

Whangarei Flying Club



NEXT WFC MEETING –

→ Sat. 30th June 2012 – Committee Meeting 11.00am; \$5 lunch at about noon.

→ Sat. 14th July 2012 – 8am \$5 Breakfast at Hangar 10.

→ **Please check the Flying Club website for all upcoming events as this is constantly updated.**

{The Club Breakfast defaults to the **second** Saturday of the month, and the Committee Meeting / Lunch to the **last** Saturday of the month (unless circumstances force an alteration)}. (All members are welcome to attend the Committee Meetings as well as Lunch).



Providing Safe and Affordable Flying June 2012

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President's Report:

First of all, I must thank Bruce for the good work he has done over the past year. Bruce is not continuing on for a further year as would normally be the case, because he and Sheila have travel plans they want to activate. We do wish them safe and happy journeys and the 'welcome mat' will certainly always be out and waiting upon their return.

Those who know me will be aware paperwork is not one of my strengths – I feel much more comfortable with a hammer or saw in my hands - hence you can expect some delegating of work to committee members.

I can report we do have a good committee, instructors and IAs. Shaun, as CFI, is really getting going with safety, NOTAMs, weather and flight planning which I felt we were a bit slap-happy with in the past. We have good clubrooms and a hangar, and most likely one of the best training microlights in New Zealand. When Jack and I went down to Te Kowhai to get our instructor ratings done with Dave Redman, I let Dave have a fly in the Eaglet and he was really impressed with it.

On the flying front we seem to be doing about 20-30 hours a month which is just average. We have had some good flying weather over the last two weeks – and we need about 20 hours a month just to keep the club running, what with the high costs of lease and insurance.

Just a short note to new members about the Club's history... We started up in Whangarei in about late 2003, with 15 members, \$1500 in the bank and no hangar or clubrooms. We had a Tecnam Echo which the club had no equity in – so we have come a long way in the last nine years. In talking to some members, they are saying we should be looking at replacing WTF in the near future because it is at the stage where, with the amount of time left on the motor and the good condition the aircraft is in, it would be a good-option plane for a private person to own (whereas the hours are getting a bit high in terms of the Club's ongoing high hours we must do). I would, therefore, ask all members to talk about this amongst yourselves – giving due consideration to whether we need a new aircraft, can we afford it and / or how are we going to

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pay for it; and what sort of aircraft might be best in the event of a new purchase.

I would certainly like to see our Club do more away-trips in the next year. There are some good locations we can fly to for day trips... so any ideas you would like to come forward with, please get in touch with Lou. It is good for our Club and for our aircraft (keep those flying hours up!) to be seen at different locations.

Happy and safe flying.

Bob Foster.

CFI's Report:

Hi everyone

Well it's been a busy month with some great days and we have got a bit of flying done.

A big welcome to two new members – Mark Pedley and Bruce Walker. Both have started learning to fly with us recently and both are doing very well so far. All our students are now being trained using the Part 61 PPL syllabus as our standard syllabus. There are a lot of benefits moving to this system namely the ability to use all the training collateral already out there, like the NZ Flying Instructors Guide and the NZ Flying Training Manual, and having our training standardised and in line with industry accepted standards. This will ensure that our pilots are better trained and therefore safer. At the end of the training the student still graduates with a Microlight licence, however they will have completed training to a PPL standard.

Regarding the recent oil leak. Please keep a good eye out for any oil in the engine bay or blow back on the bottom of WTF. We have been unable to find a leak at this stage but are monitoring it closely. Please do not clean oil off if you see it and report it to Jack Maxwell or Mark Norgate for investigation. Please also do not take it upon yourself to top up the oil. If the aircraft needs oil then something is not quite right and by topping it up you may just be masking a problem. Just stop and make a phone call to Jack or Mark first for their advice. This is clearly stated in our flight ops manual and has been a long standing rule in the club, however pilots are still doing this. We do realise that it is accepted practise for pilots to top up oil and coolant and you may feel it's odd not to be able to do so, however in our club we have this rule for a very good reason.

