FREE FLIGHT DOWN UNDER

NEWSLETTER OF THE AUSTRALIAN FREE FLIGHT SOCIETY INC

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FULL LOST HILLS REPORT

ISAACSON WINTER CLASSIC

DUTCH WORLD CUP

PAN AMERICAN OPEN

MAXMEN 2011

64TH NATIONALS

BIG SCALE ME-109 PART 2

FRONT COVER:
Powerhouse Ukranian F1C flyer, Artem Babenko, on the way to another perfect flight at Lost Hills MaxMen competition during February 2011.

Free Flight Down Under

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Free Flight Down Under is the newsletter of the Australian Free Flight Society Inc, a Special Interest Group of the Model Aircraft Association of Australia. FFDU welcomes contributions in the form of articles, letters, pictures, etc on any aspect of Free Flight or related topics. Contributions can be sent to the above address or emailed to the editor. Electronically prepared material is preferred.

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PRESIDENT'S REPORT:

Greetings to everyone for the first edition of FFDU for 2011. Once again Malcolm Campbell is the guiding hand in putting this newsletter together, so thanks to Malcolm and all those who have contributed to this edition.

Well the Dalby Nats have been run and won, and despite the poor weather conditions leading up to and more so afterwards, I think that they were probably one of the best I have attended over 20 plus years. The organisers and hosting club/s did everything possible to make them a 'competitors' Nats. The level of pre-preparation was excellent, highlighted by the way they ran despite the weather and field conditions that prevailed.

It was unfortunate that the number of out of state competitor was down, although in many cases it wasn't from a lack of trying! I believe that there is a report in this FFDU so I'll just say congratulations to Dale Jones, John Taylor and the rest of the organisers, along with all the Dalby crew for the hard work put in before, during, and after to make the event so memorable and successful. Well done.

As many of you will know we had a number of Australians competing a few weeks ago in two World Cup events at Lost Hills, California. Several of them made it to the fly-offs in various classes, and Phil Mitchell achieved third place in the Max Men World Cup F1A event, missing second place by a solitary second. Congratulation to Phil and everyone who competed.

The World Championships in Argentina are now only about seven weeks away, and Australia is again sending a strong representation, with many of the team having attended Lost Hills as an opportunity to blow some cob webs out before heading to South America. I am told that the Argentineans make wonderful hosts, and have a band of very dedicated modellers and organisers, boding for a great competition. Best of wishes for everyone on the Australian team, go Aussies!

Finally, a reminder to all that Narrandera is being held later this year due to the World Championships being held earlier than usual. According to Vin Morgan we can look forward to better weather in late May/early June than we usually see at Easter, however the temperatures will be definitely cooler, so bring the woollies with you.

Until the next edition of FFDU, Happy Thermals and Regards

Ted Burfein

FROM THE EDITOR:

Wow, a FFDU with contributors! A big "Thank You" goes to Roy Summersby, Paul Rossiter, Tahn Stowe, Neil Murray, David Brawn (UK), Lee Hines (USA) andTony Matthews (Canada), the last two telling us a lot about their chuck gliders. Gee, it makes the newsletter so much more interesting with new ideas, new styles and variety. I still wear myself out with each publication, by trying to improve the layout and this edition took a lot of my time compiling the MaxMen story and sifting through the 650 photos I took. And guess what? I have articles left over for next edition. Hallelujah!

Maxmen, what a week, or 12 days for some of the Aussies. We set up a little RV park on the field and that grew steadily in the few days before the first weekend. It would have been great just to walk around watching all the activity, and there was plenty, particularly on the Isaacson weekend. You think we have lots of classes? So watching was fun, and flying with world greats was a real buzz too. This is one event you should put on your Bucket List.

It's not long to go before Argentina. I'd love to go and watch but this year will be big enough with California, Narrandera and a few trips to Dalby to account for. Good Luck to the Australian Team. Held in the Southern Hemisphere this time, we may just be right up there with the best. Come On Aussies!

Malcolm Campbell

NINE DAYS AT LOST HILLS

by Malcolm Campbell

MaxMen was an eye opener for me. It was my first time. I've made the hop across the ditch to Omarama NZ and loved it, but MaxMen was at a whole new level. It was great.

Of course the trip over, though quite long, was buoyed by enthusiasm and lots of on board new movies. And the bus to Bakersfield gave us a hint of what LA traffic can be like. 2.5 hrs later, we were at Cruise America getting fitted out for our home on wheels. Cruise America did well out of us, as Vin, Leigh, Roy and Di had one, as did Terry and Karen, Paul and Tahn and Gary and myself. Paul Rossiter ("*generator man*") had one all to himself. Tahn and Paul were to arrive the next day, as they stayed the night south of LA with Lee Hines.

The RVs in Camp Aussie at Lost Hills
Would we be sharing in the Pot Of Gold?

Photo courtesy of Brigette Brocks

The trip to the Lost Hills field was quite straight forward so, after buying the essentials at Wasco (and a few items at the Dollar Tree Store before we left Bakersfield), we made the field before dusk. It was then that we noticed that Phil and Noels had upstaged us with an El Monte luxury motor home, complete with pull out wall. And, as they boasted about their great little antique cappuccino coffee maker, they would need to keep their door locked!

Terry did the LAX to LH drive by motor home, without the luxury of the restful 2 hour bus ride, so he "crashed" at LH RV Park and we didn't see him until the morning. Paul arrived on dusk, thanking God for his accurate GPS co-ordinates, as he would have ended up sleeping by the roadside without them.

So most Aussies and sole Kiwi Paul were there a full three days before the events started; a wise recommendation by Lost Hills old boy Roy. As the days rolled on and the jet lag faded, the parking area for RVs at the field started to expand, and the motor bikes started to arrive. The bikes sure have replaced horses in the US, because it appears everyone has to have at least one. Those who walked to retrieve envied them.

The motor bike parking lot at Camp RV

We all adapted to the motor homes to various degrees, although the cold snap the first night caught us all out. This is where Paul got his knick name "generator man", as that needed to be running to fire up some essential devices including the floor heating. With Paul nearby, alarm clocks were unnecessary. Five of us went back to

Why are we so happy? We've just bought some decent sleeping bags. Don't you love the Lost Hills entry signs?

Wasco the first morning to buy Arctic sleeping bags. It was really great to be able to walk straight from the breakfast table to the flight line, or just watch proceedings from a comfy chair in the sun. And it could be quite warm in the sun. But we were to experience quite a range of weather.

By Friday, serious modellers had completed their preparation and the number of overnight vehicles had reached their peak. With so many events planned for the first weekend, there was something for everyone. And by then my nasty cold had kicked in and laryngitis was not far away. Others were to get the same, courtesy of some "unmuffled" passengers on the flight over.

Close to the motor homes, the Nostalgia guys had set up, flying various sizes of wonderful old timers, powered from small TDs up to 35s and possibly bigger. The sounds were wonderful. Moving left and slightly out from the RVs were the chuck glider boys – HLG, CLG and TLG. And weren't they enthusiastic. Launch heights were amazing. I'd watched the TLGs testing on dusk earlier in the week and I honestly though they were F1Hs, such was their height and glide speed.

I loved the big Texan

Bruce Hannah's magnificent Raven was designed by his father

They're really serious about chuck gliders at Lost Hills. Check out all the classes they fly.

They even had a class for compressed air

As the Bob Isaacson Memorial events were held in conjunction with the Dutch World Cup events, Pim Ruyter's show was further away from the motor vehicles, with F1Bs and F1Cs sharing the flight line. At the end of the line on Saturday were the F1Hs.

The **Dutch World Cup events** attracted a lot of entries. I'd never seen such big fields so it was all very exciting for me. **F1B** was flown on Saturday and from 45 flyers, 26 contested the first 5 minute fly off. Just witnessing the mass winding for the fly off and then the wild rush for the good air was extraordinary. And no one collided. Eight fronted for the 10 minute fly off and Alex Adriukov

Some of the 26 winding for the first fly off. Michael Seifert is in the orange cap on the right

convincingly led with a 7 min 40 secs answer to Walt Ghio on 6 min 40 secs. Charlie Jones was 3rd, 22 secs in arrears with Stepan Stefanchuk a further 23 secs behind. A great event! Of the 5 Aussies competing, only the mercurial Terry Bond made the first fly off, finishing 16th, then came Paul Rossiter 31st, Vin Morgan 33rd, Leigh Morgan 41st and Gary Pope 43rd. Kiwi Paul Lagan came in 35th. Both Australia and New Zealand were to perform better later in the week.

F1C saw a mix of designs; perhaps 40% folders and the rest fixed wing or flappers. All attained great height and it was hard to pick who would lead. Vbertisky and Truppe had flappers and Babenko had a wonderful "art deco" folder. Art deco? Perhaps because of the vintage black and red colour scheme and more so because of the softly curved wing tips and tail surfaces. His models were worth watching. I've never seen so many competitive F1Cs and all the big names seemed to be there. 16 entries put on a powerhouse display, although Alan Jack withdrew early when his model "landed" very hard – not sure if the motor had cut, but the angle of approach was near vertical. Another model suffered a similar fate but I'm not sure who flew it. Things fortunately settled down after that and I stopped looking over my shoulder

every time an F1C launched. Doug Joyce's canard pusher was fascinating. I understand he's been campaigning such models for many years. I can't understand how the prop doesn't bite him on launch but it sure grabs your attention in the air. Such was the competition that 15 fronted for the 5 minute fly off. While 6 the exceeded 7 mins in the 10 minute fly off. Only Artem Babenko cleaned it with a perfect score, 72 secs ahead of Reinhard Truppe with Lynn Pulley third with 7 min 46 secs. Sole Aussie Roy Summersby, although maxing the first fly off, put in a zero score for the second fly off, hence 13th place. Ouch!

F1Q attracted just 5 flyers and there was no fly off. John Oldencamp narrowly won with 1,320 secs from Michael Pykelny on 1,319 secs and 3rd place getter Frank Pollard on 1,317 secs. A very close contest.

A healthy field of 30 competed in **F1A** and many were in good form, with 14 qualifying for the 5 minute first fly

Per Findahl was impressive with his flapper, held here by Mike McKeever

What women want? Ivo Kreetz and Allarde van Wallene attracted lots of attention with their "SpeedPants"

off. Veteran Lee Hines should have been there too, but his R7 score was 179 secs. Time to look for a new timer, Lee? It was great to watch the styles of Roland Koglot, on top of his game, the athleticism of Per Findahl and the cheekiness of the men in tights, the two Dutch flyers, Ivo Kreetz and Allarde van Wallene. It truly was a great event to witness, with many of THE names of F1A locked in battle. 14 figured in the 5 min fly off, with 7 maxing it. The 7 min fly off saw Roland Koglot take his first title of the week with a perfect score, with Per Findahl just 8 secs behind and Brian Van Nest taking 3rd with 5.5 mins. Kiwi Paul Lagan picked up 5th with Phil Mitchell in 7th,

Lots of nice gear to admire on the flight line

Roland Koglot, at the start of a perfect and totally dominant week of F1A flying

55 secs in arrears. Vin Morgan was 13th and Tahn Stowe, who was also flying F1J, finished 24th.

So 11 flew in **F1H**, including such greats as Per Findahl, John Cooper, Mike McKeever, Lee Hines, Brian Van Nest, Phil Mitchell and Chris Edge. Only two in the fly off and Per Findahl took it by 24 seconds. I had the distinction of flying the only straight tow balsa model and, as my very first towline glider was a Pink Elephant, I was chuffed to have John Cooper launch for me.

F1G had a massive 27 entered, with 22 flying. 8 made the fly off and wily Don DeLoach led the way from Blake Jensen, 6 seconds in arrears. Stepan Stefenchuk also made the fly off to finish 5th and Alexi Bukin was further down the order after dropping R4, suggesting that the air wasn't easy to pick. Aussie Leigh Morgan did very well right up until the last round, and was the second girl home, finishing 5 seconds ahead of Tiffany O'Dell. Young Sarah Radziunas did very well finishing 4th.

F1J was not as popular, with 6 flying and 4 making both of the two fly offs. Going from the 4 minute to the 6 minute fly off, young Taron Malkhasyan, a junior, led Roy Summersby by 21 seconds. Tahn Stowe's 3 maxes in his

Tahn Stowe worked hard flying F1A and F1J

first competition outing were creditable, as he also flew F1A. Better results were to come later in the week.

FAI Style CLG attracted 8 flyers with many scoring the 90 second max, no more than Paul Love with 6 maxes and an 85 sec flight, finishing well clear of Stan Budenbohm who also racked up 6 maxes. Lee Hines was just 2 seconds behind!

As the sportsmen age, **CLG** appeared more popular in the US, with 16 entrants. Only Ken Bauer recorded 4 maxes (of 120 secs), finishing convincingly clear of Stan Budenbohm and Bruce Kimball. Juniors Sevak Makhasyan, Tyler Portnier and Taron Malkhasyan finished 12th, 13th and 14th. CLG in USA achieve fantastic altitude and usually a very good transition.

AMA HLG also had 16 entries and they all sought the elusive 120 sec max. Mark Covinton found 5 maxes to easily win from Tim Batiuk and Paul Love. F1A flyers Ken Bauer and Lee Hines were 4th and 7th.

Nostalgia Tip Launch proved a popular but very close win for long term F1A flyer Lee Hines with 4 maxes and a 48 sec flight, ahead of Ken Bauer who also got 4 maxes and a 42 sec flight. Nine entries here also demonstrated how popular chuck gliders are in the USA.

Gollywocks had their own event and also a mass launch. Five competed in each with Hal Cover clean sheeting the 5 rounds with UK'er Martyn Cowley, who now resides in sunny CA, taking third place. Don DeLoach made up in the mass launch, beating Hal by just 8 seconds.


