Fly About

Northam Aero club (Inc.) Newsletter

Vol. 51 Issue No.8 AUGUST 2020



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Hi all,

We held our Annual General Meeting on Friday 24th July 2020 and it was very well attended. Our Editor of the Fly About magazine Martin Jacobson from Victoria also attended via the social app Zoom.

This year we were affected by the Virus but the good news is PGL hire is still an attractive hire, together with our Flight Instructors.

Northam Aero Club Membership is growing each month and it is timely to thank all our renewing members. Costs are increasing for everyone these days and because of the postage charges escalating it would assist us if you have access to email to receive the magazine that way. Let me know your email address and I will update your membership requirements.

The new Committee has filled two new positions:

Matt Bignell is Vice President and Sue Clements has taken on the Secretary's role.

It is great to see Matt back on the Committee with his vast knowledge of the Club's history.

Sue Clements is the daughter of Adrian Clements and is keen to be involved with the Club again. She is very welcome.

Dave Beech, Dave McFarlane and Lionel Moore welcomed back on the Committee and all re elected unopposed.

Thanks once again for their valuable time donated to the running of the Club.

Weather permitting, there is a fly in to Ningan Station near Paynes Find on 22nd and 23rd August – RACWA is hosting, only about 140 nautical miles away.

Mid West Club has also organised a fly in on 29th August, weather permitting to Lynton Station, 500 nautical miles away from Northam so most of us would need to refuel if considering.

If you are interested in either fly in let me know, otherwise fly and enjoy when you can.

Don't forget to use that carby heat in this cold weather.

Club Captains Report

Due to stress of weather (High Winds/low cloud/heavy rain/crosswinds etc)

I have postponed August Comp To 13th SEPTEMBER

Next NAC Flying Comp is Sunday 13th SEPTEMBER and is a mini Cross Country Air Trial. appr 40 n.m. within 10 mile radius of Northam.

A nice little "Flyabout" the Avon......

Please see the attachment for full Comp Sheet and Map. With 30 days to go there is plenty of time to Fly a Practice Run?

Mark your Calendars for some fun flying;

Sunday 13 th SEPTEMBER Northam Airfield 9am start.

Hope to see all TEAM NAC Pilots Sunday 13th September.

Cheers,

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

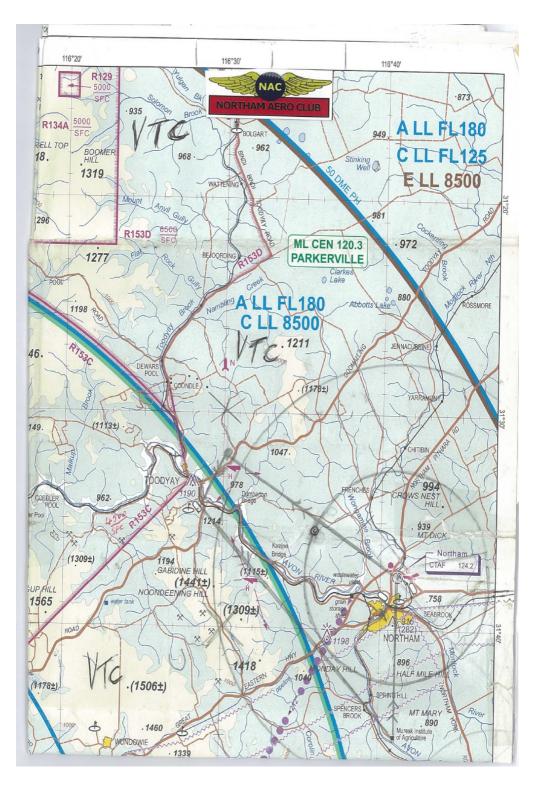




PILOT:

CALL SIGN:

