

**NEXT MEETING IS ON
TUESDAY 11th MARCH 2008**

The Newsletter of WRCS Inc.
PO Box 349
Brookvale NSW 2100

Warringah Radio Control
Society Incorporated
(Incorporated under the Association Incorporation Act 1984)



NEWSLETTER

MARCH 2008



**Winners of trophies at the February
Glider & Electrics Day, John Channon
also holds the John Meeks Trophy**

MEETINGSMEETINGSMEETINGSMEETINGSMEETINGS

The next meeting will be on Tuesday, 11 March 2008 at Tennis Cove, Eastern Valley Way, starting at 7.30 pm. The next meeting after that will be on 8 April 2008.

POSTAGE
PAID
AUSTRALIA

COMBAT DAY



**Sunday,
16 March
2008**



**Classes: Sport,
Open, Stock.**



**THIS IS A FUN
EVENT WITH
SAFETY
PARAMOUNT**

Competition Director - Warren Lewis

Warringah Radio Control Society Inc.

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AND NOW IN CLOSING ...

A farmer bought a brand new stud rooster for his chicken coop. The new rooster struts over to the old rooster and says: "OK , time for you to retire". The old rooster replies, "Come on, surely you cannot handle ALL these chickens. Just let me have the two old hens over in the corner." The young rooster says, "Beat it, I am taking over." The old rooster says, "I tell you what, I will race you around the farmhouse. Whoever wins gets the exclusive domain over the entire chicken coop".

The young rooster laughs. "Just to be fair, I will give you a head start". The old rooster takes off running and about 15 seconds later the young rooster takes off running after him. They round the front porch of the farmhouse and the young rooster is only about 5 feet behind the old rooster and gaining fast. The farmer is sitting in his usual spot on the front porch when he sees the roosters running by. He grabs his shotgun and - BOOM - he blows the young rooster to bits. The farmer sadly shakes his head and says "Darnn! ... third gay rooster I bought this month!!"

SCENE AT THE FIELD

They don't come much bigger or more impressive than a Moki 5 cylinder radial of 250cc! Peter Coles brought his down to run it up



on a test stand. Tom took one look at the stand and decided "beefing up" was the first order of the day so bigger bolts were installed all round and then it ran. Coowhat

a sound with that 32x10 prop whirling round. After a short run it was packed up and taken away to meet the 116" span Stearman that it will pull around the sky. Now that will be a sight to see too.



CFI TALK



To resolve all actual and potential disputes, all Members are reminded that the full width of the runway is 1 leg of the circuit to be flown in an upwind direction.

This applies to all aircraft including helicopters.

The centre line is there to assist in take-offs and landings, it is not a lane divider.

When there's more than one aircraft flying, the circuits must

be flown by all and any variation (such as to do aerobatics etc.) must be agreed to by all pilots who have aircraft in the air at that time.

If you don't hear the call giving permission you must not assume that permission has been given.

Members are reminded that helicopters may only be flown out on the main field by pilots who have attained at least their Heli Bronze Wings.

All other heli pilots must limit their practice and flying to the hovering area.

It seems that many Members have not adopted the ruling that all frequency keys must display the status of the pilot (ie. Bronze or Gold wings etc.) The stickers are readily available from Ron Clark (who is at the field on just about every day) and must be displayed.

Indeed it has been observed that some pilots do not even have their name and frequency written on their keys., and all Members are reminded of the Club Rules.

Also, all radios, including those operating on the 2.4 GHz range, must be kept in the pound when not in use.

COLUMN 9.9

(incl. GST)

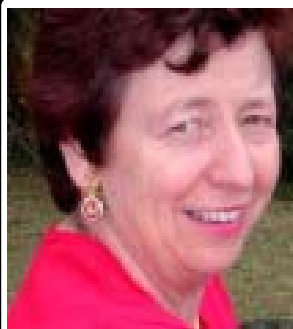


HELLOOO!! Is anybody out there? Apart from the usual suspects (and we all know who you are) there are very few contributors to the Mag. Your Editor's job is just that, **TO EDIT**, not to compose, invent or write the articles. Surely there is something about this great past-time (or whatever attracts you to it) that is worth writing about and sharing with your fellow members?

