

BALLARAT RADIO MODEL FLYING CLUB Inc.

Web site: www.startek.com.au/brmfc Inc. No. A0001288M

NEWSLETTER - March, 2006

Committee 2005/2006

PresidentGlenn White(0412 641 188)Vice PresidentNick Katsikaros(0438 559 985)TreasurerRick Pimblott(0417 424 819)SecretaryRoger Carrigg(0437 842 277)

SecretaryRoger Carrigg(0437 842 277)Publicity OfficerGordon Hicks(0427 033 981)

Returning Officer Rick Pimblott

Public Officer Roger Carrigg

Safety Officers Hugh McCormick (5333 3448),

Graham Waterhouse (0417 377 099)

Newsletter Editors Glenn White,

Roger Carrigg

Field Maintenance Max Rowan (0408 501 584)

Contacting BRMFC: Secretary Roger Carrigg, 11 Lawrie Drive Alfredton 3350.

Ph. (03) 5334 2189, Mob. 0437 842 277, Email: roger@startek.com.au

The next meeting of BRMFC is to be held <u>out at the flying field</u> on Wednesday March 22nd 2006 commencing at <u>7.30PM</u>. Please come along to the meetings and support your club and be part of the decision making process. <u>Don't forget to bring a plate for supper</u>.

***** BRMFC ANNUAL DISPLAY DAY SUNDAY APRIL 2nd *****

Agenda Items for the next meeting

- 1. Field Maintenance
- 2. Open Day
- 3. Constitution Amendments

Points of interest from the last meeting

1. Field Maintenance

Report from Max.

- a) Concentrating on finishing off the BBQ area before our annual display, we found that rats have burrowed under the bricks laid the other weekend. Rick P. to get ratsak which will hopefully get rid off them.
- b) Max has spoken to Rob B. regarding finishing off the wiring in the Kitchen.
- c) Still some work to be done on the external fuel tank setup on the large generator.
- Russell Aggett offered a stainless steel kitchen sink which can be used to provide washing facilities.

2. Constitution Amendments

Includes becoming a prescribed association. Not done yet – Held over until next meeting.

3. Open Day 2006

- a) Sub committee appointed during meeting held on 25th January.
- b) Members are: Glenn, Roger, Max, Rick.
- Meeting scheduled for Thursday March 9th location still to be confirmed.
- d) The Display Day raffle for the AT6 Texan is under way. 16 books were handed out to members at the meeting. The prize was donated to the club by Tony Farnan of Model Engines during the ARF Scale event held at our field late last year.

- 4. Raffle AT6 Texan
- 5. Methanol Shell Racing A
- 6. Rubbish Removal
 - e) Stockland Wendouree has been booked for Saturday March 25th (Near the AFL Store)
 - f) We have all necessary permits: VMAA Display Permit, Moorabool Shire food permit and Council permit to display advertising banners from March 19th.
 - g) (For interest the Greensborough Club have a display at Greensborough Plaza between March 30th and April 2nd to promote their display on 9th April)
 - h) Max to get the Willy Monster going for lolly drop

4. Roy Gladman Round 1

Scheduled for this Sunday February 26th

Glenn to get trophy, Rick and Pam to bring out food for BBQ.

5. Club Promotion – Begonia Festival

It was decided to shelve plans to participate in Begonia Festival parade this year. We would need to start planning a lot earlier if the club was to enter next year's parade.

6. Methanol

Now have 200L of 'Shell Racing A'. Seems to be some concern as to its suitability.

Found a modeling web site that has a forum. (What appears to be a space in the URL is an underscore)

http://www.rcuniverse.com/forum/m 1149228/anchors 11 49228/mpage 1/key /anchor/tm.htm#1149228

Shell Racing A is mentioned but nothing to say it should not be used. (There is some concern in club over the 2% acetone.)

Newsletter March 2006.doc: 19 March, 2006

Propose to test on old engine.

If doubts exist we could blend 50-50 with other methanol.

Secretary is to send email to modelers on newsletter distribution list asking for their comments.

7. Club Policy on Instructor's liability in event of incident

Included with the Minutes of the last VMAA Executive meeting was MAAA Newsletter No 1/2006. In it was an article on **Who Pays the Excess** in event of a claim when a student pilot is under instruction.

Possible Scenario: Student is under instruction and gets into difficulties and hands transmitter to the instructor who struggles to regain control but fails to. The model crashes into the side of a vehicle in the car park and causes significant damage.

