

RecWings

The Magazine of the Canterbury Recreational Aircraft Club



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JULY 2015

Editor's Letter – Magazine format, benefits of a club

The new magazine format and name was generally well received. Last month's bumper issue was a result of some very good input by CRAC members and others. I aim for little improvements every month, but the next step may involve a move away from Microsoft Word as the content editor. It seems that 24 pages of text boxes and images gets quite clunky, it can take hours to reformat after changing something near the beginning of the document! All good fun though, and it's a very satisfying job when it is done. I doubt that we will hit 24 pages every time.

The centrefold hasn't gained any comments but I enjoy doing it. It also adds a couple of extra pages which saves my old fingers a little typing. To have a centrefold the total number of pages **must** be evenly divisible by four, which makes it interesting. This is because the printed versions should have the centrefold smack in the middle for it to make sense. If the nearly finished product has (say) 19 pages, the centrefold takes it to 21 so I have to find 3 more pages of content or reduce it to 20. It's all a learning experience!

I aim to keep the content relevant to the club, but it's not always going to be Microlight/LSA related. Last month's article on IT security was there because so many people struggle with keeping their computers secure, and there is a direct link to systems that many pilots rely on – even if it is just the Metflight web page. Do members mind if there is the odd excursion away from aviation?

We're very lucky that our club is a progressive and active sort of club, naturally there are little cliques and

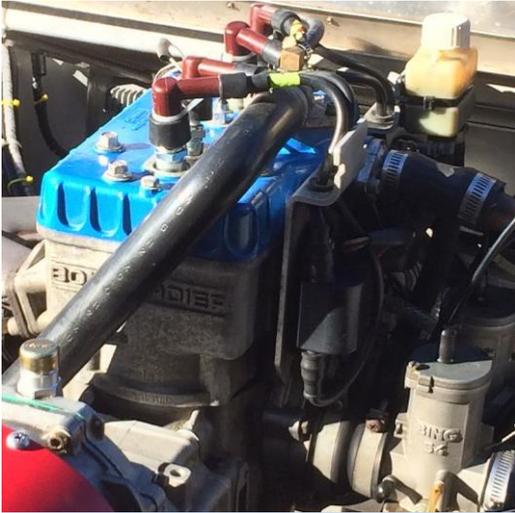
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circles of friends, but the mood in the club is very positive. Personally I think that it helps that the stresses of our major projects are nearly over. Now that they've (almost) come to fruition we can enjoy the benefits of the new aircraft, larger hangar space, and amazing club rooms.

One of the things I enjoy most is wandering into the clubhouse and catching up with old friends, and making new ones.

Buzz once used the term "camaraderie", I think that is one of the most important club functions after promoting safety and providing training.



Rotax offers prize for Oldest Rotax still in use

BRP-Rotax is offering a very nice prize for the oldest **certifiable** aircraft engine still in use. Here's the company press release – start looking at those old engines you have!

Gunskirchen, Austria, April 14, 2015 – BRP-Rotax launches a contest to find the oldest active certified Rotax aircraft engine in operation to celebrate 40 years of Rotax aircraft engines.

“We are proud of 40 successful years of Rotax aircraft engines,

which lead the ultra-light and light sport aircraft market worldwide. Our customers are brand ambassadors and an important part of our success story,” said Thomas Uhr, vice-president BRP-Powertrain and general manager BRP-Powertrain GmbH & Co KG. “To thank them for their loyalty, we decided to open the doors to where over 175,000 Rotax aircraft engines have been produced.”

The owner of the oldest active certified Rotax aircraft engine will be invited to visit, all expenses paid (up to €4,000), the Rotax factory in Gunskirchen, Austria, where BRP develops and produces the well-known engines.

The contest starts April 15, 2015 and runs through December 31, 2015. The winner will be notified in writing before February 1, 2016. Participants must provide a copy of the log book and latest proof of maintenance as well as personal contact information to his nearest authorized Rotax aircraft engine distributor. There are actually approximately 27,000 active 4-stroke and 13,000 active 2-stroke Rotax aircraft engines – certified and uncertified – in the fleet.

Rotax has sold more than 175,000 engines sold in 40 years. With 19 authorized distributors and a network of more than 220 points of sale and repair centres supporting customers worldwide, BRP supplies engines to more than 80% of all aircraft manufacturers in its segment.

