

**NEXT MEETING IS ON
TUESDAY 8th JULY 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

JULY 2008



**The 250cc MOKI is the power plant
for Peter Coles' monster Boeing
Stearman**

MEETINGSMEETINGSMEETINGSMEETINGSMEETINGS

The next meeting will be held on Tuesday, 8th July 2008 at Tennis Cove, Eastern Valley Way, starting at 7.30 pm. The next meeting after that will be the TRASH & TREASURE NIGHT on Tuesday, 12th August 2008

POSTAGE
PAID
AUSTRALIA



WRCS Annual General Meeting - June 2008

By the time you get to read this Newsletter, the AGM will be all over and done, we'll have a new Committee for another year but as the Mag is published and distributed at the end of each month, as at the date of going to print, I cannot give you any more info..

On behalf of all the Members I wish to place on record our appreciation for the hard work the outgoing Committee put in for 2007/08 and to wish the incoming Committee a successful year ... *Ed*



RACING Sunday, 20 July 2008



Classes:
**Open, Sport,
Stock, Novice**
**THIS IS A FUN EVENT WITH SAFETY
PARAMOUNT**

Competition Director - David Pound
(9907 9261 or davepoundy@yahoo.com.au)

BIPLANE DAY - 21 June '08

On this beautiful and sunny Saturday the keenest "double-plankers" came to Belrose to be met by an extremely soggy field after the heavy rains of the past few weeks, but they all mastered the conditions and flew along with the non-competition aircraft and a helicopter.

There were some scary moments but the day went without any mishaps.

The competition was very close, and the results were:

- 1st Tom Sparkes Fokker Dr.III
- 2nd Al Zuger Ultimate
- 3rd Jim Masterton Aeromaster
- 4th Ron Clark WACO

The Perpetual Trophy was won by Jim Masterton with his Bucker Jungmeister.



OUR MOZZIE - METHO ADDICT

by Jim Masterton

On a number of WRCS scale days, Graeme Swalwell's "Mosquito" landing on one engine generated a great adrenaline rush. With limited space for fuel tank capacity, power and performance required further review.

Researching past British archives back in the 50's revealed some interesting data on various fuels tested on model engines. Of particular interest was the alcohol based – Ethyl Alcohol (Ethanol) having a higher calorific value than Methal Alcohol (Methanol) with a slightly lower self ignition temperature.

So where does one get their hands on this elixir, other than the local bottle shop? The answer is, the local hardware store, in the form of Mentholated Spirits. **Yes Sol, "metho ain't metho anymore"**, its Ethanol (96%) with additives such as methanol added to taste. Just as deterrent for those who may fancy drinking the stuff.

Recently chemically pure "water free" ethanol became available in Australia due to the government's push to redirect funds into the sugar cane industry via a direct subsidy on the production of fuel grade ethanol. This ethanol is anhydrous ethanol with a small amount of methanol to denature it, which replaces the old pyridine laced wood spirit previously sold as methylated spirits. "Old Meths" contained a large proportion of water and other substances of indeterminate quality and was therefore unreliable as a fuel base.

Graeme was keen to fly the Mozzie at Dick Smiths Bowylie Scale Rally and agreed to undertake some trials on the "new brew". Without putting the neighbours under too much stress, it was decided to keep the run duration short for the trials in Graeme's backyard.

Although the following test results are very basic in terms of precise scientific kit, they do represent a significant improvement in reduced fuel consumption for a similar power output.

FUEL COMPARISON TEST											
TEST #	FUEL MIXTURE	meth%	Oil%	nitro%	RPM	Run Time	Vol.		Cons.	Cons.	Runtime Increase %
							in	out			
1	Methanol/Oil/Nitro	74	16	10	8450	2.066667	200	105	95	0.77	Base
2	Ethanol/Oil	84	16	0	8260	2.063333	200	130	70	0.56	26.81
3	Ethanol/Oil/Nitro	74	16	10	8400	2.063333	200	140	60	0.48	37.35

Surprisingly, the engine started first time and ran extremely smoothly compared to operating on methanol. Needle valve settings needed to be reduced about 1 + turns compared to the methanol mix.