On another subject our new club captain, Lou Du Flou, is starting to work on an open/fly-in day that will also coincide with our merge with the Northland Districts Aero Club. He hasn't come up with the date yet but watch this space. It should be a lot of fun. If you have any ideas or can offer assistance please contact Lou in the first instance.

I will be away from 2 July to 15 July on a little trip to Thailand so obviously won't be available for instructing over this time. If you normally fly with me and need an instructor over this time please let me know and we can set you up with Bob, Neil, Jack or Wayne.

Other than that, that's all from me. Have a great month and fly safe.

Cheers

Shaun

Editorial:

METAR NZWR 142000Z AUTO 31002KT 15KMNDV // OVC070/// 08/08 Q1010

MetFlight Weather: **What does it mean? And which bit is the DANGER!**

With the colder weather now firmly with us (we don't have a "Winter" up here, do we?!) I wanted to have a greater understanding of what 'Carb. Icing' is all about; the how, when and why it occurs. And what to do when it does. Those of you relying on "Plain English Met" might find a translation of the above useful (and I am one – though I do check the figures...)

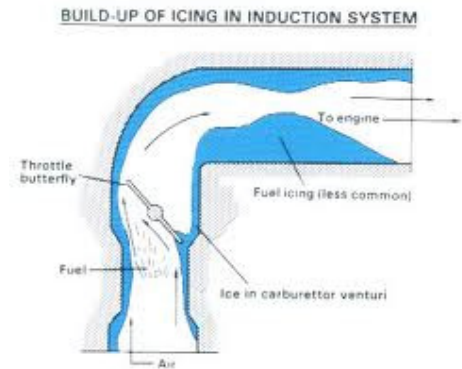
Here it is. And those kind translators even highlight the bad bits for you!

AUTO Report issued 15th 8am Wind: light northwesterly (310°) 2 kt
Visibility: 15 km (auto - no directional variation) **Weather:** unable to be detected
Cloud (AGL): overcast at 7000 ft (type not available)
Temperature: 8°C **Dewpoint:** 8°C **QNH:** 1010 hPa

OK, so now we know that the bad bit is the temperature. 8°C. But really they should also highlight the dewpoint. Also 8°C.

It always seemed obvious to me that if the dew point is close to the ambient temperature then condensation can occur at any temperature (tropical rainforest, anyone?), but when and why and at what temperature can this turn to ice and become dangerous in an aircraft?

If you've ever filled a gas bottle, or done a gas refill on a gas cigarette lighter, or just fired off an aerosol for more than a second or two, you will have experienced the temperature drop when a gas under pressure rapidly expands. Fridges work this way. OK, I'm not trying to teach you something you already know, but my point is that the smaller the nozzle the greater the effect – and that's the image to have in your head when you *close the throttle* in a plane. You restrict the flow – narrow the nozzle – and create an increased pressure drop that leads to a greater temperature drop. This can be 10°C or more, and in fact serious icing can be a real danger up to about 18°C (see diagram below).



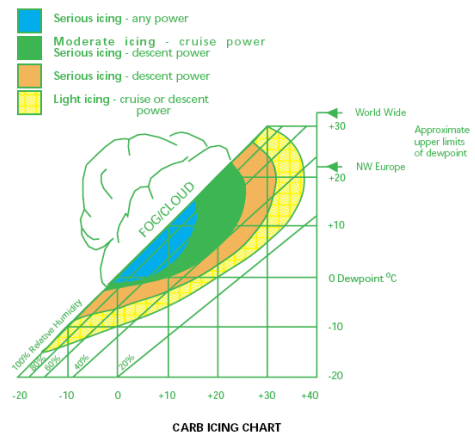
In many aircraft you can apply 'Carb Heat', which directs warm air from the engine onto the carburetor to alleviate the problem. WTF does not have a way to apply additional 'Carb Heat' as it is designed with the carburetor in a warmer part of the engine (I'm told). So what do you do if you suspect icing in the carburetor in WTF? Well now it's obvious. You open the throttle and pray! Less restriction means less pressure change. In fact, as the diagram below shows, once you get out of the 'blue' zone, serious icing only occurs on 'decent power' – which is why you should apply carb heat and/or apply power at intervals during a long decent. Having said that, carb. icing can also occur at cruise power, in which case it might also be prudent to descend (carefully) to a hopefully warmer altitude (remembering the 2°C per 1,000ft rule of thumb).