Luke Napier test flies his Gollywock.

Photo courtesy of Brian Furutani

Keep in mind there were only two days for these competitions and I'm only half way through the events! So I'll be brief for the remaining Ike events.

E-36 also had 5 entries and Hal Cover cleaned sheeted that one too, with seven 2 min maxes.

Nostalgia Wakefield was dominated by Don DeLoach with 1,423 secs ahead of Bruce Hannah and four other contestants.

P-30 only had 8 entries and I thought the scores would have been closer, but lift picking must have been tricky with Clint Brooks easily winning the event with 493 seconds from 4 flights. Their models were not unlike ours in rubber choice and performance.

½ A Nostalgia Gas had 10 entries and Frank Pollard and Bruce Hannah maxed their first 4 flights and then turned in 168 seconds apiece to tie for first place, well clear of the opposition.

In **ABC Nostalgia Gas**, eleven competed with Bruce Hannah recording an amazing haul of 15 x 3 minute maxes, ahead of Don Kaiser's 13 maxes. Jim Hurst in 3rd place was "only" 1,329 seconds behind. No wonder these guys use motor bikes for retrieval!

Seven flyers in **Vintage FAI Gas** saw Bruce Hannah rack up another 5 straight maxes to finish yet again in first place.

8 contestants attempted **Classic Glider** and there were some beautiful examples of the Talon competing. The winds were pretty light so the scores were quite spread out with Tim Batiuk the only one to crack 500 secs for his 3 flights. Junior Sevak Malkhasyan finished in 4th place with 301 seconds.

Compressed Air and the **Compressed Air mass launch** had 5 entrants with John Morrill recording 445 seconds over 3 flights to win the competition with 3rd place getter Jim Alling winning the mass launch with 113 seconds. This sure is a clean, quiet and economical class.

The "on field" presentation was attended by many and went off well. Non competitors were kept interested by

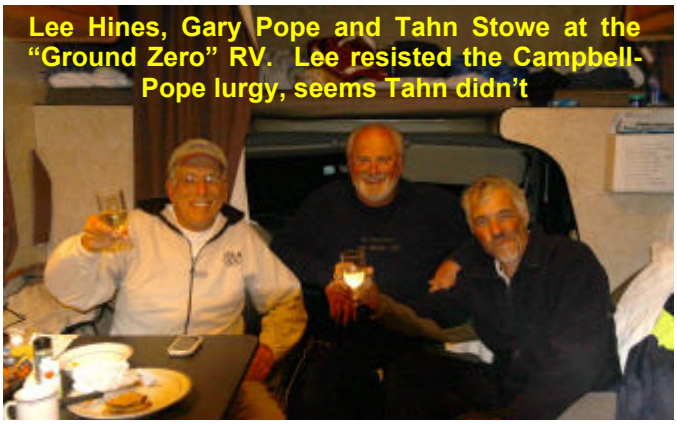

The Green Machine

Junior Sevak (or is it Taron?) Makhasyan cleaned up. Watch these two brothers when they reach Seniors!

F1A World Cup winners. Brian Van Nest (3), Roland Koglot (1) and Per Findahl (2)

the many lucky number prizes given out. And, as the sun set, the temperature started heading down into low single digits, and my cough returned.

Socialising post comp was good, thanks to the cases of prepaid wine sent down by Mike Roberts. I enjoyed a few nights of this before I quarantined myself in the RV, hoping my cold would go away, which it didn't. I became a silent observer of the social gatherings while the sun was out and missed what makes Max Men such a great week when the sun sets. Drat!



Lee Hines, Gary Pope and Tahn Stowe at the "Ground Zero" RV. Lee resisted the Campbell-Pope lurgy, seems Tahn didn't

There's plenty of oil still in the ground at Lost Hills

What followed the weekend were two spare days, where some elected to practice, repair, prepare or drive around the local attractions. Terry and Karen ventured the furthest, spending an overnight in Paso Robles, close to the west coast. Paul Lagan volunteered to bring me up to speed with the Black magic electronics in the two Lee Hines F1As I'd purchased, but I was too crook to fly. Later in the week I did try the Buntbone under the watchful expert eyes of Phil Mitchell and Paul Lagan. I was still pretty much off colour and proved so enteraining in the eyes of the Aussie "fan club" that they sat in deck chairs, drinks in hand, and cheered with my every mistake. They vowed to return the next evening with score cards. I elected to skip a night.

F1A chatter, even on the spare days

Wednesday was the **Pan American Open** for F1A, B and C. Though slightly smaller in entries, the events were still great to watch. Only five rounds were flown in each event. **F1A** attracted 27 entrants. Quite a few of the "greats" significantly dropped rounds suggesting it was not an easy day. Ten still made the fly off, although only one was needed. Roland Koglot's laminar flow model managed 6 mins 4 secs, finishing 86 secs ahead of Spain's Javier Abad, with American Jim Parker 2 secs in arrears for 3rd. Phil Mitchell trailed by 7 secs in 4th.

Per planned to pedal when retrieving

Ken Bauer checks the airfoil on Allarde van Wallene's slick F1A

Aussie iron man Phil Mitchell didn't need a motor bike. Check out the beautiful field.

Only other Aussie to fly was Vin Morgan who unfortunately broke his new model in R3 and withdrew from competition.

This can only end in tears for Peter Brocks

F1B was also "subdued" with *only* 18 entries, and only a few Aussies flew. 6 made the fly off with Anatoli Ribchenkov 1st with 6 mins 11 secs comfortably clear of Stepan Stefanchuk with Tony Matthews 3rd. Kiwi Paul Lagan came 5th in the fly off with a very creditable 4 mins 13 secs.

F1C attracted 11 flyers and 6 made the fly off. Roy Summersby, like two other flyers, only flew R1. Still, 7 clean sheeted it. Austrian Reinhard Truppe put in a great 8 mins 51 secs to barely win the event from Kenny Happersett, 3 secs behind. The great Eugene Verbitsky was 3rd with 8 mins 24 secs with Artem Babenko 4th recording 7 mins.

Terry Bond is not good at folding road maps either!

Winner of the F1C event, Austrian Reinhard Truppe. Note Ferrari stickers on wings

A novel feature of this event was the teams entries, for each of the classes. Results for these were:

F1A

1.	Spence/McKeever/Bauer	2,637 secs
2.	Stamov/Findahl/Koglot	2,628 secs
3.	Parker/Van Nest/Johnson	2,622 secs

F1A winners - Team USA

F1B

1.	Horak/Beldam/Matthews	2,295 secs
2.	Lagan/Morgan L/Rossiter	1,927 secs
3.	Stefanchuk/Ribchenkov	1,800 secs


F1B second place - the Aussie/Kiwi team

F1C

1.	Babenko/Verbitsky/Shevden	3,772 secs
2.	Happersett/McBurnett/Che	3,511 secs
3.	Summersby/Bond/Nyhegn	705 secs(?)

Another day to recuperate and then it was **MaxMen**. And even more entries!

34 contested **F1A** on Friday, in what was quite a mixed bag of conditions. Once again, only 5 rounds were flown, and the flight line was shifted as the winds changed towards the motor homes and gypsum pits behind them. It would then turn a further 180 degrees.

Something I forgot to mention were the "lunch breaks" we had around 12.30 each day which was great because the on field canteen served excellent food, and real coffee. The chunky soup and hot chocolate were smash hits on the colder days. And when the flight line moved, so did the canteen. No walking – excellent! 11 figured in the fly off, with Roland Koglot winning "3 from3" over the week with a final flight of 5 mins 28 secs, flown after the rain showers. American Andrew Barron trailed by 46 secs


UK "bovver boys" hassle PerFindahl into revealing all the secrets of his F1A flapper


Who wouldn't enjoy MaxMen with catering like this!


Victor Stamov answers questions from an admiring fan

with Phil Mitchell ONE second down in 3rd place. Where were the other Aussies? Vin Morgan was 20th with 915 secs, Tahn Stowe 24th with 899 secs and Mal Campbell 27th with 878 secs, who was pretty pleased with 4 maxes from a new model, including R1.

Tahn Stowe and Phil Mitchell get ready

Four Aussie launch styles: ***Clockwise from above***
Terry Bond, Paul Rossiter, Leigh Morgan and the Gary Pope "stomp".

A massive 48 entries in **F1B** and 18 in F1C created a mylar pole city. 25 Wakes made the fly off. Georgian Anatoli Ribchenkov did best with a score of 6 mins 26 secs. Ukranian Oleg Kulakovsky thought he had second just ONE second behind, until Blake Jensen tied his score. The subsequent fly off for second saw Oleg lead Blake by 11 secs. Stefanchuk was 4th, 3 secs in arrears. Looking at the remaining fly off scores there were some remarkably close times for the lesser places. Aussies? Well Terry Bond came in 15th, Paul Rossiter was 17th, Leigh Morgan 28th, Gary Pope 33rd and Vin Morgan 35th. Kiwi Paul Lagan did well in the fly off, recording 3 mins 54 secs for 23rd place. Paul had one monster retrieve in the rounds, when his model flew in windy conditions for 7 minutes, retrieval by push bike.

Stepan Stefanchuk launches in F1B

There was air to share

Alex Andriukov, 20 secs off the leader, placed 5th

F1C had a class field of 18 entries, and the results would have been hard to predict. 13 of the 18 made the fly off! Eugene Verbitsky put in a massive 9 mins 50 secs flight to lead Reinhard Truppe by 102 secs, with Jeff Ellingotn 3rd, and 17 secs behind. Roy Summersby flew verry well into 4th place with a time of 7 mins 51 secs. Artem Babenko experienced an overrun and subsequent crash in the fly off, and then his reserve model failed to fire, dropping him to an uncharacteristic 13th. It was interesting to note that only one flyer failed to record a 4 min max in R1, and that was Henning Nyhegn. But it never stopped him from smiling and enjoying every day of this wonderful comp.


Nice launch


Mike Roberts, checking the opposition


Ist: Eugene Verbitsky (UKR)


2nd Reinhard Truppe (AUT)

So we come to the **Saturday night Banquet**. Time to scrub up and get off to the banquet, held at the Wasco Elks club some 40 miles away. Instructions weren't exactly shared around so Gary and I got there about an hour late, sampling the navigational advice of about 4 locals. The food was ample, the trophies and conversation good and it was all over before 10 pm.


True Love: Brigette and Peter Brocks, and our Roy Summersby and Di Hanna


Henning is always happy. It surprised Noels.

Not sure if Vin and Phil were flapping but Phil's talk with Roland was purely laminar

Sunday, the last day of a very long 9 days, actually 12 days for most Aussies. **F1G** had 16 entries, with 3 women. No Leigh Morgan, a pity, because her model had been flying very well. Blake Jensen's very effective looking model, with wing and tail DT, needed three fly offs to take the title from Charlie Jones, 37 secs behind. Blake's final flight was a massive 9 mins, with Walt Ghio, Peter Brocks and Tiffany O'Dell deciding not to fly the final fly off.

Blake Jensen's model should always DT, with a pop-up wing and opposing tail

Lead pair in F1G, Blake Jensen and Walt Ghio get away in one of the fly offs

F1H was a great little event, and the air made us work all that much harder. Per Findahl always looked in charge but who were to follow him was not easy to guess. With 11 entries, including me with my straight tow Andy Crisp model, I knew where I would end up. 6 maxed out and Phil Mitchell was so unlucky, recording a 119 sec flight in R3. 5 maxed the first fly off, and 4 the second fly off. Per Findahl, John Cooper, Brian Van Nest and Mike McKeever remained, and that is how they finished with Per comprehensively winning with a massive 6 min 28 sec flight from John Cooper, who trailed by 98 secs.

It really wasn't a stroll for John Cooper, he worked quite hard for second place. Phil Mitchell looks skyward for what happened in R3 and Chris Edge chats with F1J winner Alan Jack

F1J had five competitors with sole Aussie Tahn Stowe clean sheeting it wit the others to sit out the fly off. Alan Jack led the way with 5 mins, junior Taron Malkhasyan second by 18 secs and Faust Parker 3rd with 4 mins 28 secs.

Alan Jack discusses his plan for winning F1J with a rather disbelieving group of Aussies

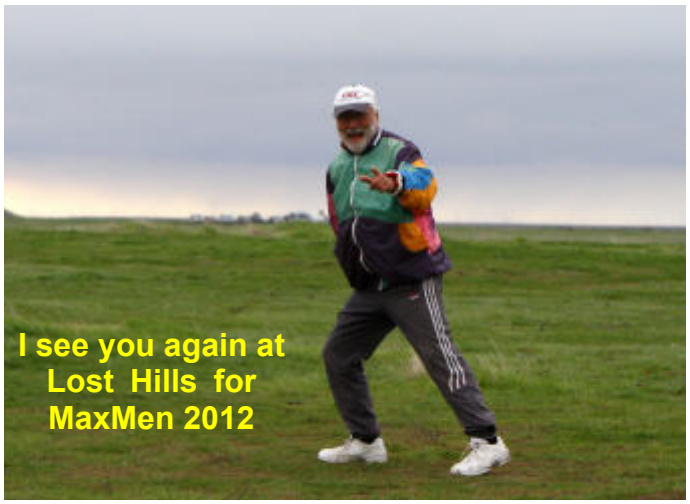
Mike did well on his bike but only managed 4th on the day

Gary Pope only put in one flight in F1J. The looks on their faces suggesting the "landing" was too steep.

Youthful Canadian F1C flyer Yury Shevdenko came in 5th behind Roy Summersby

Our little group wraps it up at the RV park

And so ended our time at Lost Hills. Most Aussie RVers elected to leave the field on Sunday night, to enjoy a real hot shower, electricity and mains pressure water at the Lost Hills RV park. From there, we went our separate ways - Terry and Karen off to Death Valley, Las Vegas and beyond, Roy and Di to the airport for time in Seattle, etc and Paul Rossiter, the Morgans, Gary Pope and I heading for LAX and our flights from there. Vin thought Lost Hills wasn't cold enough (well, most days it wasn't), so they were off to the east coast to sample some really icy weather.