Any overheating concerns we had in relation to this fuel were not realised as the engine performed consistently at full throttle with no obvious deficiencies. As a result it was decided to operate on the ethanol/oil/nitro mix at the Bowylie Scale Rally.

At Bowylie, the Mosquito engine power and performance was far better than previously experienced, confirming the trial results of a significant increase in duration by approximately 40%. Further trials on 2 stroke engines are expected to give similar results regarding increased duration. However, it must be pointed out that some European Manufacturers design their engines to run without Nitro-methane.

Therefore the results we achieved with the Laser 150FS were without

modification to the compression ratio. Some engines may require modification in compression and /or glow plug, to achieve a similar power output with or without Nitro.

So what is the advantage, you may ask? Well, given the higher cost of the Metho, bulk purchase (220ltr.) is around \$1.76/ltr.

Recent brochures from Japanese Engine Manufacture's (OS & Enya), recently announced the release of 'environmentally friendly' glow engines using Ethanol as the fuel base.

You may also consider the following:-

- Smaller fuel tank for similar duration compared to methanol
- Less fuel weight for similar flight duration compared to methanol.
- Dissolves castor better than methanol
- Relatively non-toxic compared to methanol
- Excellent solvent for Nitro-Methane being of a higher alcohol and less water like in chemical properties than methanol
- Alternative additives, such as Xylene/Cumene (2.5% of each) could improve power/endurance over a traditional Nitro-methane (10%) mix.

Ideally, (100%)Ethanol is the preferred option to obtain optimum performance. However, the purchase of Ethanol in the purest state requires a license from Customs. Alternatively, one can illegally distill their own brew (moonshine) with various kits available over the internet. This could give a new meaning to the expression " FLYING HIGH."

FIELD IMPROVEMENTS

Have you noticed improvements to the road and the turning circle? This was the result of works at the field organized by Ron Clark and done by Rob Grainger and his crew from Sydney Landscapes to resolve issues with the drainage and silt run-off into the creek. These issues were addressed by making Erosion and Sediment Control traps and drains. The works consisted of removing in excess of 12 tonnes of fine sandstone material from the roundabout and using this material on the road into the field. Then, in excess of 39 tonnes of Stabilized DGB (Road Base) mixed with 5% cement brought in for the car park and round about areas., and the car park for disabled members was made wider. Big vote of gratitude to Ron and Rob (Sydney Landscapes: 02 9945 0557 or 0407 552 208 or www.sydneylandscapes.com.au)

In fond Memory of Barrie Quartermain

(29.11.1934 - 25.05.2008)



It is with great sorrow and sadness that we note the passing of Barrie Quartermain at Royal North Shore Hospital. Barrie made friends easily and could be often seen sitting on the benches in front of the pits socializing with friends, fellow members and visitors.

A very interesting man, Barrie crammed his 73 year life full with adventures, intrigue, business achievements, family

and friends. During his time in the UK he was a member of the Royal Air Force, a journalist, an architect and a very successful private investigator.

Later his business prowess took him to many countries around the world including working with the Saudi's designing hotels in the Middle East to distributing quality Australian produce to the hotels and restaurants throughout Thailand.

Many WRCS members have fond memories of the day cruises on Pittwater organized by Barrie on his mate's (Bill Kirby's) beautiful boat, a tribute to Barrie's generosity.

The last couple of years had been very tough years for Barrie with his health declining, he had spent much of this time in hospitals.

Nevertheless he still brought himself down to the flying field during his precious periods out of hospital including celebrating with us all at the Club Christmas party.

Barrie, you will be greatly missed!

Who said things come in THREES??

Insight by Doug Radford

Saturday the 31st May certainly disproved that theory when Grant Furzer had the misfortune to lose his 4th aircraft in almost as many weeks.

Firstly there was the award winning **STUKA** just flying around peacefully at the Bowlyie Rally when an unknown aggressor decided to provide some radio interference and exit the Stuka.

