

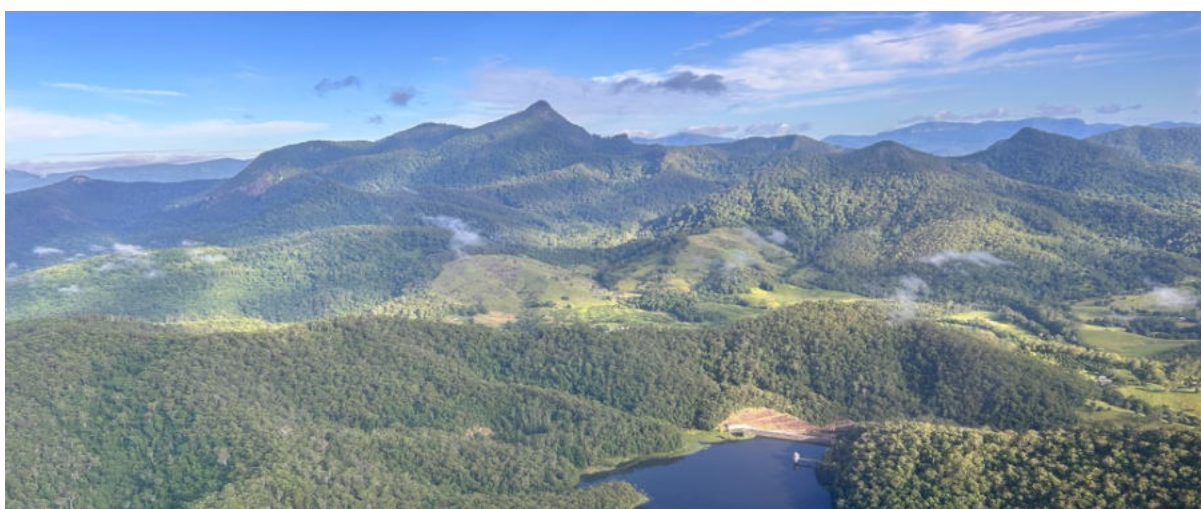


YMUR MURMURS

MURWILLUMBAH AERO CLUB NEWSLETTER No. 4 July/August 2025

<https://ymur.com.au/>

<https://www.facebook.com/macymur>



President:	Marty Jackson	0410 669 704
Secretary:	Bruce Gard	0418 518 000
Treasurer:	Peter Sochacki	

Welcome to another edition of Murmurs newsletter.

Please let us know if you have any suggestions on things you'd like to see included and how we could make it more interesting or relevant to your world of aviation.

Email us at: news@ymur.com.au

Philip Arthur & Bill Dennis

Monthly meetings

The Club's monthly committee meeting is held the second Monday of every month from 7pm (NSW time). All members are welcome to attend as we discuss how the Club is going and develop plans for the future. Come along and help determine what your Club can do for you and more importantly what you can do for your Club.

Snippets from July meeting

- Vice President Brenton Smith welcomed Steven Taylor and David Evans as new members of the Club.
- David Evans resides at Casuarina and started flying with Royal Queensland Aero Club in 1979. He has had an extensive career as an airline pilot and has c.25,300 hours. His first job was instructing at the Darling Downs Aero Club before flying for Union Air. After working for the RFDS out of Dubbo David joined Qantas in 1984, and stayed with them for 37 years. He left Qantas in 2020 after Covid struck and flew for Clive Palmer for 2 years. He then went back to Qantas training on simulators, before joining National Jet Express flying FIFO charter part time. He currently flies regularly as far north as Horn Island and as far south as Cooma.
- Originally from Sydney, Stephen Taylor now lives at Reserve Creek and is in the roofing business. He first learned to fly in Bankstown in 1996 and has about 300 hours. Most training of his training was in a Cessna 152 but he has flown a C210. He bought a two-seater 1964 Piper Colt and flew about 100 hours in that. He hasn't done much flying since and is just getting back into it.
- The win by MAC in the State of Origin Competition against Redcliffe Aero Club was announced and the engraved winning shield for 2025 was presented to Vice President Brenton Smith to mount in a prominent place on a wall inside the Clubhouse. Congratulations were given to the winning MAC pilots.
- President Martyn passed on a request that the entrance gate to YMUR be closed by all MAC members on arrival and departure.
- VH-RYC's 50 hourly oil change and filter change was carried out in June and no significant issues were found. An occasional nosewheel shimmy was discussed and it was agreed that it will be monitored.
- Some members have been reporting RYC maintenance issues on Book Our Plane. It was agreed that such issues should firstly be reported by to the MAC Committee by phone or text rather than on the booking platform. Contacts are Marty Jackson (0410 669 704) or Bruce Gard (0418 518 000).
- At the July Flying day Jason came first with Brenton second.
- A working bee will be planned for general building maintenance soon.

Snippets from August meeting

- Five people competed in the August flying day competition and Jason came 1st (again) with Nick 2nd
- The annual Club open day will be held on Sunday 2nd November this year. More details in the next Murmurs newsletter.
- With increasing costs, the committee has decided to increase the hire rate for RYC to \$270/hour effective immediately. Of this, \$20 will go towards the construction of a new hangar. The existing hangar was built in 1972 as a 5-year interim solution. It was extended in the 1990s and is now long past its use by date. The plan is to build an industrial grade steel hangar with concrete floor as soon as sufficient funds have been saved. The additional \$20 on the hire rate will help the Club reach the goal more quickly.

Breakfast/flying comps and VFR quiz

Monthly Club breakfast and flying comp continues on the first Sunday of every month starting at around 8am (NSW time). Flying is dependent on weather of course but the BBQ will be fired up no matter what. Come along and join your fellow aviators for a bacon and eggs breakfast and a few hours of chatter about all things aviation and have a go at improving your spot landings.

We also hold a short knowledge quiz each month. While you eat breakfast you can check your knowledge of the Visual Flight Rules Guide and we'll follow up with a short group Q&A so you can learn from any mistakes. The latest quiz appears in this copy of Murmurs with answers at the end so check it out if you didn't take part in the quiz on the day or if you want to check your answers.



Annual interclub challenge – Sunday September 14th

This year's three-way inter-club competition is shaping up to be a fun and spirited day where we'll get to showcase our flying skills and enjoy some friendly rivalry with Airways Aviation and Air Gold Coast. We'll kick things off in the morning, around 8am, and keep the energy high throughout the day with:

- A tasty breaky / brunch
- Engaging presentations from our local pilots and instructors
- Spot landings
- And a fun quiz to test our general knowledge as pilots – including VFR rules relevant to flying a Cessna 172

We're looking for keen competitors to represent Murwillumbah Aero Club, so if you're interested in flying or just want to be part of the action, we'd love to have you involved.

It's all about having a great time and celebrating what we love about aviation.