TOODYAY RACES / MURESK SORTIE A Mini Cross Country Air Trial appr 40 n.m. TAKE OFF AT 15 MINUTE INTERVALS Climb to 2,500 Ft East of airfield Overhead Departure at 2,500 Ft tracking 300 degrees. RADIO "Northam Traffic ___ Enter Backtrack Rwy __ Northam" 10 124.2 SHORT FIELD TAKE OFF > 300 Me. (from start of blacktop) 10 RADIO Northam Traffic ____ ROLLING Runway __ Northam" 10 Hours Minutes Seconds 124.2 TIME STARTS: WHEELS OFF Climb to 2,500 ft East of Airfield for Overhead Departure. "Northam Traffic _ _ Departure Overhead RADIO maintaining 2,500 ft tracking 300 degrees Northam" 10 124.2 Track 300* to Ponds/Reservoir app. 2 n.m. East of Toodyay. At Reservoir: How many ponds? 2 or 3? 10 Continue to TOODYAY RACETRACK on a Southerly heading . is TOODYAY TOWNSHIP North or South of Racetrack 10 Now track 130 degrees for MURESK AG COLLEGE. CLIMB to 3,500 Ft. time for * CLEAROFF CHECKS*. Broadcast your Position /Altitude/Track at Gt Eastern Hwy. "Northam Traffic 5 miles to the South West @ 3,500 Ft RADIO tracking 130 degrees local flight Northam". 10 124.2 AT MURESK: Are Grain Silos East or West of Oval? 10 NOW TRACK NORTH RADIO "Northam Traffic ____ 8 miles South at 3,500 Ft INBOUND on DESCENT for Circuit Time ____ Northam". 10 124.2 CLEAROFF CHECKS Track 360* ... Join Circuit Midfield Crosswind. RADIO Wortham Traffic ____ JOINING MIDFIELD CROSSWIND RUNWAY Northam." 10 124.2 RADIO "Northam Traffic ____ TURNING MID DOWNWIND 124.2 RUNWAY ____ Northam" 10 BONUS POINTS: Land on Kevs 10 Hours Minutes Seconds TIME FINISHES: WHEELS ON "Northam Traffic RADIO LANDED and CLEAR 124.2 RUNWAY Northam" 10



Stability

Would you like smooth air, no clouds and great visibility for your flight? Often the best you'll get is two out of three which, as Meatloaf rightly said, ain't bad. The stability of the atmosphere has quite a bit to do with it. But what's a stable atmosphere? What's an unstable atmosphere? Which one would you rather fly in?

Adiabatic heating and cooling

Diabatic heating is a change in temperature because of a heat input. Water boiling in your kettle, or the atmosphere being warmed by radiation from hot ground, are examples of diabatic heating. Adiabatic heating, on the other hand, is heating because of a pressure change rather than a heat input. If you pump a bike tyre up and feel how warm the valve gets, you have a very tangible example of adiabatic heating.

When a parcel of air rises, it will expand because the air around it is becoming less dense, and it will cool adiabatically, that is, because of the reducing pressure. Some of the reasons air may rise include convection (over warm ground), orographic lifting (over mountains), and fronts.

Adiabatic lapse rates

Unsaturated air – air that is holding less than the maximum moisture it can hold – will cool at about 3°C per 1000 ft as it rises and expands. This is the **dry adiabatic lapse rate** (DALR) – dry in this case meaning unsaturated.

Because cooler air can't hold as much water vapour, the relative humidity (the ratio of how much moisture the air holds compared with how much it could hold) increases, and if the air rises enough it will reach the point where its relative humidity is 100%. The air is saturated, and the temperature at which that happens is the dewpoint.

If the parcel of air is still warmer than its surrounds, or if the mountain or front is still in the way and forcing it to rise, it will keep cooling. But the water vapour condensing to liquid will give off latent heat into the air, so the air won't cool as quickly. The rate at which it cools is about 1.5° per 1000 ft. This is the **saturated adiabatic lapse rate** (SALR).

Environmental lapse rate

In the International Standard Atmosphere (ISA) the mean sea level temperature is 15°C, and the rate of temperature change as you climb (in air that is not rising) is 6.5° per km, or 1.98° per 1000 ft. But in the real world, just as the temperature is anything but a constant 15° at sea level, the temperature change as you climb may be 2°/1000 ft but can vary from below zero to about 4°/1000 ft. This is the **environmental lapse rate** (ELR).