A claim will be made on the MAAA insurance policy. There is a \$250 excess payable by the modeler but who pays? The student claims the instructor was in control of the model therefore he should pay. The instructor claims that he was just helping out and should not be responsible for the \$250 as it was not his model. The MAAA covers the next \$4750, from then on the insurance company pays (Hopefully)

Does your club have a policy as to who is responsible to pay the excess in these types of situations?

This was discussed at some length and it was decided that in the event of a claim while a student is under instruction by a club certified instructor (normally MAAA instructor) that the club will cover the \$250 excess. It was felt that it would be difficult to get members to teach if they are going to be liable for this type of situation.

Secretary is to make note in the handout to new member's booklet.



Methanol – Shell Racing A

On the 23rd February I (Roger) sent an email to everyone on the newsletter distribution list asking the following:

There is some concern within our club regarding the suitability of "Shell Racing A" methanol for model engines.

- 1. Does anyone have factual evidence that it is harmful to 2 stroke or 4 stroke engines?
- 2. Secondly, is there factual evidence that it is safe to use?
- 3. Thirdly, does anyone use it?

Please don't be offended by the phrase factual evidence because as you know, there is a lot of hearsay at the flying field!

I received the following responses from several modelers, all praising the product. In fact the comments seem to be along a very similar line. I trust that they won't mind their comments being published here in the newsletter. They are printed in order of receipt. Max has been using it in his LARK and he says the engine runs well.

If you need methanol please contact Max Rowan (0408 501 584). Cost is \$25 for 20L (\$1.25/L)

Reply 1

For many years "Shell A" and "methanol" were virtually synonymous, and for many years I and everyone in Canberra used Shell A with no signs of damage to either 2 or 4 stroke engines. In fact I had never heard any suggestion that it might be harmful until your e-mail.

Sorry this isn't "factual" but I would be quite happy to use it still. *Noel Whitehead – Melbourne.*

Reply 2

Question 3. : I use "BP Methanol Straight" also known as "Methanol UN No. 1230".

Question 1.: I don't use Shell products (for a personal reason), but am aware that "Shell A" has been used by aeromodellers since the late 1960's up until now (that is about 40 years....), and I have not heard of any problems.

Question 2. : Cannot respond to this question due to lack of personal experience.

When you hammer a nail into a piece of wood, and (a) the nail bends, or (b) the wood splits, we tend to blame the hammer or the poor quality wood. Maybe we should look at how the hammer is used before we blame any of the components for the unexpected result.

Anthony Mott – Melbourne.

Reply 3

I have always used Shell Racing 'A', the label indicates it has 5% acetone. I was initially a bit worried about this, but after doing some research the general consensus seemed to be that it will actually provide a slightly bigger bang than straight methanol with slightly better cooling. All my engines are fine. Shell put it in there for a reason, I'm not 100% sure what it is, but have been told it aids in cooling/lubrication.

Glen Dallenger – Buninyong.

Reply 4

While I now use methanol sourced from Mobil (because Trevor Pugh gets it in a 205 litre drum) I remember using Shell Racing A back in the 50's, and after, and it was always OK. I've never heard anything negative regarding Shell methanol.

John Lamont – Melbourne

Reply 5

I use it and have always used it and will continue to use it and if you want to pull one of my engines to bits, be my guest. You are talking about 30m/l of acetone.

Back in the 70's and 80's the only methanol available was Shell A and BP A Racing and they both contained Acetone. Older members should know better and think back to the earlier days of what was available and the results.

You have to ask why is the acetone there and I am sure if you send a quick e-mail to Shell they will tell you. It is actually to hold the molecules in place that allows for products to mix with methanol. Any chemist will tell you that Methanol will not mix properly with oils due to it's molecular structure. We do it and get away with it in model engines, but the same principle does not work in high performance motor bike or car engines. A model

engine cost \$100 to \$300 for the most common sizes. A Honda Moto Gp engine cost \$100,000 and an Indy Racing engine \$300,000 and they both use Methanol/Acetone mix. The Shell and BP is an overkill for a Model Engine and to be able to pick up for two and half bucks for a litre is a bargain as a 20 litre drum will set you back \$65 - \$70 at the depot.

Anyway I will buy 20 litres so you will have less to worry about. I would buy the lot but I will be dead and buried by the time I use it.