Score – **Ground -1 Stuka - 0**

Then there was the racy **Texan**, going like the clappers we're told, when because of its speed, it arrived at the field before it was scheduled and decided it would show off to the bottom windsock. Being a bit lonely down there in the corner, we're told the windsock waved and the Texan tried to wave back and misjudged its approach and actually collided with the windsock. Score - **Wind Sock - 1 Texan - 0**

The large scale **Bird Dog** was flying along nicely and very sedately when without asking, it decided to show off and do some uncontrolled aerobatics culminating in a high speed spiral dive to the middle of the strip. Oh dear!! Score - **Strip - 1 BD - 0**

Then there was the **Mustang**, dusted off and out of mothballs, takeoff a bit hairy, too much up trim, got that all sorted and just having a pleasant few circuits. Then as it was crossing the western boundary of the strip, Tony Martin's aircraft wanted Grant's bit of airspace but didn't see the wing in the way. Well it was like being at a wedding with all that confetti stuff falling down preceded by a battered lump of an aircraft which landed just west of the road and nearly got Steve MacMahon's vehicle. Tony was able to pull up and make a dead stick landing without much damage. Grant was given back the bit of his aircraft still lodged in the side of Tony's machine. Score – **Tony - 1 Mustang – 0**

After all that Grant still has a smile on his face.

Can't understand why!!

SOARING CORNER by Stephen MacMahon



This month's article the writer decided to do a product review on the Great Planes "Siren".

The siren is an ARF kit produced by Great Planes, which falls into the class of a HOTLINER. A hotliner is the soaring enthusiast's version of a "heart starter".



The length of the cowl of the Siren fuselage made for difficulties in installing the motor (see article)

Dean Schuback, David Foster and the writer have invested in this slippery machine and all agree its performance is nothing less than spectacular.

Soaring is about grace and testing the pilot's ability to read and use the air, the hotliner is his excuse to prove he can tear up the air at a rate of knots or stooge around like any other thermal unit in his stable.

The Siren is a 79-inch wingspan, electric motorised glider with a wing area of 492-sq inches and a wing loading of 12-oz/sq inch. The wing form is similar to an RG-15 configuration but with a flat bottom. The small winglets have lots of “washout” that make the aircraft very stable in slow flight.

The wing assembly is sheeted ply and covered. The tail configuration is a high T-tail with elevator and no rudder. The elevator is only small but is very responsive with small movements. Without a rudder, the writer has found the Siren difficult to thermal with spiral controlled turns within the plume. However, high-speed turns into wind up-draughts makes the Siren climb quite efficiently.

The kit itself is first rate. The instruction manual is clear and the component parts fit well and are of good quality. I believe the later version of the Siren only has its manual on line.

The wing comes in 3 panels with ply joiners. The fit is precise. The writer installed JR DS385 digital servos in the wings and elevator. There has been no sign of aileron flutter at high speed. The fuselage is 38.5 inches long and is constructed of composite carbon.

The motor did however prove difficult to install, as access to the firewall with a long narrow fuselage requires patience and



Demonstrating the position of the servo for the elevator for the Siren

exceptionally long fingers!

The tailplane comes with the elevator secured and its servo is seated at the root of the fin. This proved a little tedious to install, as the only way to adequately secure the servo was to wrap it in packing tape and glue it to the sides with 5-minute epoxy.

A hole had to be made in the base for unscrewing the servo horn if and when required for adjustments.

The writer installed a Himark 2825/554 geared brushless motor with an 12” by 6” folding prop. A 60 amp ESC and 3 cell 2175 amp lipo battery supplies the fuel.

Flying the Siren at first seems quite imposing with its speed and climb characteristics.

The Siren can be flown as a full aerobatic unit capable of most aerobatic manoeuvres or as a thermal unit. It needs lots of sky to play with and performs well in windy conditions. The Siren is the writer’s preference when flying on those days.

The writer has two additional configurations set in the radio.

1. Variable camber on the left slider (ailerons from zero to 45-degrees down) for slow flight and thermalising. This is a great configuration for stoozing around looking for updraught.
2. Spoilerons on the right slider (40-degree ailerons up) combined with 15 degrees elevator down to slow its approach for landing. Be careful to keep the wings level on landing as there is very little distance between the ground and the wingtips when the fuselage strikes terra firma. It can look quite ugly if a wingtip digs in!



