

THE VOICE OF CONTROL LINE
AEROMODELLERS FROM
AROUND AUSTRALIA

Number 84



Produced by the Victorian Control Line Advisory Committee

December 2004
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**Copy Deadline for next issue is:
Wednesday 19th January 2005
PRODUCTION SPECIFICATIONS**

Please remember when submitting copy that if you have access to a PC, or suitable typewriter you can save me retyping by giving me your items pretyped, and please use a good black ribbon for best reproduction.

Best of all is to send it on a 3.5" disk as a Windows Write, Word for Windows, or as an ASCII TEXT FILE or use Email

Contest results should be tab delimited, ie use a single tab between each column of results, if submitted by disk or email. This makes formatting much easier on the editor.

Email address:- acln@optusnet.com.au



COMING EVENTS



COMING EVENTS

CONTROL LINE CONTEST CALENDAR 2004

DATE	EVENT	CLUB
DEC 5	C.L.A.G. Country Flying Day	Moe
DEC 5	Aust "A" Team race, Classic "B" Team race, Bendix.	SMAC
DEC 12	FAI Team race, 2.5cc Open Combat, 1/2 A Team race.	CLAMF
2005		
JAN 9	C.L.A.G. Country Flying Day	Knox
JAN 30	FAI (Hearns), Novice & Jnr Aerobatics, Classic Stunt, Vintage "A" Team race, Classic "B" Team race.	KMAC
FEB 6	C.L.A.G. Country Flying Day	Traralgon
FEB 6	Simple Rat race, Simple Goodyear.	SMAC
FEB 13	FAI & Combined Speed, 1/2 A Combat, Mini Goodyear.	CLAMF
FEB 27	Vintage Stunt, Class 2 Team race, Bendix, Classic Stunt.	KMAC
MAR 6	Hand Launched Glider.	SMAC
MAR 6	C.L.A.G. Country Flying Day	Moe
MAR 13	FAI Team race, Goodyear, Vintage Combat.	CLAMF
MAR 25-28	VMAA CONTROL LINE STATE CHAMPIONSHIPS Events to be advised.	CLAMF, KMAC, CLAMF
APR 3	Simple Combat.	SMAC
APRIL 17	FAI & Combined Speed, Goodyear, 2.5cc Rat race.	CLAMF
APRIL 24	FAI, Novice & Jnr Aerobatics, Classic Stunt, Bendix	KMAC
MAY 1	Vintage "A" Team race, Aust "A" Team race.	SMAC
MAY 15	FAI & Combined Speed, Triathlon (Artil Trophy), 1/2 A Team race.	CLAMF
MAY 22	FAI (Yeoman), Novice & Jnr Aerobatics, Simple Rat race, Classic Stunt, Class 2 Team race.	KMAC
JUNE 5	Balloon Burst, Limbo.	SMAC
JUNE 19	FAI Team race, Goodyear, 1/2 A Combat, FAI & Modified Combat.	CLAMF
JUNE 26	Vintage Stunt, Combined Speed, Classic Stunt, Vintage "A" Team race.	KMAC
JULY 3	Simple Combat.	SMAC

Events will be flown in order of printing. Events in **Bold type** will be flown over hard surface

CLAMF Frankston Flying Field, Wells Rd, Seaford (Melway 97J10), 10.30am start

Contact :- G. Wilson (03) 9786 8153,

Events conducted by CLAMF at the KMAC Field (Melway 72 K9) 10.00am start.

Contact :- H. Bailey (03) 9543 2259

KMAC Stud Rd . Knoxfield (opposite Caribbean Gardens) (Melway 72 K9) 10.00am start

Contact :- T. Matthews (03) 9560 0668.

SMAC Contact :- Reeve Marsh (03)9776 5949

CLAG Contact :- Graham Keene (03) 51924485

Details of venues can be found on web site www.clagonline.org.au/home.htm

NOTE - All SMAC events to be held at KMAC flying field. All events at KMAC except Aerobatic events to be run by CLAMF, DAC & SMAC members

C.L.A.S. Contest Calendar 2004

DATE	CLUB	EVENT
5th Dec	Doonside (at Kelso Park)	F2B Aerobatics
12th Dec	KMFC	Christmas Party and Fun Fly

CLASII CALENDAR 2004

NB Please note that competitions will be held **every second month only** at this point in time, however days currently shown as Fun Fly could become a competition day if sufficient interest is shown to run extra or other events. **Third Saturdays will be general flying only.**

Regardless of what day it is **flying is only permitted between 9am and 5pm** (i/c. engines are not to be run before or after these times) and in accordance with **MAAA, MAAQ and Club policy**, permission must be sought from club executives for **visitors** to use facilities on days other than **Competition, Fun Fly or 3rd Saturday General flying**. Mufflers are to be used wherever possible. **Field entrance gate will be locked except for designated flying times.**

Aside from **published competition days**, after more than two casual visits, FAI licence holders would be expected to apply for Associate membership of Clasii. All members and visitors to the field will be required to sign an attendance book. This action assists in meeting insurance requirements and would be of great help in the event of a claim being made.

Intending members will be allowed two visits (training days) before being requested to apply for membership. Applications will be then be assessed by Committee and applicant advised of outcome before any fees are payable. **CLUB AND ASSOCIATE MEMBERS WILL BE ABLE TO ACCESS THE FIELD 7 DAYS PER WEEK BETWEEN 9am and 5pm**

Sunday December 12th Christmas Fun Fly, BBQ and Breakup for 2004

FIELD WILL BE CLOSED UNTIL Saturday January 15th 2005 for maintenance.

General Flying Saturday January 15th 2005 9am-1pm.

All enquires should be addressed to Club President Mark McDermott, Phone 07 32889263 Fax 07 32940308

Subscribers to ACLN can have the latest edition of the newsletter (in colour) emailed to them as a PDF file at no extra charge.

Simply send a request for this service to the editors' email address which is on the front page.

A Speed Virgin's Tale

- a fable by Greg Ardill

Once upon a time in a land far a way, a Handsome Young Hero (HYH) became aware of an elite group that he wished to join. This illustrious group (know as C/L speed flyers) had gained fame across the kingdom for their wisdom and daring (not to mention their bigs). Oh! How our HYH longed to join in their exciting adventures.