Tecnam announces new aircraft

I don't want to have the magazine full of corporate press releases, but this one caught my eye! Somewhat tongue-in-cheek, the editor proposes this as the next CRAC trainer.

12/05/2015 : Tecnam 'P JET' aircraft evaluation programme

Tecnam today announced that it is actively evaluating the potential of developing and producing a two-seater, single turbofan engine powered aircraft.

Extensive interest has been shown for the introduction of a two seat (side by side), turbofan engine powered aircraft, to be used by military Flight Training Organisations, but also to offer a significantly faster and more efficient aircraft for both the private and business aviation sectors.

The 'P JET' will undoubtedly be a game-changer not only in the world of General Aviation but also as a first level entry military training jet powered aircraft. Tecnam's initial research suggests that manufacturing this visionary aircraft is both technically and economically achievable.

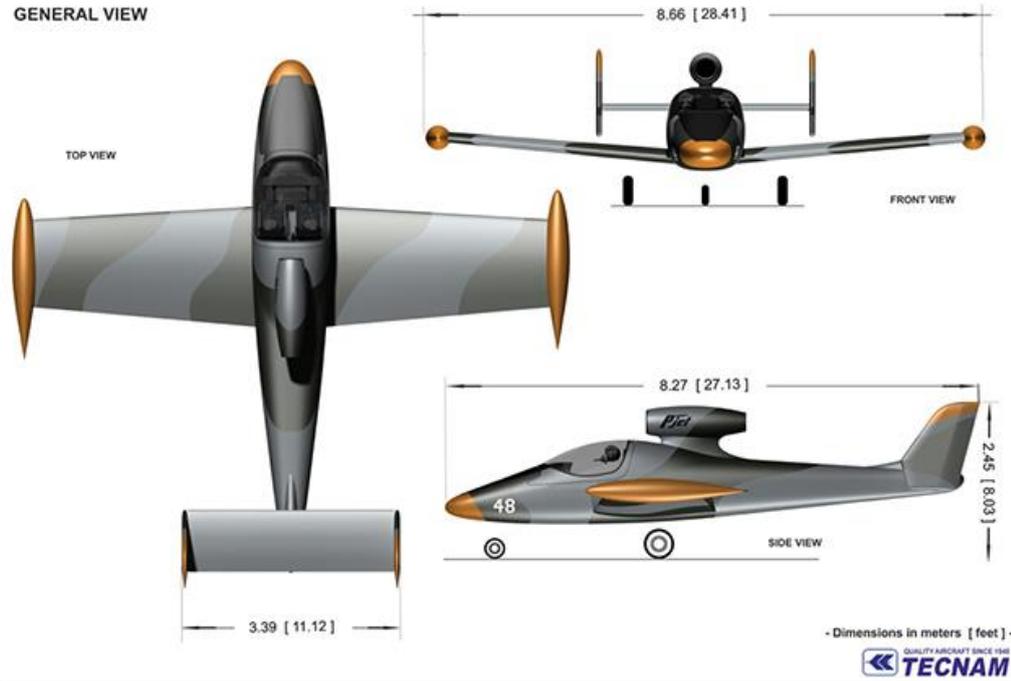
The anticipated 'P JET' aircraft configuration would see the engine 'podded' thus ensuring the maximum efficiency to achieve the full ram-air intake effect, as this would not interfere with the primary aircraft structure and would also enable easier access for maintenance inspections, complete engine disassembling and other servicing requirements as well as enhanced safety protection such as fire.

Other key design features will include a twin-tail vertical stabilizer: its shielding effect to the horizontal surface will increase (being equal the exposed surface) the control power and stability.

Tecnam anticipates that the



TECNAM P JET
GENERAL VIEW



'P JET' cabin will be available both pressurized and non-pressurized, for use with an airframe integrated oxygen system.

Development will be based on achieving CS-23 and FAR 23 certification



Left, **Richard Mason's** Zenair CH-701 ZK-AMC, nick-named 'The Grey Ghost' for obvious reasons.

I learned about flying from that... tribute

Anon the mouse

The Head-hitter-in-chief asked for stories where one had a 'learning experience'. About 150 years ago I was a student pilot learning my overhead re-joins by doing solo trips to various airfields. One of my earliest was to that wonderful airfield at West Melton.