The Siren by Great Planes is well priced as an entry into the hotliner market. All good cardiologists encourage cardiac exercise and this unit will definitely get the heart pumping.

HAPPY SOARING

COLUMN 9.9

(incl. GST)



After establishing (by trial and error) regular aerotowing at Belrose, Mark Ter Laak has now put his mind to ... **R/C PARACHUTING!!!!** We all recall Mark's parachute (fail-safe-recovery system) on the aircraft that he deployed back at Combat Day 2006 (see article in May 2006 Mag) and also the attempted parachute drops of pilots that same year by Mark and others, but this is different. **In forthcoming issues we hope to get more info on this subject.**

Some years ago Dave Pound perfected his "FOLLY" (I mean Dolly) to launch his SigWonder. Now Kerry Smith (with the help of Geoff Browne) is trying to reinvent the Dolly, as at the writing of this article **the emphasis is on "trying"**.

Grant Furzer is glad he hasn't finished building his large scale Neptune. With crashing and writing off 4 models in the month of May he daren't try his luck. His last model to fall out of the sky was shredded in a mid-air, the word "shredded" is used meaningfully, the other plane's propeller cut through his Mustang's wing. Now **is this one for Mythbusters?**



To help members in the future to assess weather conditions at the field, our website now has links to the Bureau of Meteorology's website which can be utilised to obtain current weather condition information/observations from the **North Head and Terrey Hills weather stations.**

THE SECOND SCHNEIDER CUP

Article by Tom Wolf

In Britain throughout the year many air races are held, but second only in priority and importance to the King's Cup, is the modern (or second) Schneider Cup.

Initiated in 1981 by the Royal Aero Club, this is an annual handicap race for land based aircraft and was named after the famous races conducted for sea planes up to the start of WWII with the trophy held in perpetuum by the RAC.

The winner of this handicap event is presented with a replica of the original Schneider Cup.



Handicapping is done in an interesting and innovative manner, the system works so well that single engine Cessnas compete with dedicated racing planes and have some prospect of winning. Handicapping is dependent on the age the known speed, capability and capacity of the aircraft itself and the experience of the pilot and the manner in which the plane is flown by the pilot (for example how steeply the turns are made at pylons).

Finally, the judges apply the "1 second rule". In the handicapping process pilots complete circuits of the course and if during the race a competitor betters his/her race time by more than 1 second between rounds (including the qualifying round) then he/she is automatically disqualified.

This is intended to eliminate "foxing" to trick the handicappers, it all seems terribly British.

On the humorous side, one of the problems organisers are reported to have encountered is that cows chew through the guy ropes holding up the pylons and causing the pylons to collapse.

NEW HOBBY PRODUCTS

Report by Vaughan Oosthuizen

Austars Models is a new company that sells all types of aircraft, electric accessories, petrol and glow engines and engine accessories.

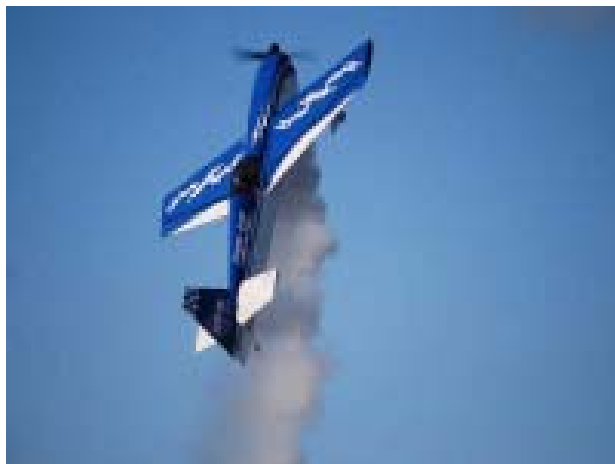
Two of their nicest aircraft are the NEW 120" Cessna 182 and the 122" Edge 540. These planes are both very scale looking in their appearance and have great flying quality as well.

The Cessna 182 is completely composite construction and is covered in simulated rivets and has all the scale control features such as flaps, aluminium oleo struts and navigational lights.