How is this for an understatement? A motorised, single-seat hang-glider with an inflatable pod ultralight crashed in Pittwater on 19 February. Steve Krug (Sydney by Seaplane operations manager) described it as "literally a rubber duckie with a pair of wings," When further questioned whether it was a light commercial plane, he replied : "It's about as close to commercial aviation as a Qantas plane is to a sparrow landing in someone's backyard,"

ACTING HELI CFI

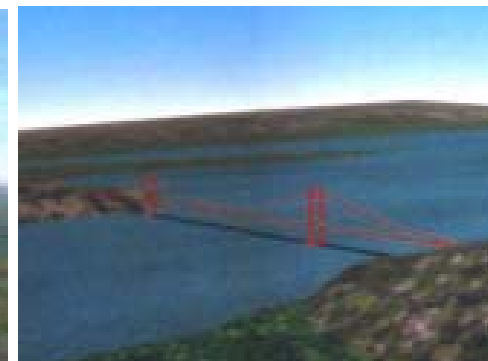
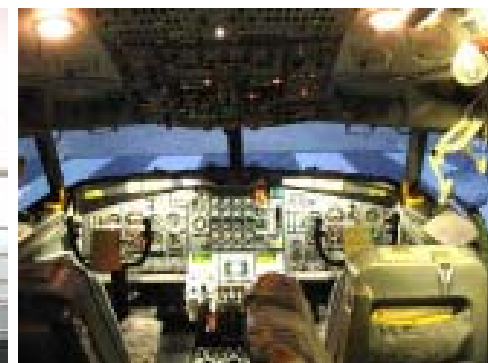
Shane Austin, our Helicopter CFI, has indicated that he is not available for about 4 months due to work commitments, and the Committee has appointed George Atkinson to be Acting Heli CFI during this period. Thanks for helping out, George.



CONGRATULATIONS

MARGO HEBBARD O.A.M.

on being awarded the
**ORDER OF AUSTRALIA
MEDAL**



THE BEST "DOORPRIZE"

by Tom Wolf



Having won the "doorprize" at the Xmas Party and after making arrangements, I arrived at RAAF Richmond at mid-day, to be shown about the Base and having everything described in detail by my guide, Simon Press.

Quiz: What is a 4-jet engined plane that is capable with minimum fuss to be configured to carry any combination of cargo and passengers and is used for re-fuelling other aircraft and is due to be retired with a couple of months to be replaced by the A330? The answer is

the Boeing B707 used by 33 Sqn RAAF.

Simon showed me about the aircraft and we then headed off to the flight simulator. After a short initiation course and a little instruction (and a lot of coaxing), I eventually took off from "Sydney" and landed in Hong Kong and then took off again from Richmond and landed in San Francisco.



The weather outside was rather ordinary but my flying weather in the SIM was fine with high visibility ... does that surprise you? And when we turned the SIM to night-time the view was, just to say the least, spectacular!

THANK YOU 33 SQN AND SIMON



CHANGES TO 2008 COMPETITION PROGRAMME

There are some changes to the dates earlier notified, they are:

Race Day

- Sunday July 20 (not 19th as notified)

NSW State Pattern Competition

- Saturday & Sunday, July 26-27, the field will be closed this weekend to all other flying including the hovering area

Garigal Cup

- Sunday, September 21 (not 20th as notified)

Scale Day

- Sunday, October 19 (not 18th as notified)

The Special Theme for **Scale Day** shall be for **MULTI-ENGINE** models so you can get those Mosquitoes, Comets, Dakotas, Flying Fortresses and Lightnings and Bears and any other scale models including Tri-planes out of storage and start getting them ready!