It is also good for cleaning up after fibreglass due to the acetone content and great for sunburn.

Dale Deppeler – Ballarat.

Reply 6

Shell A contains a small percentage of acetone, which was commonly used instead of nitro years ago, I have used it in the past in a supercharged speedway engine worth considerably more money than any model engine. You may need to retune slightly, but that is all. I don't use it now, because I have a source for cheap methanol that does not contain acetone, but I would not have any hesitation using it in either any of my 2 strokes, or YS 140 Dingo 4 stroke.

Alan Saint – Ararat.



Field Maintenance

After all our hard work laying those bricks at the B.B.Q. we arrived out there on Sunday February 20th to find that something has been burrowing through the sand underneath (see photo). We will have to lay some bait before too much damage is done. Going by the footprints left in the sand it looks like a big rat is the culprit.



The damage done by a four legged rodent.

Rick found some nice stainless steel sheet to clad the B.B.Q. top and splash back. We are not to ask where it came from or send any thank you's!!



Stainless steel bench tops put to good use. Max is a dynamo when he gets stuck into a job.

Latest update – Max has been hard at it having fitted not one but two BBQ's. I (Glenn) ran the gas lines and connected them both, just some minor work to do to them (fit an igniter to one and make fat drains for both). Both BBQ's were donated to the club, Bill Ninness donated one and myself the other. Russell Aggett was kind enough to give us a kitchen sink so my next job will be to connect it up to our tank and run some kind of waste.



VMAA News

- 1. MAAA Cards Due to the large number of members requesting replacement membership cards, the MAAA will now be charging members \$5.00 to replace cards that have been lost or destroyed or to have new wings ratings put on cards.
- 2. VMAA Secretary now has new Notebook computer to replace the ageing one that died. (*These guys work hard for us and they need all the tools. Ed*)
- 3. Since 1st January 2006, CASA is charging fees for any work or approvals that it does in relation to model aircraft. In particular this will apply for the establishment of a location for flight above 400ft (part 101.030) and for flight near a non controlled aerodrome (parts 101.075, 101.080). These fees will be charged at \$130 per hour. *I'm not sure if this has any bearing on public display permits. Ed*



New Models seen at field

On the 19th February Graeme Allen (A1), brought out his latest model for all of us to see and to do a test flight.

The model is a Boeing Super Stearman Biplane powered by 150 Saito four stroke engine.

Model details: Great Planes ARF Super Stearman Biplane

Wing span 72"

Engine: Saito 150 four stroke

Prop: 18x8



Graeme pictured with the Stearman moments before the successful test flight. Will it fly better with two pilots?

The test flight was conducted without incident however the landing was a bit s^%house.

The Stearman looked the part in the air and seemed to handle well, however during the flight the motor didn't come on song. Some experimenting with props may need to be carried out. Graeme said he is going to try an 18x6.

Another new model was Gordon's large Boomerang trainer. Max had the honor of test flying it on Thursday evening 2nd March. I (Glenn) wasn't there but was told that it behaved as expected. Having a large flat-bottomed wing it didn't want to come down. (Can't be old!!!)



Gordon's New Boomerang with Magnum 80 four stroke.

Gordon took the Boomerang to the Warrnambool fun fly (see reports).

Not new at the field but back again was Rick's A.R.F. Lark or Swallow (I can never remember must be old age). Rick has repaired it after the covering parted from the leading edge of the wing causing a crash during the Roy Gladman pattern competition last year



Model now has an asymmetric paint scheme for enhanced in flight visibility.

Another back at field after a long absence was Roger's CAP231. Roger had a problem with the O.S 91's pump.



After a 3 year absence the CAP has returned, this time with a pilot!

Everything seemed okay during it's first flight but Roger was unable to get it tuned after that. Sounds like there is a blockage somewhere, I'm sure he will soon have it sorted out.



Crash Report

On the 19th February Graham Waterhouse lost his ugly stick. It started porpoising on the down wind leg straight after take off, finally losing control and spirally in. Batteries were found to be 40%. Appeared to be loss of signal. Sorry to say model was a right off.

From Nick Katsikaros 20th February – My record for not being able to keep two power planes operational at the same time continues. On a nice quiet Saturday afternoon I was teaching my son, Nathan, with the trainer that has kept me in the air over the last year. We were using a buddy box and things were going pretty smoothly. Of course boys being boys Nathan wanted to try a roll and dads being dads, I thought "why not?". An uncoordinated

moment later I was trying to recover the plane from going straight down at full throttle...unsuccessfully.