Hope to see you there!

RYC currency reminder

Just a reminder that members can only fly VH-RYC, our C172, solo if you're current flying that particular aircraft. Every plane is different so even if you've flown another 172 you're only "current" if you've flown RYC as PIC within the past 90 days. This stipulation is a requirement of our insurance policy. You have to write your due date for currency on the invoice before you fly. If you haven't flown in the past 90 days, a check flight with one of our approved instructor members will set you up to go solo. Call one of the following instructors to arrange a time for a check flight:

Gary Clarke 0409 646 242	Cam Baines 0488 198 544
Dominic McCarthy 0423 283 893	Jason Prigoone 0402 765 317

New Flight Docket

We now have a new flight docket (as shown to the right) that must be filled out when you hire C172 RYC.

Please fill out all parts of the form each time you fly including date and time of your flight.

Also remember that it's now up to you as pilot in command to include any landing/parking fees (if applicable) along with hours flown in your invoice and pay them within a couple of days of each flight. To make things easier we've posted a list of the most common landing strips in the local area on the notice board along with the cost for landing/parking at each one. Please check this list first and add the relevant amount to your invoice after you've completed your flight. If the airstrip or airport isn't listed, please contact the ARO of the relevant location and ask them what the landing fee/parking fee (if anything) is.

We appreciate all members' co-operation with filling out the form, including all landing fees, each time you hire the aircraft.

Also note that the hire rate is now \$270 per hour.

MURWILLUMBAH AERO CLUB INC.

ABN 59 001 253 872 accounts@ymur.com.au
PO BOX 254 MURWILLUMBAH NSW 2484 PHONE 02 6672 3235

FLIGHT DOCKET **9999**

TAX INVOICE/RECEIPT



MURWILLUMBAH AERO CLUB

AIRCRAFT VH-RYC	DATE OF FLIGHT	TIME OF HIRE UNTIL
--------------------	----------------	-----------------------

PASSENGERS / INSTRUCTOR		
1.	Mobile 04	Wtkg
2.	Mobile 04	Wtkg
3.	Mobile 04	Wtkg

VDO END	
VDO START	
HOURS	
RATE \$/HR	\$
FLIGHT CHARGE	\$

PILOT IN COMMAND (PRINT)

.....

Mobile 04 Wtkg

I AM CURRENT IN RYC UNTIL:	MY MEDICAL IS VALID UNTIL:	NEXT FLIGHT REVIEW DUE:

Note: For insurance purposes you must have flown RYC within the last 90 days to be current. If not, you need to do a check flight with one of the Club's approved check pilots before flying solo.

FLIGHT ROUTE (UNDERLINE ANY LANDINGS)

I undertake to comply with the Approved Flight Manual which I have read and had explained to me including its requirements and any special instructions.

If the Club's aircraft or any other property is damaged or someone is injured whilst the Club's aircraft is in my care and control I will indemnify the Club for the full amount of any insurance claim excess/deductible, or up to \$5,000 if no insurance claim is made, at the discretion of the Club's board.

My legal right to fly is current in all respects including RYC currency, medical certificate and flight review.

PIC ARN/LICENCE NO LICENCE CLASS

	LANDING AT	LANDING AT	LANDING AT	LANDING AT	OTHER FEES	TOTAL CHARGES
FLIGHT CHARGE						
\$	\$	\$	\$	\$	\$	\$

CHARGE TO:

MEMBER NO:

SIGNATURE:

BANKING DETAILS

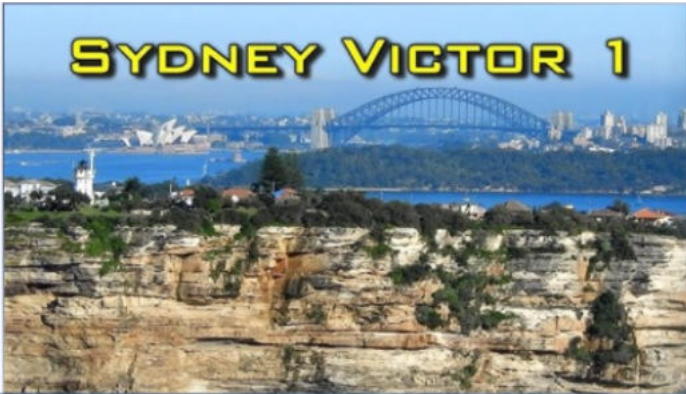
MURWILLUMBAH AERO CLUB

BSB: 032563 ACC NO: 560358

Murwillumbah Aero Club Calendar 2025				
Month	DATE	TIME (NSW)	TIME (QLD)	
September	Sun 7 Sep	8:00		Club Flying Comp Quiz questions from VFRG (fliers & non-flyers) 1hr Info session
	Mon 8 Sep	19:00		Monthly Committee Meeting
	TBA			Possible Runway Dinner TBC
	Sun 14 Sep	08:00		Inter Club Challenge
	20-29 Sept	08:00		Redcliffe Aero Club Victor-1 Fly-away
October	Sun 12 Oct	08:00	07:00	Club Flying Comp (last for the year) Quiz questions from VFRG (fliers & non-flyers) 1hr Info session
	Mon 13 Oct	19:00	18:00	Monthly Committee Meeting
November	Sun 2 Nov	08:00	07:00	Club open day
	Mon 10 Nov	19:00	18:00	Annual General Meeting
December	Mon 8 Dec	19:00	18:00	Monthly Committee Meeting
	Sun 14 Dec	12:00	11:00	Christmas Party / Presentations

The Redcliffe Aero Club is planning a flyaway to the HARS Aviation Museum at Shell Harbour near Wollongong in September. Weather permitting it'll include an unforgettable flight along the Victor 1 VFR route past Sydney Heads, Bondi Beach and Botany Bay and wine tasting in the Hunter Valley.

If you'd like to join in call Philip Arthur (0412117510) for more info.





