

BRISBANE VALLEY FLYER

OCTOBER- 2019



Watts Bridge Memorial Airfield, Cressbrook-Caboonbah Road, Toogoolawah, Q'd 4313.

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C17A Globemaster III – Brisbane Riverfire Display 2019

LOOKING AT GLASS COCKPITS

By Kevin Walters

Introduction

This article is aimed at condensing a lot of research so that the average Joe Blow can grasp the Pros and Cons of Glass Cockpits and their poorer cousins, EFBs.

I was asked by a couple of chaps to design an R.A.Aus x-country syllabus dedicated to the EFBs of Oz Runways, RWY and Avplan. I thought this was a good idea and agreed to do so. Naturally I targeted the Internet to gather my information and other sources of good gen including Oz Runways. I also looked up sites which touched on this subject like Recreational Aviation Australia, CASA, ATSB and NTSB in the USA. I also accessed some educational and university establishments which have done some quite dedicated research into the human factors side including changing from analogue instruments to glass and vice versa, experienced pilots versus inexperienced pilots and even no experience. The range also took in Airlines, Charter and Private and Business aviation. The last group was IFR and VFR.

RAAUS AND VFR

Legally all visual navigation is based on dead-reckoning. Everything else we use is an aid to that method. This may include maps, TSOd GPS, VOR, DME, Astro, EFB etc. The authorities do not accept the accuracy of the GPS component of Oz RWY, RWY or Avsoft Australia (Avplan.) This is made worse by the fact that tethering (hot spot) off a mobile phone makes the accuracy of GPS on a current EFB more in question. Oz Runways and Avplan provide the best services for RAA and they are authorized by CASR 175.295 as Data Service Providers. There are others like Jeppesen and Garmin International but they normally provide data for the heavy end of town. So we can only use the data from NAIPS and all the services provided by Oz RWY and AvPlan except the GPS.

In the final analyses I found that with the amount of general information surrounding the actual navigation process, it was far easier and quicker, for the purposes of teaching the syllabus, to do it the old fashion way. Instructors please note: If you teach the cross country endorsement solely with the EFB you could be in breach of the Ops Manual and may be embroiled in litigation in the case of an accident. The candidate still has to know things like last light, alternate requirements, hemispherical cruising levels, time and understanding the information contained in ERSA and the visual flight rules guide, the 1:60 rule and the list goes on. For example, if you want to refer to ERSA in flight (a) you've got your head stuck in the cockpit and (b) you forgo your map requirement for as long as you fiddle around with your device. Paper copy, there it is all in front of you. However for a pre-flight planning tool you cannot beat EFBs. It is clear to me that having operated RWY for the past 3 years it is an excellent tool for pre-flight planning and inflight mapping and good to use after you have completed your nav course the manual way.

That was the good news.

THE DOWN SIDE.

The next step is the glass cockpit in your new aircraft. This is where the sky gets overcast. NTSB in the United States has found that the fatal accident rate in Glass Cockpit private/business class aircraft has more than doubled over a given time period. At the moment you can hop in your GC

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equipped aircraft and fly to your hearts content. There are no requirements to pass any written or practical tests. Experienced pilots find it difficult to convert to GC from Analogue and vice versa. It is recommended that a full conversion course be undertaken before being allowed to fly GC. How many pilot owners have done such a course? As the fatality rate continues, CASA are going to start regulating, as well they should.

Let's take the following hypothetical scenario.

RAA pilot gets his new plastic fantastic. Glass cockpit. No instrument time. No flying under the hood. No night flying. Fairly experienced. Flying from Mackay to Winton. He has miscalculated/not calculated last light and on approaching Winton ends up in the dark. Has a faint line on the western horizon where the sun had set but the glare of the GC makes it difficult to see. No problem GC indicates there is Winton on the magenta line. Wish I could turn the glare down on the GC. I've forgotten/don't know how to turn it down. No problem, Winton smack on the nose and I can see the lights of the town. Aerodrome to the east of town there are the runway lights. Wish that glare of the GC wasn't so bright, difficult to see outside. Turn over the town head east to join the downwind leg, oops, pitch black to the east, absolutely no lights, where am I. Can't see anything. Back to the GC, now which instrument, there it is, shows 45 degree bank to the left. That can't be right, because I was flying straight and level after the turn over town. Also the nose has a 20 degree pitch down so I must find that horizon, I think the GC is U/S. BANG. On reflection in Hospital/Heaven because I'd never flown in the dark before I started to get flustered and I think I didn't take into account the Elevation of Winton either (638 feet) because I was so used to operating around Mackay, elevation 19 feet AMSL.

