

BRISBANE VALLEY FLYER

FEBRUARY- 2019



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

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Tucking in Tight – Alan Walker Flying Doug and Mon McIlwraith's AAK Hornet.

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Go AROUND - I say Again – Go AROUND

By Rob Knight

A student once asked me how they would know if they needed to go around. My answer is simplicity in itself and fail free. If you ever wonder IF you should go around then that is the answer – take it from that point and get the hell out of where ever you are, start the circuit process again. And you can do that as long as you have daylight and fuel.

Most pilots expect that a go-around should be a consideration on final approach but, in reality, any time from mid-down wind is quite appropriate. I recall doing a PPL flight test at an uncontrolled airfield that had several training organisations and a very active gliding club. It was in the late afternoon and the candidate had done well. It was our return to the field for a normal approach and landing and a short landing to finish the test. Exactly on cue we turned down wind and put out the radio call. We both counted the aircraft and gliders ahead. There were eight aircraft to land before us and some gliders never rolled clear it was obviously going to be very congested. When he began his turn onto left base, there were more aircraft ahead than flies on a road kill. With no prompting from me, he called “overshooting”, flew over the base leg climbing 500 feet to rejoin from the non traffic side on the crosswind leg. By the time we called downwind again, everyone else had landed and the runway was ours. He was unstressed and made two good landings to meet the requirements and left the field as a qualified pilot.

Now how easy is that? But more importantly, how many pilots actually do that? In my experience he is one of the few yet it is available every time a pilot feels uncomfortable with the number of aircraft ahead and not confident of easily maintaining the necessary separation. Most pilots curse, and wobble around the sky trying to fit in with the traffic ahead snarling into their radio about who has the right of way.

A pilot can easily go around whilst on base leg should there be a potential conflict with another aircraft. This has happened to me when another aircraft has joined straight in and not complied with the requirement to fit in with established circuit traffic. You may well be in the right but do you want “he is dead right” chiselled on your headstone after you collide, fighting for your right of way? The other pilots might be dead wrong, too, but you are both still dead! How much better to grit your teeth and tell yourself you are avoiding a mad man with a death wish, and simply get out of the way – by going around. If he wants that airspace so much let him have it – YOU go around. In the air is no place to contest it. FIRST land safely, then, if you must, sort it out on the ground and live to tell the tale.

The final approach is like a funnel. Where parallel runways occur, then there are two funnels operating. All aircraft planning to land must approach the runway through this narrow band of air space and thus congestion leaves it a very likely place for a collision. With this in mind, always be prepared to exit this funnel in the safest manner possible should another aircraft appear close. Remember, unless formation flying, two aircraft are not permitted to land at once on the same runway. Or someone who has forgotten their white stick, taxis out and lines up in front of you when you are at 50 feet. All you can do is say, “Shit happens”, – and go around.

So far all I have mentioned are aircraft to aircraft conflicts. But a pilot’s own positioning in relation to the runway may necessitate a go around. Being too high and not able to steepen one’s glide path is the most common cause, but it is not the only one. As I mentioned in the December issue, in my

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piece about the Stall/Spin Trap, being too high and over shooting the centre-line is another. The tendency when high and close in is to turn steeply to regain the centreline and being too busy to recognise the airspeed decay and the rising angle of attack on the inner wing (if you want more about this read the article again). However, as a go around can be commenced at any time, that very simple act will reset all the defaults and shortly the pilot can start the approach again with the experience of the last one behind them.

