

# *Fly About*

NORTHAM AERO CLUB (INC.) NEWSLETTER

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# Presidents Message

## Welcome to August Fly About

It has not been the best weather for flying but the farmers are more than happy with the rain.

We had our Annual General Meeting and I would like to thank all those that braved the weather and attended.

The flying competition had to be cancelled due to the inclement weather. It has been a long time since that has happened.

I would once again like to thank our outgoing Committee, another great job carried out during the year. Paul Blain our Treasurer showed us via a PowerPoint presentation that the Aero Club is in a very stable financial position. Dave Beech declared that PGL has flown a lot more hours than previous year, having two Instructors in Kevin Lathbury and Ray Challen they are doing a wonderful job. Also thank you to Denis Beresford as Returning Officer.

As there was only one nomination per vacated position, our incoming Committee is the same as the outgoing so well done all.

Thank you to the those that brought plates for supper. Hopefully the weather will be kinder next month for the Flying Competition. I believe Ashley has been grounded for a few weeks – get well soon Ashley.

I would also like to thank Gren Putland for his presentation of the “*NBE World Women's Ballooning Event Certificate*” to the Northam Aero Club from the Shire of Northam Australia Day awards. From a long standing request by Life Member, Jim Jenkins, Gren Putland was also able to ascertain a piece of kit from a Boeing 747 in memory of the fly over at Northam Air Field many years ago. The piece of kit in question will be on display at the Northam Aero Club for future generations to admire.

Until next month don't forget if you do some flying use that carby heat.

Cheers,

**Errol**

# Club Captain's Report

As the weather looked iffy on the 11th, it was planed to make it on Saturday the 17th to coincide with the clubs AGM. Well the weather turned out with very short periods of less rain and the visibility did improve on occasion, so no comp for August!

While parts of August weather has been not conducive to flying, the farmers and pastoralists are all smiling, the wildflowers are blooming and are visible from the air on a flights from Meekatharra, Geraldton, Carnarvon. A couple of years ago our esteemed President Errol organised a flying wildflower flight to Perenjori.

***Any ideas for a location east or south that maybe  
a candidate for a visit????***

*Keep the shiny side up*



David McFarlane

0428 743031

# WINDSHEAR

## WHAT AND WHEN

If you've done more than a couple of hours' flying at Northam, there are a few things you're a certainty to have done. Using 14 or 32, seeing balloons, hearing Jandakot pilots yabbering too much on the radio; and dealing with windshear.

Windshear is a sudden, as opposed to gradual, change in wind velocity – either speed or direction – within a short distance. It can be either vertical or horizontal, it affects the speed and the flight path of an aircraft, and it's a well-known hazard.

Windshear can happen at high level near a jetstream or the inter-tropical convergence zone (ITCZ). But, the only relevance of that to most of us is that it's another reason to keep your seatbelt on in an airliner. We're more likely to encounter shear around a front, near a thunderstorm, in an inversion, when the sea breeze is in, or where there are obstacles such as terrain or buildings. And the place it's most likely to bite you is on your approach.

Climbing or descending through an inversion, where things are nice and calm below but windier and maybe bumpier above the inversion layer, you may get a sudden change of airspeed. Similarly with a sea breeze, which typically goes up to anywhere between about 1000 and 3000 ft, along with some turbulence you may notice changes of airspeed as you climb or descend through the level at which the sea breeze stops. And if it stops at about 1000 ft AGL, that can make your circuit harder work than normal.

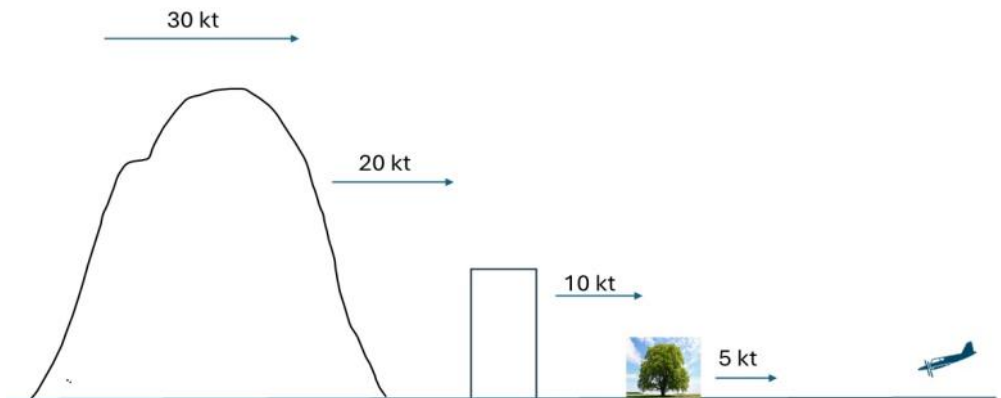
## OBSTACLES MAY CAUSE WINDSHEAR.