The ELR is the factor that determines whether the air is stable or unstable. The stability depends on how the ELR compares with the DALR and SALR. In brief:

ELR > DALR (3°/1000 ft)

Air will be unstable. It doesn't matter whether the rising air is saturated and cooling at 1.5°/1000 ft, or dry and cooling at 3°/1000 ft; the air around it is cooling even faster, so the parcel of air will stay warmer than its surrounds, and will keep rising.

• ELR < SALR (1.5°/1000 ft)

Air is stable. The rising air is cooling, and the surrounding air is cooling very little, or maybe even warming (an inversion), so the rising air parcel will very quickly reach the temperature of its surrounding air, and stop rising.

• SALR < ELR < DALR

If the ELR is between 1.5° and $3^{\circ}/1000$ ft, which of course includes a typical ISA $2^{\circ}/1000$ ft, the air will be conditionally stable. That means the stability is conditional on whether the air is stable or unstable. It will be stable if it's dry and unstable if it's saturated.

Two examples here will illustrate conditional stability. In both cases a parcel of air is heated by, say, radiation from hot rooftops, and it starts rising. The second example involves a parcel of air that is closer to saturation (more humid) than in the first example. The ELR on this day is 2°/1000 ft. (Because most people are visual learners, it made a lot more sense to write the tables from the bottom, so read them from the bottom.)

Meteorology Refresher - Kevin Lathbury

Stable air

Height	Air	Surrounding	Stability
	parcel	air	
3000	14°	14°	Parcel still unsaturated; reaches the same temperature as the surrounding air; stops rising. Air is stable.
2000	17°	16°	Parcel still warmer than surrounds; keeps rising
1000	20°	18°	Parcel still warmer than surrounds; keeps rising
0	23°	20°	Parcel warmer than surrounds; starts rising; cools at DALR

Unstable air

Height	Air	Surrounding	Stability
	parcel	air	
4000	14°	12°	Parcel now 2° warmer than sur- rounding air; as long as it stays satu- rated the temperature gap between it and the surrounds will keep in- creasing; air will keep rising. Air is unstable.
3000	15.5°	14°	Parcel now cooling at SALR; still warmer than surrounding air; keeps rising
2000	17°	16°	Parcel reaches its dewpoint; saturat- ed; cloud starts forming; parcel still 1° warmer than surrounding air; keeps rising
1000	20°	18°	Parcel still warmer than surrounds; keeps rising
0	23°	20°	Parcel warmer than surrounds; starts rising; cools at DALR

Meteorology Refresher - Kevin Lathbury

Unstable air

If the air is unstable, it "wants" to keep rising. It doesn't need a front or a mountain in the way to force it up. The conditions you may see include:

Cumuliform (heaped) clouds;

Turbulence, especially in thermals;

Precipitation will be showers, not rain;

Good visibility, as the rising air carries away all the muck.

Stable air

Stable air only rises if it's forced to, such as by mountains or fronts. Conditions may include:

Stratiform (layered clouds);

Rain or drizzle;

Poor visibility if there's pollution;

Smooth air, no bumps, no sick passengers.

My choice? A nice cool winter morning, a bit of instability, not much moisture, a few puffs of cumulus, no wind, visibility all the way to Albany, and the aeroplane climbing like a homesick angel!

NEW MEMBERS

Northam Aero Club has 2 new members:

Sue Clements

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Damian O'Driscoll

Congratulations Sue and Damian on becoming members of the Northam Aero Club.

We hope you will enjoy the flying and fellowship with

WANTED



The Club needs a Fire Fighting Appliance:

Ideally we are looking for a trailer with a water supply, pump and hose,

And it would be a bonus if it is in working order.

We will look at anything that you have and are prepared to donate.