When operating on night aerial spraying in the late 1980s when we had only basic VFR instruments plus a turn and bank indicator we always made sure that the instrument lighting was turned down to a minimum to ensure that we could always pick up the horizon even on a pitch black night. I remember there were only about 4 nights out of a whole season that we could not operate due to smoke haze. I don't know whether modern Night VFR pilots are taught this anymore. For the same reason with the big floodlights on whilst spraying, as we pulled off the crop we would, in the same motion, extinguish the lights so as to quickly pick up the horizon. For the same reason this is why CASA decided that high wing agricultural aircraft were unsuitable for night spraying.

The moral of the story is if you haven't been trained in night flying don't fly at night and ESPECIALLY if you have a glass cockpit and ESPECIALLY if you have a high wing aeroplane. If you intend to operate in the vast interior of Australia, plan for at LEAST 30 minutes before last light for your destination.

The Grim Reaper is waiting patiently.

Kevin Walters (Pilot Examiner).

Managing Risk Management

By Rob Knight

How do you manage risks when you are flying?

Every pilot that I have ever discussed this topic with assures me that they are the most risk averse and cautious pilot to ever have passed a flight test. However some of these pilots have failed to return from flights, and the causes of their demises indicate that their risk avoidance techniques were less adequate than they believed. Some of these pilots have been close friends of mine, and I have felt their loss intently. Yet, in spite of what I could/can see in them, I have been powerless to help them avoid the potential pitfalls ahead. Obviously they were not as risk averse as they believed. However, as adults and qualified pilots not under any review process, all I could do was talk until offense began to be taken, and then just watch and hope, too often, in vain.

But most of these were normal people, not hoonos with wings. They really did endeavour to fly safely and to never even scratch an aeroplane let alone be responsible for turning a sleek and slender machine into crumpled and torn pile of waste aluminium. They were competent pilots, most had never had any accident, but MOST IMPORTANTLY, they couldn't believe they could have one. Their confidence in being good pilots couldn't allow for any doubts, any suggestion they could get into a life-threatening situation was so impossible it could possibly be considered.

So what the %&#* went wrong? This is the most critical question across light aviation today.

To get a basis for risk management, let's look at how humans handle risk at a basic level. We've been at it since our ancestors slipped out from their cave to get some mammoth steaks for tea, in full knowledge of the presence of large predatory cats with sabre teeth, hungrily roaming the area. Without any Occupational Health and Safety people available to advise them, their methods of minimising risk would have been simple – to watch and listen, to eye the ground for spoor, and to avoid places where these nemeses may lie in wait. These are exactly the same procedures we pilots use today to remain safe in flight.

But wait! There's more! Over time our cave man ancestors became very adept at avoiding being the main breakfast menu item for an over-grown pussy. They taught their skills to their trainee hunters and these followed in their footsteps. Until one day one of the trainees, who had never seen a sabre-toothed cat close up, said, "All this pussy-footing around is crap. We don't need to follow all these stupid precautions, they aren't necessary". Soon, though, he became the next main menu item for a large cat with big teeth and an even bigger smile on its face.

We pilots suffer the same incentives to become complacent. Let's face it, we do our damndest to ensure that every flight we undertake comes to a desired and satisfactory conclusion and, over time this outcome becomes the accepted norm so the risks we originally were so wary of, and intent on avoiding, dim in significance, and we begin to pay only lip service to them. Eventually they become a vague thing we do to keep safe but we're not really paying the attention to them that they deserve. Sooner or later, with a smile, they will rise and catch another unwary pilot.