West Melton has a small paved strip down the centre and it always seemed to always have a couple of knots of wind shear. Great for doing carrier-style steep approaches but one had to keep a few knots of extra speed on; inevitably they seemed to evaporate in the last couple of hundred feet. The old Cherokees were quite lovely to fly, really easy to handle and logically laid out. I did hear afterwards that there were no solos allowed to West Melton, I'm not sure if I accidentally broke that rule or they brought it in later.

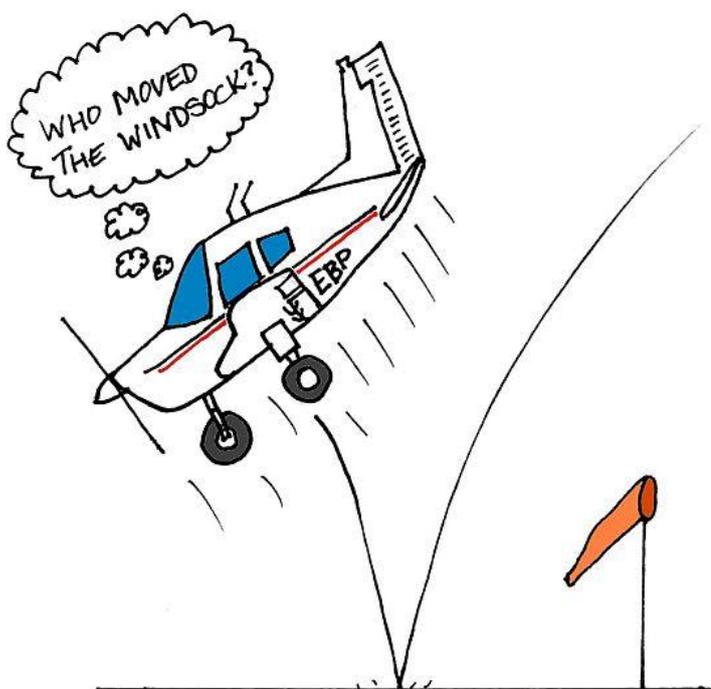
My first trip out, full of "confidence" and the joy of flight, and everything seemed to be going well. Short finals seemed to be going quiet so I applied a little more noise with the volume control located on the centre-console. The 140 seemed to respond and I expected the usual smooth as silk touch-down. However we seemed to drop the last few inches, the landing was a lot firmer than expected –not a heavy landing, just decidedly 'firm'!

Rolling out and turning left, I glanced at the windsock and was shocked to see it pointing in the wrong direction! Well, in all honesty, it was telling the truth and I had landed in the wrong direction. How on earth had I done that?

Had I misread it at the re-join stage? Had my hard-working brain (nerves really do reduce one's mental capacity, I am convinced) simply forgotten which end of the windsock to aim for? One thing I hadn't considered was an upper-level nor'west changing the wind direction between selecting my runway and the actual landing. I don't recall the conditions that day but it was unlikely. One thing was certain – I had either skipped the windsock check on down wind and finals, or miss-read it twice.

What did this very junior Cherokee driver learn?

- Windsocks are like wild animals – NEVER fly into their mouth! **Catch the bugger by the tail**, and don't let it go! (There are exceptions to this rule, the only one I have heard of is landing on a sloped runway, discuss it with a more learned person than me).
- The downwind check includes 'lookout' – this isn't just for other traffic, have a quick check on the windsock.
- You have another opportunity to catch a mistake on finals. Take the opportunity; remember you may be conflicting with other aircraft.





Club E-mail Instructions

For those of you who missed the e-mail advice a couple of magazines ago, here it is again. Don't complain that you can't e-mail the committee if you haven't read the instructions!

For the Committee, the committee2015@crac.co.nz address is a closed list, which means that your address has to be in the list to be able to send to it. This is an anti-spam measure. If you want to contact the committee, send it to one of the addresses listed on the last page for distribution.

For "all club" e-mails we currently have two main systems – the e-mail address held in the accounts system (used for statements etc.) and the MailChimp system which is used for all other club e-mails including the Newsletter. The I.T. Team is looking into consolidating these two systems via the Club Web site database but this is the current set up.

All Club e-mails are channelled through one or two committee members to attempt to achieve some consolidation, otherwise there could be quite a few.



Kaikoura Fly-in 4th July 2015

One of our Club Captain's specialities is a short notice, weather dependant fly-in. We try and get a club e-mail out at least a night or two before, but if you're interested in these write your name and mobile number on the whiteboard in the Club House.