THE FULL CIRCLE -- Part Two

by Roy Summersby

In part one of the last issues of FFDU, the ME 109 F was ready for instruments, pilot, covering etc, so I will describe what has taken place since then. Tail wheel is made from foam in the same manner as the main wheels, the wire support simply goes up into a metal tube so it can swivel and be removable. The instruments were made up using metal rings for the surrounds, very thin celluloid for the glass, and photo copy paper for the dials. Once again using the Great Book of WW 11 Airplanes and a photo copier, the dials can be made to size, cut out and placed in the

correct positions. One source for the metal rings is in the sewing shops, they sell gripper studs and one part of this is perfect, they come in a variety of sizes to suit all models.

The pilot I used, is a product from small scale custom services, and is available from SAMS, although the NSWFFS do have a few in stock at present. They come in two parts so it is a "do it yourself" job, cut out, glue together, add a base and paint. My finished pilot, ready to glue into the cockpit, weighed just 3

grams, and doesn't look too bad. Other small parts were the exhaust stubs which were cut from aluminium tube cut on an angle and glued in place. The huge air intake was carved from balsa. Under wing radiators were built up and added after covering.

Covering: After getting holes from grass spikes in the Focke Wulf, something stronger than model span was needed on a larger model. Knowing how strong 30 micron laminating film is on 1/2A combat models, I decided to use it. All flying surfaces and the underside of the fuselage are covered in this, the sides and top of the fuselage is model span. The film went on easier than I expected, and stiffened the wings better than I thought it would. After some experimenting with painting the film, and even using plastic primer, it was easily scratched, so I decided to cover the film with tissue. This is often done on F1B models for colour, but I had never done it, so once again it was a, teach yourself how to do it job.

I decided to use Esaki tissue, as it has a nice finish as well as being light. I put the tissue on wet, using 50/50 dope and thinners around the edges the same as I would cover any wing. When I was happy it was all straight, I brushed through the tissue using 20/80 dope and thinners; this in theory sticks the tissue to the film. It seemed to work very well, but later in the painting stage, I found places where the tissue hadn't stuck. Esaki seems too sealed, even to let the very thin dope through. Next time over the film, I will use good old model span, it's always been my favourite tissue.

Painting: I am sure it took longer to decide on a colour scheme than building the model. As luck would have it my model is an F type, there were only about 2000 built out of a total of around 30000 Messerschmitt's, now if I had picked an E or G type I might still be looking. After spending many hours going through all my books, and still not coming up with a definite decision, it was off to the specialist military book shop in Parramatta. There in Vol 11 of the BF109F was the colour scheme I just had to have. It looked like some German artistic boy had been let loose with a spray gun when the boss wasn't watching, and put graffiti on both sides of the fuselage. This plane was flown by Lt Hans BeiBwenger on the Russian front in August 1941. With yet another book on aircraft to add to my collection, I was off to the specialist hobby paint shop, for the genuine colours.

With expert advice and help from ex modellers (soon to be back in the fold I hope), John and Steve Pennells, the complicated colour scheme was no problem at all. This father and son team know which end of the spray gun to hold and how to go about what I thought would have been a real challenge. Most of the time was taken, sitting at the table with fuselage and book in front of me, trying to get the dark lines in the same position as the book, using a 6B pencil over the base coat. Once done these lines were gone over using an airbrush with the finished colour. A part from these lines, the whole model was sprayed with my small touch up spray gun, including the dark patches inside these lines. The paints used on the model were Hobby Color and Tamiya Color, both acrylic paints.

Front end: Always daunting for non rubber flyers, if you ask the experts they just say, carve this, cut that on some angle, bend a bit of wire etc to make it all work. Have you tried making folding propellers work properly? It's not my cup of tea. In the early stages of building the model, I had decided to use F1B blades, these are very efficient and with F1B hangers made to suit a much wider front end this should be the answer. As well as efficiency, other

advantages are that the blades can be replaced if damaged, and can be adjusted for pitch if needed. I do hope to mould carbon blades which will look a bit more realistic soon. The nose block is 13mm balsa, faced each side with 0.4mm ply, in front of this is a Jelutong disk to which the prop shaft and prop hangers are fixed, this forms the rear and driving hub part of the spinner. Front part of the spinner is made from laminated balsa, rough cut out on a band saw, turned and sanded to shape on a lathe. It is held to the Jelutong section using small magnets which gives access to the driving prop wire and ballast box.

Insignias: These were cut from vinyl by another ex-modeller friend who just happens to be in the sign making trade. These have put the finishing touches to my biggest scale project to date.

For those of you that might like to have a go at this form of modelling, I have listed the weights of my model. The plan and details that I started with gave no clues on what the finished model, or parts should weigh, so I guess this can be some sort of guide for other builders of, WW11 1/8th rubber scale fighters. We should all have at least one in the hanger.

	UNCOV	COV	PTD
Wings (2)	56	85	101
Stab	9	16	18
Fin	7	9	10
Fuselage	135	171	193
Prop, front end, 3 blades			122
Total flying weight 444g+rubber 80g?+ballast 50g?			574?
Undercarriage			33
Tail wheel			2
Parts fixed to fuselage:			
Pilot			3
Canopy			13
Ballast in spinner (to bring CG to 27%)			50

I must make the tail end lighter on the next one!

Now this Messerschmitt hasn't finished up like the first one I bought from the newsagent in 1952, but will it fly? We will find that out as soon as I make a system to wind the rubber outside the fuselage like the F1B guys. I must say that I have enjoyed building it, and if it flies, that will be a bonus.

Now have I gone the FULL CIRCLE, or just started from the edge of the circumference?
Roy Summersby

How about a national F1Q competition similar to the Dixielander events?

Paul Rossiter

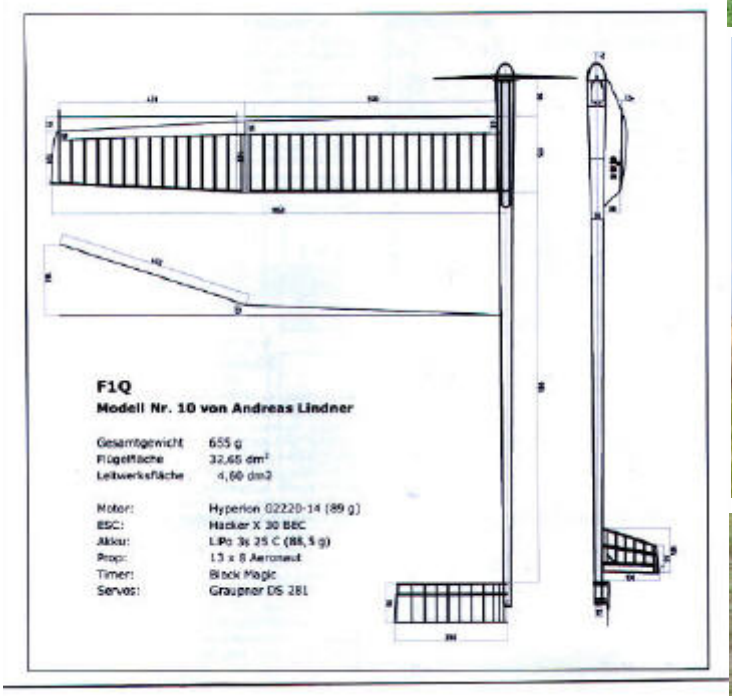
Tahn Stowe and I had an interesting discussion with Frank Pollard at Lost Hills, USA, earlier this year regarding the development of F1Q and started to wonder if we might build on the recent success of the Australian Dixielander events on the east and west coasts and get something similar going in F1Q. Frank is a proponent of simple models based on 1/2A power designs and has won a number of competitions in the USA.

In order to get the ball rolling, here is a very brief background on the class. A more complete review of the technology as of 2008 was given in Free Flight Quarterly issues 27 and 28 and there has also been a lot of discussion in the various magazines and chat sites.

F1Q is a relatively new electric powered FAI free flight class with a very simple set of rules, the main points being: 90g maximum battery weight for LiPo batteries, 25 secs max motor run time (but this can be reduced by a CD), 7 flights of 180 secs max in rounds, with the motor run decreasing by 5 secs in each subsequent fly off round. See the FAI website for the current rules in full.

So far there have been two distinct paths followed:

1. **High powered F1J type rocket ships** with variable surfaces and straight climbs:



These models use either geared inrunner motors or outrunners running at about 500+ watt power levels and get OOS in 5 - 10 seconds.

2. **1/2A type models** with fixed surfaces going up in spiral climbs, this example being the popular 1/2A Maverick favoured by Frank Pollard:

The simplest of these models typically have wing areas of around 300 - 400 sq ins, weigh 8 - 12oz. all up and use outrunner motors running at about 100 - 200 w power and can max regularly on 15 sec motor runs.

Now to our proposal:

..... *Please turn to the next page*

How about a national F1Q competition similar to the recent Dixielander events held in NSW and WA?

People could convert existing 1/2A models, build new ones or go the whole hog with the "F1J" approach. Or we could stipulate a one-design Maverick? If there is enough interest in the class then it might lead to its incorporation in State and/or National competitions, and those so inclined could go the whole hi-tech development path.

In order to facilitate the low cost, low technology route, the following may be helpful for those getting into electrics for the first time.

The key components for a low cost package would be:

1. A 1/2A Maverick airframe (plans and possibly a short-form kit could be made available).
2. Either 2S or 3S LiPo battery pack with suitable connectors.
3. A timer to control the motor and DT
4. An electronic Speed control (ESC)
5. An outrunner motor and prop.
6. A small servo for DT
6. A battery charger suitable for LiPo batteries.
7. A motor watt meter (to help in selecting the best propeller)

This list might be a bit daunting for those without electric experience, but the costs can be quite low. For example, typical costs from discount on-line outlets (such as Hobby King) are:

2S or 3S LiPo battery pack	$ 6
Timer	$30 - $90
ESC	$10 -$15
Outrunner motor (150w)	$ 8 - $12
Small servo	$ 10
Battery Charger	$30
Watt Meter	$24

Thus, the complete power system and all the support gear could be put together from scratch for around $120 plus postage.

Costs from local hobby shops would probably be a bit higher, but we should consider giving them our support lest they vanish entirely.

Those who already have batteries, motors, chargers, watt meters, PDA's for programming advanced timers, servos etc could of course get into it for much less.

What to do?

If you are interested in this idea please send me an e-mail at kathymay@ozemail.com.au and we will get a group discussion going (I don't Facebook or Tweet!). We could arrange for plans/kits and I could provide specific recommendations for all of the necessary components for those new to electrics.

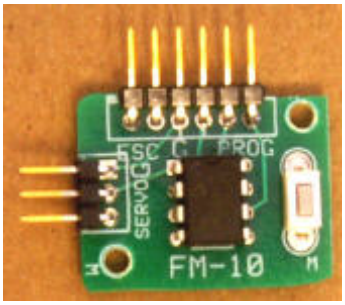
MORE F1Q - see page 29

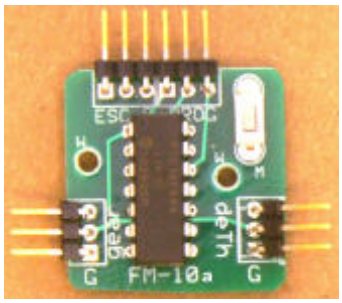
The New FM-9FF system: Computer-based Control for Free Flight models

The FM-9FF system is composed of a small battery-powered programming box combined with two very small and light "timers" for the airplanes. Together they allow the user to very accurately, easily, and reproducibly control four times and three power levels. With the FM-10 timer, a dethermaliser servo can be actuated. With the FM-10a timer, both a dethermaliser servo and retractable landing gear can be controlled.

1. The first control is of what is called the Takeoff phase. Times from 0 to 25 seconds are available and throttle levels from 0 to 100%. With the FM-10a, landing gear can be retracted at the end of this time.
2. The second control is of what is called the Climb phase. Times from 5 to 99 seconds are available and throttle levels from 0 to 100%.
3. The third control is of what is called the Cruise phase. Times from 0 to 99 seconds are available and throttle levels from 0 to 100%.
4. The fourth control is of what is called the dethermaliser phase. The power level is 0 and times from 0 seconds to 99 minutes and 59 seconds are available. With the FM-10 timer, the dethermaliser servo is deployed at the end of this time. With the FM-10a, the dethermaliser servo is deployed and the landing gear is lowered.

When the FM-9FF programming box is connected to one of the timers and turned on while holding down the





"Start" button, the following message appears on the liquid crystal display (LCD): 'FM-9 Free Flight Prog: Press "OK"'

When you do press the "OK" button, you get the message: "Take-off time: xx seconds", where "xx" is the number of seconds currently programmed. You may then use the "UP" and "DOWN" button to increase and decrease the value. Following a push on the "OK" button, the next message appears: "Take-off Power: xx.x% throttle, where "xx.x" is the throttle value, to a precision of ½ of 1% of full throttle, and you may similarly increase or decrease its value with the "UP" and "DOWN" button, before going on to the next message. (If you don't have retractable gear or do ROG, you can just make this time zero.)

Similarly, successive messages and displays allow you to precisely set the takeoff and cruise times and power settings. The last control display is "Dethermalise time xx min xx sec" and you get to program the delay time until the dethermaliser servo is actuated, if installed. With the FM-10a, the landing gear servo is also actuated to drop the gear for landing.