If you find in difficult to calculate 'Dew Point Depression' as shown on the 'Carburetor icing-probability chart' in the hangar – try the CAA chart shown here, where you just look up the temperature along the bottom and slide your finger up to the dew point directly above.

Here are some examples of temp/dew point to watch out for:

Serious icing – any power - BLUE

0/0 ; 5/5 ; 10/10 ; 12/12 - obvious so far, but also:
10/03 and 12/05 - Does that surprise you?! Read on...



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Moderate icing – cruise power - **GREEN**

Serious icing – decent power - **GREEN** and **ORANGE**

18/05 ; **20/20** ; **25/15** ; **20/03** ; **25/07** to **25/25** ; and even **30/20** !

The main point here is that icing can occur even when there is a 5°C or 10°C Dew Point Depression.

And finally here are some comments on **when** to apply carb heat, partially copied from Richard Keech at:

http://www.pilotfriend.com/safe/safety/carb_icing.htm

So when is it best to apply the carb heat? I will now humbly proffer my own thoughts on this particular topic. Before I spell out my personal recommendations regarding the appropriate use of carb. heat I just want to look at the advantages and disadvantages of putting hot air from the exhaust shroud down the carburettor.

Advantages:

Timely application of carb. heat prevents carburettor icing and can melt ice that has already formed.

Disadvantages:

1. Use of carb. heat reduces engine power and efficiency.
2. During the application of carb. heat the inducted air is unfiltered.
3. Application of carb. heat under conditions of high engine power can cause detonation.

Clearly, these disadvantages preclude the permanent use of carb. heat, but equally, there are times when lack of use is definitely a hazard to flight safety so it's easy to see why there are so many problems. However, the positive side of this is that during those occasions when the use of carb. heat is not appropriate the engine is not likely to suffer from carburettor icing. For example, during takeoff and climb when the throttle butterfly is fully open and the engine is developing full power the use of carb. heat is not recommended due to the disadvantages 1 and 3; in fact detonation can cause long term damage to the engine.

Happily however, the formation of carburettor ice is most unlikely in this condition. To those who seem to have experienced carburettor icing in the climb I would say that it is likely that the icing formed when the aircraft was at low power on the ground prior to takeoff. Conversely, during those low power flight regimes when carb. icing is most likely, the extended use of carb. heat will cause no damage to the engine except in very dusty conditions when the lack of air filtering could be a factor. However, on balance, I feel that most would prefer to accept this fact rather than risk possible engine stoppage. Therefore, taking all this into account my personal recommendations concerning the use of carb. heat during the usual flight conditions are as follows:

Pre Takeoff: Prior to checking the carb. heat during the engine run-up note the stabilised engine rpm. Apply full carb. heat for about 10 seconds and check that the rpm drops by around 100. After returning the control to "cold", note the rpm; if it has increased from the previously noted reading then carb. ice was present. The procedure must then be repeated until no rpm increase is noted following the check i.e. all the ice has been melted. If prolonged holding is required following the run-up then repeat the check.

Takeoff and Climb: The carb. heat should be left in the "cold" position.

Before Landing: Apply carb. heat periodically when joining the circuit, down wind and on final approach. Move carb. heat to cold on short finals to cater for a possible go-around. In any event set the carb. heat to cold when on the ground so that the engine receives filtered air since this is the environment that is most likely to be dusty.

Fancy a set of wings? (*I've got mine!! Ed.*)

RAANZ has reintroduced the wings badge, which will be issued to all new pilots as they gain their Intermediate (or higher) Pilot Certificate. It's in recognition of the milestone of becoming a real, solo authorised Pilot - something to wear or save away as a keepsake for the mokopuna. For you older, bolder pilots who have missed out, [email me](mailto:office@raanz.org.nz) and I will send you one - but only to current RAANZ members!