News came to him of an elderly squire who wished to trade a speed engine for a bag of gold. He also learned of a court magician from another realm, who produced (by magical means) the parts required to turn this engine into a flying missile. By newly acquired skills he would craft these ingredients into a device which would enable him to join these hallowed ranks. A bag of gold to the magician had the parts delivered by one of the king's messengers.

As an unhappy coincidence the HYH failed to intone the necessary releasing incantation, and the flying missile languished in the dungeon for many years. But as HYH's are renowned for their persistence, it came to be that one fine October Saturday, the flying missile finally broke free from the bonds of earth and sailed serenely into its natural element.

As luck would have it this breaking free also coincided with the first running of ye olde Combined Speed contest in NSW for many years. The details of the HYH's official attempts are thus;

Attempt 1 – The judges spake thus 'ye saileth a mighty distance into the heavens and alas, no time can be recorded'. (The HYH careth not one jot! As he was trying to invoke the spell that would make the flying missile describe the intended trajectory).

Attempt 2 – The correct spell was incanted and the correct amount of poultry giblets was spread about, and the flying missile duly operated in the approved manner. The judges were gladdened and by means of their sundials were able to record a time of 20.3 (premetric) seconds.

Attempt 3 – It was found that the vessel holding the magic potion for the engine had developed a leak and no further activity was possible.

And so our hero left the field having achieved the first step in his quest. He posted a time, and thus joined the elite group to which he aspired. His next challenge will be a fulsome study of the lore of this dark craft to produce smaller and still smaller times.

The Handsome Young Hero would like to thank, Ray and Dave for their assistance on the day, the SSME organization, and all who offered advice and encouragement.

Here are some images taken on the day.



The Handsome Young Hero & Flying Missile (Yes it is a fable!!!)



The Flying Missile (AKA Arrow)

RESULTS SSME LUDDENHAM 30th and 31st OCTOBER.

	Heat 1	Heat 2	Final
Vintage 1/2 A Team Race			
1. T. Bonello / P. Brodie	4.25.19	4.21.27	8.38.77
2. P.Camps / S.Pilgrim	4.12.99	4.21.91	8.46.89
3. J. Nolan / M. Littlely	4.44.17	4.28.35	9.18.37
4. G.Potter / B. Hoggin	92 Laps	4.46.55	
5. G.Knight / R. Harvey	4.55.17	DQ	

Vintage B Class Team Race			
1. T. Bonello / P. Brodie			10.52.17
2. J. Nolan / M. Littlely			11.28.75
3. G. Knight / R. Harvey			12.12.33

Goodyear			
1. J. Nolan / R. Justic			10.14.56
2. T. Bonello / A. Heath			12.47.09

Phantom Team Race			
1. P.Camps / S. Pilgrim	4.36.44	4.44.72	9.22.6
2. T. Bonello / I. Gapps	4.40.69	4.59.97	9.36.45
3. J. Nolan / W. Rogers	4.53.87	6.02.37	DNF
4. P. Brodie / A. Kerr	10 Laps	5.47.99	

Vint A Class Team Race			
1. R. Justic / A. Kerr	3.17.22	3.27.97	6.47.77
2. P. Camps / S.Pilgrim	3.28.06	3.21.13	6.48.19
3. G.Knight / R. Harvey	3.32.77	3.19.93	DNF
4. A.Heath / S. Rothwell	3.23.43	3.28.06	
5. G. Potter / B. Hoggin	59 Laps	46 Laps	

Bendix Team Race			
1. T. Bonello / A. Heath			7.25.54
2. G. Potter / R. Harvey			8.17.00

Combined Speed			
1.R. Justic	2cc	16.22sec	89.86%
2.G. Ardell	2cc	20.34sec	71.97%

Results submitted by Tony Bonello

F2B: The mighty Enya 45 I 6001 (aka tuning F2B stunt engines)

By Stuart L Sherlock

Now that I am serving out my 61st year on this blood-drenched ball we call planet Earth, Fate has offered me the opportunity to correct some of my failures from the earlier years. The most frustrating episodes concern F2B stunt engines. Many a time and oft have I watched other competitors stunt engines running magnificently while mine ran rich, cut, or took off with a howl at 80 MPH.

Now if you are one of those whose motor runs well every time, and can concentrate on performing a flawless pattern, as opposed to avoiding a crash, read no further. This is not for you. I insist. Stop reading now. But if you are a dunderhead like me, persist and maybe we'll come out of this for the better.

In recent times (the last 25 years), my Albatri have been the ST G21/46 and the Enya 45 I 6001. Tell me, how many people do you know can't get a ST 46 to run right? None, right? Well, let me tell you.

I bought my ST 46 from Laurie Cantwell at his Kingsford model shop in Sydney, in the early 80's. With it I purchased a spare P/C set and ring. Not being familiar with ringed motors, I figured to give it a very careful, rich-running period of one hour. This I conscientiously performed, only to find that in the model it was gutless. No power.

In desperation I pulled it down and the ring fell out in 2 pieces. Broken from new. I went to replace it with the spare ring, but it didn't fit: too big. Also the spare sleeve didn't fit, it had a thinner wall and couldn't be used. I appealed to Brian Eather, who fitted a new ring for me, and so off flying. Now the motor would lean out and go like a rocket, but not slow down!! Unflyable.

Twenty years later (count 'em!), I tried again, this time with first-pressings virgin castor oil from the hobby shop. Now the motor would run nicely for 5 or 6 laps, then slowly lean out until it was thoroughly fried at the end of the run. Hopeless.

I switched to Shell Racing M and made a 2:1 mix. Eureka! Superb run, just what I always dreamed of. So off to the first Albury-Wodonga Nats (was that 2000?), where the motor ran wonderfully. I was too sloppy in the first round (no practise) but tightened up for the second and scored 2800 with a motor cut half-way thru the clover. Not bad, 200 ahead of the pack and 200 behind the leader. Came back for the 3rd round and found my "Firecracker" had broken its back from the 6000km ride in the back of my Laser from Perth, so I withdrew. Second last in Expert.

Several years later, back in Perth, I dragged it out again. Hopeless, another broken ring. With a lot of help from Daryl Mills, Brian Gardner and Ranjit Phelan, I got it going again! Hoorah! The motor ran very sweet, with a wonderful strong, rich burble in level flight and leaning out nicely for the hard work.