The lessons I've learnt as an amateur teacher are:

Always try new manoeuvres at least 3 mistakes high.

It's much harder to recover someone else's mistake than your own.

Don't get cocky with a buddy box – it still takes time and height to recover a plane.

Having said to be careful with a buddy box, I'm still surprised we don't use more buddy boxes when teaching. A buddy box gives both the student and teacher confidence. If anyone wants to try using a buddy box the club has three Hitec sets (compatible with Hitec or Futaba) on mode 1 and 2, and I am happy to loan my JR to use as a buddy box when I'm at the field. With the computer radios anyone with a memory free can use their radio as a slave. You can either buy a buddy box cable or make one for less than \$10 with bits from Dick Smiths. I have wiring diagrams for a variety of brands if anyone wants them.

Russell Aggett hasn't escaped the crash report this month either. He had a minor altercation with the ground on take off during the Roy Gladman Carrier Deck landing event. Only minimal damage done when model cartwheeled off the carrier deck. It is undoubtedly fixed by now.

On Monday 13th March the day after the bad fires out at Snake Valley, there were several of us out at the field working and flying when Rick surprised us by crashing the ARF Corsair on take off. Rick said that it veered to the left and he was unable to correct it resulting in a cartwheel crash. Model sustained damage to the nose and elevators. Rick said it is repairable.



Tips & Tricks

Fuel Tank Clunks (by Roger Carrigg) – Whilst recently fitting a new fuel pump to the OS91 FS in my CAP231, at the last moment I thought it would be prudent to pull the tank out and clean it and also check all the fuel lines. To my surprise there were metal flakes inside the tank and on further examination I traced the source to the clunk. The flakes were the nickel plating off the brass clunk.

Some background on this story – about three years ago I began having trouble with the OS91 FS in the CAP after about 120 flights (I keep a record in a log book of all my aircraft flights). I Presumed that an inline filter had been fitted when the CAP was new but when I checked to my surprise and dismay it had been overlooked. I hurriedly fitted a good quality filter, but soon after the engine would not run at all – it was not getting any fuel and the problem was traced to the pump.

Being someone who used to pull clocks apart as a kid I disassembled the pump (against OS recommendations of course) and found a metal flake under either the inlet or outlet reed. As it turned out no amount of flushing would have removed it. At the time I concluded that the metal flake came from the filter (should always flush a filter

before using it which I didn't). Now three years later after purchasing a new pump to get the CAP flying again I found metal flakes in the tank, so now I suspect that it might have been the nickel plating off the clunk and not a bit of swarf (drill chips) out of the filter.

Moral of the story – Use inline fuel filters and try to avoid nickel plated clunks, plain brass would be better.



Temora Aviation Museum

New addition to T.A.M – by Rick Pimblott

Temora airport was the site of the biggest and longest lasting RAAF Elementary Flying Training School during World War II. 10 EFTS was established in May 1941 and training ceased in May 1945. A total of 2741 pilots were trained on Tiger Moths at Temora.

The majority of the Museum's aircraft will be flown on a Flying Day, with the schedule being set on the day after consideration is given to the weather and aircraft serviceability.

Visitors are able to view aircraft takeoff from a close, but safe distance into the skies above the Museum. Due to this close proximity of the aircraft, visitors are able to experience unique sights, sounds and aromas associated with the aircraft. While the aircraft is in flight, the commentators on the ground provide informative and entertaining information relating to the aircraft being flown.

The day is broken by a lunch break for half an hour and finishes with the opportunity for visitors to get up close to the aircraft and pilots during the ramp talk at the end of the day

The Museum will often include visiting aircraft in its schedule to add to the day's events.

Temora Aviation Museum received the Royal Australian Air Force Sabre A94-983 aircraft today as the result of a landmark agreement which was signed in Temora in November 2005.



Under the agreement, co-signed by the Founder and President of the Museum Mr David Lowy, the Royal Australian Air Force (RAAF) will loan one of its historic aircraft to the Temora Aviation Museum (TAM).