This complacency has arisen in my own experiences as a pilot examiner, at times when, faced with a flight test, one would expect extra caution. Examples – a BFR flight test for a CPL, who turned up in a Cessna 172 with no valid maintenance release and 45 minutes total available fuel. I let him go right into the take-off before aborting it after full power was applied to ensure he was going to fly in that

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state. On another occasion, having briefed a pilot on the requirements for flight to Great Barrier Island off the East Coast of New Zealand's North Island, as we crossed the coast outbound in Cherokee 140 ZK-DGJ, I asked where he had stowed the life jackets. To my chagrin, he said he hadn't brought any. He claimed that the office lady at the Aero Club told him we didn't need any. On a flight that went 21 nm outside of gliding range from land – where's the thinking process?

Skud-running has always been a form of sport that I have always considered over-rated and I speak from experience having been caught by VMC morphing into IMC myself. So I can have some sympathy for pilots who suffer a like circumstance. But what I have always found, especially when hiring my aeroplanes to others, is that I have no sympathy whatsoever, for pilots who get into weather related problem in high ground. As CFI at Wellington Aero Club, I was asked by ATC to brief a visiting pilot to the airport on how to operate in the area. He had flown up from Dunedin in deteriorating weather but it was still not quite Special VFR as he approached Wellington CTR from across Cook Strait. Eventually after several Boeings made missed approaches because he was in the way, the runway was clear and he landed. A "nice man", in his early 80s, I briefed him and became concerned about his slow witted thinking, especially as he intended leaving on the morrow to fly up the west coast to New Plymouth and on to Auckland. However, it was his own aeroplane – a rather neat, low time, Grumman AA5 Tiger – so no authorisation was necessary. The following morning's weather was not ideal for the intended trip with low cloud inland but up the coast was quite good for a VFR flight. We had a long chat about staying away from high ground and eventually he departed with three passengers from his Church. Alas – you've guessed – he never arrived at New Plymouth. He failed to put out the required radio position reports required on a VFR flight plan at that time. He just disappeared, perhaps into the sea, but there was a lot of that along his intended route.

Four days later, by fluke because no-one knew where to look, some pig hunters found the wreckage. Four persons were in the vicinity and the aircraft was partially buried nose into the ground in the high country bush inland from Kawhia Harbour, on Mount Pirongia. Although New Plymouth was enshrouded in near-perfect VFR, the pilot had passed it by and proceeded about another 20 nm up the coast to Albatross point before turning inland in spite of my warnings. The man was experienced, was under no time-table pressure that I saw to get to Auckland, yet saw no danger in flying into the weather trap that awaited inland. I recall that he told me that he had made this flight many, many times before so complacency is the only excuse that I can raise. He never thought it was dangerous in spite of all the warnings. A lack of prudence killed him, widowed his wife, and killed the other aircraft occupants. Why was he imprudent? He didn't manage the risks effectively – the risks were greater than he realised. In spite of his training, his experience, and his very current briefing and warnings, he still allowed himself to be trapped in IMC which, even though his aeroplane was IFR capable, he had not the training or knowledge to use to save himself and his fellow occupants.

Ian Reynolds was a good friend of mine; we regularly enjoyed an end-of-day beer in the Aero Club bar. We both flew with the Waitemata Aero Club – me as a flight-line Instructor and he as a club pilot. He had a beautiful DHC1 Chipmunk, registered ZK-TNR and in 1994 put on an aerobatic flying display in front of the grandstand at the Warbirds Over Wanaka Fly In. Alas. In spite of the extensive aerobatic training and practice he had undertaken at Ardmore, much of which I had seen, he entered a half-roll and pull through rather clumsily and this caused him to lose more height in the

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pull through than was available. I had personally seen him do this manoeuvre almost more times than I can count, but on the day, through stage fright stress in front of the crowd, or whatever, he failed to carry out the required actions and this resulted in his demise. Why did it happen? We can all see it on the video that's still on the internet (search for Chipmunk accident at Wanaka), but we can't see why he made the control movements that failed to keep him safe in the restricted height box he was using. I suspect he simply got carried away and was enjoying it too much and forgot to ensure the precision needed was there. Had he been actively considering the risks involved in that specific operation at low level at that time, he couldn't have allowed his complacency to be so pronounced



Ian's ZK-TNR

Sometimes emotions become a powerful force affecting decision making by pilots. The obvious one is the classic, "getthereitis" where a reluctance to disappoint someone, or even just because the pilot decides so, a flight is continued in situations that render safe flight impossible.