So what are the requirements of a good go around? Primarily they are to avoid any further conflict with other aircraft. On downwind or base leg, a pilot can simply climb to the rejoin height and follow the circuit pattern below and then, when on the non-traffic side, let down and rejoin on the crosswind leg as usual. Naturally, maintain a good lookout for other aircraft and broadcasting intention on the radio are both very necessary

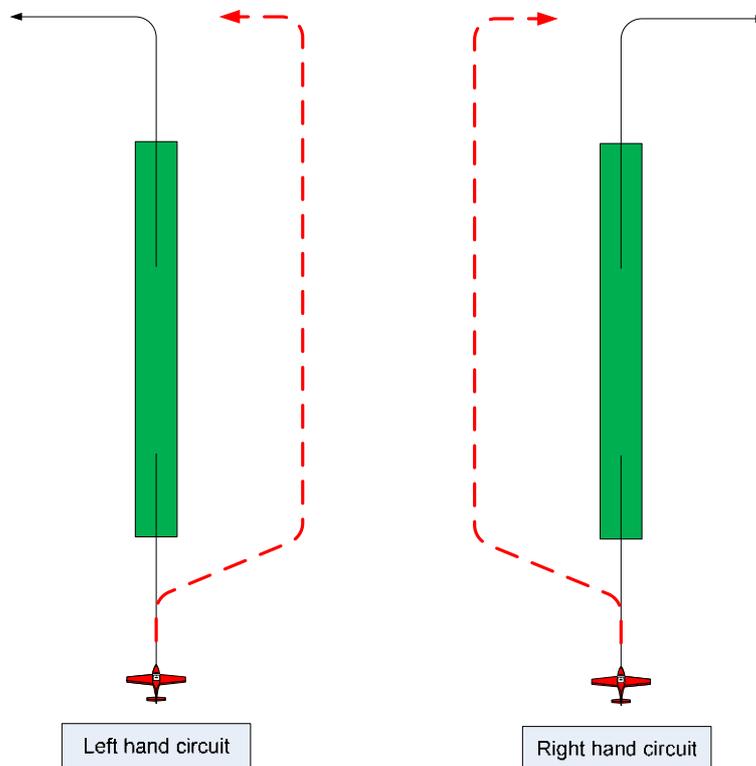
The go around from the final approach is the only one where a change of direction may be required.

Over the years, there has been some conflict regarding the flight path of a going around aircraft and the circuit direction in place at that time.

The VFRG states (*in the non-controlled-aerodromes/arrivals-departures-and-transits section*)

Go around – A pilot who elects to abort a landing should manoeuvre to keep other traffic in sight, maintain a safe distance from all aircraft and re-join the circuit when it is safe to do so. This may involve manoeuvring to the right, left or maintaining the runway centreline, depending on traffic, the circuit direction and terrain.

See <http://vfrg.casa.gov.au/operations/non-controlled-aerodromes/arrivals-departures-and-transits/>



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The illustrations on the preceding page depict the potential flight path of the going around or overshooting aircraft. By flying alongside the runway, the pilot of the overshooting aircraft is better able to see aircraft on the runway and to avoid an aircraft conflicting on the climb-out. As most aircraft have a left seated pilot in command, an overshoot in a right hand circuit may necessitate being wider so the pilot can observe the runway adequately

After the over shooting aircraft is safely under control, the pilot can decide the easiest and safest means of rejoining the normal circuit pattern. They can climb straight ahead and rejoin on the crosswind leg, or vacate the circuit completely and rejoin from overhead the field should they feel that is safest.

I don't recall ever hearing of any pilot coming to grief because they did a go-around. But I do know a lot who have serious cause to regret that they didn't when they had the chance BEFORE it all turned irretrievably to custard.

Happy flying-

----- ooOOoo -----

Christmas Party Held on December 1st

The BVSAC Christmas Party for 2018 was held in the clubrooms at Watts Bridge on December 1st and it went down very well indeed. Many thanks to the committee who provided this Christmas celebration for us



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Stirring up a Hornet

By Rob Knight

Doug and Mon McIlwraith, at Biddaddaba, own an immaculate AAK Hornet. Produced in kit form



Doug and Mon's Hornet

(AAK stands for Australian Aircraft Kits) in Taree, New South Wales, and built at Biddaddaba in Doug and Mon's hangar, the Hornet stands tall in its red and cream toned livery looking like an out of place giraffe.

