



P-51 Mustang Special

P-51D Mustangs in New Zealand

Experimental, Microlight, and Original!

Originally 167 P-51D Mustangs were ordered in 1945 to replace the RNZAF's war-weary Corsairs. The first 30 were shipped before the war ended, the balance were cancelled. One was badly damaged at unloading (dropped on a bollard) and the rest were put into storage. In 1951 the remaining 29 were reactivated and allocated to the Territorial Air Force's 4 squadrons (based Auckland, Wellington, Christchurch, and Dunedin).

They served the TAF well until they were withdrawn from mid-1955. Only 3 escaped the cutting torch. NZ2417 was sold to Ron Fechney of North Canterbury, and later became ZK-CCG. This is the subject of the next article by **Chris Dyer** and prompted the Mustang theme this month. NZ2423 was obtained by John Smith of Mapua (via W Ruffell), and NZ2427 went to Peter Coleman of Blenheim. This latter aircraft was later purchased by the Alpine Fighter Collection and sold on to the UK, where it was restored and flies as G-MSTG "Janie".

There are a number of Mustang replica designs, two of which have a high profile in New Zealand. The first is the 640HP Falconer-powered Thunder Mustang. The second is the Titan T-51D Mustang which is sold and supported in New Zealand by our friends at **Campbell Aero Classics** at Loburn Abbey.

April Highlights

- RGA completes 36.4 hours and JOR 7.7
- JOR now offline for 300 hour engine maintenance, committee approves full Rotax-recommended overhaul
- Doug Anderson approved as ATO
- Proposal to build new club aircraft from kit gathers momentum (refer committee report)
- Hangar construction progressed, doors next step



© Gerald Lindberg

Cadillac of the Skies

Chris Dyer

As our editor asked for hanger chat stories I thought this might be of interest.

An article in a recent British flying magazine stated that Sir Tim Wallis imported and owned the first privately owned WW11 fighter in NZ. His silver TAF registered P-51D. That's wrong.

No discredit to Sir Tim's achievement but before him the one I personally sat on an apple box in the back of was flying in the 1960's. ZK CCG. (You'll find it in Wikipedia.)

Dad had a mate Ron Fechny an ex TAF pilot who flew Mustangs in the 50's from Wigram and owned a farm called Omaha (as in Sword Juno Utah and Gold) in Aylesbury.

Dad kept his Percival Proctor under a Macrocarpa on the farm in the 60's.

In behind the huge doors on the shearing shed/barn were Ron's Cessna 180 and his Auster and a goddam flying P51D Mustang. All white with MOBIL written on the side. Pure Heaven for a passionate 9 year old (me) to clamber over.

How it came about was because Ron learnt of his TAF squadron's Mustangs being scrapped and managed to purchase one on its wheels and intact except the wings had been cut off outboard of the undercarriage. He bought it off the guvmint for 75 pounds and trucked to the farm with the intent of taxiing it around for nostalgia. Now Ron had a mate John Macdonald who flew DC3's and Hawker Siddeleys for Mount Cook and knew of an undamaged P51D wing at Whenuapai. He and Ron 'acquired it' and without any Duct tape in those days managed to join the two, get a CAA sign off and sponsorship from Mobil. All that was needed on the huge Omaha sheep farm was a Taranaki gate and the men were in business.

Two cool stories.

First one;

Dad had another chum Les Lamb with a Miles Messenger who would fly to Omaha from his farm in Balcairn. He and Dad would formate in their two warbirds (Proctor and Messenger) and Ron would beat us up in the Mustang so close you could hear the Merlin over the Gypsies.

Second one;

About three kilometres from the Omaha homestead (downwind) was an offal pit where the dead sheep got biffed in. Around the offal pit were rat holes. Ron's son Brian would take me and my brothers down there armed with baseball bats, golf clubs and a Jack Russell who started the excursions black and white but waddled home red with rat blood and a very happy grin. Just like we boys with rat blood and burnt skin and satiated as only boys who've indulged mayhem can be.