ZK-DON

I remember John G, a very successful businessman from Auckland, New Zealand. John came to me for a type rating on an Maule M4 Rocket, ZK-DON, that was, at that time, on the Flight line at Waitemata Aero Club at Ardmore. John was a Cherokee pilot, I recall, and, like others with a similar flying background, it took some time for him to adjust his priority from the aileron and elevator to the rudder to handle the tailwheel. Alas, this was time that he couldn't afford and he proved to be a difficult and somewhat

abusive student, totally aligned with tying my lack of instructional ability to his lack of progress. However, we did finish it and eventually he was signed off to fly the Maule having proved his flying competence on type and his knowledge of the aeroplane and its idiosyncrasies.

A few weeks later he was observed loading four people into DON, along with a substantial hamper of food and 4 cartons of beer into the rear luggage area. These were not slabs of cans, these were long necked bottles. As that model Maule had serious issues with the ease in exceeding the aft Centre of Gravity limit, I asked him to do a weight and balance check. He turned on the abuse and aggression but the CFI stepped in and backed me up. The C of G check gave a position nearly seven inches aft of the rear limit: the aircraft couldn't be flown. John G flew into a rage and after taking everything he had loaded out, refused to move the aeroplane back onto the line and threw the fuel tank dipstick he was clutching in his hand onto the tarmac, smashing the wooden stick. That was it – he was grounded for 6 months and was sent a bill for a replacement stick.

He left the Club and flew aeroplanes operated by another hirer on the field before eventually buying a share in an SNJ Harvard, an ex RNZAF warbird. My tailwheel training seemed to pay dividends as he converted to that type fairly easily and settled into the routine of training for formation aerobatics. He also got some work in flying his Harvard in the making of a movie.

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Then, in February 1990, he arrived late for a formation briefing for the evening's training practice. To make matters worse someone had pulled his other aircraft, a T28 Trojan, out of the hangar and the strong winds had damaged its cockpit covers, John was incensed, his rage was felt by all in the vicinity and reference was made of this state of mind in the subsequent accident report. The formation team leader asked John formally if he was fit to fly and John advised that he was. The formation briefing took place and was completed in an orderly fashion.

Conditions aloft were quite conducive to formation flying and the formation practice got underway and the various manoeuvres were initially carried out in a very satisfactory fashion until the second to last formation manoeuvre. Here it all began to unravel for John. It was a formation stall turn and he got out of position and made an untidy mess of its completion. The following and last manoeuvre was a downward bomb burst but John, flying No 4 in the formation, appeared to hesitate on his exit and his Harvard overtook the No3 and a collision occurred.



John G's Harvard ZK-ENN at Ardmore

John's right side elevator and stabilizer were cut off by the No3's wingtip. As John's aircraft slid beneath No3, No3's prop cut through both John's elevator cables and one rudder cable. John's Harvard entered a dive from which it did not recover, and left an 8 foot deep crater in Grass Vector 25.

In light of the frame of mind that John G. was in, hindsight might suggest that he shouldn't have been flying, or at least, not in a formation sortie. His disregard for his anger issues and the added mental pressure necessary to subdue it is seen by many as the prime factor in this accident. He was an experienced pilot when it happened and he knew what he should do but, nevertheless, did not

The last incident I will depict relates to the pilot in the Cherokee that failed to bring the life jackets on a check-flight into Great Barrier Island described earlier in this piece. He had just completed a university degree and was rather full of himself. I signed off on his PA28 type rating and gave him a warning regarding his inappropriate attitude towards his flying ability. I pointed out that he was mortal, just like other men, and could, as easily as anyone else, fall prey to an avoidable incident. I subsequently successfully checked him out of Great Barrier airfield and he carried out some local flights in the 140.

Another instructor checked him out in the PA28 151 Warrior ZX-DIX. At that time, newly purchased by the Waitemata Aero Club, it was the Club's flagship, and every pilot wanted to get checked out. My ex student booked an instructor and the aircraft and was ultimately granted approval to hire DIX. His first flight as P in C in Dix was across to Great Barrier Island and he took a picnic lunch and his girl friend across to this idyllic Isle. He was briefed and given appropriate met minima and instructions as Cbs were forecast for the afternoon. He departed and that was the last the Club saw of ZK-DIX.