Electric motor-powered free flight airplanes are primarily the target for this control system, but even rubber-powered models can use the dethermaliser and landing gear capabilities by adding a receiver-type 4.8V battery.

After the timer has been programmed, the flight parameters are stored in the timer unit and remain until changed by the programmer. Three pins of the 6-pin connector to the programmer are connected to the three-wire leads from an ESC (or a battery) and the timer initializes the ESC with a throttle-off signal. When the user pushes the start button (either on the circuit board, as shown, or remoted on 6" leads), there is a delay of one second and then the takeoff phase begins. However, for testing and safety, the motor may be shut off at any time throughout the three power phases. This provides an unprecedented flexibility in both initial testing and in contest use.

The FM-9FF programming box is available now for $75. The FM-10 is $10 or $12 with remote leads and the FM-10a is $12 or $14 with remote leads. Priority shipping and handling for the programming box and any number of timers is $8 in U.S. ($12 for first-class shipping in other countries.)

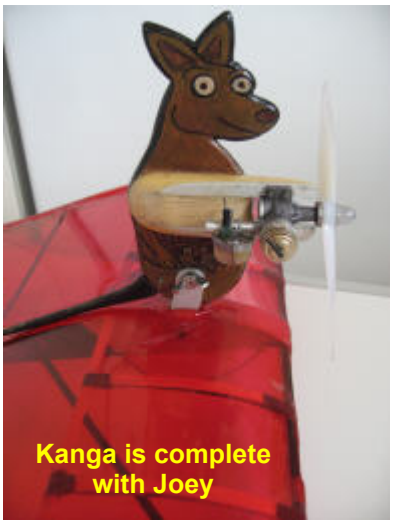
Wilbert Hubin whubin@kent.edu

CARPETS

Tahn Stowe has sent some pictures of his latest Magic Carpet. Could this be an **iCarpet 4.0**? Apparently, the new open frame structure was prompted by the new management team following the forced retirement of Abdhul and his brother Mustafa and the buy-out of the original company.

They had established the mark back in 1972 and had witnessed incremental changes over the last 39 years with varying degrees of success. However, with new blood comes new ideas and new systems.

An all up weight loss of 120 grams has produced an excellent Flying Carpet that is visually pleasing and enormously strong. Kanga's first comp was a winning score of 2,753 seconds beating Andrew Heath's Corflute version by 500 odd and 3rd by over 750.


Kanga is complete with Joey

A Kanga Karpet spokesperson has warned though that flying after 9 am in summer could prove problematic with thermal activity a definite threat. Time will tell.

Regards, Tahn


The old and the new


Is this the best Scramble model, ever?

64th Nationals DALBY

31 December – 7 January 2011

by Malcolm Campbell

ARRIVAL Thursday 30 December: Barry Frederickson made it from Rockhampton, David Brawn from Mundubbera, Albert and Adrian from the Gold Coast, all the Brisbane contingent made it, plus Peter Lloyd, Len Surtees, Bob Craine and Bill East, all from various directions and/or States, to arrive on the Thursday. The way into Dalby was from Toowoomba on the Thursday, but the media frightened everyone away. Locals knew the ways. MAAQ website data and photos, and text messages to competitors gave them the latest Dalby news. I spoke to the Van Park where we were booked into, on the banks of the Myall Creek. We only had to wait 24 hours to get in. And our unit had a foot of water in it 24 hours earlier. In 24 hours, the flood height had receded by about 2 - 3 metres, with no further rain expected for the week. The afternoon we arrived, we even went out to the substitute field to examine it and some flew on it. We were pleasantly surprised.

The substitute field at the Dalby Cotton Gin exceeded our expectations - high and dry!

Day 1, Friday 31 December

F1A

Weather fine and sunny. Light winds from the south. 8 entries, 6 flew

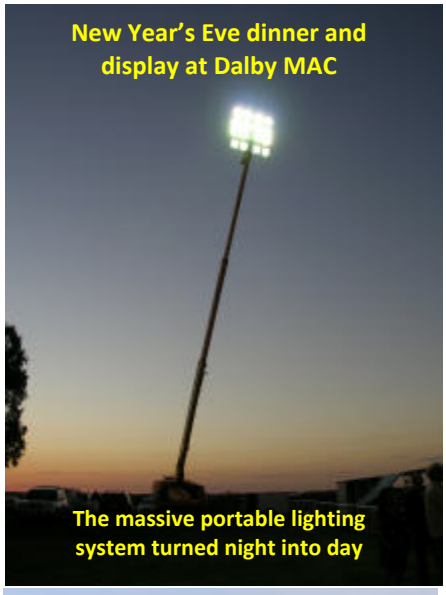
Most elected to straight tow, with the wind conveniently aligned to the hard stand road base. Many of these roads criss-crossed the field making for easy walking and motorised retrieves. We were to try many launch sites during the Nationals. The roads usually are home for thousands of cotton containers but we had the grounds to ourselves. Light winds for the 6am start saw just Ted and Malcolm max. Malcolm elected to circle tow in all rounds, with gusty winds contributing to two very low scores. In round 2, Albert joined Ted as the only two to max and several found the dam. John flew his new 6 panel model but was troubled by an early bunt to stall down in R1 and then pick poor air in R2. He then deployed his old "Fish Head" model in R3 and appropriately stuck it in the swamp. Albert Fathers went way, way beyond the dam, whereas David Brawn went into it, ending his competition. Albert reached for his short model. After losing "Fish Head", John went back to his M & K bunter. The two soggy models were later retrieved by the Dalby MAC "search and rescue" team of Andrew Liddle and Ken Hartman, with Andrew paddling a very nice Hobie kayak.

F1A victors: Malcolm Campbell 3rd, John Lewis 1st and Albert Fathers 2nd

Lift picking tested the straight towers and Ted put paid to his chances with low scores in the next three rounds. John Lewis's 6 panel model flew very well, awarding him with 5 straight maxes, one of which wasn't down for 8 minutes, such was the lift he put it in. Des had two long and difficult retrieves, causing him to drop R4 and R7. A strong finish by Albert Fathers in the final rounds and a mistake by Malcolm in the final round reversed their places with Albert claiming second behind John Lewis.

NEW YEAR'S EVE PARTY at Dalby MAC

Dalby MAC put on some great entertainment at their field, with giant 3D models performing their impossible aerobatics, little ducted fans and fast high wing aircraft chasing each other around the sky, and colourfully lit helicopters doing what helicopters aren't supposed to do. An awesome display of combat skills was given by Tom


New Year's Eve dinner and display at Dalby MAC

The massive portable lighting system turned night into day

Linwood as he hurled his wing around at incredible speed performing the tightest aerobatics I've ever seen. It was humbling to see he wasn't even looking at his model a lot of the time! All this was made possible by a lighting system second only to the MCG, or so it seemed. The ladies of the club put on one of their delightfully nourishing two course meals which we ate out on tables under the stars, with the accompaniment of good music from a pretty potent sound system . A fantastic night that would have made their club proud.

Day 2, Saturday 1 January

F1G Weather fine and sunny, light winds from the south. 16 entries, 9 flew


John Lewis

The class was made up of predominantly purchased F1Gs versus Brian Taylor's balsa model and, from the onset, it looked like a battle of the Jones boys, on the windiest day of the Nats. William and Darren both put up 4 maxes to lift the pressure considerably. John Lewis and Brian were troubled by a couple of low scores but John kept putting in good flights with his 1300mm Bukin model, whereas Ted Burfein didn't hit his straps until the final round and Graham Maynard retired after two rounds.

R4 saw an epic flight from Darren Jones, high and well past the dam, giving him a long retrieve. William's flight also maxed, falling short of Darren, but lack of signal put paid to his day. His model appeared lost.

A long 2 hour search by Des, John, Malcolm, William and Darren was successful, with William's model being found by Darren, under water with just a small part of the fin visible! The retrieval was aided by a duck, whose take off signalled the position!

Oz Diesel 9 entered, 3 flew


Graham Maynard

Three flew with Graham Maynard getting away first with an under-elevated tight circling model to record 39 secs. Des's flight started well but there was no lift and he was down in 64 secs. Malcolm got better air and was awarded with a max and a long retrieve. On his way back, he witnessed Des Slattery's forced landing on the cotton gin's roof, terminally damaging his model. Andrew Liddle organised the roof-top retrieval of Des's broken model.

Day 3, Sunday 2 January Fine with cloudy/blue skies and strong south easterly wind (4 - 5 m/sec)

F1B 12 entries, 7 flew

A strong SE wind forced the flight line to the southeast end of the paddock and maxes were set at 2 minutes by CD Peter Nash, to be as far away as possible from the dam. Still in **Round 1**, many overflew this imposing obstacle, with Adrian, Albert and Mark in the sorghum crop and William's model floating, on the far side of the dam, on the western bank. Difficult retrieve #2 coming up.

Graham Maynard broke a wing in this round, after landing in the crops. He went on to have a timer failure in **Round 2**, DT'ing under power at the flight line, but he survived that. Not so lucky on his second attempt, with prop and wing tip damage causing retirement. All other competitors maxed R2, with most models reaching the edge of the flying field.

Adrian Bryant tested the resolve of his minder Albert, with an early DT, and then retired his model in R4 after a cock-eyed launch caused prop and wing damage.

With winds abating slightly in **Round 3**, thoughts of increasing the max were discussed. Albert sub-maxed when he struck bad air close to the gin. By **Round 4**, winds had calmed further and the 2 min max remained, but William was still able to sub max with a 1:52 score. Mark, Ted and John were still maxing out. **Round 5** was still set at 2 minutes, as the winds were now sending models towards the cotton gin. It was in this round that William Jones called it quits, dehydrated from 2 days of difficult retrieves in hot and humid conditions. John got the best air and the shortest walk, and Mark Armour barely scrapped in the max, with his model DT'ing centimetres from the ground. Ted had the big walk, DT'ing high above the cotton gin, and landing behind it.

In **Round 6**, the max was increased to 3 mins. John launched first, sucked in by an admiring audience. He stalled the prop in an uncharacteristic launch and missed by 5 seconds. Ted got away in better air, gliding in the opposite direction and easily maxing. Mark followed, getting good height, for a max.

The wind had shifted 180 degrees for the final round and only three contestants remained. They would be launching over power lines and retrieving over a large uncropped field. So **Round 7** was the pressure round, with tactics starting to show. John wound first and burst his motor. Ted waited and John blew another motor. Ted walks out and Mark winds. All out together and waiting. Pre-storm conditions make for tricky air. John cooks and breaks motor #3. John winds and breaks motor #4, only to choose a stale and grubby replacement. Ted launches into good air and maxes from a good height. John launches hard left, inducing a stall and, with no height or help, is down in 93 seconds. Mark continues to wait, launches and gains good height from turbulent air causing a stall that recovers, and maxes.

Two in the fly off tomorrow. Pressure was showing at sun up, with one fly off contestant unhappy that he couldn't gain early access to the field. The air was buoyant with little drift. Tactics again, with both contestants out on the flight line, waiting. And waiting. With just a few seconds left, Mark and Ted launched simultaneously, Ted's model flying flatter and not gaining as much height. Drifting lazily in different directions, Ted was down in 4:15, with Mark extracting another 21 seconds to win the event with a 4:36 time

F1B victors: Ted Burfein 2nd, Mark Armour 1st and John Lewis 3rd

Day 4, Monday 3 January

F1H Very light winds south, to south east. 8 entries, 5 flew.

Round 1 had unhelpful air for those without VITs. John who did have VIT was the only C/T model, and he over bunted with a timer/bent wire malfunction to be down in 53 seconds. No one maxed R1, although Brian Taylor, flying a SuperMax model, topped the table with a floating 94 seconds. Good air in the middle rounds rewarded many and the downers bit a few. Malcolm had his model loaded up at the start of the R4 launch only to lose his footing and just got it away without folding the wings for a results changing dismal score. John getting great height for a max in R5 and a further lazy 6 minute DT into the dam

F1H: Malcolm Campbell 2nd, John Lewis 1st Brian Taylor 3rd

3 klms from the flight line. Not to be outdone, Des also DT'ed high but the Lil Hinney failed to come down, as the DT line had hooked up and the tail wouldn't release. Luckily it was in the binos until landing 8.5 mins later, over the Moonie Highway and the railway line. It was during F1H that the TV media arrived, taking various interviews and action shots to go towards a 2 minute show that appeared both locally and in Brisbane, promoting the Nationals.

HLG

Hot with light breezes and thermal gusts, lift and downers. 5 flew.

No one was able to beat the Morris Dancer Tip launch design flown by Peter Lloyd. The race was for second place, as Peter reeled off two maxes and a 59, with a 55 for good measure! John Lewis flew a Sting 21 finding good air on one flight to move into second place. John's model DTed into the cotton crops and with the help of John T and Brian was able to keep on line to find the model. Albert placed third with consistent flights, although Brian Burke and William Jones were off the pace. Brian treed a good model during testing, where it remained.

CLG

11 entered, 8 flew

Light winds and heat greeted those who flew in CLG. David Brawn entertained the spectators with his natty little Zing Wings – they didn't fly too badly in the light air. William Jones was on the pace, with two late maxes, losing one of his models, and this was found in the northern cotton field. Dale Jones put in 3 respectable scores and will improve with practice. Bill East flew well and Albert Fathers said "goodbye" to his model in its last big flight. Des Slattery damaged his best model in early flights and John Lewis never seemed to get his model going. Malcolm started his flights with a 1:52 that ended just inside the second row of cotton and then did 3 reasonable flights hampered by low trajectory launches. His final flight was a ripper, disappearing from binoculars after 8 minutes, very high, and no DT.