**HARS
AVIATION
MUSEUM**

www.hars.org.au

Day	Date	Activity		Distance
1	20-Sep	Redcliffe, Port Macquarie, Wallis Island	YRED - YPMQ - OZFST	303 nm
2	21-Sep	Beach day at Forster/Tuncurry		
3	22-Sep	Wallis Island - Warnervale - Victor 1 - Shell Harbour	OZFST - YWVA - Victor 1- YSHL	227 nm
4	23-Sep	HARS museum explore Wollongong		
5	24-Sep	Shell Harbour, Mittagong, Cessnock	YSHK - YMIG - YCNK	124 nm
6	25-Sep	Tour wineries in the Hunter Valley		
7	26-Sep	Tour wineries in the Hunter Valley		
8	28-Sep	Cessnock, Palmers Island	YCNK - YPMQ	223 nm
9	29-Sep	Palmers Island, Redcliffe	YPMQ - YRED	134 nm

August Flying Competition Quiz (answers on last page)

1. Under CASR Part 91, what separation is required from clouds when flying VFR in Class C airspace below 10,000 ft?
 - A) 1,000 ft vertically and 1,500 m horizontally
 - B) 1,500 ft vertically and 5,000 m horizontally
 - C) 1,000 ft vertically and 500 m horizontally
 - D) 600 m horizontally and 300 ft vertically

2. During a level, coordinated turn at a constant airspeed, what happens to the load factor and stall speed as the bank angle increases?
 - A) Load factor decreases, stall speed remains constant
 - B) Load factor increases, stall speed decreases
 - C) Load factor and stall speed both increase
 - D) Load factor increases, stall speed remains the same

3. You are descending through 4,500 ft with QNH 1013 set on the altimeter. What altitude will be shown on your altimeter?
 - A) 4,500 ft AMSL
 - B) 4,500 ft above ground level
 - C) 4,500 ft true altitude
 - D) 4,500 ft pressure altitude

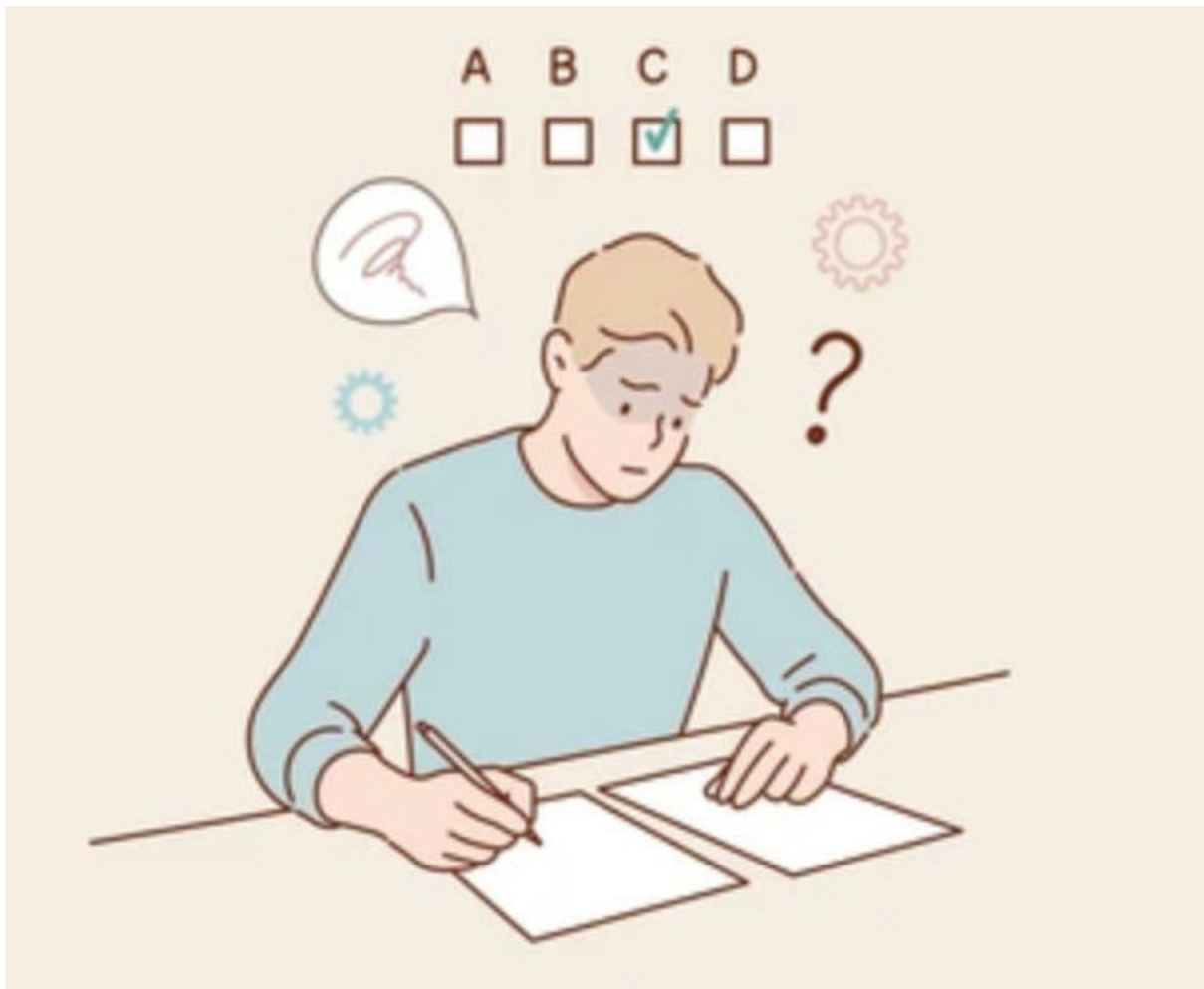
4. You're flying at 5,000 ft AMSL in Class G airspace. What is the required cloud clearance and visibility for VFR flight?
 - A) 500 ft vertical, 1,000 m horizontal, 3,000 m visibility
 - B) Clear of cloud, 1,000 m visibility
 - C) 1,000 ft vertical, 1,500 m horizontal, 5,000 m visibility
 - D) Clear of cloud if above 1,000 ft AGL, 5,000 m visibility

5. You plan to depart at 0930 local. TAF reads: FM090900 32015G30KT 9999 SHRA SCT030 BKN040. What weather conditions should you expect at your planned departure time?
 - A) Calm winds and light rain
 - B) Thunderstorms and 30 km/h winds
 - C) Showers, scattered cloud at 3,000 ft, gusty 15–30 kt winds from 320°
 - D) Severe turbulence with broken cloud at 3,000 ft

6. If you reduce power during level flight without adjusting pitch, what is the initial aerodynamic effect?
 - A) Airspeed increases and the aircraft climbs
 - B) Drag reduces and lift increases
 - C) The aircraft pitches down and descends
 - D) The aircraft enters a stall

7. You're using a VOR to track outbound on radial 090. The aircraft heading is 070°. The OBS is set to 090 with a 'FROM' flag and the needle is centred. What does this indicate?
 - A) You are on course, flying directly away from the station
 - B) You are on radial 070 heading 090
 - C) You are flying toward the station incorrectly
 - D) You are on radial 090 with a wind correction angle

8. In the standard atmosphere, what is the approximate pressure altitude when the QNH is 1003 and the field elevation is 500 ft?
- A) 200 ft
 - B) 800 ft
 - C) 1,200 ft
 - D) 500 ft
9. A pilot is calculating endurance with 85 litres usable fuel, a planned taxi burn of 5 L, and cruise consumption of 40 L/h. What is the max flight time with a 30-minute reserve required?
- A) 1.0 hour
 - B) 1.5 hours
 - C) 1.4 hours
 - D) 2.0 hours
10. While leaning in cruise, what is the typical correct mixture setting using EGT in a non-turbocharged engine?
- A) Peak EGT
 - B) 50°F rich of peak EGT
 - C) Full rich
 - D) 50°F lean of peak



Mountain flying in the Alps

by Philip Arthur

We have an amazing variety of landscapes in Australia but one thing we don't have is high mountains. I've always enjoyed visiting mountainous areas overseas for skiing or hiking holidays and a few years ago I decided to do some mountain flying training, first in New Zealand and later in Colorado. While on holiday in Europe this year I did some more training, this time in Austria. Flying in the mountains is not without its dangers, particularly related to aircraft performance, blind valleys, bad weather and what some people refer to as "Cadbury clouds" - the ones with hard centres.