Subsequent enquiries indicated that he arrived at the field and the couple enjoyed several hours on the beach adjacent to the airfield. Whilst there, they met up with a French couple, tourists with air

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tanks, who had been scuba diving around the unpopulated rocks at the ends of the beach. As the tourists had no planned transport back to the mainland, they were offered a ride back in DIX.

DIX departed Great Barrier with four on board and headed back towards a line of towering Cbs that was then crossing the North Island. Heading nearly due west, they could have tracked either north or south to easily circumvent the billowing obstacle but no, the intrepid aviator headed directly west, straight towards the line of dangerous weather.

About 40 minutes later, suffering howling winds, bolts of lightning striking the water, and torrential rain, several fishing boats hear a screaming engine and bits of aeroplane began falling out of the low cloud and impacting the sea around them. Witnesses counted the wings, and someone described the tailplane, after the main body had crashed nose-first into the sea, just off Ponui Island in the Hauraki Gulf. DIX was no more.

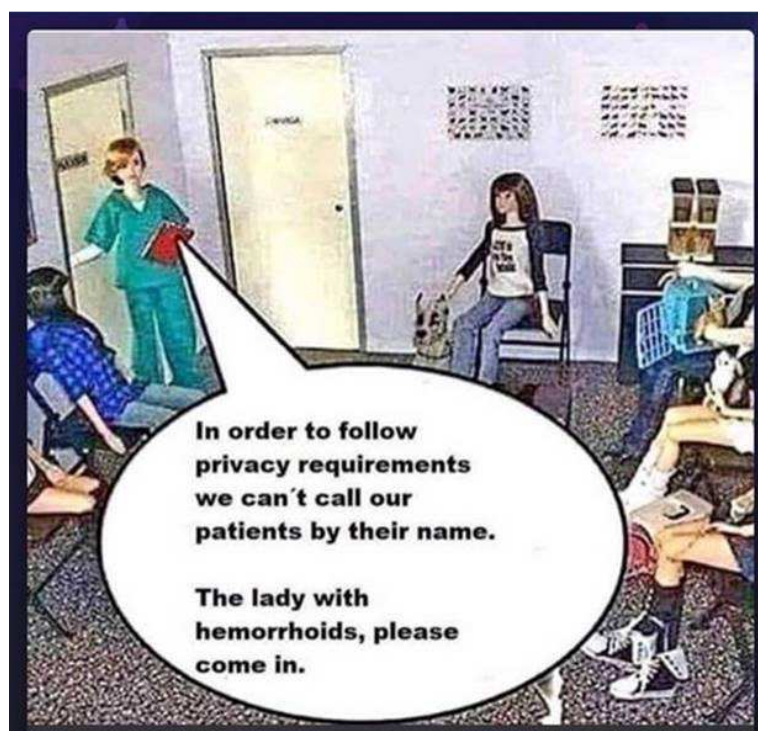
Over the next two months bits of DIX washed up, on Ponui Island, and on the mainland. Bodies appeared but the pilot was the last to be located and identified almost eight weeks after the crash.

Now the message.

Every one of the pilots depicted in this piece would have insisted that they were completely safe pilots. Yet they proved that concept to be a complete fallacy. Every one of them failed to act safely considering the various causes of the accidents. Some were an attitude (or perhaps anger or conceit) issues, other pilots simply ignored the threatening look of the weather and, because they had always got through before, ignored the warnings (verbal and atmospheric) and ploughed on to disaster. Another simply failed to carry out a manoeuvre at low level, a time when accuracy is paramount. These people were just like thee and me. Can you say that you will never be a like statistic? Or will you look at these examples of risk assessment failure and reset your danger meters before every flight. Fate does. Fate doesn't assume you will get there just because you always have before ,and neither can you afford to make that assumption.

Your fate is in your hands. Manage your risks correctly.

Happy Flying



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FLY-INS Looming

12 October 2019	YMRG Murgon	Brekkie with the Burnett Flyers
14 December 2019	YMRG Murgon	Brekkie with the Burnett Flyers

Mystery Aircraft (This Issue)

What's this?