Malcolm Campbell CLG

Day 5, Tuesday 4 January

Scale

7 entries, 2 flew

Conditions were perfect for Scale, with very light variable winds. However only two flew. Robert Craine's Avro Baby normally flies well but on this occasion it failed to make the required qualifying time. He apportioned blame to the new set of lighter wings he'd built, but it looked more like small warps that stopped his flights early. By contrast Brian's Piper Cub J3C Grasshopper had an impressive Initial climb and scored well in flight realism.


Bob Craine's Avro Baby

Day Scramble

9 entered, 2 flew

This was flown first with an uncharacteristically low number of entries. So disappointing. Duration was reduced to 30 minutes in front of an audience of anxious P30/F1J/F1C flyers. Malcolm's Mills powered Scooter flew effortlessly in the light airs, landing close to the flight line most times, racking up a good score. Mark's Boddington Mills powered Ebeneezer took a while to get into the groove but failed to catch up.


Where were all the Scramble flyers?

F1C

9 entered, 3 flew

Due to flooding in the Dalby area,the Nats flying began a day late. So F1C was postponed from Thursday 30th till the morning of Wednesday 5th January. The program ran where possible as published with just F1C and P30 postponed till later.

Only John, Peter and Ted decided to contest the event and with the forecast of possible rain and flooding there was pressure to get as many events over in the remaining time. As both Peter, Ted and John had other contests to fly on Wednesday it was agreed to decide the event with a single flight during the running of the scale event.

Peter was away first but a poor transition resulted in a stalled glide for much of the flight returning a score of just over 2 minutes. John had starting difficulties due to a clogged pressure fitting. Eventually this was cleared and with a run of 4.1 seconds and a half done bunt John's model quickly settled into the glide. The air was nice and smooth but not helpful and the model appeared to be under elevated as it landed a little over two minutes. The scores confirmed that Peter was ahead by a few seconds which more than likely would have been the result if all seven rounds had been flown. Ted Burfein failed to get airborne.

P-30

6 flew


P30: Graham Maynard 3rd, Malcolm Campbell 1st, and William Jones 2nd

Always a chance for big fly off in P-30, the majority got going early while Malcolm stooged around helping Des and Brian. Albert, Brian and Adrian sub-maxed their first flights, William and Graham didn't. Maxes from William, Graham, Albert and Brian in their second flights made things more interesting, but Graham dropped 3 seconds in his final flight. The others didn't. And then Adrian maxed as well. By that time, Malcolm had finished a number of trimming flights addressing thrust, glide turn and DT action, and the final test flight looked good. But it was now 12 noon; time to get started. Three maxes followed in air that endorsed his choice of wing DT, with flights 1 and 3 terminating very high. Flight 2 was marginal, the DT going off early and the model fell rapidly, arriving on the ground for a time of 2:02. A fly off with William Jones was eagerly awaited but William had DT issues and preferred not to risk his model. The final result was set by three tosses of a coin, only two needed.

F1J **14 entries, 4 flew**

I don't have a report for this event but observed that all flyers encountered problems. John Lewis had less than most to win and Des Slattery did very well with an old model that started untrimmed and flew beautifully in the last two rounds, milking lift from very low heights. The results would have been quite different had it been trimmed before the event! Ted had a launch he'd rather forget pulling hard right and retiring upon landing. Peter Nash, in a most uncharacteristic oversight, failed to turn on the timer and terminated his flight in spectacular fashion.

Day 7, Thursday 6 January **Overcast, light drizzle and buoyant air**

Open Rubber

14 entries 6 flew


William winds his ex-Peter Twiss OR model

Open Power and Open Rubber began around 7.30am with winds increasing to around 4 meters per second but changing direction regularly.

First flights went parallel to the cotton field with most landing in the muddy stubble field. Albert walked right across the field to the Warrego Highway and radioed back for a car to pick him up. John walked 100 yards or so in wearing gum boots – this was a very sloppy and slippery paddock. Later flights drifted between the cotton gin buildings and a group of trees. John set shorter DT's to save the model. Malcolm only flew one flight as he was preoccupied with Open Power dramas..

Both Albert and William went for broke. Albert was so unlucky to have his model clocked off as it DTed behind the cotton gin on his last flight. William landed in a tree but was lucky to have Andrew (Dalby MAC member) drive past – see the problem and organize an extension ladder and retrieve the model for William. William won by 1 second over Albert!

Open Power

12 entries 5 flew

Contest reduced to 3 flights due to time constraints.

In Open Power, most models drifted towards and over the Cotton Gin, particularly after 8am. Peter Nash put up an impressive flight which landed over the Condamine road in sorghum above his head. Malcolm's first flight had a conservatively short engine run, landing down the paddock but his second flight landed near the road after a 55 sec motor (over)run to the cloud base, in a perfect steep spiral pattern, and he was unable to locate the model. Later that evening, he was informed by a local he had found the model and taken it home, 20 klms away! Des made his 3 flights, landing out of harm's way.

Winners are grinners Peter Nash

Vintage Power/Rubber/Glider

Flying in these events was keenly awaited by many of the contestants and it would have been a great set of events, with the clash between Des's Nebula, Malcolm's Seraph and Albert's Kane an obvious highlight. The weather gods indicated otherwise. Well, it wasn't really too wet to fly, but it was certainly marginal on getting home without a boat, as we later found out. Only one risked it, waiting at Dalby while everyone else decided the rains had returned, and quickly departed. So William Jones put in a token flight to record a flight of 45 seconds in Vintage Rubber No flights were made in Vintage Power and Glider.

Conclusion:

Congratulations must go to the organisers on a running a successful Nationals under exceptionally gruelling conditions. Certainly, we were down on numbers, but the obvious planning, facilities and services offered to flyers at each field were extraordinary. I am sure that all those who attended will leave Dalby with fond memories. Our substitute field was quite adequate, as far as substitute fields go, the New Year's Eve flying spectacular and the hot food was sensational. The Dalby MAC's hired lighting system almost challenged the MCG!

Des Slattery receives his Hall of Fame award from MAAA president Mike Close

The Nats dinner, hastily rearranged from the Dalby RSL to the Dalby Leagues Club due to flood damage was excellent and I was amazed to see how the small band of caterers could keep up with the indulgent appetites of most modellers. The Mayor gave a wonderfully supportive speech and of course seeing Des Slattery receive his Hall of Fame award in front of over 100 fellow aeromodellers went off very well. The icing on the cake for us was the daily food drops, the shade tent, ample chairs and the cool water.

A truly memorable Nats, and one where the weather gods smiled upon us for the 8 days of competition. Well done, guys and girls!

NATIONALS RESULTS

F1A	Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Rnd 6	Rnd 7	Total
1 John Lewis	157	113	180	180	180	180	180	1170
2 Albert Fathers	130	180	60	162	180	180	180	1072
3 Malcolm Campbell	180	22	180	180	180	163	53	958
4 Ted Burfein	180	180	72	74	84	180	135	905
5 Des Slattery	138	46	180	-	180	180	-	724
6 David Brawn	81	164	-	-	-	-	-	245

NATIONALS RESULTS continued

F1B

		Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Rnd 6	Rnd 7	Total	Flyoff
1	Mark Armour	120	120	120	120	120	180	180	960	272
2	Ted Burfein	120	120	120	120	120	180	180	960	255
3	John Lewis	120	120	120	120	120	175	93	868	
4	William Jones	120	120	120	112	-	-	-	472	
5	Albert Fathers	120	105	120	-	-	-	-	345	
6	Adrian Bryant	120	120	93	-	-	-	-	333	
7	Graham Maynard	120	36	Att					156	

F1C

1	Peter Nash	134
2	John Lewis	127
3	Ted Burfein	-

Scramble

1	Malcolm Campbell	841 secs
2	Mark Boddington	138 secs

F1G Results

		Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Total
1	John Lewis	120	120	102	120	117	579
2	Darren Jones	120	120	120	120	92	572
3	Brian Taylor	120	73	120	117	110	540
4	William Jones	120	120	120	120	-	480
5	Ted Burfein	93	74	94	70	120	451
6	Adrian Bryant	91	-	120	-	-	211
7	Graham Maynard	96	89	-	-	-	185

F1H

		Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Total
1	John Lewis	53	114	120	90	120	497
2	Malcolm Campbell	66	120	120	31	114	451
3	Brian Taylor	94	61	35	93	120	403
4	Des Slattery	39	63	120	56	120	398
5	David Brawn	56	39	-	40	-	135

F1J

		Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Total
1	John Lewis	49	76	108	120	95	448
2	Des Slattery	37	70	50	120	120	397
3	Ted Burfein	11	-	-	-	-	11
4	Peter Nash	Att					-

HLG

		Flt 1	Flt 2	Flt 3	Flt 4	Flt 5	Flt 6	Total
1	Peter Lloyd	**60**	55	**59**	19	**60**	-	179
2	John Lewis	21	24	**34**	**60**	**26**	11	120
3	Albert Fathers	**33**	22	4	8	**30**	**32**	95
4	Brian Burke	11	**22**	**25**	9	13	**24**	71
5	William Jones	3	8	6	**12**	**23**	**11**	46
6	Bill East	-	-	-	-	-	-	DNF

CLG

		Flt 1	Flt 2	Flt 3	Flt 4	Flt 5	Flt 6	Total
1	Malcolm Campbell	**60**	**37**	23	20	28	**60**	157
2	William Jones	27	15	**34**	**60**	22	**60**	154
3	Albert Fathers	20	**21**	**34**	19	21	**60**	115
4	William East	8	**38**	**25**	**42**	23	19	105
5	Dale Jones	7	7	**22**	11	**26**	**33**	81
6	John Lewis	**14**	**35**	3	3	13	**14**	63
7	David Brawn	**21**	4	**14**	12	**28**	4	63
8	Des Slattery	7	1	9	**12**	**12**	**11**	35

Scale

		Aircraft	Static	Flying	Total
1	Brian Taylor	Piper Cub J3C	755	183	938
2	Robert Craine	Avro Baby	526	-	526

P-30

		Flt 1	Flt 2	Flt 3	Total
1	Malcolm Campbell	120	120	120	360
2	William Jones	120	120	120	360
3	Graham Maynard	120	120	117	357
4	Albert Fathers	105	120	120	345
5	Brian Taylor	61	120	120	301
6	Adrian Bryant	92	74	120	286

OZ Diesel

		Rnd 1	Rnd 2	Rnd 3	Total
1	Malcolm Campbell	120	78	120	318
2	Graham Maynard	39	94	104	237
3	Des Slattery	64	-	-	64

NATIONALS RESULTS continued

Open Rubber

		Flt 1	Flt 2	Flt 3	Total
1	William Jones	180	172	180	532
2	Albert Fathers	180	180	171	531
3	John Lewis	180	146	175	501
4	Adrian Bryant	132	109	-	241
5	Malcolm Campbell	115	-	-	115
6	Ted Burfein	28	34		62

Open Power

		Flt1	Flt 2	Flt 3	Total
1	Peter Nash	180	180	171	531
2	Des Slattery	131	104	144	379
3	Graham Maynard	166	-	-	166
4	Malcolm Campbell	114	-	-	114
5	Peter Lloyd	68	-	-	68

F1N (Indoor HLG)

		Flights							Total Best 3		
1	Len Surtees	28.0	13.0	29.9	4.0	4.2	3.0	28.7	25.8	4.3	86.6
2	Brian Taylor	16.8	24.4	24.2	22.2	24.4	26.6	23.6	23.1	25.0	76.0
3	John Lewis	25.0	21.4	22.1	7.7	20.0	23.3	25.4	22.0	22.8	73.7
4	David Brawn	14.1	13.8	15.0	13.3	11.2	15.7	7.6	14.6	16.4	47.1
5	Albert Fathers	13.7	11.4	8.8	10.7	15.0	15.8	12.4	7.1	15.1	45.9
6	William Jones	11.5	14.2	11.7	14.7	12.3	11.2	6.2	5.3	12.1	41.2
7	Dale Jones	5.0	3.5	10.6	9.1	10.5	2.5	9.0	11.0	11.4	33.0
8	William East		DNF								

Hangar Rat

		Flights						Total Best 2
1	Brian Taylor	125	143	18	86	-	-	268
2	Ian Mc Eldowney	104	111	98	114	106	47	225
3	Ray Bucholz	96	55	101	95	92	115	216
4	Dale Jones	27	40	91	67	66	5	158
5	Malcolm Campbell	73	85	30	-	-	-	158
6	John Diduszko	59	63	68	70	68	77	147
7	Albert Fathers	24	29	61	61	75	5	136
8	Greg Lepp	55	65	51	-	-	-	120
9	Andrew Diduszko	36	-	-	-	-	-	36

John Taylor, Des Slattery, Michael Towell, Peter Angleburger, Dale Jeude and Harry Bailey DNF

Hangar Rat Scramble

		Total
1	Ray Bucholz	909
2	Ian Mc Eldowney	703
3	Malcolm Campbell	568
4	Brian Taylor	559
5	John Diduszko	143

William Jones, Dale Jones, Harry Bailey, Michael Towell and Des Slattery DNF

Peanut Scale

			Flights							1/3 Best Flight	Static	Total
1	Brian Taylor	Scout Ultralight	83.0	114.2	104.4	-	-	-	-	38.06	27.0	65.06
2	John Lewis	Fike E	31.7	51.0	27.1	50.3	71.4	72.9		24.3	23.25	47.55

Dale Jones, William Jones and William East DNF

EZB

		Flights						Total Best 2
1	Brian Taylor	261.74	245.00	213.00	-	-	-	506.74

Dale Jones, William Jones and Albert Fathers DNF

Night Scramble

1	Warren Leadbeater	304 secs
2	Mark Godfrey	50 secs
3	Ray Bucholz	Lost model

Rubber Report

Jim Bradley reports back to John Clapp on the November 2010 Super Sport

I like the November '10 Super Sport. My testing shows it has a nice balance between burst and cruise energy not really favouring one over the other. Total energy is right at the top of my Good scale. This would be very good rubber for contest trimming and contests that are just under the most important contest where you would use your very best rubber. *Jim*

Follow up report from actually flying with the rubber at the King Orange:

The rubber flew well for me at the King Orange. I was flying with 24 strands and getting 435 to 450 turns with mid to high 40 second motor runs. It had a good burst and a good cruise. Although it doesn't shown the very high total energy that the June '09 rubber had it is much more balanced between burst and cruise. It is a very easy rubber to fly with.