Well we'd be walking the paddocks home facing a setting sun after a norwester petered out and drifting through the stillness came the coughing bark of a Merlin Beast starting up. Brian said "Run" knowing that Ron

was warming the mighty Mustang up in preparation for the next day's flying. The formula was it was chocked at the mains and had a strop around the tailwheel attached to a fence post. We boys following Brian's lead would sprint through the sheep pens with the Jack Russell leading the way. Brian showed us how to dig our toes into the turf like rugby locks and lean forward in the propwash about 15 m back in a press up position. Ron could see us in his rear view and he'd give the Merlin full bore for a couple of minutes. We boys could lift our arms out and actually fly the propwash using our palms as ailerons. We got hammered by avgas fumes, incredible decibels and of course it dried the blood nicely.

Chris Dyer

ZK-CCG was sold to a new owner in the USA in April 1974, where it flies as "Cripes a Mighty 3rd!".



ZK-CCG being stripped of paint after arrival in the USA.

Both of these images of the 'Mobil Mustang' are printed with the kind permission of **Gerald Lindberg**, who's photography site, <http://www.geraldlindberg.com> has an excellent history of this aircraft.



P-51D ZK-TAF

The next civilian P-51 flying in New Zealand was imported in 1984 by Sir Tim Wallis as the start of the Alpine Fighter Collection. ZK-TAF was painted as Squadron Leader Ray Archibald's aircraft in the Canterbury squadron of the Territorial Air Force.

An opportunity to purchase a Spitfire XVI from Stephen Grey caused Tim Wallis to sell the P-51D to the Historic Aircraft Trust of Auckland. It has since been owned by Graeme Bethel, and now Strikemaster Ltd. Graeme is the usual driver and always does an excellent display - which to me mean means lots of canopy-up low passes for the photographer!





We're privileged in New Zealand that we can take Warbird rides. ZK-TAF at full volume, Classic Fighters Omaka, 29/3/2013

This aircraft was famously repainted in RAF markings for Classic Fighters Omaka 2005 (Sunday only?), so spectators were surprised to find a new Mustang on the field. It had also been adorned with a striking temporary yellow scheme for a beer commercial at some time.



This aircraft was converted to a more 'luxurious' interior in the USA during the 1970's. The changes included upholstered sidewalls and a decidedly upgraded instrument panel which included better radio and navigation equipment. The second seat enables us to pay for a passenger ride in this aircraft, which is (presumably) why it is now registered to Strikemaster Limited.

Warbird passenger operations are allowed in New Zealand under the Part 115 Adventure Aviation Regulations. Operators have to be certified under this standard.



I've often been asked if the photo above is photoshopped, but it is a genuine image from Warbirds over Wanaka 2012.



ZK-PLI “Miss Torque”

The next P-51 imported into New Zealand was ZK-PLI, imported in December 1993 for the Alpine Fighter Collection. This 1945 model was shipped to Europe but was shipped back as the war had ended. It subsequently served with the Air National Guard before passing into civilian ownership.



This beautiful aircraft was registered to Brian Hore of Wanaka and the Alpine Fighter Collection before being operated by Biplane Adventures of Wanaka. The “PLI” registration was created from the roman numerals “LI” (51) prefixed with “P” – therefore “P51”.

During the 2000 Warbirds over Wanaka PLI was repainted overnight in a temporary scheme as 44-13573 “Isobel III”. I recall the airshow commentators having great fun with the “new Mustang” on the field. I don’t think that anyone fell for it, but it was appreciated by all, and it was good to see a different scheme on a P-51D

This image courtesy of the wonderful **NZcivair** blog, <http://nzcivair.blogspot.co.nz/2014/01/mustang-zk-pli-question-time-167.html>

Copyright to **Dave Paul**



PLI was sold by the Alpine Fighter Collection (or Biplane adventures?) in 2004 and is now resident in the U.S.A. as NC7722C.