Figure 1 illustrates how the wind can change with height due to obstacles, and there's no law that says those changes have to be nice and gradual. If they're sudden, that's windshear.

The place where windshear is a hazard is not flying through an inversion or at the top of a sea breeze layer, but near the ground which, let's face it, is the biggest killer of aviators.

# WINDSHEAR

(In 120-odd years of powered flying, and altercations between aircraft and the ground, the ground remains undefeated.) The worst place is in the downbursts under a good thunderstorm, where a 30 kt headwind could suddenly turn into a 30 kt tailwind. As well as the momentary loss of 60 kt of airspeed, the downdraught will kill you because you won't outclimb it. That's why even big jets don't take off or land under thunderstorms.



**FIGURE 1: OBSTACLES CAUSING WINDSHEAR**

## ALERTING

It's enough of a hazard to aircraft of any size that larger aircraft have systems to detect it. Once upon a time it was part of a Ground Proximity Warning System (GPWS) – the one that says, usually in a stern ‘*don't argue*’ voice saying :“*Too low, gear*” or “*Sink rate*” or “*whoop whoop pull up*”. A windshear alert overrode all other modes. These days big jets have reactive windshear alerting systems that alert the pilots if they fly into windshear, and Predictive Windshear Systems, part of the weather radar, that scan for windshear within, say, 5nm ahead of the aircraft. The systems give a warning, caution or advisory message if they detect windshear.

Major airports also have alerting systems, which are typically sensors at various points on an airfield, such as near each runway threshold.

# WINDSHEAR

If the wind at a point differs by a specified amount from another reading, say 10 kt or 30°, ATC will put alert pilots individually and /or put an alert on the ATIS.

If it happens on approach, in many cases the company Standard Operating Procedures (SOP) will specify a missed approach – no ifs, no buts, go around.

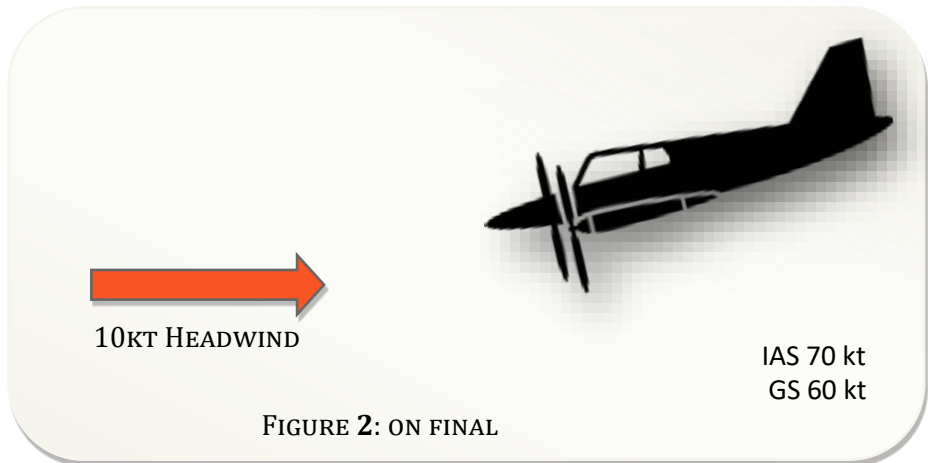
The main source of windshear information is aircraft experiencing it. OCTA, if it's severe enough there's no harm in warning other pilots. In CTA, if you advise ATC, they will pass the information on. If you advise ATC of windshear at an intensity greater than "light" (minor excursions in flight path or speed), they will put it on the ATIS. And like a Traffic Collision Avoidance System (TCAS) warning, windshear is considered a serious enough threat that you'll get away with not following an ATC instruction. If you advise ATC that you have a windshear alert, you will get away with "Cannot comply, windshear escape", and they will generally shut up and leave you alone until you advise that you're clear of it.