But the Devil was riding again. There were 2 problems. Narrow needle margin and sagging power in the overheads. When I say narrow, I mean one click of an Enya needle on the Enya spraybar assembly. Not good, too critical. Nitro did not help, which was a worry, since nitro is supposed to make needle setting less critical. Not this time, Bro!

Having twiddled the needle on Norm Kirton's Brodak 40 a few weeks earlier, maybe a finer needle was the answer. The Brodak seemed to have a huge needle margin, possibly due to the very fine-threaded needle. Brian shot me over an ST assembly, but by now the old Brain started working involuntarily. You know, the 3am stuff when you can't sleep. Never works when I want it too, so better than never.

Just where did the ST46 get that lovely rich burble from? I checked out my Enya 45's (6001 and 6002). They had the same shaft, transfer and exhaust timings as the Tigre, well near enough, but they didn't run like that. Why not?

OK. Lets work thru this. Once the piston is on its way up, and the exhaust port is closed, one motor is much like another. The timing's are forgotten, the size of the transfers is forgotten: everything is forgotten except for burning the fuel! So there is something about burning the fuel that separates the Tigre from the Enya's. Lets look at this more closely.

Later, kid, later. Several years ago I did a prop for a design contest. Never heard the result, so I guess I didn't win (see Travelling Dynamometer on this site) It was an 11X8.5, rather an odd size and no use for anything. What would happen if I bolted this onto the Tigre?? So off to the Whiteman Park Kangaroo-tick factory for a test fly.

Amazing. The Tigre ran up to only 6500 RPM (no nitro), but

it sounded good! Into the air and to my astonishment it burbled around beautifully for 5.3's, pulled strongly in the overheads and turned as tight as an FAI combat model! As I say, astonishing! Previously I had good results with the Bolly 11.5X7, but this was something else. Brian reckons the tight turns were the result of my using a lighter prop. That was true, the Supercool was half the weight of the Bolly, and lighter again than the APC 11X8 that I also tried. Gyroscopic forces cut in half.

This is revolutionary stuff. You ask any expert. You want to turn tight? Use less pitch. You want needle margin? Use nitro. You want four-stroke? Raise the head. Baloney, all wrong.

Well things were going so well, how could I lose by trying 10% nitro? Disaster. The motor would not tune rich. With the plug leads on, yes: but it would go gobble-gobble and stop rich with the leads off. Could the new batch of Castrol M be the problem? Now that its cut with synthetic, could it be poisoning the platinum plug element? Thus making the plug go cold. Tried 3 new plugs, still no good. Switched to Shell Racing M, which I know works well. Still no good, so its not the Castrol M (Mystery?) oil.

Back to zero nitro: problem gone. After some more testing, I decided I needed more power in the overheads, The Tigre was not quite there. So I switched to my Enya I 6001. Ranjit had kissed the bore with the hone and checked the rings. Good as new.

With zero nitro, and Bolly 11.5X6, it ran OK, but not with the controlled authority of the Tigre. Flakey on the level, too much power in manoeuvres, not nice at all. Tried the Supercool 11X8.5 on straight fuel. Ran at 6700 on the break, but cut when the plug leads were pulled off: even on straight fuel, not like the ST.

So where are we now. The piston has closed, the exhaust port and is on its way up. That only leaves the combustion chamber as the source of differences between the two motors. Pulled the heads off: quite a lot difference. (see photos).



With .012" of shims under the 6002 head, tuning rich was poor. With the shims out, tuning was good with 6500 at the lean/rich break, and 7300 leaned out.

Now you know, F3D pylon racing guys are very fussy with the compression on their racing forties. I mean, if you're getting 4HP at 33000 RPM and 200 MPH from a 40, you better be doing things right. They have a test flight, go blank for a while, wave a wet finger in the air, and loudly say "take out a thou". Take out a thou!? For Gods sake, do you know how thin that is?

By now I was starting to recall some of Ranjits words of wisdom. I'm not a very good listener. I much prefer to talk than listen, but something had sunk in. Methanol has an explosive limit. A range of fuel/air mixture over which it will burn rapidly and produce power. The trick is to get the combustion conditions inside that range, so that the fuel burns strongly and smoothly. Hey, that's what I want in my stunt engine.

Not only that, he said "If you want to run cool so you don't burn plugs, run it rich and up the compression". Got that? Increase the compression if you want to run rich!!! Hell, that's the direct opposite of what the stunt guru's say. Can they be wrong? Well of course, otherwise would I be wasting my time writing this crap for you swine out there? Talk about Pearls before Swine. I bet your eyes have all glazed over and you are thinking of the Britney Spears video! Well stop it, pay attention!!

So how does combustion work in our engines? Well we seem to have a number of variables. The squish band, the deck height (squish to piston at TDC distance), the combustion chamber shape and volume, and the fuel burning characteristics.

Let's do the last first. The fuel/air mixture is ignited by the constantly glowing platinum plug: a flame front then spreads out over the combustion chamber. The speed of this front is important, as the piston is only in the right position to accept pressure from the burning gas for a very short time. We also want the right ratio of fuel to air, which is ultimately determined by the needle valve setting.

But having the right ratio is not enough. The fuel and air must be intimately mixed for controlled burning to occur. This is not so easy, such mixtures do not form spontaneously: they must be forced to mix. This is the job of the squish band.

"Squish is the name given to the radially inward gas motion

The Tigre has a wide squish band with a hemispherical combustion chamber, while the Enya had an insignificant squish and a large dish for the combustion chamber. The ST 46 head and the Enya 45 II 6002 have the same configuration, and they both drop straight onto the 6001! So I ran the Enya I 6001 with both of these heads, and was rewarded with excellent performance.



that occurs toward the end of the compression stroke when a portion of the piston face and cylinder head approach each other closely". Thus spake John B. Heywood in "Internal Combustion engine Fundamentals, page 353. 500 pages later he tells us some more. "The impact of radially inward squish motion (see page 353) on in-cylinder turbulence, and hence combustion, is unclear" !!!!! Thank you John, well Hello! " Chambers with significant squish are also more compact: for this reason alone they would be faster burning"

Ye Gods, what a Turkey. Lucky I got this book at 1/10 the new price. Now for the Supercool version.

As the piston face approaches closely to the squish area, the trapped mixture is blasted toward the combustion chamber at high speed, where it mixes violently with the charge there. The turbulence created by this event mixes the fuel and air intimately (how nice!), permitting the flame front to advance in a controlled way.