My fondest memory of PLI was seeing the sublime display by Ray Hannah repeating the flypast scene from “Empire of the Sun” at Wanaka in 1998.



ZK-SAS “Dove of Peace”

After the sale of PLI it was a **very** pleasant surprise to see a new P-51D parked up at Warbirds over Wanaka 2006. This gorgeous natural metal machine with a yellow and black chequered nose was proudly named “Dove of Peace”. It didn’t fly that year and I wondered if it was a static restoration for display in the Toy and Aircraft Museum. Luckily, I was totally wrong (shock horror surprise).



It had been imported in 2004 by Robert Broek of Wanaka, and assembled and serviced by Pioneer Aero of Ardmore. The original Dove of Peace was flown by Lieutenant Colonel Glenn E. Duncan of the 353rd Fighter Group. This Group was attached to the U.S. 8th Air Force in the U.K., and flew fighter cover for the U.S. Bombers, plus strafing missions.

In July 1944 Lt.Col. Duncan was shot down while on a strafing mission. He managed to avoid capture and was helped by the Dutch Underground. After liberation by Allied forces he resumed command of the 353rd Group in April 1945.

(Source: <http://www.americanairmuseum.com/person/81843>)

I took the photo **above** at Warbirds over Wanaka 2008, on the Saturday afternoon. There’d been a bit of a downpour and I am amazed at the way the water has been drawn into the front of the prop arc and is spiralling back behind it.



It looks like this aircraft is still for sale for a mere \$1,595,000 at Platinum Fighter Sales, <http://www.platinumfighters.com/#!p-51d-dove-of-peace/cqt9>

Left, Dove of Peace in some typically moody Wanaka lighting, 2010.

RNZAF Museum Mustang

The last original P-51 that I know of in New Zealand is the ex-Indonesian Air Force model residing in the RNZAF Museum at Wigram. Probably a bit of a stretch to call it civilian-owned but here it is.

From the Air Force Museum web site:

This aircraft was produced by North American Aviation at Inglewood, California, and rebuilt to Cavalier standards by Cavalier Aircraft Company in the early 1970s for supply to the Indonesian Air Force under the Mutual Aid Programme in 1972. The aircraft was exchanged for a Vampire T.11 in 1985 and was rebuilt to P-51D standards at RNZAF Base Ohakea.

The aircraft is displayed in the Aircraft Hall as NZ2410 which served with No. 4 Squadron, Territorial Air Force at Taieri from 1951-55.

Source: <http://www.airforcemuseum.co.nz/main/NorthAmericanMustang/>



Interestingly enough, in 1963 RAF Lightnings were air combat training against Spitfire XIX's of the Battle of Britain Memorial Flight – in case they had to go into battle against Indonesian P-51D's! The fascinating story with plenty of background is told here:

<https://defenceoftherealm.wordpress.com/2014/12/11/the-spitfire-the-lightning-how-two-british-icons-met-in-simulated-combat/>

Design Analysis – Why was the P-51 so successful?

Ask any “expert” and they will tell you it was the Rolls Royce Merlin and the laminar flow wing that made it so special. Any text that fails to mention the radiator ducting design gets ignored by me!

In 1936 a British Engineer, F.W. Meredith published a work explaining how the heated air discharged behind an aircraft's radiator could be ducted to provide additional thrust. Apparently these ideas were incorporated into the Spitfire to a limited extent, but the radiator on the P-51 family produced a massive 300lbs of thrust. This is why the Mustang was 30 mph faster than the Spitfire IX for pretty much the same horsepower.

Meredith effect link: http://www.supercoolprops.com/articles/meredith_effect.php





ZK-TAF doing what it does best, at Classic Fighters Omaka 2015. I'm pretty sure it's Graeme Bethel at the controls. © 2015 Brian Greenwood

Annual Subs Reminder

The new Annual Subscriptions of \$80 has been charged to all active CRAC members (except Life Members, of course).