Because as a light aircraft pilot you don't have all the toys that a Boeing or Airbus driver has, the forecast and you own local knowledge are good guides. At Northam, a windsock on Viagra swinging all over the place is a good message that windshear will be a factor – maybe enough to stop you flying. There are certainly days when I've looked at it and said, *"Yeah nah but nah, no pre-solo circuit lessons today!"*

## DEALING WITH IT

You're on finals with a 10kt headwind. 70kt on the ASI, 60kt over the ground (**Figure 2**). Suddenly the headwind dies to nothing. After a few seconds, the result will be a groundspeed equal to your IAS (**Figure 4**). But the hazard is the aircraft's **initial** response (**Figure 3**). That's why, in the definitions of overshoot shear and undershoot shear in AIP GEN 2.2, it refers to the **initial** effect on flight path and / or airspeed.

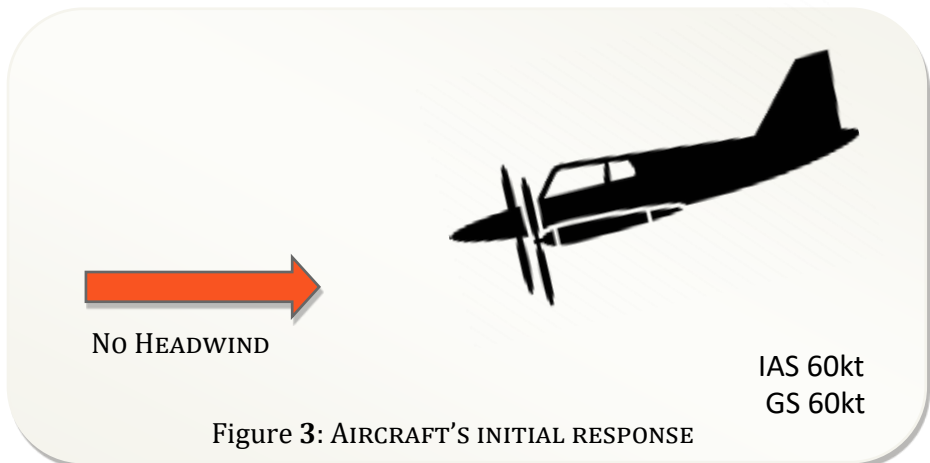
# WINDSHEAR



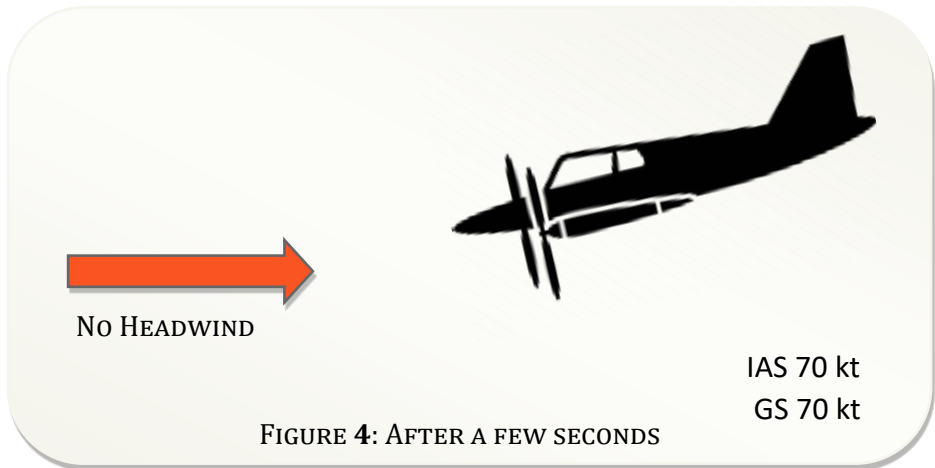
In our example, because the aeroplane has inertia, the initial response will be to continue downhill at its original GS of 60kt. But with no headwind, that equates to an IAS of 60kt.