As Doug was busy, he delegated Alan Walker(Al) to ride along with me. Al, lean, competent and personable, answered all my initial questions and we climbed up and aboard into the very practical cockpit.

The nose looked long, stretching out ahead, with the prop seemingly yards out in front. Al ran me over the wood-grained instrument panel and through the control layout. All very simple, everything was nicely to hand and in just the right place.

The start up was normal – and the 100 horses in the Rotax 912 rumbled sweetly into life without delay. When the engine warmed, we released the brakes and taxied away in a series of "S" turns as the high nose neatly hid obstacles close and directly in front.



The panel was well laid out and easy to read.

The run-up was normal and pre-take-off checks perfectly straight forward. I looked at Al and he nodded and I dropped my heels to the floor, away from the toe brakes. I advised the traffic we were rolling and gently applied full power.

There was an early and obvious need to apply right rudder, the nose wanted to swing left very quickly and very powerfully (and we were hardly rolling). The big metal pedals under my feet quickly returned the nose to our imaginary centreline. With the stick central, the tail began to rise on its own as we passed through 40 knots and I rotated. The rumbling ceased and we were airborne.

Immediately I needed to re-trim but having done so the aircraft settled into docile mode. I experimented and it climbed quite happily without my arm's guidance. I did, however have to maintain rudder pressure to keep the ball in the middle.

With 60 knots (Vy) on the clock, I saw 810 feet/minute on the VSI. All temperatures and pressures remained where they should be and I returned to looking at the handling in the climb. Stick pressures were very light and the aircraft was very responsive in all axis. I moved the elevator and swung the nose side to side with the rudder. This aeroplane has remarkable harmony in the controls: it really was nice to fly. Being so light and lively to control, it would also be pleasant in a low flying role.

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We levelled out at 3000 and set 5000 RPM for cruise. The ASI wound itself up to about 68 knots and I trimmed for no stick pressure. I could now look around at the view the cockpit provided with its full length lexan doors. The view was gorgeous. Although the nose blocked a little of the view ahead, the side doors more than made up for it. For mustering or photograph, this little beast would excel.

We headed for a clear area and did the HASEL check. After a couple of turns to check we weren't being stalked I selected a prominent peak on the horizon to keep straight on. With the throttle closed the speed decay was rapid, the long gangly under-carriage making its presence felt. The elevator was



The superb view, around and below



The long nose stretches ahead

light at first but became quite heavy towards the end and, just as I felt I might slip backwards out of the seat, a tiny shudder ran through the airframe and the nose sagged about five degrees. We started sinking with the VSI indicating about 650 FPM. The slats are super-effective and give the aircraft a much higher stalling angle of attack. This transposes in a level flight stall to a much higher nose attitude than aircraft not fitted with slats or slots and a correspondingly lower stall speed.

The recovery was instantaneous with a lowering of the angle of attack, and height loss ceased immediately full power was applied.

The powered stall was a carbon copy of the basic stall, albeit with an even higher nose attitude. The ailerons remained effective right up to the stall and just prior to the break, applying full right aileron just gently rolled us to the right. This is another effect of the slats.

Keeping straight was not difficult provided adequate rudder was used. The "P" factor at the very high angle of attack was very pronounced and the rudder application to counter yaw was significant. At no stage, in any configuration, did either wing even sag. The stalls were all very docile, although to get the machine into the level flight stall did require a nose high attitude replicating a Saturn 5 rocket at launch. I noticed that the airspeed indicator was reading close to 25 knots at the stall and,



The magical slats at the leading edge

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mentally approximating the position error issue, guessed that I agreed with the book basic stall speed value of 34 knots.