I was lucky enough to be invited to be a passenger with Paul on the July 4th Fly-in to Kaikoura. My longest ever Microlight flight. There were about half a dozen pilots and aircraft attending, Paul Godfrey's Kitfox, Buzz Harvey and Deane Philip's CH701's, Alastair Millar's Savannah, Bruce Norrie's Rans S6, and Glenn Martin's Sting. Most flew up the coast route but a couple including Paul flew the inland route, taking advantage of the beautiful winter weather.





More photos under the Gallery section of www.crac.co.nz

Warbirds over Wanaka 2016



Yes, it's time to think about your Easter pilgrimage already. Since I will be competing with you for accommodation and tickets, I recommend you don't go. Seriously. The displays are world-class, the organisation, facilities, and traffic management are top notch as well. Stay at home, you'll be missing EVERYTHING!

I'm very pleased to see that the Jet racing is making a welcome return next year. After hearing stupid rumours that it was just going to be "timed individual circuits" for 2014 I was amazed to see the full spectacle – half a dozen jets starting off in close formation (shepherded by a P-40 start plane), all racing for first place. The Aero Vodochody L-29 Delfins, the L-39 Albatros (sans wafers), and the two Vampire Trainers were superb. It was interesting to see just how competitive the Vampires were.



Left, the starter has just announced "Gentlemen, we have a race" and the aircraft are positioning themselves for the first turn.



Right, by the second lap the lead aircraft are still this close



Left, the DC-3 really was *that* low!



I recommend the stands, book either the Silver, Gold or Titanium passes. Being elevated really does add to the enjoyment by getting you closer to the action.



For Sale

Aeropro Eurofox 3K Tow

Advanced Microlight



- 100 hp Rotax 912 ULS engine
- DUC Windspoon 3-blade propeller
- Tricycle Undercarriage
- Tow hook
- Dynon D1000 Skyview glass cockpit
- Flarm display
- Transponder
- Garmin Aera 500 GPS
- SL40 VHF Comm

Aircraft is only 2 years old with 180 hours TT and is in "as new" condition

Will be sold with new annual and a 200 hour inspection

Asking price NZ\$103,000 plus GST ono

Enquiries to Warwick Bethwaite 027 374 1059 or warwick.bethwaite@gmail.com





RNZAF UH-1H Iroquois NZ3808 performs at Warbirds over Wanaka 2012, part of an excellent two-ship display with NZ3801. ©2015 Brian Greenwood

Farewell to the Iroquois

After almost 50 years of service the RNZAF has retired its UH-1H 'Huey' helicopters. First introduced to 3 Squadron in 1966 (5 of the UH-1D model), the Huey has served with distinction in many theatres. These include environments as diverse as Singapore and Antarctica.

First introduced into **USAF** service in 1959, the original aircraft were designated UH-1, from which the 'Huey' nickname was derived.

The RNZAF bought a further 9 UH-1H models in 1970. The original UH-1D's were upgraded to H standard in the 70's and two additional UH-1H's were purchased second-hand from USAF stocks. Three have been lost in accidents and six were serviceable for the final fly-by on July 1st.

RNZAF Iroquois have operated in many Pacific Island nations, the Solomon's, South East Asia, the U.K., and the Antarctic.

The much loved Huey has been replaced in service by the much more capable NH-90 Helicopter.





CRAC Clubhouse facilities for visiting pilots

The Canterbury Recreational Aircraft Club invites transiting pilots to stay overnight at its Rangiora club house. Rangiora Airfield is conveniently placed a few kilometres north of Christchurch and a few minutes' drive out of the fair town of Rangiora. There is Avgas and engineering support available on the field and Mogas is available in Rangiora.



The CRAChouse is fully equipped for overnights, the bedroom has permanent bedding for four (two bunks) plus four additional fold-up beds should more be required. It has a full kitchen with frozen meals, tea or coffee for sale at very reasonable rates. Two toilets and a shower complete the facilities, and it is heated by a new heat pump. Cost is \$20 per person per night, on an honesty basis. The club also has limited hangar space available at times. We also have one

of the best kitchen views that a pilot could hope for – near the intersection of the 07/25 and 10/28 runways. For information contact **Buzz Harvey** (details on last page). Accommodation available on a first in, first served basis.

Shuttle transport to Rangiora or Christchurch is available for reasonable rates.