So, if you are trying to run a rich mixture (and we are), then if you want it to burn without spluttering and popping, you might be advised to use a squish band head. Thus the distance between the piston at Top Dead Centre (TDC) and the squish band (deck height) is very important for smooth running when rich. It is necessary to be able to adjust this parameter using head shims, say .003" thick for best effect. As examples, I run my G15's at .004", Rossi 15's at .012", F3D motors at .016", Brodak stunt engine at .016", and my Enya 6001 at .015" with my own head design.

Now what happened to our problem with the nitro fuel? Recall, the motor would not run rich with the plug leads off? Well, the fuel mixture must be too cold; it's cooling off the plug. So much for nitro keeping the fires lit: it's actually putting out the wick in the engine! Well, there is a certain way to fix this: increase the compression ratio. Compressing gases makes them hot, just what we want here.

Unfortunately, none of the heads available to me could be set to give increased compression. Less yes, more, no. So I made my own head.

The deck height on the new head was set to zero. Ie the piston just touched the squish. This meant that the squish adjustment was essentially infinite, so I popped in a .015" shim to give me a known deck height. The squish band was made wide, and a small combustion chamber was adopted to give heaps of compression and a small distance of travel for the flame front.

So it was off to the TARMAC field at the end of the runway of Perth domestic airport. This is an amazing field. The wind coming off the trees produces a wonderful rotor effect, so you never know from which direction the wind is coming. It is actually different at the model to what it is at the pilot, and can be by 180 degrees. You have to be insane to fly F2B there, as you can be crashed just doing a loop. It's no place for test flying a radical new engine mod, so I rolled out my lines and test flew.

Amazing. The Enya ran like a Mac-Truck diesel. It growled around the circle on the 11X8.5 at 6500 RPM, leaning out a little to power over the top of the circle and perform a neat Lomcevak as the rotor hit it. Let the FAI add that to the pattern!!

I was stoked. There was heaps of needle margin, 5.3 second laps, a real dream. So tomorrow it's off to the tick factory for some blood poisoning and a field with very little turbulence.

Results of Vintage Team Race Day at KMFC 14th November.

Vintage Half A

1 Potter / Hoggan	8.19.84
2 Camps / Pilgrim	8.37.50
3 Littley / Nolan	9.20.47
4 Bonello / Brodie	4.49.22 heat
5 Knight / Harvey	4.54.40 heat
6 Ardill / Fairall	5.05.44 heat

Vintage A first division

1 Camps / Pilgrim	6.37.51
2 Potter / Hoggan	7.04.56
3 Rothwell / Hines	dnf 120
4 Justic / Kerr	3.25.22 heat
5 Knight / Harvey	3.26.31 heat
6 Simons / Simons	3.26.91 heat

There were two watches on Camps /Pilgrim. They now have the fastest ever Australian time. In the heats Rothwell /Hines recorded 3.13.50, fastest Australian heat time.

Vintage A second division

1 Littley / Nolan	3.57.12
2 Ardill / Fairall	dnf
2 Hines / Rothwell	dnf

there was no final

Vintage B

1 Knight / Harvey	4.00.75 heat
2 Bonello / Brodie	4.28.83 heat
3 Ardill / Fairall	20 laps
4 Littley / Nolan	9 laps

There was no final as only Knight Harvey could continue.

CLAS Racing Trophy

1 Peter Camps	51 points
2 Stan Pilgrim	50
3 Ray Harvey	43
4 Gavin Knight	42
5 Grant Potter	36
6 Tony Bonello	33
7 Brian Hoggan	31
8 John Nolan	25

9 Andrew Heath	24
9 Steve Rothwell	24
11 Peter Brodie	21
12 Richard Justic	20
13 Andy Kerr	13
14 Matt Littley	10 J
15 Ian Gapps	8
16 David Hines	7
17 Greg Ardill	6
17 Ray Fairall	6
19 Graham Patterson	5
19 Hugh Simons	5
21 Robert Owen	4
22 Daniel Bonello	3
23 Will Rogers	2 J
24 Bob Fisher	1
24 Dave Simons	1

J= Junior competitor flying in senior events
 congratulations Peter (and Stan). as Peter said, it was a joint effort,



formula 1 of control line racing events and as such the mechanics tending the engines need to be skilled and in practice and the pilots need to be skilled, in practice and also very fit.



TARMAC Notes for October and November.

FAI Team racing (F2C) has been in the news internationally and on the Internet of late with the recent World and USA Championships having sparked a lot of debate. The comments, as usual, have been from a variety of sources, some knowledgeable, some less so but self opinionated, and some virtually incomprehensible. Much of the discussion was around the Americans alleged preference for flying races two up (with only two pilots per heat rather than as usually flown with the three suggested by the rules). It was implied that their lack of practice had affected their competitiveness at World Champs level because of pilot inexperience. The models that they use seem to be very much state of the art. F2C models are very demanding aircraft to fly and the more aircraft in the air at the same time, the harder it is for pilots to keep up. Whatever the reason, the hapless Yanks have been taking stick from the four corners of the Earth as a consequence.

The Europeans (including the British of course), routinely fly three up at the very highest levels of performance and with plenty of competitions have real race practice to keep themselves on top line. This is necessary because the best F2C models are extremely fast (over 140 MPH) and are powered by the very highest performance 2.5cc diesels that excel in both power and economy. They are the

The winners of the WA F2C State Championships. Jim Stivey (L) and Dick Morrow taken at Whiteman Park in the Sunshine that cooked the CD Norm Kirton to a Lobster like shade of red. Photo by Norm Kirton.

It is a bit different here in WA. After a longish period in the doldrums due to the lack of a suitable flying surface, there is a definite rise in interest in F2C since the beautiful new concrete flying surface has been laid down at Whiteman Park. The upsurge of activity has revealed a few shortcomings in our local piloting skill levels. They have largely occurred I suspect for several reasons. Apart from the obvious one that no reasonable venue has meant little or no flying of these aircraft for some time, it could also be partly because of a lack of exposure to really high performance competition and while trying to follow the rules, not knowing exactly how the written rules are interpreted at international level. It is a little like trying to learn to fly stunt from the rule book. If you make a mistake in interpretation of a stunt pattern, it doesn't matter how much you practice, all you do is practice your mistakes.