Please change your Diaries accordingly.



GOLD WINGS
CONGRATULATIONS to
C. K. NG on achieving his
Gold Wings

Glider Day, 17th Feb 2008

report by Mike Minty

Well, the sun was hardly bursting through when Grant ran the mower over the very green (but still soggy) field early that morning BUT it wasn't raining!

After the pilot briefing by CD Mike Minty and Flight Line Director David Foster resplendent in their new club smocks it was straight into Round one of the Thermal Glider. The task is simple; up on the bungee, glide for 5 minutes and do a spot landing. Within 5 metres will get you 30 points so a perfect score is 330. It was a sign of the lack of practice and the poor lift that the highest score in that round was 299 and the lowest 81. (David, shown here launching his Gentle Lady got the 299 and had clearly been practising!). Two people who shall be nameless (OK, it was Grant Furzer and Graeme Swalwell) failed to score any points as they didn't quite make it onto the field - those trees just leap out at you!



Round 1 of the electric saw a similar event except this time the motor run time is deducted from the flight time but with these brushless motors those babies climb like a rocket and achieve good gliding height in as little as 10 secs! Here's Robert Kaley launching his very sexy Sergio for a 264 point flight.



Photograph 2

device was intended. Both Li-po batteries were partially drained equally as the device is intended to do.

In summary, the device utilises a pair of batteries to supply a redundant power supply to the servos within the aircraft without that power being passed through the receiver.

The receiver is then not subjected to large spikes of current, voltage drops and the like which can cause catastrophic radio failures, leading to the loss of an aircraft.

The device has a high frequency filtering system that prevents induced noise from within the long servo leads being passed back into the receiver and thus interfering with it.

The switch unit for the machine is failsafe in its operation and, indeed, once switched on, can be completely removed or severed without compromising the radio integrity.

The device provides up to 14 amps peak current to 6 channels and 7 servos. I am so impressed with both the principle of operation and performance of the device that I have ordered a second mini 6" for a scale project plus a larger unit (DPSI RV which allows 12 receiver channels and 32 servos to 56 amps) for a Large jet project.



Photograph 3

Also provided with the device are six leads so as to allow for the connection of six receiver channels directly to the device. These six channels, in this case, supplied signal to the unit which, in turn, supplied a constant 5.9 volts (selectable between 5 and 5.9 volts) to the servos connected to the output stage.

The unit, and the receiver, are switched through a very clever failsafe switching unit that can be seen arrowed at the base of the unit. This switch does not conduct current at all, it simply provides a switching signal to the device. Therefore, once switched on using the pin connection supplied, the unit will remain on until such time that the pin unit is placed back into its off location, then providing an off signal.

This switch, once providing the on signal, can then be completely severed from the device whilst keeping the device (and the radio system) turned on and operating normally. Therefore, any fault that may appear within the switch itself will not endanger the operation of the radio equipment.

The device will therefore provide a constant 5.9 volts (as set up in my aircraft) to each of the attached servos no matter what the load is on that servo, i.e. the device keeps the voltage at 5.9 volts and supplies the current demanded by the servo, the current being variable in accordance with the load placed on the servo. The Mini 6 is capable of delivering a total of 14 amps to the servos **but** this current **does not** pass through the receiver. The receiver is supplied with a constant voltage also of 5.9 volts, but is only required to draw the current required for its operation plus, in this instance, the current required to operate the throttle in the turbine ECU and the two PAPS electronic (retract and brake) switches.

Note in Photograph 2 that a Hangar 9" digital servo and receiver current meter is connected to the end of the 2 metre long servo leads leading to the elevators of the aircraft. The Emcotec Mini 6 is set for 5.9 volts and that is the voltage that is measured (see Photograph 3) at the actual servo i.e., at the end of a two metre long lead.