The ease at which this little aeroplane manoeuvres is phenomenal. The controls are light about all three axis and this provides a beautiful harmony. Trying 45° banked maximum rate turns, all entries and exits suffered some aileron drag but the adverse yaw was easily countered and so balance was easily maintained. Visibility was great throughout the turns, exactly as expected because of the great expanse of lexan. On the last turn I maintained height and pulled until the buffet indicated I was at C_{LMAX} , and then I pulled some more. Keeping the ball in the middle, the only change was the beginnings of a sink into a very tight spiralling turn.



The aircraft has a very high nose attitude in a level flight stall

The most notable characteristic displayed in the stall, was the substantial trim change as

the airspeed decayed. This resulted in significant and increasing elevator heaviness with rising angles of attack. Unless a concerted effort was applied to control the nose, it fell away and the aircraft lost height. Alan warned me that this stick-heaviness was also a feature of the aeroplane at the flare on landing, and care must be applied to prevent a premature touch-down.

We turned back to the field and reduced power, giving us an easy descent back to Biddaddaba. Ahead and below, Doug was flying his Monlas Biplane and took the No 1 position. The fantastic visibility made it easy to keep him in sight.

The normal approach speed of 60 knots provided a very adequate low nose attitude and the runway was easy to see ahead. As Doug cleared the runway, we crossed the fence with the speed coming back to 45 knots. The stick was certainly heavier and the heaviness increased further as I reduced power and flared. In its incredibly nose-high stance, the aircraft touched and rolled ahead and I needed the usual rudder work to keep up on the centre-line. We cleared the runway and taxied back to the parking area.

This aeroplane certainly takes you for a ride. I loved the feel of the machine – its control harmony is well ahead of many other commercially provided aeroplanes, and its visibility nothing less than fantastic. It is unusual in its attitude on the ground – a feature of its long legs necessary because of the wing's leading-edge slats, and the stick-heaviness at low speeds and high nose attitudes. Mind you, if this is a desired condition of flight, the trim is quite capable of holding that pressure for the pilot.

All in all, I very much enjoyed the flight and could become very fond of this aeroplane. It has character, a feature missing in too many aeroplanes these days, and just plain fun to fly.

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Boeing's flying taxi takes to the skies in its first test flight



Boeing's flying PAV taxi
(CREDIT: BOEING)

By Matthew Field

23 JANUARY 2019

A self-flying air taxi built by one of the world's biggest defence and aerospace giants has lifted off on its maiden test flight in the US.

Boeing revealed its autonomous air passenger vehicle (PAV), which the US company hopes will be a contender for future flying taxi services.

The PAV uses electric vertical takeoff and landing technology, meaning it could fly in constricted urban areas.

The test saw a controlled takeoff, hover and landing and tested the flying taxi's autonomous functions and landing systems.

"In one year, we have progressed from a conceptual design to a flying prototype," said Boeing Chief Technology Officer Greg Hyslop.

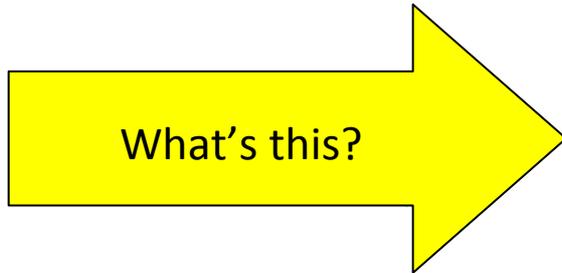
The aircraft comes as part of Boeing's future-gazing NeXt division, its research arm developing autonomous and electric aircraft. The test flight comes as tech companies vie to launch flying taxi and autonomous drone services for human passengers and package delivery.

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FLY-INS Looming

09/02/20198	Murgon (Angelfield)	Burnett Flyers Breakfast Fly-In
13/04/2019	Murgon (Angelfield)	Burnett Flyers Breakfast Fly-In

Mystery Aircraft (This Issue)



Mystery Aircraft (Last Issue)



The **AgustaWestland AW609**, formerly the **Bell/AgustaBA609**, is a twin-engined tiltrotor VTOL aircraft with a configuration similar to the Bell Boeing V-22 Osprey. It is capable of landing vertically like a helicopter while having a range and speed in excess of conventional rotorcraft. The AW609 is aimed at the civil aviation market, in particular VIP customers and offshore oil and gas operators.