The training was surprisingly easy to organise. I googled mountain flying instruction near where I was planning to stay in Bavaria and discovered a flight school that is located in Salzburg, just over the border in Austria. A couple of emails later I was connected with David Bekhit from the AirLink Flight School. He arranged for me to fly on three separate days in various directions out of Salzburg. I just had to agree with them where we'd go.



Salzburg airport

I arrived at the Salzburg airport at about 7:30 on the first morning and David led me through a variety of propeller and jet aircraft onto the apron. He had already fuelled and preflighted OE-KAL, a 2005 Cessna 172SP with a mix of gauges and electronic displays, that was fitted out for IFR and had a nice autopilot that would make taking photos while flying much easier. Although the plane was IFR equipped, David pointed out that because of the way the mountains shield the radio signals it was not really possible to fly IFR in the valleys. Radio contact with "Vienna Central" below the mountain peaks is non-existent.

Although the aviation radio communication all over Europe is in English, they do use some slightly different terminology so we agreed that David would look after the radios while I flew the plane. An advantage of having a local sitting next to you when flying in a foreign environment.



After discussing the weather forecast and a few flight options, we decided to fly to Mauterndorf, Austria's highest elevation airfield. Surprisingly, it's only 3642ft MSL, so not much higher than Armadale in New South Wales. I suppose the mountains are so steep in Austria there aren't many level fields where you could construct any airfields higher up. It's very different topography from that in the US Rockies where the mountains aren't so steep and there are plenty of high-altitude plateaus that allow you to land at up to 10,000ft MSL.

Taking off to the south we followed the Salzach River as it wound its way through the spectacular mountain scenery.



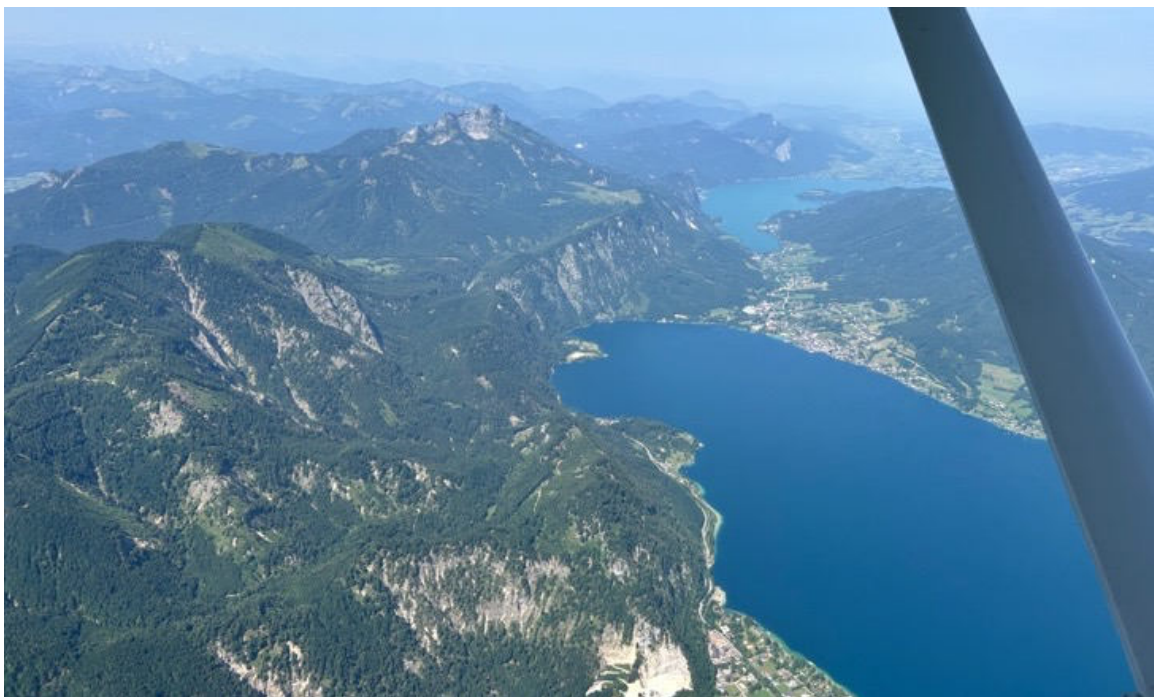
Descending into Mauterndorf we had to do a very wide left hand circuit around a mountain to land. Coming around the corner the grass runway appeared in the distance and we floated down a rather long final for a soft landing.

I originally had wanted to do a touch and go but it wasn't possible. First of all because it's a one-way airstrip. You land from the east and take off to the east, due to high terrain to the west. Another reason why a touch and go wasn't possible was because I had to pay the landing fee. You see in Austria each operating airfield has to be manned by a radio operator whenever it is open. He or she provides information over the radio or by phone on local weather, wind, the status of the airstrip etc and collects the landing fee. This particular one also had to cut the grass a couple of times each week.



Mauterndorf “tower”, apron and airstrip

He asked whether we’d calculated our take off distances correctly because there’d been a few pilots who had flown in but couldn’t fly out again with the passengers they’d brought due to the altitude and weight limitations. He said that as a result some passengers had to return to where they came from by train. Another danger with mountain flying! We assured him that we’d done our calculations and the 172 would get us off the ground well before we reached the end of the runway.