In operation at the recent jet meeting at Temora, the device was utilised within the Boomerang XL2 and operated perfectly as the

The highest score in that round was 305 points by David which is pretty good when you think the max is 330 less motor time.

Steve MacMahon scored 298 in that round and confessed it was the first electric glider comp he had ever entered! It shows how the motor helps - 6 of the eight pilots in this round was within 10 secs of the target time (only one was in thermal).

Round 2 of the gliders saw a general improvement of flight times (though a certain GS went exploring in the bushes again) with Al Zuger doing an almost perfect 299 flight time but missing out on the spot.

Peter Williams turned up a bit late but flew his 12 foot span electric glider as a thermal (he took the prop off!) but underestimated the bungee strength to do a splendid "clap hands" as the wing folded! The CD generously gave him a 3 sec flight time!

All the gliders looked strained on the way up, Chris Mort's Brolga a classic example while John Channon's aged Sagitta (it's 30 years old now!) increased it's dihedral considerably.

Round 2 of electric saw a reduced field as John and Peter's were damaged and scores were generally lower. Both David and Tom

Sparkes suffered from too much lift and couldn't get down in the 5 mins and so lost valuable points for over flying the time.

Here's George Kaley launching for a nice 4' 49" flight and a perfect landing but 48 secs of motor run dropped his score to only 271.

Jody Redfern wondered why he couldn't get back to the spot -

his prop had gone AWOL! He spent some time down at the end of the field but the gnomes had taken it away so he was out of the comp.

Al overflowed the time a bit but a perfect landing netted him 301 valuable points for that round.





The group photos were then taken during a short lunch break (note to self - take pics at the **start** when all the planes are intact!) and here are the glider boys - lots of wing-span there.

Round 3 of the thermal saw 2 almost perfect flights from John

Channon (324) just pipped by Mike Minty (326) while Grant did a fantastic flight that must have been near perfect time butdecided to land in the bushes again! Al had a touch of the prematures (came off the bungee too early) and tried hard to get lift but was too low. Steve MacMahon put in his best time that round but not enough



to get him in the placings. Chris Mort could'nt find the lift and David Foster struggled this round but managed a spot on landing.

Round 3 of the electric produced some high and evenly matched scores with all but one pilot scoring landing points (not so easy with a high inertia model) and David

got the highest at 300. This was the round when the eagle turned up and was very interested in his plane (love at first sight perhaps) but the motor kept it away. Tom Sparkes had a similar run in with a small falcon that took a shine to his foam Striker. It made a couple of attempts to get better acquainted but the motor put it off! Steve had another consistent flight (here is Chris Mort sending it on it's way) that was to prove a clincher.

Review of Emcotec DPSI-RV Mini 6" Power Supply

by Colin Simpson

In September 2006 the writer took delivery of his latest toy , a Boomerang XL2 turbine powered jet.

Upon reading the instructions it was clear that some long leads were required to power the servos and that eight high torque, high-speed digital servos were going to be required.

With a large number of high-speed, high torque digital servos and long lead lengths, there was clearly a requirement for a high and stable voltage and current supply, together with a filtering system so as to eliminate servo wire induced receiver interference.

The writer noted an advertisement in RCM News for the German Emcotec Series power supplies imported by Precision Aerobatics of Sydney. I then purchased the Mini 6" version of the Emcotec power supply from Precision Aerobatics and installed it to the Boomerang XL2 in accordance with the excellent instructions given.

Photograph 1 shows the unit fitted within the fuselage of the aircraft, the two electronic/pneumatic switching units seen above the Emcotec unit being the excellent PAPS electronic brake and retract operating switches (eliminates servos).

The unit is powered by two 2-cell 3200 milliamp hour Li-po cells, each being attached to the unit using the multiplex pins provided.



Photograph 1



FROM THE WORKSHOP

Grant Furzer is at it again with another super-size model. The photos say it all, a Neptune. We will fill you all in on the details once known, so far we know that:

Scale 1:10 ,
3.1m wing span,
fibre glass fuselage.

