APPROACH	
	Runway 32 Estimate Circuit Time Northam"	10
Radio 124.2	"Northam Traffic ESTABLISHED 3 MILE FINAL STRAIGHT IN APPROACH Runway 32 Northam"	10
Radio 124.2	"Northam Traffic ONE MILE FINAL STRAIGHT IN RUNWAY 32 FULL STOP Northam"	10
	BONUS POINTS: ON KEYS	+ 10
Radio 124.2	"Northam Traffic LANDED and CLEAR Runway 32 Northam"	10

Next Club Competition



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Compass	Log	Engine	Altitude	Radio	Orientation	Fuel	Force: Landin
Compass & Co Vigned?	10 min Marks? ETA Logged? ATD Logged?	Lean Mixture? RPM? Temps & Pressures?	Hemisph? Assigned? Limitations (eg. Cloud, Terrain, etc)	Correct Freq? Transporder? Navaids Usable? Radio Calls?	Where am I? Fix/Pinpoint if possible!	Contents? Log!	Where to go? Wind direction Ground Elevatior

Club Competition Photos



"Trevor Sangston enjoying his great Bonanza at Northam Aero Club Monthly Competition"

"Howie Pietersie comes to grips with a new aircraft type, not bad!"





Changing of the guard

"Founding Club Member and Past Club Champion Preston Smith, proudly bestows the Runner Up Club Champion for last season on his Son, Ashley Smith at the September Competition".

15th Annual Reynoldson Reserve Wildflower Festival

Friday 30th October - Sunday ^{Ist} November AT "THE STATION" WONGAN HILLS

Friday 30th October

"Sundowner" at the Lesser Hall - Quinlan Street

6.00pm - 10.00pm

Entertainment by "Pippa & Alan"

Food & Drinks available to purchase

Market Stalls, Food Stalls & Kids Activities from 9.30am - 3.00pm Guest Speaker Sabrina Hahn - ABC Gardening Guru

Exhibition in Art Society Wildflower Display Bus tours to Reynoldson Reserve Devonshire Teas in Visitor Centre

IneStation

Saturday 31st October

Sunday 1st November

Vintage Car and Motorbike display - 10am = 2pm

Morning Tea & Lunch available to purchase

Wongan Hills Visitor Centre "The Station" 1 Wongan Road, Wongan Hills Ph: 08) 9671 1973 E: wongantoùrism@westnet.com.au For further details contact the Visitor Centre

I feel the need, the need for speed!

SPEED

Entry speed for a loop 160 knots. 23 inches MAP and 2300 RPM will give you 130 knots. 40 miles at 120 knots will take 20 minutes. Get the nose down; that attitude won't give you 75 knots in the climb you invalid!

Those statements are all about speed, but they're not all the same kind of speed. So how many different kinds of airspeed are there? For completeness, let's include the ones every-one knows – the ones you learnt in your PPL training.

Indicated airspeed (IAS)

IAS is not a measure of how fast you're going through the air or over the ground. It's a measure of dynamic pressure, or in simple terms, how many atoms of air per second or per minute are going down the throat of the pitot tube. It's the one the ASI shows, and it's the one that matters for anything aerodynamic. Your rotate speed, climb speed, maximum flap or gear speed, stall speeds, and entry speed for a Cuban eight, are all indicated airspeeds.

Calibrated airspeed (CAS)

CAS is IAS corrected for instrument and position errors. Small errors are inherent in most instruments, just like an old wind-up clock that loses two seconds every week. Position error refers to the position of the static vent, it and comes about because the static pressure on the aircraft's surface is not necessarily exactly the same as the static pressure remote form the aircraft. Remote in this case means far enough away to not be influenced by aerofoils and Bernoulli's principle.

In practice, the errors are so small that we usually consider CAS and IAS to be the same.

Equivalent airspeed (EAS)

This is one we don't usually worry about at a country aero club. EAS takes account of compressibility of the air, and it's the CAS at ISA sea level that would produce the same dynamic pressure that the aircraft is experiencing in flight. It's usually slightly lower than CAS.

You don't need to worry about it below about 200 knots, so if EAS is relevant to the aeroplane you're flying, you're probably not flying at Northam because the runway's too short for you.

SPEED

True airspeed (TAS)

This is EAS (or because we usually don't bother with CAS and EAS, we can say it's IAS) corrected for density, which of course means temperature and pressure. At sea level in ISA (pressure 1013 hPa, temperature 15°C) they're the same, but if you calculate it based on temperature and pressure at altitude, it will be higher than IAS. The differences are not huge down low, but at Flight Level 350, 300 knots IAS is in the order of 500 knots TAS.