Please call our President, Errol if you have or know of anything,

0428 880 149





MIDWEST AERO CLUB (Inc)

PO Box 1974

Geraldton WA 6531

midwestair@wn.com.au

Geraldton Airport President: Peter Teakle Ph 0428 992 088 Secretary: Jeff Wheat Ph 0408 953 631

Affiliated Member Club of AOPA Australia and RFACA

Midwest Aero Club (Inc) in conjunction with Greg & Jenny Poett of Linga Longa at Lynton Station, Port Gregory, (adjacent to the popular Pink Lake tourist attraction, see pics attached)

Cordially invite MWAC Members and Aviators and friends from other Clubs

To the annual Lynton Station Bonfire to be held at Sundown on Saturday 29th August 2020 (weather permitting)

- Dinner provided \$15 per head for roast lamb roll with gravy plus fruit salad & ice cream for dessert
- Cooked Breakfast \$10 per head for bacon, egg toast etc or Camp Kitchen available for byo
- Numbers required for meals catering purposes
- Accommodation camping, caravan/campers, twin-share dongas, one cottage see details and prices in attached flyer
- BYO alcohol and drinks, or if your space is limited we can arrange a vehicle to visit the nearby Port Gregory Liquor Store
- Spot Landing Competition either on arrival Saturday afternoon or before departure Sunday morning
- Airstrip Details as per attached: basically a short N-S strip with a tight right-hand approach if landing to the South, and a longer E-W strip. Any questions to Greg Poett.

PROCEEDS FROM THE BONFIRE EVENT AND MEALS WILL BE DONATED TO

ROYAL FLYING DOCTOR SERVICE



Royal Flying Doctor Service

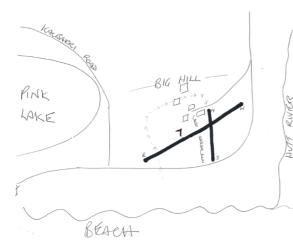
Please register your interest in attending with the Midwest Aero Club (Inc) <u>midwestair@wn.com.au</u> for numbers

HOWEVER PLEASE MAKE ACCOMODATION ARRANGEMENTS DIRECTLY WITH Greg & Jenny Poett as per attached flyer.

LYNTON STATION

G & J POETT 08 99351040 or 0438 916 202

S 28.12.738 E 114.18.396



NOTE: If using North/ South strip a tight right hand circuit below hilltop and between houses is required.

†Ν



LINGA LONGA FARM STAY

at

LYNTON HERITAGE SITE

PORT GREGORY, WA.



 1853 Historic site. Over the road from the beach & near to the Pink Lake.
 Dogs & Motor Bikes Welcome
 Aussie Farm atmosphere with plenty of space



Self contained 2 bedroom cottage – \$150 per night (min 2 nights) Sleeps 4 - 1 queen 2 singles Caravan / Tent / Camper \$15 per person per night Plus \$5 for powered site Twin share dongas \$20 per person per night Greg & Jenny Poett Phone 08 99 351 040

www.facebook.com/lingalongaatLyntonstation

Mobile 0438 916 202 email gjpoet@bigpond.com

Ninghan Station Fly-in 22/23 August

Extract from RACWA TARMAC TOPICS,

with thanks to

Mr. Andrew Eldridge

Hello members! We have a treat for you in late August. The Club has arranged a weekend fly-in to the famous Ninghan Station. Ninghan Station is in the Shire of Yalgoo near Paynes Find, where the north-eastern wheatbelt merges into the station country of the mid-west, just north of Lake Moore. The homestead is located in the foothills of the majestic Mt Singleton.

Ninghan boasts 2 runways, with the long runway suitable for an RFDS PC12, and plenty of room to park our aircraft. These are not pristine manicured runways – there are a few rocks – but the surface is good in all weather, and it is absolutely suitable for any Cessna. Being located right next to Mt Singleton has its pros and cons. On the one hand, you need to keep an eye open for the rising ground in the circuit. On the upside, the Air services radio tower is on the top of the mountain, so you'll get crystal clear VHF reception. This trip is suitable for pilots of all levels of experience. We'll have a safety briefing during the week leading up to the event in any case.