Please note how Grant is building up the plug. i.e keeping it straight and true ... a sturdy piece of pipe holding the formers in place and filled with foam



Here's the electric guyswell, most of the planes anyway. All pretty conventional except Tom and his delta. All brushless motors and a lot of LiPos. It was proposed to hold a "can" motor event but only 2 showed.



So, as w say, the dust settled, the numbers were added and

Thermal Glider

- 1st John Channon (607)
- 2nd Mike Minty (590)
- 3rd David Foster (562)

John Channon, by winning the Thermal Glider Competition also won the John Meeks Trophy.

Electric Glider

- 1st Al Zuger (856)
- 2nd Steve MacMahon (848)
- 3rd David Foster (843)

Will you look at the closeness of those electric scores! Special thanks to Peter Coles for a lot of stop watch work and others who timed and retrieved the bungee.

It was a good day of competition, fun and little carnage and so quiet and peaceful. Let's hope we get even more entrants next year.

SOARING CORNER

by **Stephen MacMahon**

Aerotowing is “Coming of Age” at Belrose thanks to

the ingenuity and dedication of Mark Ter Laak.

Mark converted his World Models “World Start Trainer” into the present glider tug. Seen regularly on Saturdays, the tug is hauling both Mark’s and the author’s two Spirit 100’s skywards.

Recently, Dean Schuback’s Scale 2.5M Discus has joined in aerotow operations., Dean is also the tug pilot in most operations. Mark initially had a Saito 80 4-stroke upfront in the aerotug however this proved marginally underpowered for Belrose operations since “climb out power “is critical at our terrain. Since he changed the donk to a Magnum 90 4-stroke and incorporated a 3 bladed prop, power is no longer a problem.

The ideal climb out for aerotug operations is a straight upwind climb to “release height” however between Mark, Dean and the author, a climbing circuit pattern to reach release height has been successful and achieved on many occasions. The author has regularly sourced soaring websites worldwide and so often it is commented how difficult climbing circuit patterns for aerotug operations are and here at Belrose, we do it weekly!

The difficulty is in the turns; the glider usually “cuts in” on the tug’s turning arc. To keep the glider outside the turning circle of the tug is achieved by using outside yaw with rudder and opposite aileron to keep the turn flat. It works well and far less drag on the tug in the turns. The tow-release mechanism is vital for successful aerotug operations.

Both the tug and the glider require release mechanisms for safety in that either aircraft or glider can be released in an emergency. Mark has fashioned his own mechanism for the WS Trainer and it has never had a hitch since it has been in operation. Mark also uses the Graupner and the Multiplex system in his gliders.



The author uses a clever tow release system designed by Zac Katernas from Wings n’ Things, Gladesville. This consists of a carbon fiber H-block with a drilled center which is lined by a hollow silicone tube. A stainless steel pin passes through the center and is soldered to a rod that in turn is attached to a release servo. The author has this system in 3 aerotow gliders.

It would be great to see more involved in aerotow operations. “The Three Amigos” can relate to many successful challenging thermal flights following aerotowing. When conditions are ideal, the author has had thermal flights as long as 38 minutes with his Great Planes, 2.5 m “Spirit”.

This polyhedral glider renders well for aerotowing operations at Belrose. Its slow flight and thermal ability brings real enjoyment in replication to real glider operations. Landing from the carpark can be challenging for a slippery scale glider but the Spirit with its speed brakes and flap configuration slows the Spirit for a graceful landing. The author is now sourcing a Carl Goldberg “Gentle Lady” to compare to the Spirit.

Hope to see more pilots getting involved in aerotowing operations. In the next issue, the author has invited Mark Ter Laak to propose safely operations for aerotowing.

HAPPY SOARING !!!!



Stephen MacMahon’s 4 meter ZEFIR being towed at the recent Heathcote scale aerotow day.