All other factors being equal, less airspeed means, of course, less lift.

That means sink, which you need to overcome with power. And unless you lose so much speed that you stall, and need to lower the nose to recover, you also want to use power to overcome the loss of IAS. Lowering the nose, when you're already sinking, will only make life harder than it already is.



# WINDSHEAR



Having applied that power, a few seconds later you'll have a higher IAS (**Figure 4**), so you'll need to reduce the power again. Like on short field approaches, wind shear is a reason to be even more dynamic with the throttle – small frequent movements – than on a nice smoot normal approach.

And if you're dealing with typical Northam windshear on final, often it also means a crosswind that can't make up its mind about speed or direction. So your feet will be getting a good workout as well. And while we're on the subject of crosswind technique: if you use, say, right rudder to straighten the nose before touchdown in a left crosswind, an increase in crosswind just means more right rudder. But if the wind reduces, you can either release a bit of right pedal, push the left pedal or, most effectively of all, do both. Feet on both pedals make you feel more in control, and makes crosswind landings a whole lot easier.

**Kevin**

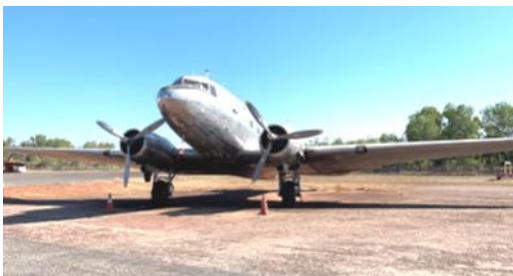


# Darwin Aviation Museum

For those that want to visit Darwin, a visit to the **Aviation Museum** is a must as it is one of the few museums in the world to have a B-52 on static display. The museum hangar was built specifically to hold the B-52 and even with its vast size, the rudder tail section needed to be removed to allow the aircraft to be rolled in to its current display position.



While there is a large number of aircraft housed under the B-52 wings (with a few outside as well), the following pictures are a bit of a teaser on what you can expect to see.



# Darwin Aviation Museum



*Rutan Long-EZ*



*De Havilland Dove CR-TAG*



*Aermacchi MB-326*

# Pitch Black 24

Darwin has a magical feel during the dry season, amazing sunsets with lovely warm days and lovely warm nights and a huge variety of amazing swimming holes!



Every 2 years the magic is extended for aviation enthusiasts and plane spotters with the military event known as the ***Pitch Black Exercise***.

Pitch Black 24 was the largest in the exercise's in its 43-year history. It included 20+ participating nations and over 140 aircraft from around the world, with approximately 4435 personnel participating.



This exercise was conducted primarily from RAAF Base Darwin and RAAF Base Tindal in the Northern Territory; with additional aircraft operating from RAAF Base Amberley, located near Ipswich in Queensland.

Over a 3 week period, an extensive number of sorties are flown and you can hear jet fighters scrambling at all hours from Darwin airport. (Especially if you are staying in the caravan park close by...)



# Pitch Black 24



There are also 2 key public events that are conducted, a fly-over at *Mindal Beach Markets* and a free open day at RAAF Base Darwin.

In an historic first, the Italian Navy's flagship, the aircraft carrier "**Cavour**", arrived in Australia to participate in Exercise Pitch Black, representing a significant milestone for Italy's naval operations in the Indo-Pacific region.

Unfortunately we didn't managed to get tickets to do a tour of the carrier, as part of the HMAS Coonawarra open day for a tour, but the open day at the Darwin RAAF Base was great!

*US Marine MV-22B OSPREY*  
on display during the open day



*AIRBUS A400M*

Its not everyday you see a Luftwaffe aircraft flying in Australia

# Pitch Black 24



*AV-8B Harrier II Plus*  
on display from the Italian aircraft carrier "Cavour"



Italian Air Force *G550 CAEW* (Conformal Airborne Early Warning) -  
you can see these sometimes orbiting in the Black Sea on Flight Radar.