That big difference is one of the reasons jets fly high. A jet engine at idle is at 40-50% of maximum thrust, and idling means the power produced by the turbines is just enough to keep the compressors going. What that means is that at lower power settings, say, 60% of maximum, most of the power generated is just turning the engines over and not actually producing thrust, so the engines are not very efficient. Jet engines are most efficient at high RPM. The problem is 95% of maximum thrust may produce 500 KTAS at sea level, and that's 500 KIAS, which is way above V_{NE} for a typical big jet (but not for military jets like, say, an F-14 whose pilot chooses to ignore "Negative Ghostrider, the pattern is full".) But at FL350, that same thrust will produce a similar TAS, but at an IAS that is within structural limits.

Groundspeed

IAS matters for aerodynamics, and GS is the only other speed that we really care about, We only care about TAS because it's the one we combine with the wind to calculate GS, and from that some other important numbers such as ETI, fuel required, and what time we need to leave to arrive home at Northam by bar o'clock.

Mach number

This is named after the Austrian physicist Ernst Mach, and because he spoke German, he pronounced his name "Mark", which is the way we generally pronounce it. MN is a simple ratio between your TAS and the speed of sound.

The speed of sound in a gas is directly related to the temperature, and any formula to calculate it depends on the absolute, or Kelvin, temperature. In knots, it's 39 ' the square root of the absolute temperature. So at sea level in ISA, where the temperature is 15°C (288K), the

speed of sound is 39 ′ $^{\vee}$ 288 = 662 knots. At FL400 at the ISA temperature of -56.5°C, it's only 574 knots.

One of the interesting speed relationships is between CAS and Mach number. At any pressure altitude, a certain CAS will equate to a certain Mach number. For instance, at FL370, 260 knots CAS is M0.8. That relationship doesn't depend on temperature. If your CAS stays

SPEED

One of the interesting speed relationships is between CAS and Mach number. At any pressure altitude, a certain CAS will equate to a certain Mach number. For instance, at FL370, 260 knots CAS is M0.8. That relationship doesn't depend on temperature. If your CAS stays the same and the temperature suddenly increases by 10°, the TAS will increase, but the speed of sound will increase by the same ratio, so the MN won't change. 260 KCAS at FL370 will always be M0.8. Airliners generally fly at planned Mach numbers, which obviously allows them to stick to schedules, but probably more importantly, for separation. If you're on an air route at FL390 doing M0.8, and the aircraft behind you is at FL390 and also doing M0.8, you'll maintain separation.

The relationship between IAS (or CAS), pressure altitude and Mach number is important in determining climb and descent profiles for most jets. If a jet takes off from sea level and climbs at, say, 280 KIAS, that's just over M0.4. In the climb, as the density reduces the TAS will increase, and because the temperature reduces the speed of sound will reduce. So if Mach number is TAS, speed of sound, and the TAS is increasing and the speed of sound is reducing, it follows that MN will increase as you climb.

A typical climb profile of 280/M0.7 (often expressed as 280 into 0.7) means you'll climb at a constant 280 KIAS, with your MN increasing from about 0.4, and at FL270 it will reach 0.7. From there you'll climb at a constant MN, with your IAS gradually reducing. By the time you reach FL350, your CAS will be below 240 knots. Incidentally, to climb at 280 KIAS, you'll require ATC to dispense with the standard speed limit of 250 KIAS below 10,000 ft. That's what they're referring to when they say "Cancel speed restriction" to a departing jet.

Descent will be similar. A typical descent profile may be M0.7/280/250. To do that, you'll start your descent at M0.7, your IAS will gradually increase, and from FL270 you'll maintain 280 KIAS with a reducing MN, until you get to 10,000 ft, below which you'll maintain 250 KIAS unless ATC tells you otherwise.

Happy flying, and since we're coming into the windier time of year in Northam, with the associated gusts and windshear, keep your speed up on finals!

TECHNOLOGY UPDATE



<u>www.northamaeroclub.com</u>

Claude Meunier is still working tirelessly on our website page.

Please feel free to drop by and catch up on the latest information

Thank-you Claude



Bernie Hush has put together a private group Facebook page for the Northam Aero Club. Your annual membership gives you access to join and share your aviation stories.