Committee Meeting notes

- Some big invoices for the month including scaffolding and Insurance renewals
- RGA completes 37 hours, JOR 4
- RGA offline for 500 hour check (back online as I write this)
- New Wheels and brakes for RGA due shortly
- Some discussion re incidents and accidents
- 10 out of 80 at NZRT Airfield Safety meeting were from our club
- Hangar almost finished, Apron work should commence soon
- Clubhouse external lighting will be looked at to see if any improvements can be made
- Club signage will be updated as a low priority job
- Possible 'Give an ATC Cadet a ride' day coming up
- Day trip to Kaikoura coming up, possible coffee run to Hokitika
- Possible monthly club BBQ, will time with CAC Competition day
- Open day for NZRT to be co-ordinated with CAC, no date yet
- Volkmar presented on the build-a-plane idea, sub-committee formed
- Volkmar proposed running seminars, more details to come
- Car purchase delayed until after current large projects and subject to further discussion
- Club submission opposing new subdivision near airfield to remain as a written submission
- Rates for instructor training in club aircraft set

RAANZ News

- Roger Ward reported that RAANZ has gone from 450 members 2 years ago to around 600
- RAANZ finances sound
- Asked for restraint in social media clips for our sport
- RAANZ Exec meeting in Christchurch soon
- RAANZ talking to CAA about the possibility of putting A/C regos 'on hold' for rebuilds etc.
- some ATO and Instructor Seminars later this year
- Producing a Radio Instructional video in conjunction with Airways
- National Fly-in at Hokitika in Easter 2016
- Points out that the relationship with GA is becoming more important

Flying Mount Cook

Volkmar Wollenweber (article and images)

24. June 2015 - Blue skies, High pressure system over New Zealand, wind at 10000ft - 5kts.

It made me very nervous, brilliant weather what else do you want. So I asked Graeme if he is keen to join me to Mount Cook. A spontaneous “yes” was his answer. So long johns and a warm jacket, something to drink, a bit to eat, another brief look at the map and we are ready to go.

At about 11.10am we left Rangiora in my “Furious Feather” in the direction of Oxford. I contacted Christchurch Control, requested climbing to 7000ft and nice white Canterbury plains below us... heading straight to Mount Cook. At 11.40 am we were at 9500ft with a nice view of Mount Hutt off our left wing.

We requested radar tracking, stayed at 9500ft heading further to the southwest at 95kts. Our cabin heating worked well and we enjoyed a 300km view over white mountains.



Mount Cook now appears 20 NM in front of us. We started to climb up to 12500 ft and “Furious Feather” was happy to climb with 400ft/min. We changed frequency to 118.6 (MBZ Southern Alps) reporting “Armadillo”/ “Darwin Saddle”, we headed to “Pioneer Hut”. We finally climbed to 12950 and circled Mount Cook...

Very impressive...



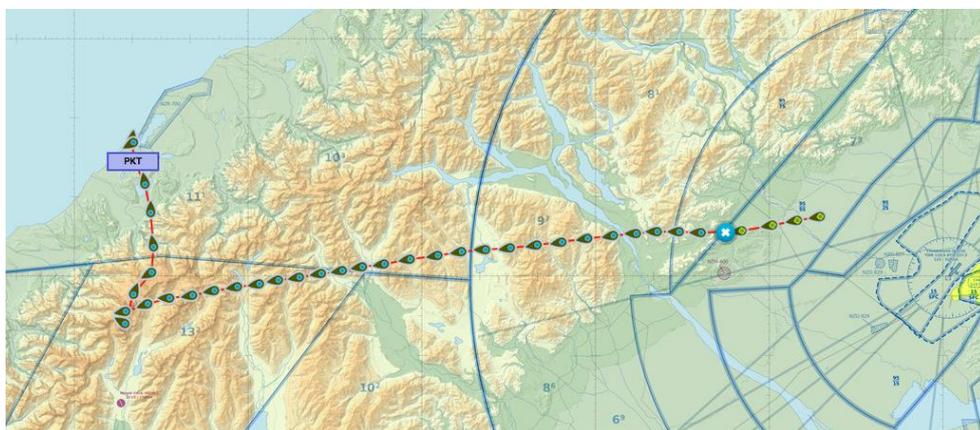
After a few circles round the top and some pictures (I have to admit the heating was now not working so good... LOL) we headed to the Franz Josef snowfield and Glacier.