# Aviation Humour

**MY HOBBY IS EXPENSIVE**



**THAT'S CUTE**



**Alright, everyone!**



**Get in crash positions!**



# SAAA Fly-In



## **SAAA Regional-Social Fly-in to Northam Sunday 15th September**

We will be welcoming all flyers and visitors to Hangar 29 for a social get together on Sunday the 15<sup>th</sup> of September, starting at 10 am onwards.

Registration is \$10. A coffee van will be on site and a sausage sizzle will operate for lunch, alternatively, those who wish to have lunch at Dome, transport will be provided.

All are welcome to share in the day.

Contact **Greg** on

**0417-940-461**



# Aviation Humour

**TOWER, THIS IS DELTA 288**



**REQUESTING CLEARANCE TO LAND  
RUNWAY 4L**

**THANK YOU FOR CALLING AIR TRAFFIC CONTROL. YOUR  
CALL IS VERY IMPORTANT TO US. PLEASE STAY ON THE  
LINE AND WE WILL GET TO YOU AS SOON AS WE CAN**



**IF YOU ARE CALLING ABOUT A LANDING CLEARANCE, PLEASE PRESS 1. IF  
YOU ARE SHORT ON FUEL AND REQUIRE IMMEDIATE ASSISTANCE,  
PLEASE PRESS 2. FOR ALL OTHER INQUIRIES, PLEASE STAY ON THE LINE**

**How many  
Airplanes  
do you need?**



**Why, did you see  
one for sale?**





# MEMBERSHIP RENEWAL & APPAREL

## Northam Aero Club Membership & Apparel Order Form

Name: \_\_\_\_\_

☐ Not Renewing

Address \_\_\_\_\_

Phone: \_\_\_\_\_ Email \_\_\_\_\_

Type of Membership: ☐ Adult \$55.00

☐ Junior \$10.00

Club Bank Details: BSB 036-107 Acc Number: 69-2937

Apparel: ☐ Club Polo Shirt \$35.00 – Size \_\_\_\_\_ Name on Shirt: \_\_\_\_\_

100% breathable polyester jersey knit, snag resistant. Knit collar with contrast tipping.

Mens sizes S M L XL 2XL 3XL or 5 XL (185gsm standard 3 button)

Womens sizes 8 10 12 14 16 18 20 22 or 24 (Ladies 215 gsm with open V with 2 press studs)

Club Cap \$25.00 plus \$8.00 postage ☐

Caps also available from the Bar

Total enclosed \$ \_\_\_\_\_

If you would like to receive an invoice please tick ☐

"Fly About" magazine Yes ☐

No ☐

Many thanks,

Northam Aero Club Committee

Northam Aero Club Cap \$25.00

Northam Aero Club Polo Shirt \$35.00 personalised



# BAR

The Bar will be open every Saturday evening from 17:00 — 19:00

## ***LEARN TO FLY***

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[www.northamaeroclub.com](http://www.northamaeroclub.com)

## **NEXT CLUB COMMITTEE MEETING**

**Sunday 8<sup>th</sup> Sept 2024 @ 13:00**

### **Wanted - Aviation Memorabilia**

- Books
- Artefacts
- Photographs
- Old Aircraft Parts
- Signs

If it's old and historic—I'm interested

**Adam Price—0428 611 797**

### **NAC Club Aircraft Bookings**



Enquiries— Matt Bignell

**0407 873 700**

# 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—\$25.00*

*available at the bar*

*Stubbie Holders—\$7.00*

*available at the bar*

*Postage available—\$8.00*



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# NAC Cessna 172 — VH-PGL

## Hire Fee Structure

- Private Hire - \$260 per hour
- Dual Training - \$410 per hour
- TIF's - \$205 per 1/2 hour
- Briefing - as required
- Instructor (in owner's aircraft) - \$150 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 costs only. Instructor fees remain as fixed price.*

For all further enquiries please contact:

NAC Treasurer - [nactreasurer@bigpond.com](mailto:nactreasurer@bigpond.com) T: 0427 909 412

Aircraft Bookings: **Matt Bignell** - 0407 873 700

## NEXT CLUB COMPETITION

**9:00 am Sunday 8<sup>th</sup> Sept 2024**

Cheers,

**Dave McFarlane**

Club Captain **0428 743 031**