In either of these cases, what is needed is a coach that really knows how things should be done and can point out your areas of weakness. For the recent F2C State Championships, that is exactly what the lucky WA racers got. The event was directed by Norm Kirton, who is no mean pilot himself and also has experience at World Champs level. But the main help was Rob Fitzgerald from South Australia. (He is listed by Dick Lambert as being one of the ten top F2C pilots in the world). Rob came over to WA for the whole weekend coaching the pilots and acting as the jury for Norm; dishing out warnings and instructions

to the pilots.



The winning Stivey/Morrow F2C model. Powered by Mazniak engine.

Norm described the days activities as follows. "We had a day of great racing. Everyone was going fast except for Nolan/Parkes who were only using their Cyclon engined model (keeping Dave's two Mazniacs for later). This was a very wise move as they have a way to go yet.

The final was going well with Thompson/Bertina putting in a blistering performance and some 12 laps in front of Hoogenkamp/Lecknys when disaster struck in the centre. I did not quite see what happened but Jim claims that he was tired and had to pivot, putting himself across the lines of the others. All models quickly shut down to avoid a major prang (on a swift command from Rob Fitzgerald).

Hans Bertina did not want to fly again and risk their model as they are planning to go to Adelaide. So they had to be content with 3rd place. The final was re-flown 2 up with Stivey/Morrow scraping in to win by a narrow margin.

Dick Morrow's model suddenly found a bit more range to give them 33 laps which allowed them, to drop a pit stop. That clinched the race for them." Norm Kirton.

The racing was very tight and pilots had to work hard. There are still some piloting style changes to work on, BUT they were all listening and doing their best to learn. Although as the aircraft get faster and the age of pilots continues to creep up, fitness also becomes more of an issue. In time it may be necessary to substitute the plump, perspiring cabinet maker, or well nourished pastry cook type with a special genetically modified 8 foot tall and pointy headed athletic model (or perhaps not - CS).

The 'Demon' stunters designed and produced by Hearn's Hobbies in Victoria in the early 1950s are simple to build, easy to fly and quite capable of performing the vintage stunt pattern. Although the original showed a Sabre .29 on the plan, it is not a large model and most .19 to .35 engines will power it easily. I think that even a .15 should be able to do the job. The population of Demons has been steadily growing over here for a while (until today when I saw Fred Adler attempting to use his for a simple mining exercise that rendered it seriously unserviceable). Fred assures me

that he will build another. I am planning to build one for myself and we will see if there are enough for a one design contest of the type being promoted in NSW by David Owen. If not, it won't hurt to add to the numbers of active vintage designs still in use.

On the subject of vintage designs, several of our regular control line fliers have built copies of the venerable 'KanDoo' design. This model won the British Nationals 'Gold Trophy' in 1948 and was allegedly highly aerobatic (for the time). Having cast my jaundiced eye over the plans, I must confess to having had serious doubts about the honesty of it's title. I thought that 'Kan't Doo' might have been a fairer name. After seeing the first underpowered lurchings into flight of one of the local copies, I can't say that I had any reason to change my views on the potential of the design. But now I am happy to report that they Kan, in fact Doo. Russell Christensen, (seen below) having worked out that there is no substitute for raw horsepower fitted his version with a Taipan 2.5 instead of the original ED 2cc special and it can get up to the top of the circle with the best of them. Loops, eights, inverted, is there no end to it? It is perhaps not QUITE as smooth in flight as a more modern design, but it works.



Russell Christensen holding his 'KanDoo' that really CAN Doo. Powered by a Taipan 2.5 against the scenic backdrop of our tin shed filled with flying field junk, chairs etc.

A bit of bad news for West Australian modelers needing special bits made for their engines. Darryl Mills, who has for years revived ailing motors for many people across Australia is closing his workshop and moving to Tasmania. Where no doubt he will continue his flying of full sized aeroplanes. He says that it is not beyond the bounds of possibility that he will return to engine building and re-building at some time in the future. But the re-location of all the household and workshop will take a lot of time, so it will

be over a year or more before he can even consider returning to the workshop. Good luck Jean and Darryl on your re-location to the chilly depths of Tasmania and I hope we can catch up with you at some time in the future. (I have never been to Tasmania, but I have seen a map of it ☺)



From the TARMAC archives is this photo taken, I would guess, around the early seventies. Dave Campbell with his stunter 'Anna'. Photo supplied by Garry Turna.

Among the visitors to arrive at the TARMAC field lately was a familiar face. Gary Ryan, a State and Junior stunt champion back in the late 1950s arrived at the field bearing a Fox powered Ringmaster. He is still running in the engine and will be getting a few pointers from his old pal Phil Trueman prior (I hope) to returning permanently to the fold.

I recently went to see someone off at the Perth International airport. During one of the boring mandatory periods of waiting, I looked around the walls of the waiting area at all the artwork. Needless to say being an airport there were some photos of old aircraft. From my distant vantage point I recognized the distinctive shape of a DeHavilland Dragon. So I wandered over see what else was revealed at closer range. When I was close enough to read the captions, I was surprised to find the aircraft that I thought to be a Dragon was labeled as a monoplane. Which seemed odd to me considering the number of wings it had (2). Never mind, a little further along the wall I found a photo of a Dragon (that one had only one wing). I suppose you really can't expect the operators of an airport to know anything about aeroplanes in this day and age.

Treat each day as if it were your last, because one day, it will be.

Charlie Stone VH4706
Email cestone@bigpond.com

RACING & OTHER NEWS

Hot news on the Classic B front... The Rocket is almost ready for launching! Keith Baddock is putting the finishing touches on a plan which will be featured in the February issue of ACLN. There will also be a detailed construction article. Check the photo of the finished model. It is powered by an OS FP 25, but no doubt LA's and Thunder Tigers will be used as well. The plan will be available by post. Should be a great building project for '05!



Keith and I plan to fly the Rocket at the South Oz State Champs at Murray Bridge on Friday, December 31st. Both Classic B and Vintage A races are scheduled in the afternoon between 2pm and 6pm.

At least with Classic B the playing field is genuinely level. Model Racing Services provides virtually identical modifications to allowable motors in just a few days. So engines are readily available and performance of most teams in speed and laps is remarkably close.

Wish we could say the same for Vintage A! With the remarkable times being posted in NSW in the past months, some of the Vics feel they might be better off playing board games... When Steve Rothwell and Dave Hines can do a 3.13 heat and a 3.23 can't make the final, then what else can you do but just shake your head...