Time to have a coffee. We flew down the Franz Josef Glacier to the coast and followed the coast for a few miles up north. There is a curved strip at Okarito and the coffee shop was waiting for us... and we were ready for a p**.



After a nice rest in the sun we took off again, climbed up to 4000ft and crossed the Lagoon. Crossing Mount Whitcombe at 9000ft we dived immediately down into the Rakaia Valley and flew home to Rolleston at between 500ft and 1000ft as there was a low cloud level.

A very nice day finished after 2.5 hours in the air.



Mayday, Mayday, Mayday...

...dreaded words, but when it's you saying them it's amazing how the mind and body seems to logically arrange the processes that should be best to save a life, and its important, 'cos its mine!!! 800 feet below was a boat quietly cruising the lake shore fishing, and with the engine sounding like it was on a "shudder to fail" number, that was decided as a target, initially...



But have faith - a little brain work, and luck, and throttle in and out, at least I was maintaining height. I heard the "meat bomb" plane pilot on radio, about the only one who heard my call, asking where I was and for others to clear the frequency. I reported.

I set short targets. Could I make Stevenson's Island? Not across the faces but if I went through the gap I could...so let's have a go. A boat was at the top of the arm, so that became a target. If I go in, at least I have a chance of rescue if I survive the landing.

A little more throttle work and more power... it was coming back. A hint of a third cylinder firing up... another target... a radio report... "tracking to strip at Stevenson's... then Mt Burke station"... plenty of paddocks there for me. We were 90 seconds on since mayday call.

Ease into more throttle... less sweat in the nether regions. More power as another plug clears itself and yes... finally the engine is running fairly smoothly. I gain height up to 1200 feet – Maungawera Turnoff... I see the Albert town bridge to my starboard and report I am heading to join downwind 29. A plane on base reports he is turning away to allow me to land. What great support and cooperation I think. Who are those voices on the radio? I must thank them.

Base then Finals and I'm in... taxi to the hanger but she's still a bit rough so time to tie her up. I'm going home. I need coffee and a change of shirt. There was some profuse sweating but certainly nothing else. The undies were clean!!

After a calming hour at home I had to go out to the hanger again. What caused this near calamity? I needed to gather my thoughts and perhaps accumulate the knowledge of those wiser than I. A process.

So what happened?

I was at 3500 feet on the Wanaka faces, across from Mou Waho Island. It was approx. 25 degrees outside, reasonably high humidity. I was alone.

I decided to drop lower and have a look at a "fan" that protruded out into the lake, just in case there was a deer on it, as there often is. To do this I cut the throttle and more or less glided down for about a minute or so to take a look. I noted the boat trolling and gave him a wing wave in return to the waves from those aboard.

Levelling out at about 500 above the lake, and lowering speed from about 120 mph to 50 or so, I applied throttle. Suddenly a shuddering in the engine and with the prop shaking out of sync, I realised I was in trouble.

There was no more power.

So, Rather than an air accident inspector doing an analysis on a wreck at least I was able to work thru some possibilities. Once the news got out of my “near”, I had quite a few different contacts giving their opinions, which was great, but demonstrated the variation of opinion that can occur.

So let's consider...

I had just had the carbs balanced 4.25 hours ago, so there shouldn't be an issue there?

The engine has done 425 hours (ROTAX 912UL). What is due for a check? I read.

The spark plugs have just done 70 hrs.

I use Mogas and always use a water filter- except for a fill about three weeks ago when I filled at a strip up the lake but out of my container??

I don't have a gascolator as such but have an inline drain. I always check.

The filter was due for replacement. It was a plastic case and paper filter. I found out in my research, not recommended.

The fuel in the tanks was not old. 10 days at most.

Oil change was due, along with filter - had done 68 hrs.

So that was a list of considerations.

What else? I rang Colin at Solo wings. Icing!! He was emphatic and brief. What you have described has happened before.

I researched... Yes it is the most likely possibility. Humid engine on low revs - high speed (for me), and rapid descent... all added up.

Same had happened to others said Mr Google!!

Callum doubted the scenario, but didn't discount it. Craig was the same. Ivan considered it and believed it very likely, based on what I had said. Pete didn't answer his phone!!

Others were resounding in yeses!! They believed my evaluation.

I believed I had the answer.

It was my fault. A tough lesson!!