RULE CHANGES

Those interested should start considering any rule changes they think are needed or any new events that should be in the MAAA rule book for Free Flight. We have till the end of the year to finalise any suggestions. The contact would be through their FFTC representative.

Graham Maynard

RETRIEVAL TALES FROM THE 2009 CROATIAN WORLD CHAMPS *by Neil Murray*

Bringing them back alive is all part of the contest, so here is a tale from Croatia, where the forests surrounding the flying field were purported to be the home of bears and wolves….

I am bouncing along on the back of the Australian Team retrieval Quad bike with Eileen. It is F1B day at the 2009 World Championships in Croatia. Phil (Mitchell) is driving and is oblivious to our moans of distress. Paul Rossiter has nailed a monster thermal, and his model circles above us, taking several minutes to descend, finally disappearing deep into the heavily wooded hills that surround the field. I hear Phil on the radio -

"Tell Paul he should assemble another model, I think we may have some difficulty in retrieving this one" – it turns out to be a massive understatement. Despite a good signal, the terrain defeats us and after more than 2 hours of fruitless effort and we end the day empty handed.

The next day is a rest day, so after breakfast Paul & I set out to try again. Cathy & Eileen take the other car to go shopping in Korenica. Nothing is said, but this development worries both of us. When we arrive at the field, the base of the hill is a hive of activity – several teams are out scouring the woods for lost models. We are wondering how we will make it up the steep and heavily wooded slope when a member of the Norwegian team comes to our rescue. There is a forestry road up the ridge starting a few hundred metres away. Per Findahl has used this to recover one of their models. Buoyed by this news we set off, but the incline begins to take its toll and we stop for a rest. Then a troubling thought occurs. "Do you think they stock Armani and other designer labels in Korenica?" Paul thinks not, but the possibility spurs us on and we start off again.

Half way up, we meet Roland Koglot coming down. He is armed with a large stick and looks concerned. We ask if he has seen any bears or wolves. He tells us not to worry about bears, but that we need to keep an eye out for the sheep dogs, which are vicious and suggests we arm ourselves to repel an attack. A quick search produces 2 hefty clubs and we back this up with several large stones as well, for good measure.

The hill shields the tracker signal and only as we crest it do the bleats from Rossiter #1 pick up again. The hills are densely wooded with a monoculture of tall leafy trees, and very little sky is visible under the canopy. Another 20 minutes and the tracker suggests we have passed the model. Eventually the signal floods our receiver and we cannot get any further leads on direction. We must be standing under it. We carefully search each tree in turn, but see nothing. Paul moves fifty metres away with the tracker and I act as a back marker. After another ten minutes of repositioning, I am directly under the model according to the signal. We search the adjacent trees but still there is nothing. Yesterday had been a tough day at the office, and now failing to locate the model is a bitter pill.

I slump down against one of the trees under suspicion of hiding the model to recover some composure whilst Paul moves around as he continues to try and refine our position. It all points to the spot I am sitting at. I scan the canopy again but see nothing. The wind is gently rustling the leaves 30 metres up, but nothing else flashes or moves. Then slowly, almost imperceptibly I become aware of a discordant sound, an occasional squeak from the canopy of the tree on my left. The kind of sound twigs would make rubbing against each other ….. or against taught tissue. I pinpoint the sound, but still see nothing. Then suddenly I become aware that I am looking at white and yellow tissue. In an instant, the outline of a wingtip forms in my consciousness and I am on my feet shouting that I can see it. Paul comes running across. The leaves had broken up the outline and camouflaged the model, but now we can both see small glimpses of it right at the very top. Right where the tracker indicated and on the line Roy Summersby had on his GPS.

We carefully mark the tree with an arrow made of fallen branches and mark the position again from the path. This will need the assistance of the organizers professional tree climber. 2 days later Paul returns with him, and finally Rossiter #1 is back in his hands. And, in news just as good, it turns out the Armani is not stocked in Korenica.

Paul Rossiter's F1Q article continues from Page 19

Possible power systems for 1/2A Maverick F1Q

(items in brackets not available from Hobby King)

2S arrangement

Battery: Turnigy Nano Tech 850 mAh, 2S, 25C, 49g ($6)
Zippy 800 mAh, 2S, 20C, 49g ($7)

Motor: (AXI 2208/26)
D2822/14, 1450 kv,160w, 38g ($8)
TR 2826 -1650, 1650 kv,140w, 45g ($15)

Controller: Turnigy basic 18A ($13)

3S arrangement (preferred)

Battery: Turnigy Nano Tech 460 mAh, 3S, 25C, 45g ($6)
Zippy 500 mAh, 3S, 20C, 50g ($7)

Motor: (AXI 2208/34)
ADH 300L, 1100 kv,170w, 39g ($12)
A28M, 1100 kv, 270w, 48g ($8, might be a bit large?)

Controller: Turnigy Plush 12A ($10)

Either arrangement:

Prop: Graupner CAM 9x 5 folding (or similar: use wattmeter to get about 100w power input).

Timer: (Ztron ($30) (But could run LiPo battery below damage point if model is lost))
(Smoothie ($50) (but no motor lock out after DT))
(Black Magic ($90) (has all features but requires PDA for programming))

Charger: (Swallow (12 volt or 12/240 volt))
IMAX B6 (12 volt) ($25)
IMAX B6-AC (12 and 240 volt) ($40)

ESC programming card: Turnigy BESC Programming Card ($7)

Motor wattmeter: Turnigy wattmeter ($24)

Paul Rossiter
10 March 2011

ANNUAL REPORT TO THE MAAA 2011

1. AFFS Incorporated

The Department of Fair Trading accepted the Society's statement of accounts for the past financial year.

2. AFFS Championships, Narrandera, Easter 2010

The 2010 AFFS Championships were held at Narrandera, NSW over Easter and preceded by the Southern Cross Cup. Both events had World Cup status and attracted competitors from the various states and overseas including a full Chinese F1B team and 1 Chinese F1C flyer.
The AFFS Championships World Cup winners were: - F1A Richard Jack (GBR); F1B Wu Yunsheng (CHN), & F1C Jiong Yu Zou (CHN).
The Chinese team indicated their intention to return AFFS Championships in the near future.
Australian Free Flight Champion 2010 was Phil Mitchell.

Continued on next page

3. Trans Tasman Competition

The 2010 Trans Tasman was held at Omarama in New Zealand and followed the AFFS Championships. A percentage scoring system was used as in previous Trans Tasman's to determine the winner of the Trans Tasman "Rose Bowl" Trophy. The Australian team was successful in winning back the "Rose Bowl". The successful team was selected via the adopted MAAA Multi Trial Team Selection process.

4. AFFS Championships, Narrandera, late May/early June 2011

The AFFS Championships and Southern Cross Cup will again be held in Narrandera in late May/early June 2011. Once again these events have been sanctioned by CIAM as World Cup Events.
Note: The shift in timing is result of the Free Flight World Championships in being held in Argentina around Easter 2011. Both the above events are also sanctioned by the MAAA as counting in the Multi Trial Team Selection to select the 2012 Trans Tasman Free Flight team.

5. AFFS Management

At the AFFS AGM held on the afternoon of 31 March 2010 at Narrandera, The AFFS executive committee was duly elected as follows:

President: Ted Burfein	Treasurer: Vin Morgan
Secretary: Phil Mitchell	Chief Editor Newsletter: Malcolm Campbell

6. Memorial Trophies

In recognition of free flighters who have recently passed away, memorial trophies will be presented for the winners of the following events at the AFFS Championships in 2011:

Don Blackam – F1B	Gordon Burford – Oz Diesel.

7. 2010 World Cup Final Results

AFFS members that ranked amongst the top 10: F1A Phil Mitchell 6th

Phil Mitchell Aus 12594	*Ted Burfein AUS 16390*
Secretary	**President**

LETTER TO THE EDITOR

Hi Mal

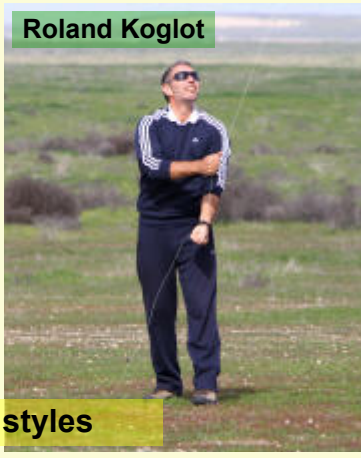
Your-mail confirms my view that the Nats are held at the wrong time of year. If hosted by any of the Southern states, the weather is simply too bloody hot, and if held in Northern NSW or Queensland, subject to monsoonal weather, as it was this time - in spades! March-April in my view would be far more preferable, the tropical/subtropical weather in the North would have abated and the conditions down here would be pleasantly warm and relatively stable.

The R/C and Control Line guys would probably object, as they are far less affected by the weather and can fly in relatively confined spaces anyway. Another possible objection is that many people get their annual leave around the Christmas/New Year period - This would have been true 20 or 30 years ago but most firms have more flexible leave arrangements nowadays and in any case, most of the FF guys I meet are definitely in the "Grey Brigade" category and are about to or have already retired.

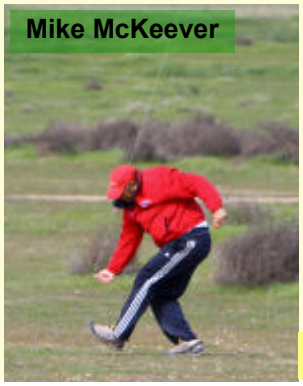
The Nats have, on previous occasions, been held around Easter and my view is that we should revert to that time of year. *Mike Glaister*

Mike Glaister sent me the excellent drawings of vintage Wakefields that appeared in the December edition of FFDU. What I failed to mention is that Mike actually <u>does</u> the drawings himself. Mike has many more that he has prepared and I am hopeful of including some of them in future editions of FFDU. Malcolm Campbell, Editor.

NEAT THINGS SEEN AT LOST HILLS



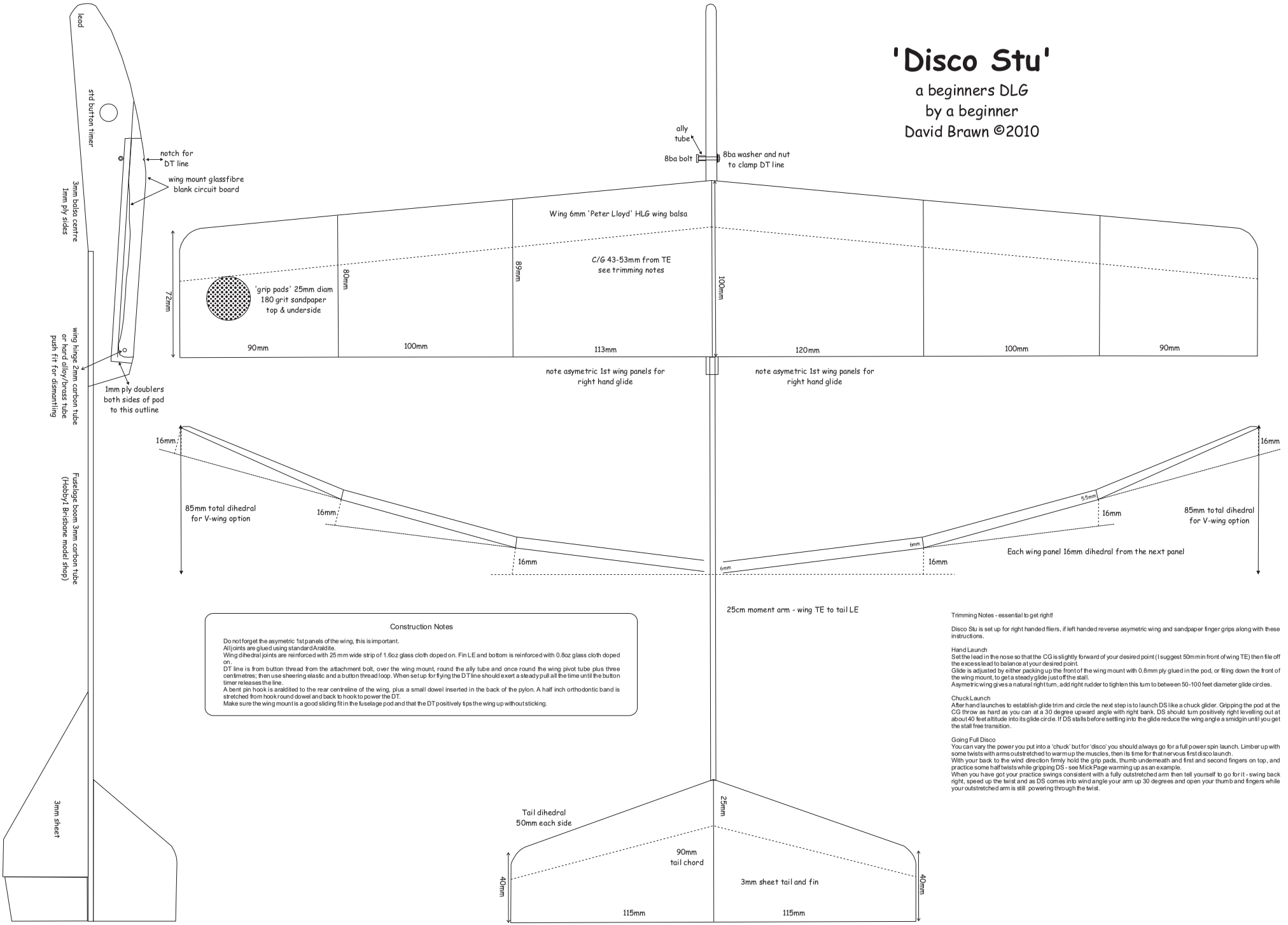
Towing styles



Launch styles

'Disco Stu'

a beginners DLG
by a beginner
David Brawn ©2010



Construction Notes

Do not forget the asymetric 1st panels of the wing, this is important.
All joints are glued using standard Araldite.
Wing dihedral joints are reinforced with 25 mm wide strip of 1.6oz glass cloth doped on. Fin LE and bottom is reinforced with 0.8oz glass cloth doped on.
DT line is from button thread from the attachment bolt, over the wing mount, round the ally tube and once round the wing pivot tube plus three centimetres; then use sheering elastic and a button thread loop. When set up for flying the DT line should exert a steady pull all the time until the button timer releases the line.
A bent pin hook is araldited to the rear centreline of the wing, plus a small dowel inserted in the back of the pylon. A half inch orthodontic band is stretched from hook round dowel and back to hook to power the DT.
Make sure the wing mount is a good sliding fit in the fuselage pod and that the DT positively tips the wing up without sticking.