<u>Thank-you Bernie</u>

Congratulations Captain Price



Karin Price has slipped the surly bonds of earth and danced the sky on laughter-silvered wings, and become a pilot. Congratulations Karin.

Club President Errol and your fellow aviators.

Ninghan Station – 22/08/2020 and 23/08/2020

Our first stop was Wongan Hills for morning tea on Saturday 22/8/2020, a bus awaited and drove us to the local bakery where we had our morning coffee. It was great to see Wongan Hills enjoying a busy morning with plenty of travellers stopping in.

We enjoyed a fun weekend with 10 planes arriving at the Ninghan Station air strip. Pilots, partners and babies all enjoyed an overnight stay at the cottage and dongas provided. Ray Challen and Andrew Eldridge provided a huge meal on the Saturday night and backed it up with a big breakfast the next morning.

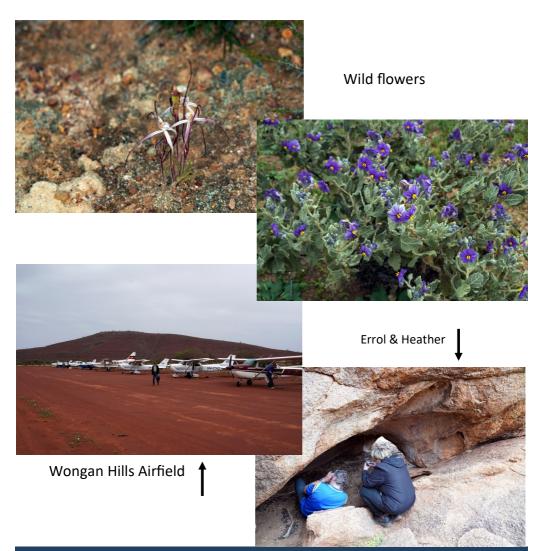
There is so much to see and do at Ninghan Station if you get the chance to call in do it. We learned so much about the station and about local indigenous culture. Don Bell is the owner at the station and together with his son Ashley they provide many wonderful life stories sitting around the camp fire. Ashley also gave us a presentation of local artifacts and indigenous crafts with a good understanding of what each item was used for and why.

The landscape is beautiful and we found a good walk not far from camp. On Sunday we took the tour and travelled 30 kms up the road to have a look at some interesting caves, rocks and local flora. Ashley pointed out some rock art that his son found on a previous visit that has been documented. We also met up with some bush turkeys and four emus just strolled on by.

We made our way back to Goomalling in the afternoon after the heavy clouds had left the area. A big thank you to Royals Aero Club for organising a great weekend and also to Dave and Marg McFarlane

for the wonderful morning tea at Wongan Hills Bakery.





Next Club Competition

NEXT NAC FLYING COMP is scheduled for: Sunday 11th October 2020. Peter Hill, Club Captain NAC 0450415947 <u>prh@aurora.net.au</u>

Club Competition will be followed by the Club Committee meeting at 13:00 (1pm)



SABC Annual Fly-In

Sunday 25th October 2020



Serpentine Airfield, 286 Yangedi Rd Hopeland WA 6125

Gates open 0900, event starts 1100 and finishes approximately 1700.

Theme: "Bringing People Together Again"

What's planned? A huge range of interesting aircraft will be on display. There will be food for purchase, lots of interesting ground displays and hopefully our supporting clubs will be there with classic cars, bikes, traction engines, Aviation historical items etc. We do not have a scheduled flying display but traditionally many pilots have displayed their aircraft in the air on the day.

Cost? There is no entry fee, but we are a not for profit organization and a donation at the gate to help with the cost of this event would be greatly appreciated.

Who? Interest groups, friends of the club, community members and likeminded aviation enthusiasts are welcome to attend. Please note this is not an air show and is not to be advertised to the general public. However, the SABC always welcome visitors to the field who have an interest in our club and what we do.

Fly-In? Yes, if you can, PLEASE DO! Visiting pilots check ERSA for details (YSEN). PPR not required for this event but advice of intent to attend for planning of aircraft parking appreciated.

IMPORTANT COVID NOTE: This event will be subject to changes and conditions if COVID restrictions are in place or forecast for the event date.

WEATHER CONTINGENCY: In the event of adverse weather being forecast, the event may be postponed by 1 week.

Updates will be provided via the club Facebook page https://www.facebook.com/SABCWA and website www.sabc.org.au

Contact: Brad Ogden 0408 913 893 tangofiveone@gmail.com

SABC Annual Fly-In



Bar Hours - Saturday 5pm - 7pm

If unable to do your rostered days, please make arrangements to swap with someone.