This is due now, and all CRAC members must remain financial to use CRAC facilities.

I had an apology to send out from Wayne Wilson, who had kindly processed the invoices and e-mailed them out. Because of a timing issue, the statement balance shown on the invoice did not show most of the month's transactions and was incorrect for many members. We do apologise for this.

Personally I have seen maybe a quarter of the unpaid and unappreciated work that **Wayne Wilson** does for the club, and how difficult the job of doing the club accounts is (despite a pretty good system). If anybody wishes to lodge a complaint about this error, please come and see me for a quiet talking to about getting off your chuff and actually doing some work for the club. ☺

Additionally I would like to thank our new Treasurer, **Scott James**, for stepping up to the job and making some improvements already.

Please make his job easier by paying your bills, recording the flight details clearly (full names for example), and making your payments match the amounts on the flight sheets (for example, less the 0.2 warm up allowance for first flight of the day).

Tired of Mustangs? Sorry, there's more...

Thunder Mustang ZK-TMG

The Thunder Mustang is a three-quarter scale replica of the P-51 (albeit with five-eighth scale wings) powered by a V12 Falconer engine of 640hp. The Falconer V12 is a hand-built engine specifically designed for aero and marine applications by the Ryan Falconer Racing Engines, Inc.



This pocket rocket can climb at twice the rate of a real P-51 and has the same Vne. It's so small and fast that it is difficult to photograph! The kit was originally produced by Papa 51 Limited, but is now produced by Thunder Mustang (www.thundermustang.com). I note that they have one kit for sale for US\$295,000. Add a Falconer V12 for \$65,000 and you have an awe inspiring little aircraft!



This aircraft was the mount of Simon Gault (celebrity chef) for many airshows.

Titan T-51 Mustangs

An Aircraft that Kiwis have taken to is the Titan T-51 Mustang, a ¾ scale warbird replica that can be powered by Rotax 100 to 115hp, or Suzuki or Honda V6's.

There are currently 13 registered in New Zealand, 7 as GA and 6 as microlights. 28 kits have been sold in New Zealand.

The basic kit is available for US\$54,900, and the 'B' model is US\$62,900. The kit includes many pre-manufactured parts including the centre-section, control surfaces, and leading edges. Anything that is difficult or super-critical is pre-manufactured. More complete fast-build kits available from the factory, and a solid-riveted fuselage is manufactured in the Philippines.

Titan Aircraft also make the US\$10,000 four blade constant-speed propeller.

I've always liked scale warbirds (Sindlinger Hurricane, W.A.R. Fw-190) but think of them as a bit of a compromise in terms of practicality. Not so the Titan Mustang. For roughly the same cost as a Tecnam or an Alpi, you get a relatively high performance, two seat, retractable undercarriage aircraft that runs well on the 100hp or 115hp Rotax, with aerobatic capability. Add in the fact that it has been designed with easy handling in mind, can fit into the Microlight category, that it looks stunning, and you have a game changer.



Registrations in the \$60 Landing fee deal

AMC
BOB
CCB
CZR
DDL
DJB
DUG
DUH
EWW
EZZ
HYQ
JDY
JOL
JRC
JTP
JUG
KNZ
KTO
KTP
LIF
LOT
LSB
MFS
MGK
MGM
MHG
MTN
MYD
NVY
PRC
PXI
PYS
RAD
RFT
SJR
SRF
SRS
TBD
TKW
TNG
ULM
WMR
ZUB

(Also 5 Aircraft as yet
unregistered)

May 2015 Committee Meeting Report

All of the new Committee attended the meeting held on the 6th of May, with the exception of Deane Philip who sent an apology. As always, this report is based on your editor's (poor) notes and are not the official minutes.