Austars solved the problem that might be presented with a plane this size by making the fuselage as well as the wings and tail surfaces detachable for easier transport.

The 122" Edge 540 would be a great addition to any skillful pilot's hangar.



At \$1,790 this is one of the best flying giant scale planes available.

The Edge is very light for its size and boasts an awesome amount of wing area.

The way this plane flies 3D and IMAC has to be seen to be believed.

The prototype of this plane was flown with a MVVS 116 which gave the plane enough power to hover and pullout with ease. Both of these aircraft were flown at the Bowylie Scale Rally and many members will already know how nicely these aircraft fly.

For more information visit the Austars website (www.austars-model.com) or feel free to talk to me down at the field,

Propwash Hobbies is run by Glen Ure (mob.0405 016 531) and will be open for business around the end of June and the products that they will stock are mostly in the large scale category, but many of the Austars Models will also be stocked.

This will be a great place to go when starting out in Gas engines or buying for your large scale project.

Although large scale is the main focus of this shop, other aircraft such as glow and electrics will also be stocked. No website is up as yet but there will be one put up shortly.

One new product that has been exclusively imported from the US is the new White Rose Tailwheel. These are magnificently made and look great too.

They are all carbon fibre and aluminium construction, which means they are tough as nails.

At the moment they come in the 50-80cc size and the 100-150cc size and are priced around \$100 for the small one and \$120 for the big one.

If you have any questions about products or pricing there is a thread at the bottom of the page in the manufacturers section on www.3d-downunder.com, which also has great information on all types of aircraft and helis.

If you mention that you are part of WRCS you will be able to receive a 5%-10% discount on your purchases (depending on the products).



AN INCURABLE DISEASE

by Colin Buckley

Can you relate to the following symptoms?

*A horrible, gnawing urge to be flying twenty four hours a day.

*Feeling dark and nasty if you haven't been near the field for several weeks.

*Being in the poo after an innocent statement to the wife such as, "I promise I'll be back in two hours".

*When at the field, hearing voices in your head repeating "Just one more flight then I'll go"

If the answer is "yes" to any or all of the above it may be that you are suffering from "the" incurable disease. What is this virus that courses in my veins and makes me reason "Just another few landings" after having being at the field since 8am?

Then what happens? Unbelievably those ten minutes turns into another five hours! Is it because I know I'm already in deep trouble for being late and this is the brain going into defense mode?

I listen but don't comprehend non-modelers saying "I don't know where you get the patience to build those little aeroplanes." I don't regard myself as a patient person but yes, why do I sit for hours making new aeroplanes and repairing broken ones?

It's amazing how this disease can influence your behavior and start to addle your mind. Little white lies turn into BIG white lies. If it was a cloudless day with little wind and the neighbours have invited you to a lunch time BBQ, is it no wonder that you make excuses not to go. After all, this sort of phenomena only happens every 3-4 weeks! Why didn't they consult the weather chart first?

Why is it that when I talk to people and casually mention that I enjoy flying aeroplanes, I passionately look into their eyes to see if they also have the disease? If a mate has told me he's maidenizing a new aircraft it gets my flying juices flowing. I start rummaging through my flight box, charging batteries, taking airplanes out of storage just to be there as support.

Continually buying new bits of gear is the worst symptom of all. Model shops have a magic ambience about them that can extract the wallet from the pocket quicker than a tip stall. I have got more modelling paraphernalia in my garage, bedroom, lounge, shed, wardrobe, laundry and spare room than some of the larger model shops have in stock. But no, I'll still buy that new recently advertised, brightly coloured

biplane or stock up on LiPo's. Or buy some more servos that I don't really need. I have over a crate and a half of new servos still in the shed, but you can never have too many servos that work can you? Also I find it's absolutely imperative to use a new bit of gear within 6 hours of purchase, otherwise it just burns a hole in my brain till I try it out. I've tried shock treatment to rid me of this disease like remembering the awful times on your own down at the field with a howling southerly wind and freezing rain. Or arriving home at 6.30pm, all excited 'cos the new Tiger Moth performed flawlessly to find both in-laws and the wife, glaring at me, patiently waiting for their BBQ lunch. Brain washing and anti-flying propaganda is like a fad diet, it works for a time but within days I'm back out in the garage turning over an engine, mixing fuel, checking clevises or just rubbing up and down against the flight box. It's bloody ridiculous this disease, I don't understand it. Sometimes I have a shocker of a day. Engines won't start, undercarriages work loose and I dumb-thumb a model into the woods. Its times like this I find quite comforting because I then convince myself that I am not totally model crazy and the disease could be in remission!