Thanks to Phil Paterson (RAANZ exec, Wairarapa & Ruahine Aero Club) for driving this project.

Email: office@raanz.org.nz

with the Subject: "Please send me a wings badge!"



“Plane Talking” !



I hope you didn't miss it! Even the speakers were impressed by our turnout of over 100 (OK, so it was 101!). Even more impressive was the fact that they didn't run out of Pizza afterwards! Some members were even spotted sneaking off home with pizza boxes (well, with two teenagers at home – pity to waste it!)

Yet another entertaining evening, professionally and humorously presented while inspiring pilots to smarten up their RT. I will certainly treat Christchurch Centre with greater respect after hearing some of what they have to cope with...

Many thanks to all concerned...

Pilot's Tip of the Week

Forced Landing Checklist

Featuring Bob Martens

Subscriber Question:

"I had an engine failure on downwind and a forced landing in plowed corn field. I spent the last 500 feet concentrating on landing the airplane but did not block the door open, turn all switches off, tighten seat belt, and turn fuel supply off. I did broadcast on UNICOM that I was having a forced landing but nobody paid attention because I didn't say Mayday, Mayday, Mayday. I spent too much time trying to restart the engine and neglected other critical items. I walked away without a scratch, but did \$50K damage to my airplane. At what point is it useless to try and restart the engine?" - Fred Z.



Bob:

"Always insightful to hear from one who's *been there*. Yes, there is certainly a point where you must stop trying to restart your failed engine and prepare for the landing (notice I didn't say "crash"). There are certain priorities in every emergency.

For engine failure, aircraft control and proper airspeed management are your priorities! Finding a safe landing area is also crucial. As conditions permit, running a checklist to attempt restart and prepare for landing will come into play.

Once committed to a landing, getting the door opened and fuel shut off are very important. Removing ignition sources would also be very helpful.

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Mayday calls would certainly enhance your rescue prospects as would a transponder change, but these items should not in any way compromise your aircraft control.

Sounds to me like you handled your situation in a safe manner with good priorities. Practice make perfect since during the real thing, you only get one shot at it!

One last thought, hopefully with an engine failure on downwind, we can still make it safely back to the runway. Keep that downwind leg tight enough to make that happen!"

(What are the key elements in this? Tight circuits and practise, practise, practise. Ed.)

Drew's News from around the Web:

Three Survive Mountain Crash

Partly because they had a cellphone, all three aboard a 1966 Cessna 172 survived a mountainside crash Saturday that left a section of the Cessna's wing in a tree and sent two of the occupants through the windscreen. Pilot Brian Brown, his wife and their youngest daughter were en route from Sacramento to Idaho when Brown says the aircraft encountered icing, lost lift and crashed into a snowy Idaho mountainside. Brown told a local news station that the impact knocked the doors off of the aircraft and sent both he and his wife through the windscreen, briefly knocking his wife unconscious. The aircraft's radio and GPS were broken, it was 9 p.m., they were injured, on a mountainside, and it was snowing. Fortunately, they had cellphone service. But it would take them six hours to use it.



The family's first concern after the crash was to take inventory of their injuries. They then sought shelter in the aircraft as temperatures fell. *The cellphone only came to mind six hours later when it rang. (My italics! Ed)*. Unable to find it before the call went to voicemail, Brown's daughter then used it to call 9-1-1. A medical helicopter located the crash site early Sunday, but weather and terrain prevented an immediate air rescue. Ground crews reached the family, first, before the weather broke and family members were able to be extracted by helicopter, one at a time. From a hospital bed in Boise, Brown said that weather had closed in on the aircraft as it flew from California to Idaho. Brown said he had first diverted to a small gravel strip in Oregon, but the strip had no services. When he saw a break in the weather he gathered his family and took off again for Idaho. Brown says the aircraft then built up ice en route and stalled. He dove to gain airspeed and when he saw terrain, pulled up and "belly-flopped" into the mountainside.