The following positions were confirmed:

CFI, Tony den Haan

Safety Officer, and Fuel supplies (for first 6 months), Duncan Fraser
Club Captain, Paul Godfrey

Operations Manager and Airfield Users Group liaison, Stewart Bufton
Clubhouse and ATC Liaison, Buzz Harvey

Tuckshop, John McCaul

The Secretary, Graeme Main, reported that Doug Anderson has been accepted as an ATO with only the paperwork to be finished.

Treasurer, Scott James, reported the bank balance as \$53,211. The current year's Annual Subscriptions have all been invoiced, and Scott has altered the depreciation on the aircraft to monthly to better reflect the true cost of operations.

The Committee spent a considerable amount of time on the subject of safety, with the best quote of the evening going to President, Mike Sheffield: *"The longer we run safely, the more complacent we get"*. There were some excellent ideas such as club safety seminars or evenings, plus newsletter articles.

The Operations Manager, Stewart Bufton, gained approval for JOR's 300 hour engine maintenance. It will be maintained strictly in accordance with the Rotax service schedule and is expected to cost no more than \$4000.

The Secretary and the ATC Liaison Officer (Buzz Harvey) have written to the ATC 88 Squadron confirming the proposals for support passed at the AGM and supplying more details. The 10 hours per year flying training can be spent as the ATC deems necessary, however if used as a single scholarship it will come with a year's free club membership and logbook. This was ratified by the committee.

Other items to emerge:

- Rangiora Airfield now has a new Airfield Safety Office, Nathan Clarke of Nathan Clarke Flight Training fame.
- Only one CRAC member's aircraft made it to the Poolburn Fly-in due to the Weather. The facilities are excellent, as are the runways, and we have been invited back on May 24th.
- Buzz has the Weather Station up and running (with help from someone I hadn't noted – Stewart?), next step is getting it on our

Web Site

- Fences around the club house are not possible due to the proximity of the runways, although brush-type fences are being considered.
- The paperwork for Doug Anderson's ATO approval is working through the system
- The insurance for RGA was approved with a recommendation to increase the public liability to \$1,000,000
- The \$60 landing fee charge for all those who have taken up this brilliant offer will be invoiced in June and paid directly to the WDC. A list of registrations is published in the side bar on the preceding page – check if you're on it! If you're not, get your name and rego to the President ASAP or else you will have to pay the full \$10 per landing casual rates (or one of the other arrangements the council has). Club owned aircraft (i.e. RGA and JOR) are covered by a separate deal as they make many landings – this is (barely) covered by the \$10 per member increase in Annual Subs this year.
- The club will replace the unused washing machine in the club house with a small freezer to allow for better food stocks
- An IT Sub-committee has been formed with Basil, Margo, and Viktor. They will look at web site enhancements, booking systems etc.

Graeme Main expanded on Basil Buwalda's idea of a club project building a kit plane. The thought is appealing as it can be purchased in stages as finances permit. There was a suggestion of a Zenair 701 as these are extremely popular in the club (with small wheels and off-airfield landings not permitted!) but the Savannahs and Zenair 601's were also discussed. As this is a major club purchase it would have to be approved by an AGM or SGM, and will have to wait for the hangar project to complete and finances to rebuild. There are a couple of extremely well qualified people keen to oversee this project. The editor suggests that we get our thinking caps on and decide if we support this idea, and which aircraft would be most suitable to meet our needs. There's plenty of time as JOR is still doing good service.

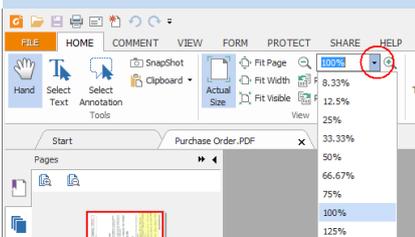
Paul Godfrey raised a point about club assets such as the club house, vs aircraft and hangars, which generated some good, healthy discussion.



Newsletter/Magazine notes

Last month I had about half a dozen “well dones” and two constructive comments. One was about the font size being too small but I believe that was an issue on the client PC.