Unfortunately this feeling is soon eroded. I pick up a magazine and see the latest in radio technology, I start to daydream about biplanes, warbirds and big four strokes. I look up to see my model in the sky and walk straight into a pedestrian.

There are many fringe modelers who would like to fly and they are continually on our back with the same old phrase "Don't forget! The next time you go flying, take me with you and show me how to fly like wot you do." These folks aren't showing the full symptoms of the disease as yet, they are just carriers.

Dear readers, am I the only one that has this full blown disease called modelling, or are you also as badly infected as me? Maybe we should form M.A. (Modelers Anonymous) to try, through group sessions, to get some sanity back into our lives and see the world through non-modelers eyes, totally devoid of clevises, gloplugs and nitro. For the sake of science I would like to conduct an experiment and make love to Elle McPherson. When we are locked together in the depths of passion, I wonder if it were possible for my mind to go through a double Cuban or to remember how to install dual rates. If I could achieve even a glimmer of the above, I would accept all the criticism and admit I am totally, irretrievably hooked on flying. Until then, for sanity's sake, I'll keep on thinking I am just a normal bloke who enjoys an interesting sport.??

MY MOTHER TAUGHT ME ...

TO APPRECIATE A **JOB WELL DONE** ... "If you're going to kill each other, do it outside. I just finished cleaning."

RELIGION ... "You better pray that will come out of the carpet."

ABOUT TIME TRAVEL ... "If you don't straighten up, I'm going to knock you into the middle of next week!"

LOGIC... "Because I said so, that's why."

MORE LOGIC... "If you fall out of that swing and break your neck, you're not going to the store with me."

FORESIGHT... "Make sure you wear clean underwear, in case you're in an accident."

IRONY... "Keep crying, and I'll give you something to cry about."

ABOUT OSMOSIS ... "Shut your mouth and eat your supper."

ABOUT CONTORTIONISM... "Will you look at that dirt on the back of your neck!"

ABOUT STAMINA... "You'll sit there until all that spinach is gone."

ABOUT WEATHER... "This room of yours looks as if a cyclone went through it."

ABOUT HYPOCRISY... "If I told you once, I've told you a million times. Don't exaggerate!"

THE CIRCLE OF LIFE... "I brought you into this world, and I can take you out."

ABOUT BEHAVIOR MODIFICATION... "Stop acting like your father!"

ABOUT ENVY... "There are millions of less fortunate children in this world who don't have wonderful parents like you do."

ABOUT ANTICIPATION... "Just wait until we get home."

ABOUT RECEIVING... "You are going to get it when you get home!"

MEDICAL SCIENCE... "If you don't stop crossing your eyes, they are going to get stuck that way."

ESP... "Put your sweater on, I know when you're cold!"

HOW TO BECOME AN ADULT.... "If you don't eat your vegetables, you'll never grow up."

GENETICS... "You're just like your father."

ABOUT MY ROOTS... "Shut that door behind you. Do you think you were born in a barn?"

WISDOM... "When you get to be my age, you'll understand."

AND FINALLY MY MOTHER TAUGHT ME ABOUT JUSTICE... "One day you'll have kids, and I hope they turn out just like you



TOM'S TRIVIA CORNER

June 5, 1969 - Visually similar to the Concorde, the Soviet-designed airliner **Tupolev Tu-144** was the first airliner to achieve supersonic speed. It made its first flight on **December 31, 1968** (two months before **Concorde**) and on **15 July 1969** it became the first commercial transport to exceed **Mach 2**, and the fastest commercial airliner ever