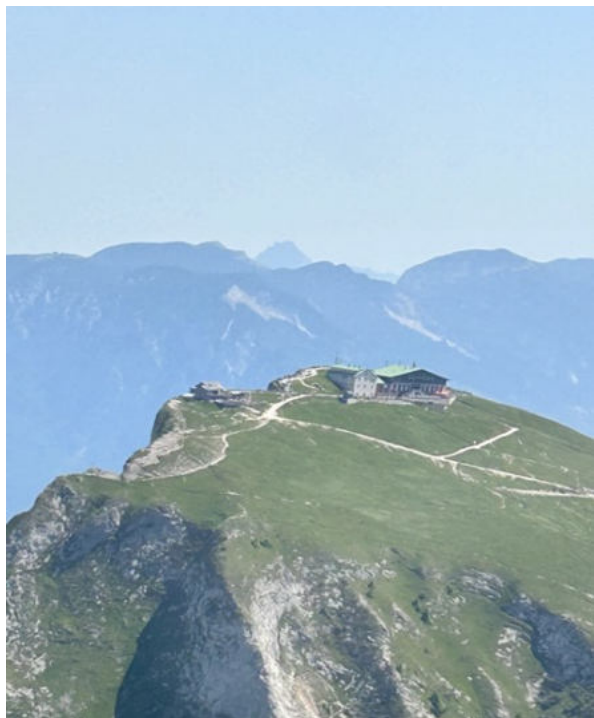


By using the “soft field” technique, remaining in ground effect until we had enough speed to climb, we were well above the ground by the time the 820-metre-long runway disappeared behind us. We were off to Gmunden, a town located on the northern edge of the mountains with an airfield that has a 500-metre-long runway. On the way we had some great scenery of mountains and lakes

On final into Gmunden we had to approach at an angle and fly over some houses and trees on short final, making it a bit more challenging than your average landing. A bit like at Shute Harbour in the Whitsunday Islands but, at only 500 metres, a much shorter runway.

This airfield also had an operator in the control tower who happily took my landing fee and told us about two motorised gliders of Australians who visited recently on their way from England to Ukraine as part of a fund-raising exercise.

Payment made, we climbed back into KAL and headed back to Salzburg, passing the Schafberg mountain on the way. This mountain has a large hotel/pub at the top, perched on the edge of a precipice.



If you're energetic you can hike there from the valley below or if you're not so energetic you can take a funicular railway. Once at the top you can enjoy lunch with a magnificent view of the surrounding mountains and valleys. And you can stay overnight if you want to enjoy the sunset and sunrise from the mountain top. We flew an orbit around the hotel and waved to the people lined up along the viewing platform.



From Schafberg it was only about 10 minutes back to Salzburg via some more amazing mountain scenery. On approach we were instructed by the air traffic controller to do a "scenic circuit", joining right downwind for RWY33 on the eastern side of the downtown area. It provided us with an excellent view of the old town and the fortress on the hill. Unfortunately, I was so captivated by the view that I didn't take a photo!



Back on the ground David handed me over to Thomas, another instructor, who would take me on the afternoon flight. Originally, we'd planned to fly to Innsbruck in the afternoon but the time had got away on our morning flight and thunderstorms were on the forecast (another danger of mountain flying) so we decided we'd better only fly as far as Zell am See, about 20 minutes to the south west.

We took off and turned west towards Zell via a variety of valleys. While passing over the Zeller Lake from the north Thomas instructed me how to fly the approach descending from the middle of the lake. We passed low along the edge of the mountain so that we could almost touch the cattle grazing in the meadows below.



Below: Zell am See



We had planned to stop for a cup of coffee but as we walked around the aircraft, we felt a few drops rain and the sky looked suspiciously stormy to the west. The bad weather was approaching. So, we cut short the visit and were soon climbing out over the Zeller Lake to the north.

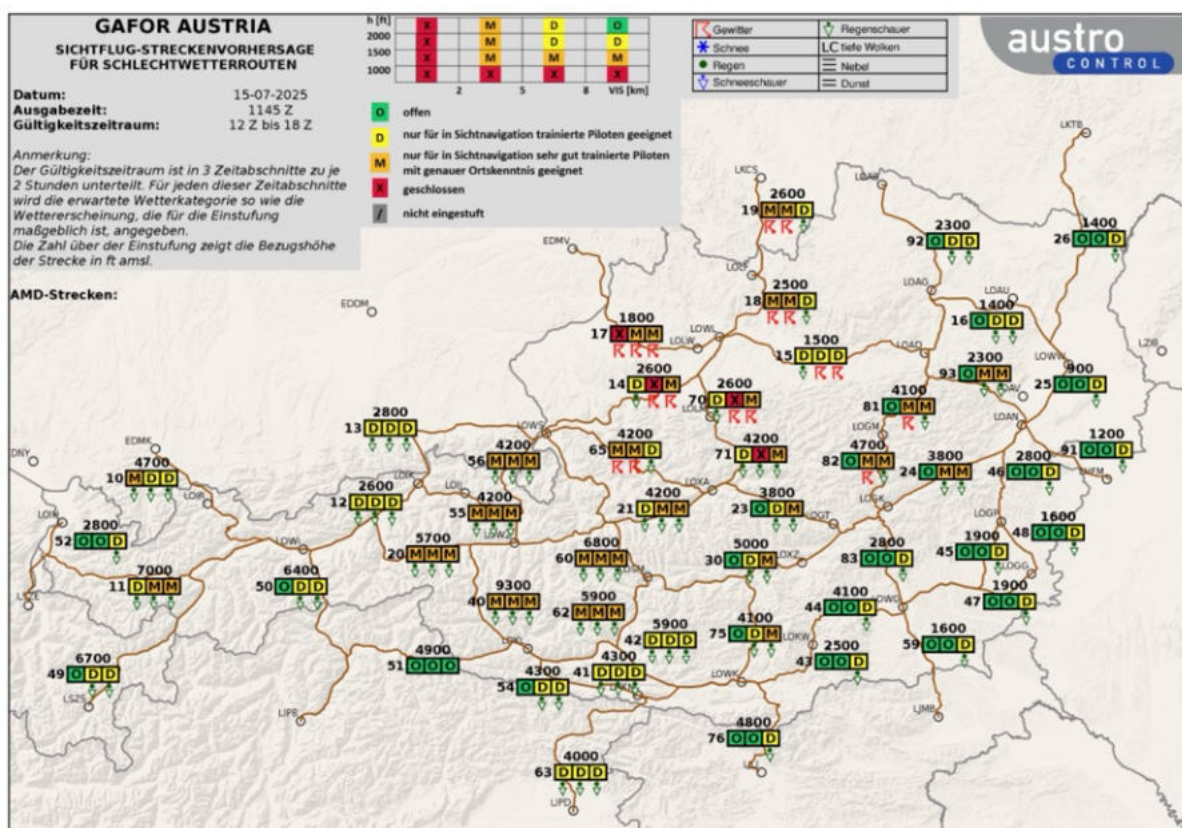
For the next part of the flight Thomas had arranged a “low level” valley traverse as a training exercise, simulating what we’d need to do if there had been low clouds and we had to fly back to Salzburg via the Saalach Valley. Due to the topography and the fact that it’s often cloudy in the Alps there are “GAFOR” maps showing the

weather conditions expected for the next 6 hours along all the main VFR valley routes in the country. This is a special requirement for such alpine regions, where VFR routes between mountains that are higher than the physical performance of pilots (oxygen) or the aircraft are common.