Seriously, full credit to the renowned NSW motor men, Andy, Steve and Stan. They have all worked long and hard to achieve these amazing results. However, it would be nice to see a few R250's in interstate hands in the not too distant future!

Back to Classic B, it's certainly a competitive event in the US. As they allow any BR motor up to .28, the mind boggles with the range of fast engines they can use. I think our event is fast enough and wouldn't like to see Rossi 21's allowed in Classic as they are in the States. Let's keep 'em for Class 2.



Here's a picture of current US Nats winner Don Burke's latest model, the SPRNTR. It has a Webra 25 up front.

Another interesting article about old time team racing has been placed on David Kidd's Control Line Nostalgia in Australia website. It is a story with photos by Roger Wise who details his youthful assault on the Victorian State Champs Class 2 Teamrace in the early 1960's. Well worth a read.

Go to; <http://dkd.net/clmodels/rogwise.html>

Control line, Radio or free Flight, we are all aeromodelers at heart. So it's no wonder that Gordon Nichols amazing 27 foot wingspan B.52 powered by 8 gas turbines has had everybody talking!



Picture courtesy of Mark Pilsworth, official B52 photographer.

Unfortunately, this magnificent model has met an untimely end during a demonstration flight in stormy weather at this years British Nats. The video of the horrific crash and photos of the awesome aftermath can be seen at; <http://www.stukastudios.se/b52.htm> Take the time to have a look.

Have a wonderful festive season and may all your flying projects be successful ones in '05.

John Hallowell,
VH 1984.



Control Line Aeromodellers of Gippsland Inc

Meeting held at Moe on Sunday 7th November 2004

The forecasters got it very right this time, the promised cold wet and windy day greeted those foolhardy enough to contemplate flying. Following a phone call from Mr Dowell the Suburban Clagsters wisely decided to stay at home.

Four Clagsters joined by four visitors ensured a sociable day even if flying was limited.

Ron Jones still perfecting the black art of "Deezil" engine starting got in several flights with Irvine .20 powered "Banshee".

Yours truly gave the Club Trainer its first flight after major repairs, all went well. I then proceeded to demonstrate the correct way to do a high speed vertical 9, with my "Viper" OS .35 combat wing. No one accepted my belief that this manoeuvre should score higher than the common vertical 8. The resulting carnage fortunately is repairable due mainly to the use of spruce spars, the extra weight was worth it.

New member, Dale Carstein, brought along his "Peacemaker" with Magnum .15 for power, the R/C carb was simply locked open. At around \$85 these little ball raced engines are a bargain. Dale and I later did a bit of streamer chasing with two Peacemakers, but the gusty wind made it very tricky just to maintain line tension.

Mr Good Vibes assisted in the beginners circle with Gavin and Robert Hillenaar getting in several flights with the club trainer.

Visitor, Adrian Chipper, a control line flyer from years gone-by, made the trip from Mansfield to join us. From out of storage he produced an elderly "Calamity Jane", with '47-'48 Anderson Spitfire 10.6cc spark ignition engine. Adrian intends firing up the beast again and with a few repairs model and engine will once again circle the skies; something to be eagerly awaited.

He also brought along a Sabre .29 engine, recently repaired, to go into an almost finished "Demon", both engine repair and model construction giving an indication of Adrian's skill as a machinist and builder.

Joining us late in the day, was visitor Matt Sheers, eager to get in some practice with his "Deezil" powered combat models. Matt also had a car-load of newly built combat models, all beautifully finished in "Oz Cover" with lightweight tissue over the top. Matt intends flying Vintage Combat at the Monty Tyrell event on the 28th of this month.

Despite the weather, an enjoyable day was had by all. Our next meeting is at Moe on Sunday the 5th of December. All welcome, bring a snag for the Barbie, drinks will be available.

Graham Keene Sec./Treas. C.L.A.G. Inc.

B25 Mitchell Bomber

Built: Tony Bonello

Wingspan: 1.8m

Weight: 5kg

Engines: 2 X Thunder Tiger 40 pro

Servos: 7

Control: Fly By Wire. Flaps, Throttle, Sequenced undercarriage doors and retracts.

Retracts: Custom Retracts (air operated)

Line Length: 21.3m

Flown: Yes

Line tension : Lots



Hi Harry,
Can you include the following article in this months ACLN?

As we lined up last weekend for the final team race event for the year in NSW, Charlie Stones words rang in my ears (or at least Charlie's use of someone else's words) "are Steve Rothwell's R250's the way of the future in Vintage A racing"?

There were six entrants in vintage A at Ku-ring-gai in Sydney. As far as I know all using Rothwells, and definitely all with an even chance of winning.

In NSW we have come to several conclusions, the main one being "make a mistake and you are out of the final". It has made for exciting racing and prevented anyone from dominating the event (3.23 had not been good enough to make the final at Luddenham).

While this must deter new entrants, "B" grade events have been run, some great to watch such as the one at the NSW State Championships. But has the horse bolted?

I hope I speak for the other NSW regulars in saying we enjoy our fast and furious racing.

I'm sure Charlie and the boys in the wild west enjoy their more "Vintage" racing.

As we eat and drink too much over the Xmas break, I have a few things for us all to ponder.

- Can both forms exist in harmony?
- Can both forms survive?
- Can either form encourage more of those who have dropped out to return?
- Can we get a uniform set of rules that competitors **MUST** abide by?

Andy Kerr, Steve Rothwell and Stan & myself don't use fast fill valves; they are not in the spirit of the event. That does not stop us from winning events (my piloting often does!).

These same three teams build models that comply with the rules and follow the original plans. That does not stop them

winning races.

I recently saw a very fast model that was unrecognizable as the Voodoo is was supposed to be!

Why couldn't John Oliver build model engines as good as Steve Rothwell?

Stan Pilgrim has prepared a C.S.Oliver, and Original Oliver and now an R250 and all are still capable of winning races. How good is Stan?

What would Ian Thorpe think if he had to break records by 2% at a time?

Finally, don't let you pondering of these questions interfere with your Xmas eating, drinking and resting. See you at the next comp.

Regards, Peter Camps.