Trimming Notes - essential to get right!

Disco Stu is set up for right handed fliers, if left handed reverse asymetric wing and sandpaper finger grips along with these instructions.

Hand Launch
Set the lead in the nose so that the CG is slightly forward of your desired point (I suggest 50mm in front of wing TE) then file off the excess lead to balance at your desired point.
Glide is adjusted by either packing up the front of the wing mount with 0.8mm ply glued in the pod, or filing down the front of the wing mount, to get a steady glide just off the stall.
Asymetric wing gives a natural right turn, add right rudder to tighten this turn to between 50-100 feet diameter glide circles.

Chuck Launch
After hand launches to establish glide trim and circle the next step is to launch DS like a chuck glider. Gripping the pod at the CG throw as hard as you can at a 30 degree upward angle with right bank. DS should turn positively right levelling out at about 40 feet altitude into its glide circle. If DS stalls before settling into the glide reduce the wing angle a smidgin until you get the stall free transition.

Going Full Disco
You can vary the power you put into a 'chuck' but for 'disco' you should always go for a full power spin launch. Limber up with some twists with arms outstretched to warm up the muscles, then its time for that nervous first disco launch.
With your back to the wind direction firmly hold the grip pads, thumb underneath and first and second fingers on top, and practice some half twists while gripping DS - see Mick Page warming up as an example.
When you have got your practice swings consistent with a fully outstretched arm then tell yourself to go for it - swing back right, speed up the twist and as DS comes into wind angle your arm up 30 degrees and open your thumb and fingers while your outstretched arm is still powering through the twist.

MIDMAT, a 16” span contest catapult glider

Tony Mathews, Brampton, Ontario Canada

Introduction

This model had its genesis on the flight back from Lost Hills CA in Feb 2008. I had just test flown my Matcat 18” clg (kit available from Peck Polymers/A2Z in the US) and was pleased with its performance but was concerned that the windy weather performance might not be ideal. Typical catapult gliders used in contests in North America were about 18” in span, with a wing area of 50 to 60 sqr/in and an all up weight of 23 to 30 grams.

Bob Thoren and I had produced an article for the 2009 Symposium (1) about catapult glider launch height estimates and glide performance. Bob’s analysis had suggested that smaller gliders were worth looking into. Californian Paul Love had taken Bob’s equations and produced an excel model that allowed rapid comparisons of glider parameters such as wing area, weight, estimated launch drag and so on.

I began with an assumption that a contest glider needed to be able to handle wind and turbulence without getting upset. Larger TLG’s can handle winds and their wing loadings are typically 0.45 to 0.50 gm/sqr/in. My Matcat clg at 57 sqr/in and 23 grams AUW had a wing loading of 0.40 gm/sqr/in. This is a bit light for turbulent air as the model is basically tossed like a leaf. An obvious solution is to ballast the glider or just to make it heavier. A 27 gram glider of the same area would have a wing loading of 0.47 gm/sqr/in. But the AMA catapult glider rules limit the amount of rubber that is available for launching to 1 loop, 9” long of ¼” rubber (equivalent to 3.0 grams of rubber) which from measured tests can give a maximum amount of energy storage of about 14 lb/ft. Making the glider heavier both reduces its sink rate, and it’s maximum altitude because the rubber energy is essentially fixed.

Thus Bob Thoren’s suggestion of a smaller glider began to look like the way forward. I chose a wing loading target of 0.45 gm/sqr/in and an Equivalent dihedral angle of at least 20 degrees (more dihedral helps with climb transition and stability in turbulent air). I chose a maximum weight target of 20 grams as being something reasonable to shoot for a DT equipped contest glider.

This suggested a wing area of 44 sqr/in which was 30% smaller than the Matcat I was flying at the time. Paul Love’s excel model showed some interesting results:

Catapult Glider Comparison Chart

	Wing Area	Weight	Altitude (ft)	sink rate (ft/sec)	Duration	Wing Loading (gm/sqr/in)
Matcat	57	24	103.5	1.55	68	0.42
Newcat	44	20	135	1.61	85.5	0.45

Table 1 Summary of Catapult Glider size comparison

The model suggested a height increase of nearly 30% and a duration increase of 25%! Extra altitude is very useful as the higher you can climb, the easier it is to catch thermals. The drawback with smaller gliders is that they are more difficult to spot for 2 minute maxes especially if it is windy. To combat this I decided to increase the aspect ratio from 5.6 to 5.8:1. To make the model easier to build I chose to use a standard 3” wide sheet of balsa for the wing with swept back tips only. The tail moment arm was stretched to allow the use of a smaller stabilizer (for reduced drag) and better climb control. The airfoil

chosen was a modified version of Stan Buddenbohm's excellent catapult glider airfoil developed for me by Brian Eggleston (2).

The glider was developed for the new forward hook and grip launching method that Stan Buddenbohm and Ralph Ray had pioneered for their record setting indoor catapult gliders. Winter weather put my glider building and flying on hold and I began to hear about a new glider that Stan was flying that was thumping all the competition in California (Pathfinder). I obtained data on the glider and found that it almost exactly fit the parameters for my Newcat that I was designing! Stan must have followed a similar line of reasoning and had developed a smaller, higher wing loading glider of his own.

Figure 1 BE CLG Airfoil Geometries

This told me that I was on the right track and that a smaller glider was the way to go forward.

The Canadian F1B team selection program diverted me away from catapult gliders for a year and I didn't get back to my new clg until the winter of 2010. I wanted to build 2 new models of this design for the Isaacson Winter classic FAI style catapult glider contest.

By this time Stan and Ralph had developed a new DT system using a pop-forward wing that put most of the hardware ahead of the CG alleviating the need for nose weight. I decided to incorporate this design into my new models as well as the use of composite materials like carbon fiber and fiber glass for the nose pod. Paul Love was helpful when he showed me the plans for his version of Ralph's fuselage and I drew up the plans for the "Midmat" 16" catapult glider around Christmas time. Two new gliders were completed just in time for the contest but unfortunately the best one flew away due to a DT failure on its third flight! That was a shame as the model trimmed out immediately and was flying exactly like I had envisioned it would. Version #2 required some trimming and I spent most of the contest trying to sort it out to fly the way I wanted. I noticed that Stan Buddenbohm and Paul Love were getting a bit higher than I was. Upon close examination I found that they were using a different set of airfoils. Their models used more upsweep and it extended farther back on the bottom surface of their wings. Also, they made their tips to have near zero camber (almost a symmetrical airfoil) which no doubt reduced the drag considerably. I sanded in more upsweep into my wing during the contest (Root to tip) and noticed a height gain too. The plan shows a suggested amount of upsweep that should produce a high climbing glider.

Midmat is capable of very high launches and possesses a nice stable, thermal hungry glide which makes it an ideal contest glider for all weather conditions.

Trimming notes:

This is not a beginners glider so I'm assuming that a prospective builder already has some experience trimming a contest clg.

Set the CG to 57% for the first flights and make sure that you have a small amount of excess decalage (close to ¾ of a degree to start with). It's better to have a slightly loopy and stally first couple of flights than a straight up and straight down lawn dart that can wreck a new glider!

Use a small amount of left stab tilt, no more than 1/16". Make sure that you have the wash-in wedge shown on the plan. It helps prevent the glider from spinning down in strong thermals. Try about 1/64" of rudder offset only for the first flights, then add a small amount of left rudder as required for the *climb* by gluing a small balsa wedge to the bottom left side

of the fin. It's better to sneak up on the correct rudder deflection in stages than to risk a spin on the early test flights.

Once the decalage and rudder offset is dialed-in for the climb, the glide circle can be fine tuned with wing tip weight. The CG is then adjusted to produce the best glide.

For contest gliders I have found that rudder offset and decalage are used primarily to trim the climb only.

I launch my glider nearly vertically with very little side bank to the right. The glider is placed in front of me with the bottom of the wing facing me and I pinch my thumb and index finger together first and then force the grip into the vee formed between the fingers. Thus the grip is not actually "gripped" per se, it is a stop to prevent the glider from pulling between your fingers. ¼" rubber is used and I try to pull at least 10 to 12 lbs of pull force on each flight! (Pull hard!).

Materials:

I produced the carbon fiber sheets for the Midmat sides myself using carbon fiber cloth compressed between two plates of Aluminum. I have located a source that seems very reasonable - http://www.protechcomposites.com/

The fuselage sides could be made from 1/64" plywood, and the hook, grip and DT pivot plates could be made from 1 mm plywood if desired.

The wings of the Midmat are shaped from stiff, light C grain balsa. I use 3/16" sheet of aprox 6 lb/cu/ft density. The stab and fin are produced from stiff 6lb C grain balsa 1/16" thk. I buy my wood from A2Z/Peck Polymers and I buy the contest balsa - http://www.a2zcorp.us/store/Category.asp?Cguid={37594757-FB6F-4170-A430-BB5F7FE0FF35}&Category=BuildingMaterials%3ABalsa%2CPeckContest

The tailboom is obtained from: Model Research Labs: http://www.modelresearchlabs.com/pricelist-new.html

A very nice boom is also available from Stan Buddenbohm as well as a complete pop-forward fuselage kit.
http://discuskid.com/Documents/Stan_Stuff-Full-Catalog-Sept_2010.pdf

Stan Buddenbohm
PO Box 1677
Boulevard, CA 91905

The small viscous timer is obtained from: Hobby Specialties - http://hobbyspecialties.com/product_info.php?products_id=39&osCsid=6e67e39667ad7d5286ed1d256f16dce8

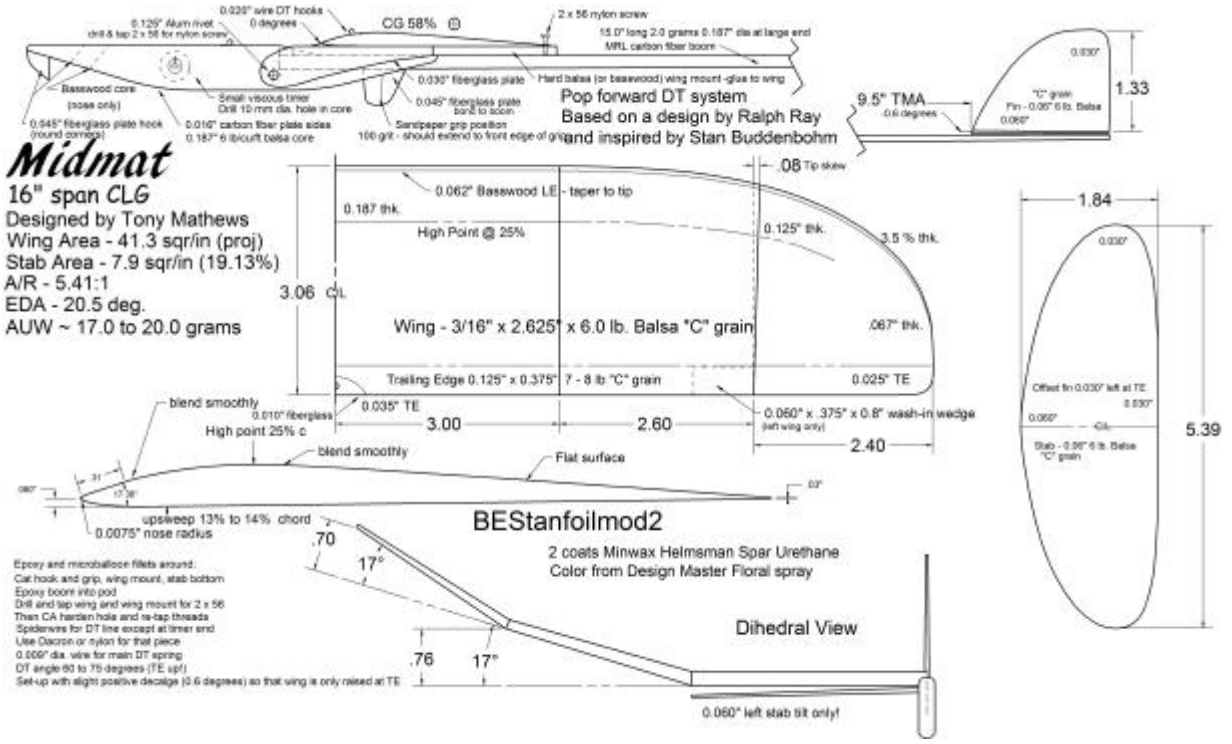
I finish my models with Minwax Spar Urethane Varnish and paint them with Design Master Floral spray.
And for a detailed web build log of my Midmat build you can check out my Picassa album here: https://picasaweb.google.com/tmathews180/MidmatBuild2011#