But, just in case, new plugs all round, new fuel lines, new glass filter, new oil and filter, drain the fuel tanks and check for water and a couple of other things...

Finally ready for a crank up and as the engine hadn't run for a week or so, with all the cowlings off, I proceeded to turn the prop over by hand... once, twice... half a dozen times...then?.....??

Why is there fuel pouring rhythmically from one air filter?? Another turn and another check. Yes... the carb is flooding. What the hell is going on?

I remembered my reading about pressure and equalisation on the carbs - The carby float chamber venting lines!

Logically if one was blocked the carb would flood wouldn't it? I followed the plastic line... and there

it was... so basic, so simple. The plastic hose was melted. It was sitting on the exhaust and had melted so that there was no way that the carb was venting.

I had changed my mind. It wasn't icing. I had the answer.

I cut the hose. I removed the air cleaners and checked then reset. I rotated the prop again. Then took the plunge and started the engine. Bruno and Jim were listening. I ran it for a few minutes then cut the engine.

“What do ya reckon boys?”

“Sounded smooth once she warmed up. Well done I think you found the answer.”

I do too... but why after 400 hrs has this happened? I don't have that answer! It's an area I've never touched since I bought the craft. Others have.

Lots of questions and certainly ways to prevent this happening again, but I don't know why it occurred now? And no one will tell me, will they?!

At least I'm able to pass on my learning and it's not the results of an air accident inspection.

IM SAFE... I'll carry this out after pre-flight as well...just in case my nerves are more shattered than I think!

I thank **Grant Porter** for his input, his willingness to assist and his skills in retuning my little beast. Without his bountiful knowledge I may still be floundering around reading manuals!!

Ref: Rotax- Drainage piping

The primary function of the carburettor float chamber venting lines is to provide ambient air pressure to the float bowl chambers. However, it is possible for fuel to be expelled from these lines. Normally these lines are connected to fitting on the ROTAX airbox to provide the ideal ambient air pressure and a way of draining any expelled fuel overboard.

If an airbox is not installed, the vent lines will need to be routed according to the following instructions:

- - The lines have to be routed such that in case of fuel being expelled it is drained off suitably.
- - Route the lines without kinks and avoid tight bends.
- - Route the lines with a continuous decline.
- - The lines have to be protected against any kind of blockage e.g. by formation of ice.

The carburettor float chamber venting lines have to be routed into a ram-air and vacuum free zone (or into the airbox, according to the release of BRP-Powertrain). These lines must not be routed into the slipstream or any other location that is subject to ram-air or vacuum during flight or ground operations.

Pressure differences between intake pressures in the carburettor float chamber may lead to engine malfunction due to incorrect fuel supply.



Canterbury Recreational Aircraft Club (Inc)

**P.O. Box 440
Rangiora 7440**

Patron

Wayne Wilson
patron@crac.co.nz

President

Mike Sheffield
president@crac.co.nz

Secretary

Graeme Main
secretary@crac.co.nz

Chief Flying Instructor

Tony den Haan
cfi@crac.co.nz

Safety Officer

Duncan Fraser
safety@crac.co.nz

Club Captain

Paul Godfrey
captain@crac.co.nz

Treasurer

Scott James
treasurer@crac.co.nz

Clubrooms Manager

John McCaul
tuckshop@crac.co.nz

Hangar Manager

Buzz Harvey
hangars@crac.co.nz

Upcoming Events

August 28-30th (tentative) 2015 - **Brass Monkey to Tapawera**. See article in this issue.

Monthly BBQ, 2nd Weekend of the Month at 10:00am, starting **Sunday 12th**. \$5pp and possible Fly-in afterwards, weather dependent.

Possible Coffee run to **Hokitika**, keep your eye on the club whiteboard and your e-mails

As always, Club Captain **Paul Godfrey** may coordinate some local flying events that will be run with short notice (weather dependent) so keep your eye on your club e-mails and the noticeboard.

Magazine Contributions - A HUGE thanks to:

Volkmar Wollenweber, Ian Brown.

Next Newsletter

Member contributions invited.

Brian Greenwood
Editor (editor@crac.co.nz)

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New Members June 2015

Welcome aboard to:

Corey Smitheram

Polly Francis

Rory Lindebaum

Daniel Sherratt

Please make our new friends welcome.

Congratulations

Volkmar Wollenweber, Flight Instructor

Web Site:

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Photos

www.crac.co.nz/photo-galleries