Mystery Aircraft (Last Issue)

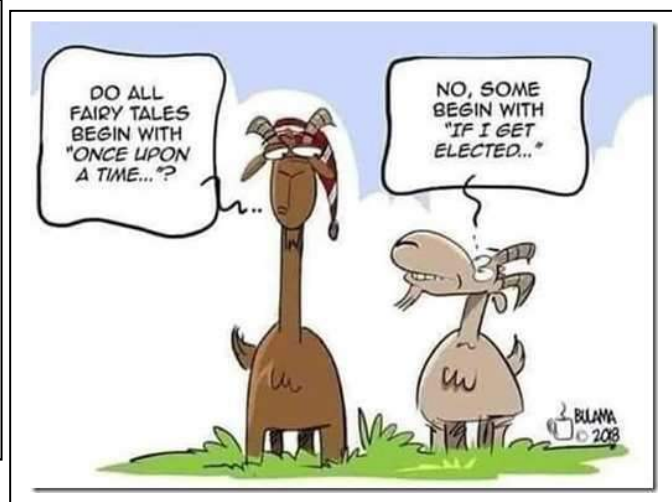


Morane-Saulnier Type A, 1910

Training monoplane. 13 built for the French army.

No-one guessed it or researched it this month.

Jokes



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Airport CTAF / AWIS Quick Reference Table

Biggenden – 126.7 (04/22)
Boonah – 122.75 (04/22)
Bundaberg – 126.9 (14/32, 07/25) / AWIS – 135.45 Ph: 3564 3706
Caboolture – 125.85 (06/24, 12/30*)
Caloundra – 125.85 (05/23*, 12*/30)
Childers – 126.7 (10/28)
Clifton – 126.7 (06*/24)
Cooloola Cove – 126.7 (16/34*)
Dalby – 126.7 (13/31, 04/22)
Dunwich – 126.7 (15/33)
Forest Hill - 126.7 (03/21)
Gatton Airpark – 126.7 (01/19)
Gayndah – 126.7 (06/24)
Heck Field – 119.0 (10/28, 18/36) & Mason Field – 119.0
Hervey Bay – 126.55 (11/29) / AWIS – 134.9 Ph: 3564 3717
Kilcoy – 126.7 (09/27)
Kingaroy – 127.45 (16/34*,05/23) / AWIS – 125.95 Ph: 3564 3720
Maryborough – 126.55 (17/35, 12/30) / AWIS – 133.55 Ph: 35643726
Moranbah – 127.5 (16/34*) / AWIS – 122.075 Ph: 3564 3727
Murgon – 126.7 (12/30)
Nanango – 126.7 (04/22)
Noosa – 126.7 (11*/29)
Pacific Haven – 126.7 (02/20)
Pittsworth – 126.7 (02/20)
Rainbow Beach – 126.7 (16/34)
Redcliffe – 127.15 (07/25*)
Sunshine Coast – 124.4 (18/36) / AWIS – 119.8 Ph: 3564 3738
Toowoomba – 127.65 (11/29, 06/24) / AWIS – 127.05 Ph: 3564 3742
Thangool – 126.7 (10*/28, 14/32) / AWIS – 134.05 Ph: 3564 3739
Warwick – 127.85 (09/27)
Watts Bridge – 127.3 (12/30, 03/21)
Wondai – 126.7 (18/36)

Thanks to Peter Stanton for this
page

*** Right-hand Circuits - Note: Emergency frequency – 121.5**

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Keeping up with the Play (Test yourself – how good are you, really?)

1. An aeroplane is established in a climbing turn to the right. The bank is constant, the ball centred, and the airspeed is constant and correct. Which of the following statements regarding this situation is the most correct?
 - A. The aeroplane is not pitching, but is yawing and rolling to the right.
 - B. The aeroplane is pitching up, yawing right, and rolling to the right.
 - C. The aeroplane is not pitching, it is not rolling, but is yawing to the right
 - D. The aeroplane is pitching up, not yawing, but is rolling to the right.

2. Considering an aeroplane in still air, in a steady glide, ball centered, at the correct IAS for best L/D.
In the simplest terms, what should this be telling the pilot?
 - A. It will glide the farthest distance.
 - B. It will descend at the slowest rate.
 - C. It will have the greatest airborne endurance.
 - D. A and B are both correct.