Vintage A from Knox.31/10/04

Vintage A Team Race	RD 1	RD 2	FINAL	ENGINE
1.G.Wilson/M.Wilson	3:59.1	dns	8:23.47	CS OLIVER
2.J.Hallowell/L.Smith	4:10.87	dns	9:16.41	OLIVER
3.H.Bailey/P.Roberts	4:12.28	4:11.72	dnf 136	TAIPAN
4.G.Wilson/K.Hunting	4:25.05	4:31.16		TAIPAN

Frankston 21/11/04

Mini Goodyear	rd 1	rd 2	ENGINE
1.G.Wilson/M.Ellins	3:56.62	3:31.97	OS CZ11PS
2.C.Ray/J.Ray	4:09.65	4:11.31	CS 09
3.G.Wilson,C.Ray/K.Hunting	4:32.22	4:24.49	OS CZ11

F2D Modified Combat

1. Ken Maier	W (80pts)	W (198pts)
2. Graeme Wilson	L (-202pts)	L (84pts)



Vintage Combat from KMAC 28/11/2004

1. G.Wilson	W W W L W W	Ironmonger G20/15D
2. K.Maier	W L B W L L	Ironmonger PAW
3. M.Ellins	W W w/d	Ironmonger G20/15D
4=. S.Reeve	L B L	Warlord G20/15D
4=. M.Wilson	L L	Ironmonger G20/15D
6. J.Hallowell	L w/d	Peacemaker SC 15G

Monty Tyrrell Memorial Trophy 28/11/2004

(Best flight of 2 rounds)

1.	Adam Kobelt	2429	2708
2.	Mark Ellins	2474	2647
3.	Dave Nobes	2631	2483
4.	Doug Grinham	2557	2119
5.	PJ Rowland	2549	2209
6.	John Hallowell	2338	2404
7.	John Goodge	2320	2355
8.	Dave Lacey	1895	2297
9.	Ken Maier	2051	1999

Detailed report and photos in next issue.

A mixed bag of Vintage A models were to be seen at Knox on Oct 31st. From left to right are Gengangren, Footprint, Voodoo, Pfft and another Footprint. The unpainted model in the centre is nearing completion and is being built by the editor. It is an "Olympian MK3" a 1953 model designed by Colin and Terry Smith and was pictured in Model Aircraft Aug 1953



The 2004 British Nationals Reports and results

F2C Report by Andy Whorton

The first day of the 2004 Nationals Champs gave us excellent weather with the sun shining pretty well all day and a breeze that was light enough to allow easy three up races.

Racing got underway at mid-day on the Saturday and it was Smith/Brown who led the way in the first round with a nice 3:15.8. Ross/Turner put in a 3:20.0 to claim second place and Langworth/Broadhead were in third spot with a 3:25.9. Mike Fitzgerald was flying with Mark Thomason for the first time this year and they recorded a 3:29.9 just 0.4 seconds ahead of Swedish visitors Larsson/Gustafsson with a 3:30.3. Derek Heaton had paired up with USA visitor Wallick and they recorded a 3:35.4.

The other two rounds were held on the Sunday and we were greeted with a heavy wind on arrival at the airfield. Discussions were held and it was decided that three-ups were going to be very dodgy and all racing would be flown as two-ups. In actual fact no-one broke the 3:30 barrier on the Sunday and the only changes were in the minor placings.


Monday was not quite as bad (albeit a bit windy) and the semis were held as three-ups. Fastest in round one were again to be Smith/Brown and Ross/Turner with 3:20.6 and 3:21.0 respectively - Fitzgerald/Thornason holding 3rd place with a 3:29.0. Langworth/Broadhead did not take part in the semis at all due to Bernie suffering from a strange virus and not feeling safe to fly. Bainbridge/Metcalf in their first outing as a new team put a competent time of 3.56.

In the second round several teams elected not to fly having good times from the day before, Bainbridge/Metcalf seemed to lose laps from the earlier practice and put in a time of 4.37. Heaton/Wallick had a good run - albeit rather controversial. Wallick loosed his model under the gliding model of Barker/North causing them to stall into the wind and crash in. The GBR/USA combination was allowed to fly on for a tank - then disqualified - then re-instated. Derek Heaton refused to land his model when instructed to do so following the disqualification and the time was allowed to stand. In my mind this was a totally incorrect decision as their take-off under a gliding model had clearly caused Barker/North to crash and as a result they were able to fly the rest of the race virtually solo - resulting in a 3:19.3 which was the fastest time in the semis.

In the final all was going well for the three teams during the first two tankfulls but the Heaton/Wallick model fell apart in the air on the 66th lap (possibly broken wing at the first stop) and the other two teams were able to fly the rest of the race two up. It was fairly close between them but Smith/Brown finished four laps ahead with a 6:51.0 - Ross/Turner coming home in 6:58.9. All in all it was a very disappointing event this year with many teams reluctant to fly in the rough conditions and resulting chaos for Dave Rudd in handling the draw. He did in fact, on several occasions, have to resort to organising races for "whoever wanted to fly"
Thanks to Dave Rudd for running the F2C event at this years Nationals.

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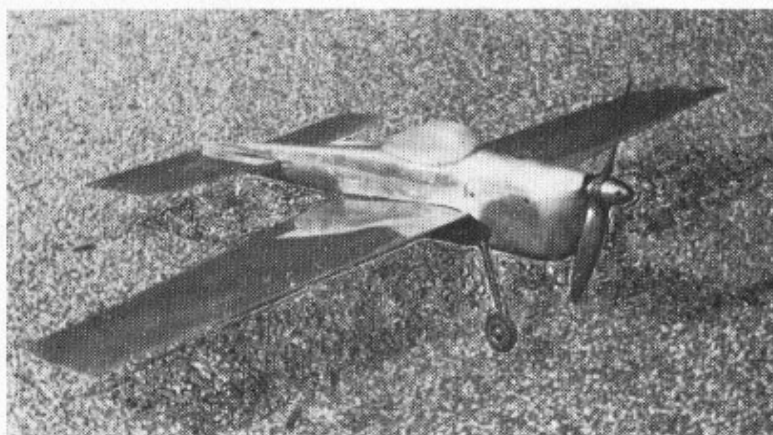
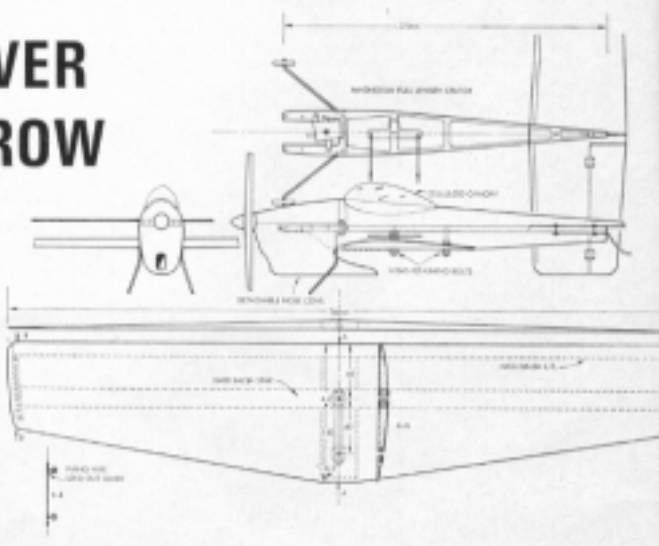