A “reference altitude” is nominated for each valley and as long as you remain above that altitude, the valley should be wide enough to turn around for its entire length, as long as you’re flying slowly and close to one side

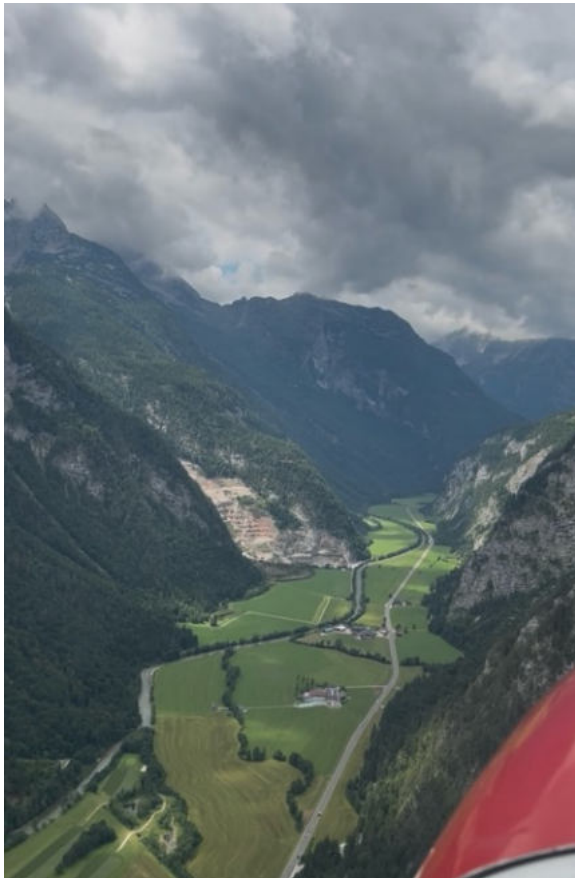
of the valley - not down the middle. You also need to ensure the cloud base is sufficiently high above the reference altitude that you avoid flying into cloud. Depending on the height of the cloud base and the visibility each valley is classified as open, difficult, marginal or closed in real time for each 2-hour period in the coming 6 hours. This takes a lot of guesswork out of whether to fly a particular route or not on a particular day. On that day the Saalach Valley was rated “open” so we had no trouble flying through it to the other end.

Thomas demonstrated how to fly along the edge of a valley. The idea is to fly as close as possible to one of the valley walls. If you fly close to the “outer” side of the valley in each bend you have the best possible view around the corner each time. This technique gives you the best chance to see any aircraft approaching from the opposite direction, as well as any cloud that could be blocking your way forward.



GAFOR map for Austria

As we flew around each bend I switched to the other side of the valley to see around the next bend. In a situation of low cloud if the valley ahead was blocked by cloud you’d have to do a 180 turn and head back the way you came. Of course, this was just an exercise that Thomas demonstrates with all his students as part of their mountain flying training. In our case the cloud base was well above the 3500ft MSL that we were flying but it showed me how you’d fly in a situation with lower cloud.



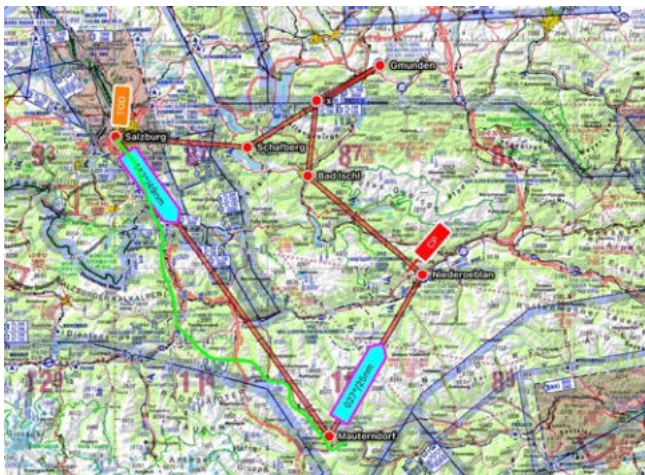
As the valley opened up at the far end, we crossed the border into Germany and, after skirting around the edge of a German military training area, we were back in the open. Crossing back into Austria we joined downwind on the western side of the airport for another landing in Salzburg, this time via the right circuit for RWY15.

Not long after we landed the first drops of rain fell and a half hour later there was the first clap of thunder. We'd made the right decision to only fly to Zell am See and not to wait too long before heading back. One of the day's takeaways: get out early in the day and read the up-to-date forecasts and the sky. The weather can change quickly in the mountains.

I headed back to my BNB looking forward to the next day and a chance to fly to Innsbruck.

If you'd like to read more detail about this and the subsequent flights you can refer to my flying blog here: <https://privatierair.com/2025/07/04/mountain-flying-in-the-austrian-alps/>

Morning route left, afternoon right below



Attitudes

by Bob Tait

Ground rush

If you dive vertically towards the ground at 3000ft, you would not have any sensation that the ground is getting closer to you. It's simply too far away to notice. However, if you dive vertically towards the ground at 300ft, you would see the scenery rapidly expanding in the windscreen as the distance between you and the ground rapidly diminished.

This is a phenomenon known as 'ground rush'. A pilot with little low-level experience is likely to respond by pulling back strongly on the control column. Depending on the aerodynamic characteristics of the aircraft, this sudden application of back pressure can cause the wings to exceed the stalling angle resulting in a high speed (dynamic) stall.

Let me tell you about Jill and Jane (not their real names).

Jill and Jane had been close friends since school days. Although they had much in common, Jill was more the extrovert with a tendency toward behaviour that could sometimes be described as impulsive. Jane was a little more cautious but the two young ladies shared a friendship that had grown stronger through the many adventures they had shared. It was therefore no surprise to their many friends when they announced that they had both decided to learn to fly.

The flying school they chose operated a number of training aeroplanes including a little two-place 1960s Victa Air Tourer. The Air Tourer was a rare example of a general aviation aircraft that was designed and built in Australia. Once they had completed their training to PPL in the more pedestrian Cessna 172, the two ladies turned their attention to the aerobatic Air Tourer. The aerodynamic characteristics of the Victa were quite different to the Cessna. Roll control was provided by a centre-mounted 'shared' joy stick that operated both the ailerons and flaps (flaperons) on each wing and delivered a very impressive roll rate that gave the aircraft a 'sporty' feel.

However, another novel aerodynamic feature was the surprisingly small wings. While the Victa had an impressive roll rate, the high wing loading meant the wings were prone to suddenly stall in response to rapid back elevator input. During aerobatic manoeuvres such as loops, the Victa required a high entry speed with careful attention to avoid large or sudden elevator inputs to keep the high-speed stall at bay.

Jill and Jane were impressed by the look and feel of the little Victa, but they decided to leave the aerobatic training to a later date. Once they had been checked out on the sporty little beast, they began planning a weekend trip away to an island resort. On the Friday they packed their overnight gear and set off for a fun weekend.