3. What causes wind:
 - A. Coriolus effect.
 - B. Variations in atmospheric pressure.
 - C. The earth's rotation.
 - D. Temperature differences between the poles and the equator.

4. Regarding an unstalled aeroplane in flight: select the correct statement
 - A. Falling airspeed can be traded off against increasing angle of attack until C_L max is achieved.
 - B. Turning can be achieved without increasing V_s providing loading is not increased.
 - C. When gliding for range, maintaining best L/D airspeed is the only critical factor.
 - D. All are correct.

5. Which of the following is the most critical factor in carrying out a short landing?
 - A. Maintaining an appropriate approach angle for the field in use.
 - B. Using a glide approach.
 - C. Applying brakes before the wheels touch.
 - D. Maintaining a minimum ground speed in the prevailing conditions.

See answers overleaf

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ANSWERS: 1. C, 2. A, 3. B, 4. A, 5. D.

If you have any problems with these questions, See Notes overleaf or call me (in the evening) and let's discuss it. Rob Knight.

1. Almost all aeroplanes have an inherent tendency to overbank in turns due to the speed discrepancy between the wings. Therefore slight out-of-turn aileron will be needed to stop the bank increasing, Thus, in a right turn, the left aileron will be up a little and the right aileron down a little. NOTE: With differential ailerons, the left aileron is likely to be up more than the right aileron is down.
2. It is set up at the best L/D ratio so will glide the farthest distance in still air.
3. The atmosphere pressure gradient causes wind as it tries to flow from high pressure areas to low pressure areas. Its direction is modified by Coriolis force.
4. B cannot be correct because loading HAS to increase min a turn because it involves an acceleration. C cannot be correct because maintaining the best L/D IAS is only the aerodynamic factor, There is also lift from mechanical turbulence along ridges, lift in thermal activity, and straight out increase groundspeed by flying downwind thermals.
5. A is not be correct because the approach angle is a less significant issue than the others stated. B is not correct because, the stall speed is reduced when power is applied so no power increases the potential airspeed in a powered aeroplane. C is a catch answer and has no relevance.

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Aircraft Parts and Tools

Item	Condition	Price
SAAP Oil Pressure Gauge & Dedicated Sender	Brand New (in original box)	\$100.00
VDO Volt Readout instrument	Brand New	\$70.00
EGT sensors (2 of)	Brand New	\$30.00 (each)
Skystrobe Strobe light for Ultralight	NEW – IN BOX	\$75.00
Altimeter – non-sensitive with subscale in “Hg.	Brand new	\$50.00
Brand New ¼ drive Torque Wrench (SCA)	Brand New 60.00	\$60.00

NEW Exhaust Springs for Rotax Exhaust ONLY 2 left	Brand New	\$10.25 each
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Contact Rob Knight at either kni.rob@bigpond.com, or call 0400 89 3632.

Pilot Equipment for Sale

1 x used David Clarke Headset.	\$POA
1 x brand new David Clarke headset	\$POA
1 x Garmin 196 GPS	\$150.00
1 x used hand held Transceiver (Vertex VXA-220)	\$150.00

Contact Julie Driver on Tel. 0421369328

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Aircraft for sale

¾ scale replica Spitfire

\$60,000



Powered by a 6 cylinder engine, this delightful aircraft has good performance and low hours. Available for quick delivery.

It comes with a low flight time, excellent handling qualities, superb charisma, a brand new mechanical fuel pump and two jack stands.

For details contact Bill Watson. Tel., 0447 186 336

95-10 Shuttle Mk2 for Sale.

Currently registered but dismantled for storage.

Jabiru 1600 powered. Basic instruments & radio.

Sweet flying aircraft. Make good project. \$4000.00 O.N.O.

Ph. 0488 422156 (Manfred Hitchins)



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95-10 Colby Single seat aircraft for sale.

Airframe 202 hrs. Engine (503 SDCl) 37 hours.

Instruments and radio. Registered and ready to fly away. Currently at Forest Hill. Could consider delivery for fuel cost.

\$6500.00 negotiable. Ph Rob on 0400 893632 for details.



The Lockyer Valley from the Colby