History of CAC Avon Sabre A94-983

Delivered from Commonwealth Aircraft Corporation (CAC) in November 1957, A94-983 was brought into service at No 1 Aircraft Depot at Laverton before undergoing test flights at the Aircraft Research and Development Unit for three weeks. Upon completion the aircraft was delivered to No 78 Wing at Williamtown, and was subsequently allotted to No 3 Squadron at Butterworth in October 1958. In February 1959, the aircraft made a wheels-up landing at Butterworth, with extensive damage to the underside of the airframe, and was transported back to CAC at Avalon for survey and costing of repair work.

After repair, A94-983 was allotted to No 76 Squadron in February 1961, and was operated until July 1963, when the aircraft was dismantled and put into storage at No 78 Wing, Williamtown. In November 1966, the aircraft was put back into service, this time with No 2 (Fighter) Operational Conversion Unit. By July 1970, the aircraft had moved to No 5 Operational Training Unit, before returning to No 2 (Fighter) Operational Conversion Unit in August 1971. In November 1971 the aircraft was ferried to Base Squadron Butterworth, for transfer to the Royal Malaysian Air Force.

Transferred to No 11 Squadron of the Royal Malaysian Air Force in December 1971 as serial no FMI983, the aircraft flew until 1976, when grounded awaiting disposal. Rescued from its fate by No 75 Squadron, based at Butterworth, an E Servicing was carried out over 12 months and A94-983 flew again in July 1978 in RAAF hands. A94-983 was then shipped back to Australia, and restored by No 2 Aircraft Depot. A94-983 was first displayed in public in March 1981.

In November 1984 the aircraft carried out a forced landing and over-run at Bendigo, Victoria. The aircraft continued to be displayed by the RAAF Museum and operated under the auspices of the Caribou and Historic Aircraft Section (CHAS) located at Richmond until 1992, and was relocated to Point Cook upon the disbandment of CHAS in 1997.

The Temora Aviation Museum will begin restoration on the Sabre aircraft with the aim of having the aircraft airworthy within twelve months to eighteen months.

For a picture of the aircraft being unloaded this morning click on the link

http://www.aviationmuseum.com.au/news/sabre2.cfm http://www.aviationmuseum.com.au/



Events

Roy Gladman Round 1 - Novelty

We managed to run the 1st round of the Roy Gladman competition on Sunday February 26th under favorable conditions.

Six pilots registered and although there was heavy handicapping the cream floated to the top (cream of the crap – Glenn). Stop Press! On putting the scores into Excel

we now have another winner. Congratulations Russell, you've done it. See the results on the last page.

Pam cooked the BBQ lunch after the third event which we all enjoyed. After that we finished off with the final event which was the carrier deck landing. The only casualty was Russell. (See crash report)

It would be nice to see more than six entries next year. (Rick, Murri, Len, Graeme, Graham, Lawrence, Gordon, Hugh, Malcolm to name a few – come you guys no excuses)

Warrnambool Fly-In – by Glenn White

On the weekend of March 4/5th eight of us went down to the Warrnambool Fun fly. To my knowledge this is the first time our club has attended this event. It was well worthwhile as we had a great weekend.

We had a bit of a surprise when we arrived in Warrnambool mid morning, after leaving Ballarat bathed in sunshine and driving all to way under cloudless skies, what did we get? Thick fog! You couldn't see the top of a



Glenn at the Motel on Sat. evening getting a bit of rest. Inset - Roger going for a Frappe!!!

We found our motel, checked in, had a leisurely stroll down the main street stopping for a coffee (Roger had to have a Frappe) and refreshments before driving out to their field



As you can see, the Ballarat contingency was quite significant at Warrnambool.

We followed Rick and Pam as they have a GPS on board but "her that must be obeyed" over-ruled the GPS and we got lost.

The field wasn't easy to find for the first time, Al managed to get lost the next day even after we had given him the simplest of directions.

It was strange but as you drove out of town you left the fog behind. On arriving at the flying field the sun was out and there was a brisk wind. The event was well attended and we were made very welcome. The WMAC are very lay back. We set up camp at the southern end of the flight line, Roger was the only one to fly on the Saturday, the rest of us were content to sit in the shade and watch. It was nice to see some different models in the air.



We don't make a practice of publishing photos of crashed models, but someone was holding up the engine and I couldn't resist taking a photo. Sad way to take your model home! Fortunately Murray had a lot of flights with the P51 and he said he has other fuselages already molded.