The weekend was a blast! They enjoyed the festival atmosphere of the resort and quickly made a number of new friends. After lunch on Sunday, they were taken by bus to the airstrip which was some distance away from the resort. Their new-found friends gathered on the resort jetty to watch them depart.

After a daily inspection, they settled into the cockpit and the engine sprang to life. As they taxied out to the threshold, Jill suddenly said "Let's do a low run down the beach and wave goodbye to the gang!" Airborne at 500ft, they levelled out and turned left for the resort and the group of friends waiting on the jetty. As the little Victa passed over them, the spectators waved and cheered. Jill pulled the nose up into a steep climb. In an attempt to look back and see the response, she began a



Bob Tait grew up in North Queensland with dreams of becoming an aviator. He'd ride his bike to the local aerodrome on weekends and stay for hours, watching the planes and admiring the pilots. After earning his wings in a Tiger Moth, Bob went on to become one of the country's most trusted aviation theory instructors. A true enthusiast, Bob's enjoyed competing in aerobatics and appearing at air shows, as well as piloting helicopters, and skydiving. He also set an Australian altitude record in a Cessna.

turn, craning her neck to look behind her, she didn't notice that the nose had pitched much higher than she intended. The airspeed was rapidly dropping.

The airflow was beginning to separate from the wings producing a buffet that was felt through the joy stick. Finally, the Victa dropped its nose into a near vertical dive and, as Jill looked ahead over the nose, she saw the scenery in the windscreen expanding alarmingly as the rapid descent continued. She was experiencing the phenomenon known as 'ground rush'. In response, Jill instinctively pulled back hard on the joy stick but this caused the wings to stall even more deeply and the buffeting got worse. If she had released her iron grip on the control column the buffeting would have immediately ceased. If she had then gently raised the nose to the level attitude, accepting a further height loss, she could have avoided this tragic encounter with ground rush. Extreme pitching manoeuvres at low level can have tragic consequences.



As the safety bureau's incident report concluded: "The investigation did not reveal any reason for the unusually low flight path and manoeuvre immediately prior to the accident. The following factor was considered relevant to the development of the accident: The pilot attempted a manoeuvre at a height from which safe recovery could not be effected."

Private Pilot Theory Lectures

by Bob Tait



Private Pilot Theory Lectures for the beginner with no previous experience!

Full details at www.bobtait.com.au

Why fly a stabilised approach?

by Rob Knight

I have seen/read many pieces on how to make good landings in an aeroplane. Mostly they were worth the time to read them, but a few were merely to allow the writer to expound dubious and random thoughts that were scarcely relevant. The good ones mentioned the need to start a landing process (at the point of flare) from a "stabilised approach". However, the general definitions relating to the term are designed to fit commercial operations and IFR ops rather than fun-flying in lighties under VFR rules. So, is the term even relevant to us flying light, single engine aeroplanes?

The answer is an emphatic, YES! But there are qualifications - so let's have a look at the term and its application and benefits to us.

Firstly, let's define what we are talking about. A stabilised approach for us is one where the approach is at a relatively constant angle, the airspeed is constant at the required value, and where the directional control inputs have the runway in the correct position in the windscreen for the wind conditions, and the approach/landing technique being used.

I can hear a rising wail of protest - "But I always make my approaches like that" - ringing in my computer. And, YES, I agree that we do, when the circumstances and conditions are normal; where we are not under undue (and likely unexpected) pressures, and the traffic conditions are favourable.

Note that the continuation of an unstabilised approach when landing may result in the aircraft arriving at the runway threshold too high, too fast, out of alignment with the runway centre-line, incorrectly configured or otherwise unprepared for the intended landing. The result is obvious - aeroplane damage due to non-fully-controlled touch-down, loss of directional control leading to runway departure, and, potentially, injury to persons, or damage to the aircraft or airfield installations.

However, in regard to any pilot's potential for making an unstabilised approach, herein lies a serious trap. Pilot competency, proficiency, and currency are all jokers-in-the-pack that every pilot flies with as these factors can have a major influence on a pilot at the most inconvenient place and time. Making a good, stable approach is potentially one way of ensuring an approach does not become one of those inconvenient times.

Taking a common example of training to avoid this issue, when you were taught to fly circuits, you were most likely taught to set the aeroplane up for the approach either at, or soon after turning base leg. In other words - at the beginning of the descent. This taught you to make a stabilised approach, as you had plenty of time to sort out the approach angle at the correct airspeed, and with the correct power applied for the desired angle, and with the aeroplane trimmed for no stick pressure. This method gives you plenty of time to make any necessary changes to compensate for atmospheric issues along the descending flight path to arrive at the flare at the desired point on the runway, without being stressed. As long as this procedure is being strictly adhered to, there is unlikely to ever be a problem. But humans will be humans, and that's a problem for some but more of that, later.

Now, take a professional light aircraft pilot - one who flies the aircraft for a living. He's not a "fun" pilot, as many light aircraft pilots are. As an instructor, he may spend a mere 30 minutes driving to and from the airfield, but up to 6 hours daily logged as flight time in an aircraft. An AG pilot will do even more than that when the weather is clement. For example, my logbook shows one period, in 1973, where I flew 54.8 hours over a 5-day period doing a flying scholarship exercise for the International Scouting Foundation Jamboree, at Tokoroa in New Zealand. With this sort of practice forced on you, you can stabilise an approach in 2 seconds at 100 feet if required.



Rob Knight grew up in New Zealand in the 1950s and 60s with a crazy urge to fly. Employed on his family's farm, his wages were somewhat minimal and he turned to writing to provide an income to support his flying addiction. As a result, Rob was commissioned to provide numerous articles for overseas aviation magazines including the Plane and Pilot Magazine in Santa Monica, California. He became a flight instructor and worked in the industry for many years, eventually serving as Chief Pilot/Chief Flying Instructor for the Wellington Aero Club.

Now retired and living near Amberley, Qld, in addition to being the editor of the BVSAC Flyer, the newsletter of the Brisbane Valley Sport Aviation Club that is based at Watts Bridge, Rob writes articles for a variety of aero Clubs and flying schools in Australia, New Zealand, the UK, and Canada. He has also provided articles for AOPA and EAA magazines and has enjoyed seeing one turned into a video.



Now I fly for fun. I don't have the pressures of "the next student" booking, or the next hopper-full of fertiliser to load, so I am back to stabilising my approaches earlier than as I turn finals at 50 feet AGL. To do so, I'd need a lot of practice and the need to do it no longer exists so now I am happy to sort the aircraft out when I turn base, as I would have my students do. However, should I ever need it, in the unlikely event of a fire in the air perhaps, then rest assured that I'd be right there at 50 feet again, closing the throttle, adjusting flaps and trimming, simultaneously, whilst, at the same time, I am planning on exactly where to roll out of the turn so I can be lined up with my required landing path. Obviously, to successfully do this, I simply cannot afford to make a single mistake because I have no time to see an error, decide how to fix it, and then apply the controls to remedy the error whilst also flying the aeroplane successfully in the remaining 20 seconds or so before my wheels touch.