The Newsletter is published electronically as a PDF which means the reader has control over the viewing. On our recommended reader (Foxit) click on the **Home** tab and drop the percentage scale to something which suits.



The Newsletter uses a larger font than most magazines typically use. I do try to print a small number to leave in the club house for those members not on e-mail; it's also available on the club web site.

I try to keep it reasonably relevant to the club, but the wonderfully nostalgic article by Chris Dyer on Mustang ZK-CCG gave me the excuse to divert from microlights somewhat. If you want more of your topics, please contribute! I've promised to do it for a year at least, let's see if we can get some momentum going on this thing.

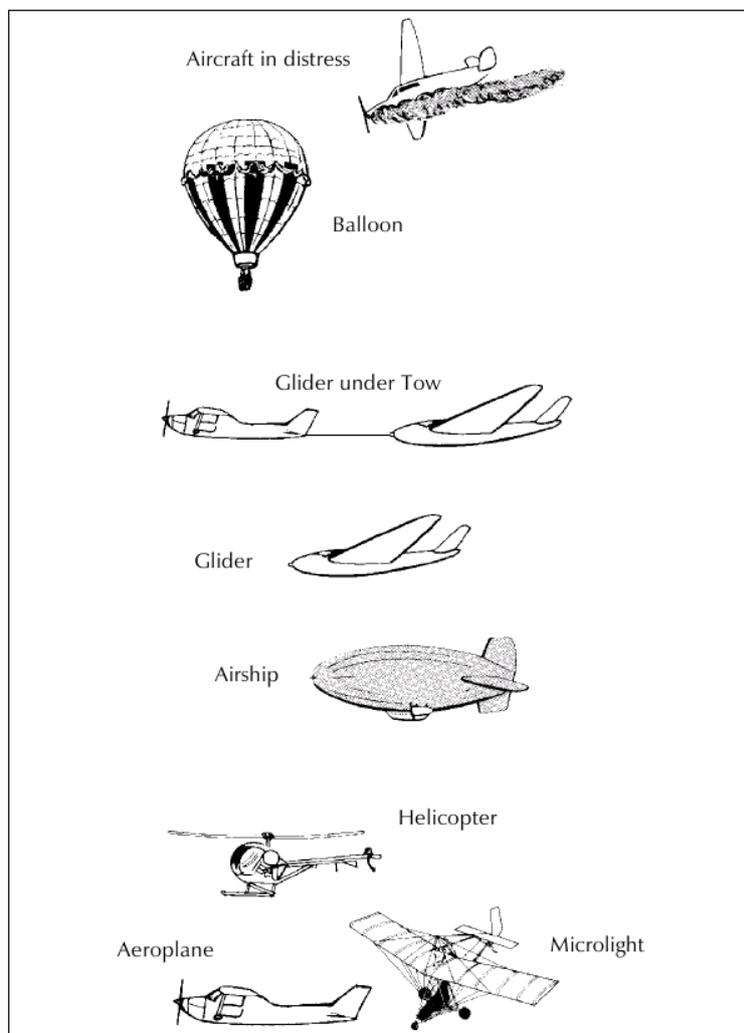
Feedback to editor@crac.co.nz

Safety Corner

As always there was a considerable focus on flying safety at the committee meeting. A couple of points worth noting: a comment from the CFI about radio communication. If in doubt, LISTEN, ORBIT (somewhere safe), and COMMUNICATE.

There have been a few zero wind days lately (why are my landings always worse?) and some confusion over which runway to use. I was always taught to use runway 25 in this situation, talking with our CFI he said the same. There is nothing in the airfield plate about this (but it does say radio on finals advising intended runway, folks! And left turn after landing!), so it's more of a guideline – but I even remember it from my CAC days of 25 years ago.

While we're having a brush up, do you remember this diagram from your flight training? This image from the RAANZ web site:



Remember who gives way to whom?