Team Plans Transatlantic Electric Flight



A new company called Flight of the Century Inc. announced last week they intend to fly an electric-powered aircraft nonstop across the Atlantic, following Charles Lindbergh's famous route between New York and Paris. To solve the problem of limited battery life, the design team plans to use

small drones that will meet up with the airplane en route and recharge the batteries in flight. "Our purpose in setting out on this very difficult path is to force innovation that drives electric flight technology forward in a significant and measurable way," said Chip Yates, CEO of the company.

Take A Flying Vacation

Visitors to AvWeb were asked: *Where would you go and in what aircraft? This being largely US based – with most responses being a bit 'insular' and thinking only of US destinations – it was, however, heartening to read the following...*

The suggestions were varied, with destinations ranging from Alaska to New Zealand, although one reader specified that her New Zealand fantasy involved a commercial airline flight, seated in first class, sipping single-malt. Another was more specific and saw himself flying New Zealand's "North and South Islands ... in something slow, open and with big tires. A Stearman comes to mind." Stearmans often come to mind when a sentence includes the word "slow."

Minden emergency landing

Lockheed P2V fighting another fire south of Reno executed a safe landing at Minden, Nev., in a stiff crosswind with one wheel up.

http://www.youtube.com/watch?feature=player_embedded&v=zqiX6M5dkVI

Upcoming Events:

- MOTAT VISIT. Saturday June 23rd. 805 Great North Rd, Western Springs. Meet at entrance. 11am. Lunch at the café then across to MOTAT 2 for the Aviation Display Hall exhibits at 2pm. Those who only wish to come and view the Aviation Display Hall at 2pm are most welcome to join us at the later time. Open to allcomers. (Booked as the Northland Microlight Club)
<http://www.motat.org.nz/whats-on/on-this-month/#free-entry>
 - Shortest Day BBQ Flyin. Sun 24th June. North Shore Aerodrome. **Postponed**; due weather.
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Tail Piece

HEARD ANYTHING FUNNY ON THE RADIO? (Av Kiwi had a few!)

Heard anything funny, unusual, or downright shocking on the radio lately? If you've been flying any length of time, you're sure to have eavesdropped on a few memorable exchanges. The ones that gave you a chuckle may do the same for AVweb readers. Send your radio funny to me (drewbarlow@email.com), and if they use it in a future "Short Final," they'll send me a sharp-looking AVweb hat to sport around the club house!

(The following seemed topical after the Plane Talking Seminar... Ed.)

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SHORT FINAL

En route over central Florida, we heard the following exchange between Jacksonville Center or Approach (can't remember which) and a Cessna approaching its destination:

Jax Center:

"1234AB, do you have information 'Hotel'?"

1234AB:

"Uh, nah, sir, we don't need it. Thanks, but we're stayin' with some friends down in New Smyrna."

Jax Center:

"1234AB, negative. Advise if you have ATIS information 'Hotel,' please."

1234AB (after a pause) :

"Uh, Jax Center, like I say, we don't need any hotel information. We've already got a place to stay down in New Smyrna."

Jax Center:

"4AB, I'm not giving you hotel information. I need you to advise that you have ATIS information 'Hotel' at [landing airport]."

[Several moments of silence.]

Jax Center:

"Cessna 1234AB, Jacksonville Center."

1234AB:

"4AB. Go ahead."

Jax Center:

"Did you copy the request for ATIS information 'Hotel'?"

1234AB:

"No, sir, I did not -- 'cause I don't need it. Like I already told you, we got a place to stay already down in New Smyrna!"

Jax Center:

"1234AB, go to 123.45, listen to the recording you will hear, and return to this frequency to advise you've heard what is on that frequency."

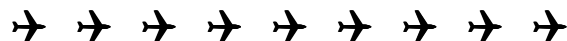
1234AB:

"4AB: 123.45 -- roger. So long, sir."

A frequency change of our own prevented us from learning if 4AB ever did receive Hotel, but we trust their stay in New Smyrna was a pleasant one.

There are three kinds of people in the world
Those who are good at maths and those that aren't.

HAPPY FLYING



22nd June 2012