But EVERY PILOT IS DIFFERENT! No training course or rating/endorsement is available to qualify a pilot for carrying out unstabilised approaches so pilots can only self-qualify, and this has obvious and serious issues inherent with it. A pilot MUST have a realistic idea of their actual capabilities and pilots are not renowned for accurate self-analysis. To compound this, parameters change over time, modified by time since qualifying, currency/recent flight experience, and total/recent flight experience on the aircraft type being flown.

What are the benefits of a non-stabilised approach? None, except a small time saving, there is no benefit to the average flying-for-fun pilot. There's no advantage for an instructor, either, for that matter. It's only setting a hellava bad example to the student. The only pilot to whom this type of approach is a good idea is crop-dusting. When spreading solids, in my time a 3-minute turn around between sorties was normal and we often flew up to ten operating hours in a day. That's 20 approaches per hour and a grand total of 200 approaches for the day. To save 20 seconds per approach saves more than an hour every such day (1.1 hours, actually) and we were paid a bonus for getting the job done in less than the standard or quoted time. At a standard payload for my Fletcher of 610 kg. Therefore, if we spread 610 kg every 3 minutes (20.5 trips), another 1.6 operating hours in a day equals an extra 12.5 metric tonnes per day. This paid bonuses. However, unless you are extremely current, have several thousand hours of recent flying in your logbook/s AND a tangible benefit is doing so, avoid unstabilised approaches. The only benefit would be in the level of your showing off, and, if you miss, the embarrassment of public failure when doing so.

The hazards of not flying a stabilised approach can be easily seen in the following accident examples. Note that none had bad weather conditions.

In 1978, a Piper PA-24 Comanche was transiting the controlled airspace between Auckland International Airport (Mangere) and Ardmore, a lateral distance of a mere 8nm. I was in the Ardmore circuit for runway 21 in a Victa 100 with a student when I heard the aircraft's joining call. I knew the pilot - we'd flown BFRs over the years and I'd never had issues with his competency.

It was late in the day and he was in a hurry. The runway in use was 21 and the control tower offered him a straight in approach for 07. There was minimal wind and he made a good choice of accepting their offer. I looked and found him, low and fast, about a mile short of the threshold and as we turned final for 21 he touched down, leaving a trail of white-painted, shredded aluminium behind him - his wheels were still retracted. Later it was shown that the propeller was set for cruise RPM so adding power to go-around would not have necessarily been without issue either.

Result: Big red face, big, Big embarrassment, and big, Big, BIG increase in insurance premium, plus the loss of the PA-24 for several months.

In a Cessna 152, engaged in a CPL cross-country flight test for a budding commercial pilot, I noticed that the pilot wandered off track on the leg from Tauranga to Hamilton, in New Zealand. As examiner, I was required to sit and watch, no law had been broken and there was no danger in the error so no action was required from me except to assess the pilot and his subsequent actions. To his credit, he did recognise the issue and made the appropriate 1 in 60 rule calculation and revised his in-flight nav plan. However, he never settled down again and was still agitated when we advised the Hamilton tower that we were 5 miles and gave a circuit join time. The tower responded by giving him clearance to join down-wind for 36, the main, bitumen runway.

The pilot declined, and requested clearance to join right base for grass 25, the cross runway. The tower, sounding surprised, cleared him, advising him there was no other traffic and advising the surface wind which indicated that we'd have a substantial cross wind.

Ever the mere observer, I sat and waited for the disaster to unfold. He stuffed the nose down and eased the power, diving onto right base and turning finals low and fast while doing his down-wind checks. About 100 feet short of the fence, drifting seriously and uncorrected to port, he applied carb heat and closed the throttle. He waited for the airspeed to fall below VFE with his hand on the electric flap control (still drifting and now nearing the left side runway margin), watching the ASI rather than what was happening just outside the cockpit. On reaching VFE, he applied full flap and banked towards the centre of the runway. He was trying to trim, his right hand frantically jerk-winding the trim-wheel as the right wheel hit the runway and we bounced. He decided we needed to go around but still had carb heat on and, instead of hitting the power and then sorting out the heat control, he looked down and pushed the carb heat to OFF. We bounced again, harder this time, on both wheels, but the airspeed was falling rapidly and the next impact, if it occurred, would be damaging at best. I had no option but to take the aeroplane off him, and ever-so-gently, effectively carry out a full-flap stall recovery at 20 feet. After flying it away, I directed him to call the tower and join downwind in the conventional manner. Later, he could give no reason for his unconventional approach method.

Result: Big red face, big, big embarrassment, and bad, undesirable and permanent remarks on the flight test report I was required to submit to NZCAA outlining my decision to fail the candidate. These reports remain attached to a pilot's CAA file for as long as that pilot holds a license.

Moral of these stories: WHY carry out an unstabilised approach if there is absolutely no practical advantage, and a seriously raised chance of a mishap? A competent pilot gives him/herself time to ensure that their aircraft is set up correctly, and they have time to counter unanticipated issues.

I rest my case.

Ed: If you haven't seen it yet (or even if you have) watch the "You can always go around" video via the link below:

<https://www.youtube.com/watch?v=Ccq30minme8>



Loss of control

A three-part video series from RAAus

Every year in sport and general aviation, loss of control events are the single most significant contributor to serious and fatal aircraft accidents. RAAus in collaboration with numerous pilots, instructors and aviation experts completed production of a three part video series about loss of control a couple of years ago. The videos, freely available on their website, explain the primary causes and contributing factors of these avoidable situations that can lead to serious, costly or even fatal consequences. The videos delve into a variety of situations and how to avoid loss of control as it occurs:

1. During take-off
2. In flight, and
3. During landing.

Filmed in and around Redcliffe, local pilots talk about various scenarios and actual accident victims who describe how things went wrong for them. It's a very well-made series that should be watched by all pilots.

Click on the link below to view the videos.

<https://www.youtube.com/watch?v=cca-RlfKYBQ>



Answers to Quiz:

1. 1,000 ft vertically and 1,500 m horizontally
2. Load factor and stall speed both increase
3. 4,500 ft pressure altitude
4. 1,000 ft vertical, 1,500 m horizontal, 5,000 m visibility
5. Showers, scattered cloud at 3,000 ft, gusty 15–30 kt winds from 320°
6. The aircraft pitches down and descends
7. You are on radial 090 with a wind correction angle
8. 800 ft
9. 1.5 hours
10. 50°F rich of peak EGT