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F2ACW03	6 X 6.4	
F2C04	6.3 X 6.1	
F2C05	6.3 X 6	<i>Supercool</i>
F2C06	6.8 X 5.8	<i>First in Racing</i>
F2B	11 X 5	

SILVER ARROW



It's amazing what some modellers got up to way back then... Here's an all metal Class A racer from the 50's! At 580 grams it was lighter than many of the balsa racers of the time. Perhaps it was light because it had no fin. The Silver Arrow won Class A at the 1957 German Nationals. Oliver Tiger powered, of course!

British Nationals Results

F2A Speed

	KPH	MPH
1. Pete Halman	294.8403	183.21 1
2. Ken Morrissey	293.6378	182.47 2
3. Gordon Isles	291.7342	181.28 3

NB: Because of the bad weather, only Round 1 flights took place and only four times were recorded

Handicap Speed

1 Paul Eisner Open .15	206.46 1
2 Peter Halman F2A	183.21 2
3 Ken Morrissey F2A	182.47 3
8 Rose Pat 40	169.99 8

NB: Because of the bad weather, the other entrants and classes were not flown.

Vintage Speed

Perriam/Rabjohn
May
Mealing



NB: Because of the bad weather, only Round 1 flights took place and only three times were recorded.

F2B Gold Trophy

1. Bill Draper	3870.5
2. John Benzing	3678.5
3. Roy Cherry	3663
25. Paul Eisner	3035

Classic

1 Mick Taylor	1908
2 Glen Alison	1879.5
3 Paul Winter	1856.5

Class 2

1 Tony Smith	822
2 Barry Wade	809
3 David Hardy	789

Vintage

1 Mick Taylor	646
2 Dave Day	605
3 Glen Alison	603
6 Steve Crawford	499

F2C Team Race

1 SMITH/BROWN GBR	03:15.8	DNF	DNF	03:20.6	DNF0	6:51.0
2 ROSS/TURNER GBR	03:20.0	DNF	DNF	03:21.0	DNF0	6:58.9
3 HEATON/WALLICK GBR/USA	03:35.4	03:48.0	U/A	33 LAPS	03:19.3	66 LAPS (Crash)
12 BAINBRIDGE/METCALFE GBR	03:56.7	04:37.6	U/A			
13 MILES/YELDHAM GBR	03:58.9	71 LAPS	U/A			

F2CN TEAM RACE

1 HEATON/WALLICK	08:41.3
2 BARKER/NORTH	08:42.0
3 SHARP/SHARP	114 LAPS
6 ISIDRO/RIDLEY	

OPEN GOODYEAR TEAM RACE

1 McPEAKE/ROBINSON	08:47.2
2 COURT/COURT	182 LAPS
3 CATLOW/JEPHCOTT	DQ

1/2 A TEAMRACE

1 BARKER/NORTH	08:20.3
2 FITZGERALD/THOMASON	157 LAPS
3 BAINBRIDGE/METCALFE	DNF

BRITISH GOODYEAR TEAM RACE

1 CRAWFORD/VAUGHN	09:31.0
2 BARKER/NORTH	107
3 DAGLIESH/WORGAN	DQ

Novice Brit GY

6 ISIDRO/RIDLEY	177 LAPS
7 COURT/COURT	68 LAPS
8 ROBERTS/HOWELL	DQ

PHANTOM TEAM RACE

1 ISIDRO/WARD	06:40.3
2 MORRELL/WATERLAND	07:20.7
3 MILES/EISNER	DNF
4 PAFFETT/STEPHENSON	
6 CRAWFORD/VAUGHN	

MINI-GOODYEAR TEAM RACE - JUNIORS

1 WEBB/TRICKER	17:16.1
2 SHARPE/SHARPE	17:24.0
3 HARPER/HARPER	36 LAPS

MINI-GOODYEAR TEAM RACE - SENIORS

1 DAGLIESH/MORRELL	08:54.2
2 TRICKER/PAFFETT	10:11.8
3 LEVER/WATERLAND	

1/2 A VINTAGE TEAM RACE

1 Toogood/Ward	9:46.0
2 Green/Newbold	11:35.1
3 Larsson/Gustafsson	11:47.0
4 Isidro/Ridley	
9 Bainbridge/Orchard	

A Class VINTAGE TEAM RACE

1 Haywood/Haywood	7:19.0
2 Toogood/Ward	7:24.2
3 Green/Long	7:26.8
6 Bainbridge/Orchard	

B Class VINTAGE TEAM RACE

1 Toogood/NVard	3:20.9,	3:21.4	6:36.5
2 Gough/Myszka	3:18.9	Dnf	6:45.2
3 Isidro/Ridley	3:29.2	3:30.3	Dns
4 Bainbridge/Orchard	3:29.7	3:44.2	

F2D Combat

1. Igor Dementiev
2. Mike Whillance
3. Mervyn Jones
= 17 Mike Waller
= 17 Nigel Etheridge



These reports and results were taken from the Autumn 2004 edition of "The Court Circular" the newsletter of the Three Kings Aeromodellers London U.K.

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2nd HALF OF MISS BJ ARTICLE.

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Club News

The next club meeting of CLAMF will be held at the secretary's home on Friday Dec 10th and will be preceded by a BBQ meal at 6pm. All members are invited to attend. BYO meat and a chair.

The views and opinions expressed in ACLN do not necessarily reflect those of the Editor or Committees of Clubs or of the members of the Club represented in ACLN but are those of the respective authors.

Any comments, queries or complaints with respect to any article in this publication should be addressed to the author of the article.

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