For those who remember the wonderful trip to Gindalbie Station last year, you'll know that station accommodation can be fairly rudimentary, but it's cheap! Ninghan is no different. We've arranged for shearers-style accommodation in a number of dongas. There are toilet and shower facilities, and good communal cooking facilities also. However, you won't need to cook. We're going to provide the evening meal around the campfire on Saturday night, and a big fry-up breakfast on Sunday morning. Members are welcome to supplement the provisions with their own snacks and drinks. A fly-in is a great opportunity to fly somewhere new, but it's also a great opportunity to socialize with fellow aviators and get to know other people in your Club. We always have a great time when there is food, drink, a big fire and no TV.

In late August, there's a very good chance that the wildflowers will be out. Ninghan has some stunning rock formations, including an outcrop to rival Wave Rock. Those with a sense of adventure and good legs can hike to the top of Mt Singleton, which is about a 16km round trip. If you joined us on the Stirlings Fly-in, you will find it easier than Bluff Knoll.

Ninghan is rich with indigenous history, and our generous hosts have offered to give us a guided tour of the many significant sites on the Station.

If you haven't been on a Club fly-in before, this is a great one to start with. If you've just obtained your licence, don't be daunted - Ninghan presents a great opportunity to put it to good use. Jandakot-Ninghan return is within reach of a C172 without needing to refuel, though you will need to manage your payload.

There is a sign-up sheet on the notice board, so if you're interested, please add your name. Enquiries are welcome. Contact Ray Challen or Andrew Eldridge for further information. Hope to see you at Ninghan.

Location:	Great Northern Highway, 48km South of Paynes Find
Opening Hrs:	Please call.
Disabled Access:	No
Features:	Animal Viewing, Birdwatching, Bushwalking, Farm Stay, 4wd-ing, Self contained cottages, Single rooms, Communal kitchen, Ablution block, camping.
Contact:	Don & Ashley Bell
Contact Ph:	(08) 9963 6517

Email:

ninghanstation2@bigpond.com



FOR SALE

WASP Aircraft and Hangar

Aircraft was first registered in 2009, built by Mark Thornton. Aircraft has a TTIS of 33 hours and is powered by a Rotax engine.

Hangar was also built by Mark and is at Beverley Airport. For more information please call: Maree Thornton on 0429 646 155





Next Club Competition

NEXT NAC FLYING COMP is scheduled for: Sunday 13th September 2020.

Due to the uncertainty as a result of the Corona Virus Pandemic, please check with Club Captain Peter Hill to confirm.

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

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

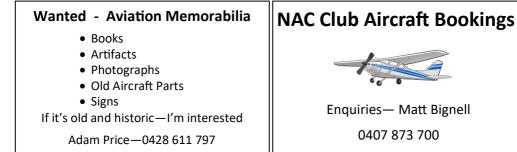
Aug./Sept. 2020

NAC NAC

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
10	11	12	13	14	15	16
17	18	19	20	21	22Ninghan Fly-in	23 Ninghan Fly-in
24	25	26	27	28	29 Lynton Station Fly-in	30
31	1	2	3	4	5	6
7	8	9	10	11	12	13 Club Competion
14	15	16	17	18	19	20
21	22	23	24	25	26	27



\$25.00 available from Northam Aero Club



Northam Aero Club Membership & Apparel Order Form

Name:		○ Not Renewing		
Address:				
Phone: (Home)	(Mobile)	(email)		
Type of Membership:	🔿 Adult (\$55)	🔿 Junior (\$10)		
Club Bar	nk Details: BSB 036-107 A/c Nu	imber:69-2937		
Apparel:	🔿 Club Polo Shirt (\$35) – Size	Name on Shirt:		
100% breathable polye	ester jersey knit, snag resistant. Knit collar wit	th contrast tipping.		
Mens sizes S M L XL 2X	(L 3XL or 5XL . (185 GSM standard	I 3 button)		
Womens sizes 8 10 12	14 16 18 20 22 or 24 (Ladies 215 GSM w	ith open V with 2 press studs)		
	◯ Club Cap (\$20) plus \$8 postage. (* Cap	os are also available from the bar)		
		Total Enclosed \$		
If you would like to rec	zeive an Invoice please tick \bigcirc			
'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 No	rtham 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 <u>www.replicajaguarbook.com</u> 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 - 0428 962 001





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