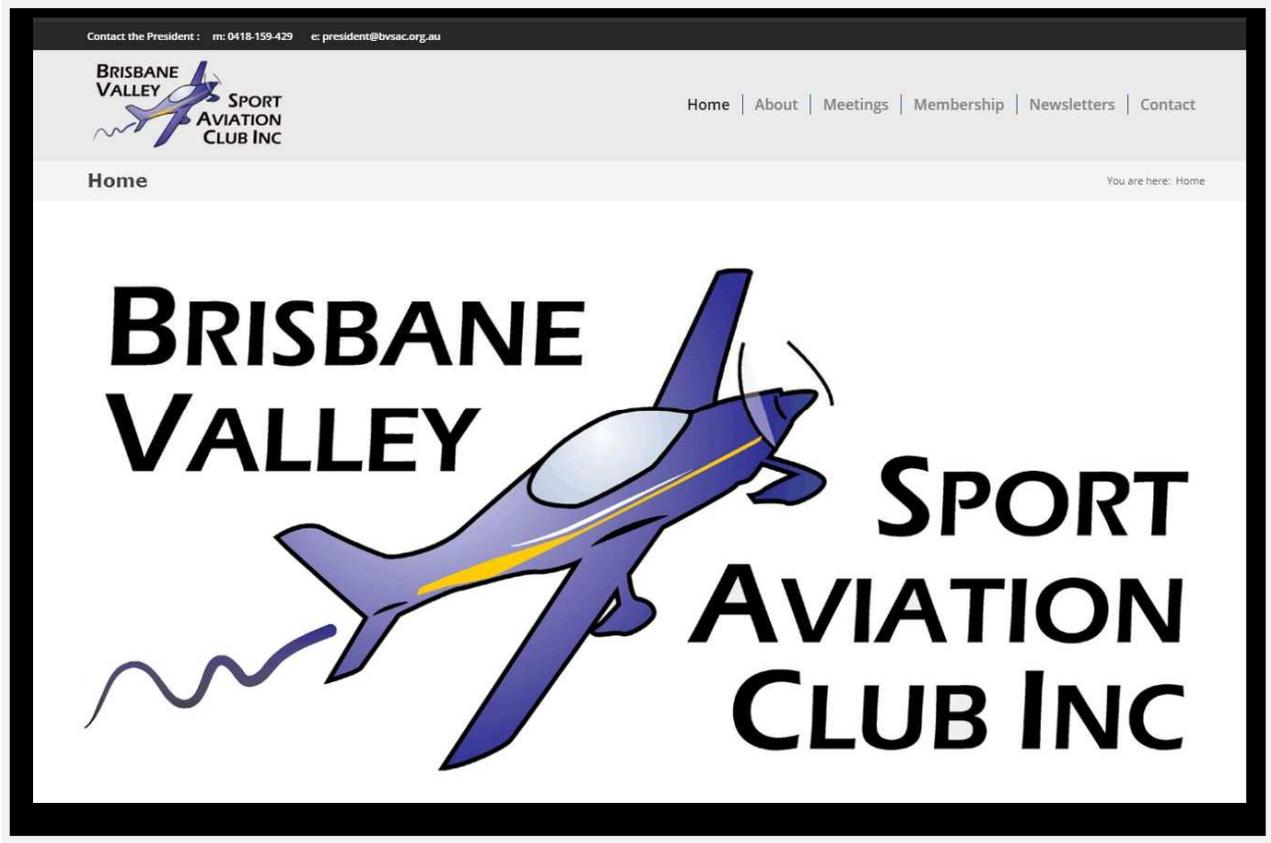
Old Coot (Non PC) Quotes:

1. When I was a boy my mother used to send me down to the corner store with \$2 and I'd come back with 5 potatoes, 2 loaves of bread, a block of cheese, and 6 eggs. You can't do that now – there are too many security cameras.
2. I don't like making plans for the day. Because then the word "premeditated" gets thrown around in the courtroom
3. I didn't make it to the gym today. That makes 1,572 days in a row
4. Dear paranoid people who check behind shower curtains for murderers: If you find one, what's your plan?
5. Everyone has a right to be stupid. Politicians just abuse the privilege.
5. I decided to change calling the bathroom the John and renamed it the Jim. I feel so much better saying I went to the Jim this morning.

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New Website for BVSAC

How many of you have noticed? All the meeting dates, back newsletters, committee members, and a contact page, are all on this site for ease of access. Try it. Let us know how you go.



Shortly after take off, a Turkish Airlines flight reaches its cruising altitude and the captain announces: "Ladies and gentlemen, this is your captain. Welcome to Turkish Airlines Flight 409, from London Heathrow to Dalaman. The weather ahead is pretty nice and sunny, so we should have a smooth, uneventful flight. So sit back, relax and ... OH MY GOD!"

Silence follows. Some moments later the captain comes back on the intercom: "Ladies and gentlemen, I'm sorry if I scared you ... While I was talking to you, a flight attendant accidentally spilled a cup of hot coffee in my lap ... You should see the front of my pants ... !"

A Scottish passenger yells from the back: "For God's sake man, you think you've got problems? You should see the back of mine!"

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

1. Which of the following will increase the stall speed of an aeroplane?
 - A. Climbing at a low airspeed.
 - B. Pulling out of a dive.
 - C. Having too low an airspeed on approach.
 - D. Flying with slip or skid.
 - E. B and D are both correct.
2. An aeroplane loaded with the Centre of Gravity aft of the limit is likely to display which of the following characteristics?
 - A. Tend to climb more steeply after take-off.
 - B. Suffer serious instability in pitch
 - C. Be difficult to trim in pitch.
 - D. Suffer an increased stall speed.
3. Why does an aeroplane deliver its best rate of climb (V_y) with full power?
 - A. Because the difference between the drag and thrust forces is greatest.
 - B. Because the thrust has a vertical component
 - C. Because the nose attitude is in the correct position.
 - D. Entering the lift is less than the weight.
4. When turning, an aeroplane compass displays errors. These errors are caused by which of the following
 - A. The aeroplane not being flown totally in balance.
 - B. The convergence of the meridians along which the compass is attempting to align itself.
 - C. The compass being especially weighted to counter magnetic dip.
 - D. Swirling in the liquid surrounding the compass card.
5. An aeroplane heading $170^\circ M$. is making good a track $180^\circ M$.
 - A. The QNH is not likely to be affected during the flight.
 - B. The QNH is likely to be falling towards the destination.
 - C. The QNH is likely to be rising towards the destination.
 - D. Heading and track comparisons provide no future QNH predictions.

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

If you have any problems with these questions, call me(in the evening) and let's discuss it! Ed.

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Aircraft Parts and Tools For Sale

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	(Each) 30.00
Skystrobe Strobe light for Ultralight	NEW – IN BOX	75.00
Propeller spacer (45mm)	Never used	Make an offer
Compass	Brand New (needs oil adding)	30.00
Slip/Skid Indicator (basic)	Used (as new condition)	40.00
Airspeed Indicator	Brand New	\$60.00
Altimeter – non-sensitive with subscale in “Hg	Brand new	50.00
Cylinder Head Temperature gauge – double readout for two cylinders	Brand New	75.00
Torque Wrench (SCA)	Brand New	60.00

Contact Rob Knight, 0400 89 3632, or email: kni.rob@bigpond.com

Aircraft Hangarage available at Forest Hill (YFRH)

Fees \$110/month in advance

Contact Rob Knight for details

0400 89 3632