We hadn't been there long before Murray Ellis flew his P51 Mustang. We saw it lift off, do half a circuit and disappear behind the sheds. I didn't see the crash but heard the impact when it hit the ground. There wasn't much left of the plane after hitting the rock hard ground and Murray says the 62 Zenoah is beyond repair. Bad luck Murray.



The Ballarat contingency in all its glory!

Sunday the weather conditions were perfect, very little wind, which the locals told us, is very rare, it's usually blowing a gale. All our club members had at least one flight. 643 was a very popular frequency. Gordon flew his new Boomerang with no drama and did a great landing but the second time he went into the startup area he was getting a lot of radio interference and aired on the side of caution and decide not to fly again.

They ran a couple of novelty events, dead stick landings and bomb drop. A couple of us had a go at the bomb drop which consisted of attaching a polystyrene cup to the top of the fuselage to carry the bomb (alias an egg). A target was set up on the runway the aim of the comp to take off without losing the egg flying over the target inverting model to release the bomb. Not easy to do, the hardest part is banking without losing the egg. It is also very hard to see the egg fall.

The meet came to a close around 3.00PM where the usual trophies were awarded and the WMAC thanked all the pilots for participating.

We hope to attend next year.



Coming Events Relleret Open Day An

Ballarat Open Day – April 2nd

The sub committee for the open day met at Roger's on Thursday 9th. March to go over the finer details and planning for the open day. At this stage everything is going according to plan. All relevant permits have been obtained. Roger has emailed all the pilot invitations to individuals and clubs. Our advertising banners go up next weekend. We have a spot booked at Stockland Wendouree for the Saturday prior (25th March). You should all have raffle tickets, if not contact Roger.

You should also have a club flyer promoting the open day in you emails; it would be nice if you could print a couple in color to put in you local milk bar/shop.

We will require as many members as possible to lend a hand on the Saturday morning to get things ready.

Wagga WW2 and Military Scale – April 21st-23rd

A number of us have our accommodation booked for this weekend which is one of the premier events on the scale calendar. If you are interested in going, contact Rick.



Event Calendar

March 25 th	BRMFC Display – Stockland Wendouree.
April 2 nd	BRMFC Annual Display - Yendon.
April 14 th -17 th	Easter.
April 13 th -25 th	59th Nationals – Partly at Strathalbyn SA.
April 14 th -16 th	F3A Pattern Aerobatics, Aust. Masters –
	Shepparton.
April 21st-23rd	WWII and Military Scale – Wagga Wagga.
April 30 th	Sport Scale Rnd 3 – BRMFC Yendon.
May 27 th /28 th	MAAA Council Conference - Darwin

That's all for now. Good flying. G.W & R.C.

PS. Just got an email promoting new modeling web site: http://www.rcdownunder.com Does anyone know anything about it? It uses GoogleEarth mapping and our

club is also listed.

Roy Gladman Perpetual Trophy 2006 - Scores Round 1 (26th February 2006)																			
		3 Minute Timed Flight		Climb & Glide		Balloon Burst			Carrier Deck Landing					Spot Landing				Bonus	Total
Contestant	Freq.	Time	Score	Time	Score	Take off (x5)	Landing (x10)	Score	Touch	Land in	Stop in	Bonus	Score	1st Pass	2nd Pass	3rd Pass	Score		
Russell Aggett	633	3:22	158	1:24	30	1	0	5					0	5	5	25	35	100	328
Glenn White	643	3:08	172	2:03	50	1	0	5		25	25		50	10	5	25	40		317
Nick Katsikaros	649	3:41	160	0:51	20	1	0	5		25			25	5			5	100	315
Max Rowan	641	3:10	170	1:13	30	0	0	0		25			25	5			5	50	280
Roger Carrigg	631	2:48	168	1:29	30	2	0	10		25			25	5	5	15	25		258
Peter Evans	605	2:48	168	1:16	30	0	0	0					0	15	5	5	25		223

For Sale

H.D. Model Design 1/3 scale Cessna 152 Aerobat complete airframe, wings and working navigation lights. Painted all white with blue stripes, all rivets and lines. Has three standard servos included for operating navigation and landing lights, throttle and nose wheel steering. No other radio equipment is included.

Price: \$800

Contact: Hugh McCormick on (03) 5333 3448 after 6PM.

(This is a hell'uva lot of aeroplane and must be a bargain at the price!!! Ed.)