The Bar is currently scheduled for renovations.

Please check with Matt Bignell for Opening days and hours.

0407 873 700

IF UNABLE TO DO YOUR ROSTERED DAYS PLEASE MAKE ARRANGEMENTS TO SWAP WITH SOMEONE

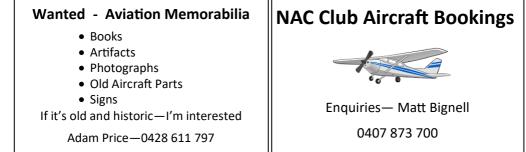
Sept/Oct. 2020

NAC NAC

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11 Club Comp
12	13	14	15	16	17	18
19	20	21	22	23	24	25 SABC Fly in
26	27	28	29	30 Wild Flower Fest.	31	
21	22	23	24	25	26	27



\$25.00 available from Northam Aero Club



Northam Aero Club Membership & Apparel Order Form

Name:		O Not Renewing			
Address:					
Phone: (Home)	(Mobile)	(email)			
Type of Membership:	○ Adult (\$55)	🔿 Junior (\$10)			
Club Bar	nk Details: BSB 036-107 A/c Nur	mber:69-2937			
Apparel:	🔿 Club Polo Shirt (\$35) – Size	Name on Shirt:			
100% breathable polye	ester jersey knit, snag resistant. Knit collar with	n contrast tipping.			
Mens sizes S M L XL 2X	(185 GSM standard	3 button)			
Womens sizes 8 10 12	14 16 18 20 22 or 24 (Ladies 215 GSM wit	th open V with 2 press studs)			
	○ Club Cap (\$20) plus \$8 postage. (* Caps	are also available from the bar)			
		Total Enclosed \$			
If you would like to rec	eive an Invoice please tick 🔿				
'Fly About' Magazine:	Yes 🔿 I would like to receive it by	🔿 email (preferred) 🔵 post			
	No 🔿 I do not wish to receive it				
Many thanks,					
Northam Aero Club Co	mmittee				
Northam Aero Club Ca	p \$20 Nor	tham Aero Club Polo Shirt \$35 (Personalised)			

Classifieds

Northam Aero Club Merchandise

Club Polo Shirts with name and club logo—\$35.00

Postage available—\$10.00 per order

Club Caps with logo—\$20.00 available at the bar

Stubbie Holders—\$7.00 available at the bar

Postage available—\$8.00







Ph Errol 0428 880 149 or Dave 0416 242 846

www.northamaeroclub.com



The Story of Curvy Kate

is a fascinating story of one man's lifelong dream to build a head-turning replica SS Jaguar from the ground up.

Howard Pietersie takes us through a mechanical odyssey, replete with setbacks, successes and innovative solutions that make 'Curvy Kate' a remarkable story of endurance, elation and love.

However, the romantic notion of building a truly elegant piece of 20th century motoring royalty is not for the faint-hearted, though any unsuspecting soul determined to do so would do well to read this book.

The Story of Curvy Kate is Pietersie's inspirational and sometimes hilarious journey into the secret life of an enthusiastic amateur determined to realise a dream.



The Story of Curvy Kate

available online www.replicajaguarbook.com Paperback—\$29.95 Hardback—\$39.95

ASIC Cards

As you know, ASIC's now need to be collected in person. This has meant a trip to Perth to have a face to face pick up. I am now an agent for CASA so if you nominate Northam as your pick up point, your ASIC will be sent to me for you to collect in Northam.

Enquiries—Denis Beresford

0408 747 182

"Happy Flying"

Hangar for Sale

15m x 15m located on a front row and Corner of taxiway—Block No. 33.
Power and water on corner of block.
Note—the hangar only uses the front half of the block, therefore another hangar can be built on the back of the block.

Please call—0438 101 334

NAC Cessna 172—VH-PGL Hire Fee Structure

Private Hire - \$220 per hour Dual Training - \$330 per hour TIF's - \$165 per 1/2 hour Briefing - as required Instructor (in owner's aircraft) - \$100 per hour

Pre-paid Discounted Block Rates Available

- 5 hours less 5%
- 10 hours less 10%
- 20 hours less 15%

Student pilots may use the discounted block rate for aircraft hire only

Instructor fees remain as priced above

For all further enquiries please contact:

NAC Treasurer - nactreasurer@bigpond.com T: 0428 743 031

Matt Bignell - 0407 873 700





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