Quadcopter update

A couple of months ago I purchased the “FPV” kit from Ferntech for my Phantom 2. This gives me a 7” tablet mounted on the remote control to view the GoPro’s output in real time – in other words I can see where I am actually flying! This makes a HUGE difference to controlling and flying the beast.

Shortly after I purchased the add-on, DJI announced the Phantom 3. This has the same airframe as my Phantom 2, but with a built-in DJI camera that is quite special. It is capable of 4K (as is my two-generation old GoPro 3 black) but has a rectilinear lens – in other words, it doesn’t curve the horizon. It can also be configured while flying – this would reduce the number of times I have missed shots because I forgot to set the GoPro running before lift off! If you recall from my previous article, the GoPro’s wireless has to be turned off in case it interferes with the Phantom’s controls. The downside is that you have to supply a smart phone to use as a screen.

If you’re interested in one of these, I’d recommend a close look at the Phantom 3.



I'M SAFE TO FLY

ILLNESS
Free of illness and symptoms

MEDICATION
Safe medication only

STRESS
Managing stress well at home and work

ALCOHOL
Free of alcohol and drugs and their effects

FATIGUE
Rested and sleeping well

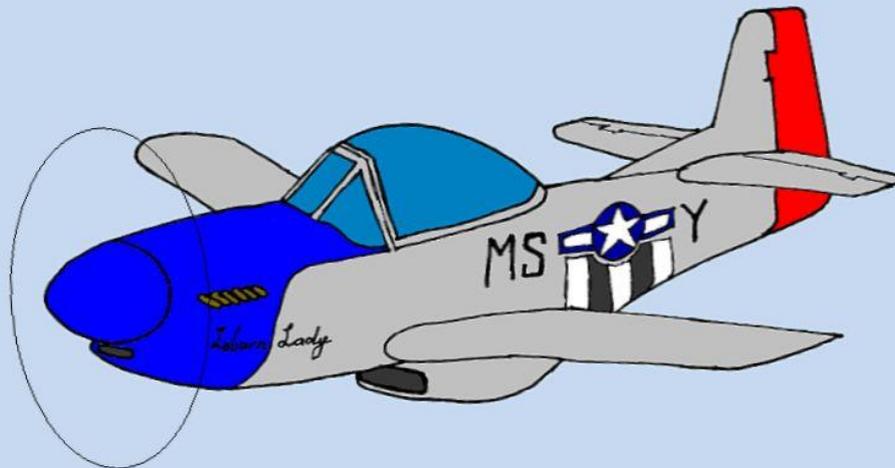
EATING
Fed, watered, and ready to go



PHOTO COURTESY OF CAA

Below, my Phantom 2 from the back. You can just see the extra electronics with the vertical black aerial scabbed on to it to run the FPV module. Above the aerial is the battery pack showing 4 green lights (full charge), and the GoPro mounted on a 3D Gimbal between the undercarriage legs





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Upcoming Events

May 24th – fly-in to the beautiful **Poolburn Strip**. Refer club e-mail from Paul Godfrey or contact him directly.

June 2015 - Brass Monkey to Lake Station **has been cancelled for this year**

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.

Thanks to everybody who have contributed to this newsletter:

Chris Dyer, “Cadillac of the Skies”

Gerald Lindberg, www.geraldinberg.com, P-51D images

Dave Paull, NZ Civil Aircraft website, P-51D image

Next Newsletter

Member contributions invited.

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

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New Members
April 2014

Welcome aboard to:

Mike Dimmock

Connor Higgs

Please make our new friends welcome.

CLUB REMINDER: LOCK THE CLUBHOUSE WHEN YOU LEAVE IT UNATTENDED!

Unreliable E-mails

Remember to check your spam or junk folders at least once a week; note that the club has no control over the decisions that Gmail, Yahoo, or even Outlook make.

Web Site:

www.crac.co.nz

Facebook

www.facebook.com/flyCRAC

Photos

www.crac.co.nz/photo-galleries