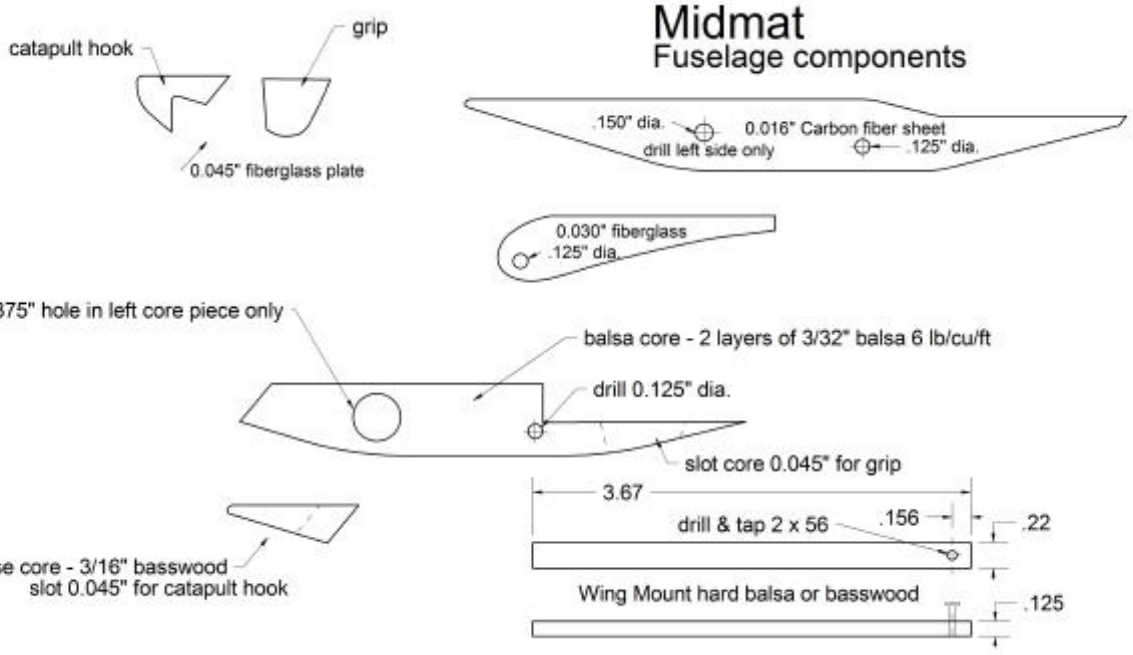
For further details or feedback I can be reached at:
Tony Mathews – tmathews180@gmail.com

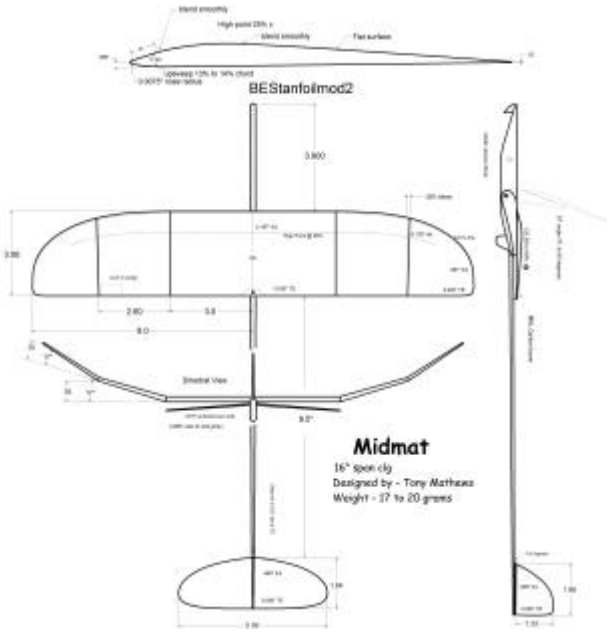
References:

1. Thoren B., Mathews T., "Catapult Launched Glider Performance Analysis - Tony Matthews Bob Thoren", 42nd Annual Report NFFS Symposium 2009

2. Eggleston B., Love P., Bauer K.,"High Endurance Airfoils for Small CLG and HLG Models" , 43rd Annual Report NFFS Symposium 2010


Midmat
16" span CLG
Designed by Tony Mathews
Wing Area - 41.3 sqr/in (proj)
Stab Area - 7.9 sqr/in (19.13%)
A/R - 5.41:1
EDA - 20.5 deg.
AUW ~ 17.0 to 20.0 grams
Pop forward DT system
Based on a design by Ralph Ray
and inspired by Stan Buddenbohm
9.5° TMA
1.33
0.062" Basswood LE - taper to tip
0.187 thk.
High Point @ 25%
0.125" thk.
3.5 % thk.
3.06 C/L
Wing - 3/16" x 2.625" x 6.0 lb. Balsa "C" grain
.067" thk.
Trailing Edge 0.125" x 0.375" 7 - 8 lb "C" grain
0.025" TE
0.035" TE
3.00
2.60
2.40
0.060" x .375" x 0.8" wash-in wedge
(left wing only)
blend smoothly
0.010" fiberglass
High point 25% c
blend smoothly
Flat surface
upsweep 13% to 14% chord
0.0075" nose radius
BEStanfoilmod2
2 coats Minwax Helmsman Spar Urethane
Color from Design Master Floral spray
Dihedral View
.70
17°
.76
17°
0.060" left stab tilt only!
1.84
5.39
Epoxy and microballoon fillets around:
Cat hook and grip, wing mount, stab bottom
Epoxy boom into pod
Drill and tap wing and wing mount for 2 x 56
Then CA harden hole and re-tap threads
Spiderwire for DT line except at timer end
Use Dacron or nylon for that piece
0.009" dia. wire for main DT spring
DT angle 60 to 75 degrees (TE up!)
Set-up with slight positive decalge (0.6 degrees) so that wing is only raised at TE

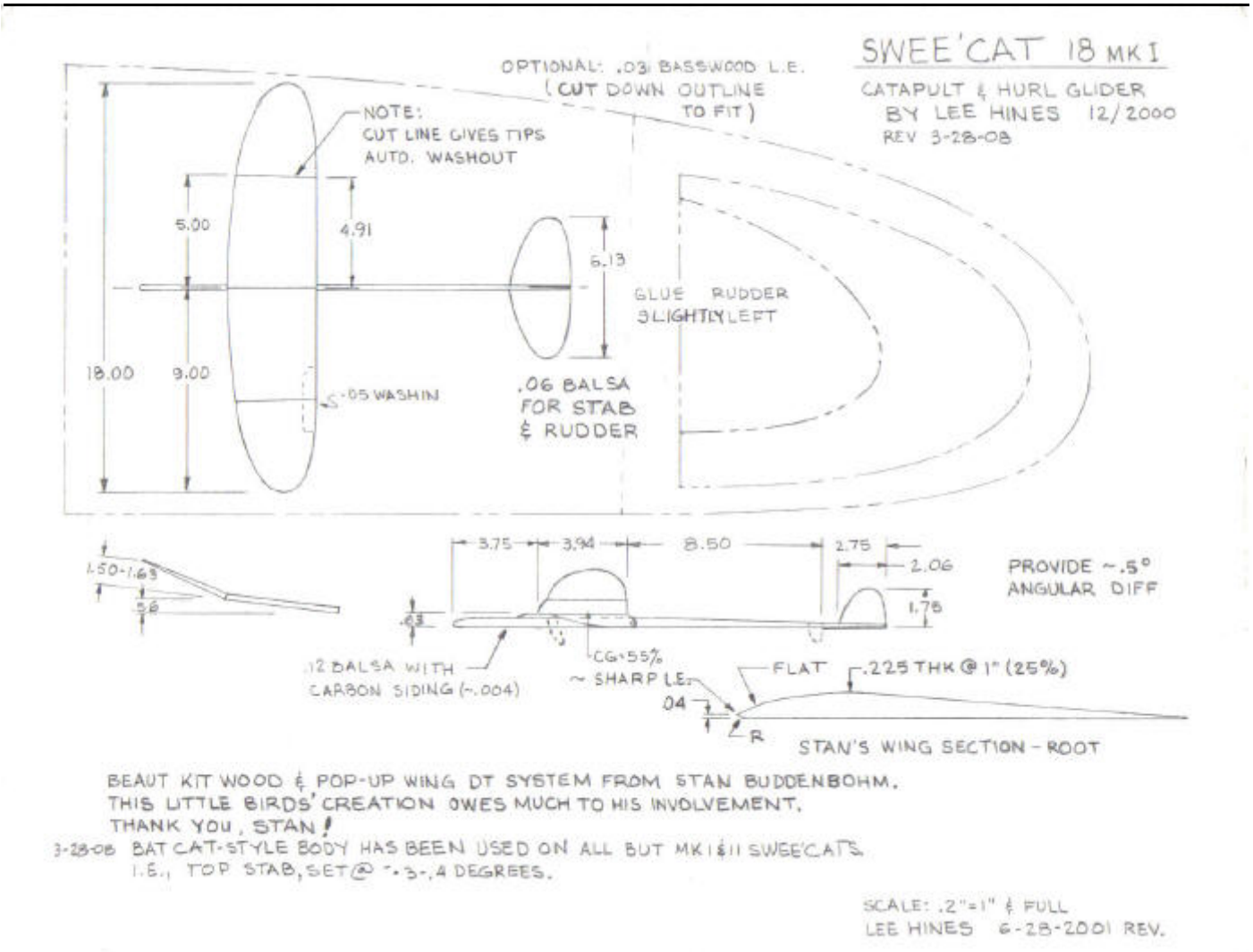

catapult hook
grip
0.045" fiberglass plate
Midmat
Fuselage components
.150" dia.
0.016" Carbon fiber sheet
drill left side only
.125" dia.
0.030" fiberglass
.125" dia.
0.375" hole in left core piece only
balsa core - 2 layers of 3/32" balsa 6 lb/cu/ft
drill 0.125" dia.
slot core 0.045" for grip
3.67
drill & tap 2 x 56
.156
.22
Wing Mount hard balsa or basswood
.125
nose core - 3/16" basswood
slot 0.045" for catapult hook


BEStanfoilmod2
Midmat
16" span clg
Designed by - Tony Mathews
Weight - 17 to 20 grams

Lee Hines' Pathfinder December 2009

LEE HINES' GLIDERS: The Pathfinder and SWEE'CAT 18 Mk I

Close-up of Pathfinder nose



Clearly, you need to be an Aussie to understand, but read on

Billabonk to make passionate love beside a waterhole

Bludgie a partner who doesn't work, but is kept as a pet

Dodgeridoo a fake indigenous artefact

Fair drinkum good-quality Aussie wine

Flatypus a cat that has been run over by a vehicle

Mateshit all your flat mate's belongings, lying strewn around the floor

Shagman an unemployed male, roaming the Australian bush in search of sexual activity

Yabble the unintelligible language of Australian freshwater crustaceans

Bushwanker a pretentious drongo, who reckons he's above average when it comes to handling himself in the scrub

Crackie-daks 'hipster' tracksuit pants.

and for the Kiwi's amongst us:

Shornbag a particularly attractive naked sheep.

Folding F1C

Strukov/Babenko, Straight drive, 4 panel folder. As new very little use. Suits Verbitsky or Fora engines. Red transparent Ora covered **$1200**

Model uses Leonid Fuzeyev style wing systems with twin rubbers. The model has Verbitsky engine fitted at present and can be sold with this motor if required. With motor and prop **$1500**

Dixielander part kit (Peter Lloyd) This is the Peter Lloyd version, ribs to suit sheeted leading edge, half ribs, fin, engine mount, bearers aluminium faced, leg and former attached, plan & instructions. Includes one OS15Max 111 which I think is new. Only problem with motor is that it is an RC so buyer would have to buy for $8 from the hobby shop or make a venturi. The lot **$100** .

F1J Galbreath mount (new) to suit Cyclon / Fora engines and Oliver front tube (27.5mm I.D. tube) complete with fuel cut out fittings. **$25**

For all these items
contact Roy Summersby
on 02 4341 0072
or email for more information and photos
roydi132@optusnet.com.au

The Mad Hatters of MaxMen

Narrandera 2011

Australian Free Flight Society and Southern Cross Cup
PROGRAM

Southern Cross Cup

Monday, May 30	F1B	7 x 1 hour rounds	0800 - 1500
	O/Power	5 flights	0800 - 1500
Tuesday, May 31	Fly-offs from Monday		0730 - 0800
	F1A	7 x 1 hour rounds	0800 - 1500
	F1J	5 x 1 hour rounds	0800 - 1300
	O/Rubber	5 flights	0800 - 1500
Wednesday, June 1	Fly-offs from Tuesday	0700 – 0800	

AFFS Championships

Wednesday, June 1	Scale		0730 - 0800
	Combined % open	3 flights	0800 - 1500
	F1G	5 x 1 hour rounds	0800 - 1300
	F1H	5 x 1 hour rounds	0800 - 1300
	F1C	7 x 1 hour rounds	0800 - 1500
	*****AFFS AGM		1930-----
Thursday, June 2	Spare day		
Friday, June 3	Flyoffs from Wednesday		0730 - 0800
	F1B	7 x 1 hour rounds	0800 - 1500
	Open Power	3 flights	0800 - 1500
	Combined Vintage	3 flights	0800 - 1500
	HLG/CLG		0900 - 1300
Saturday, June 4	Flyoffs from Friday		0730 - 0800
	F1A	7 x 1 hour rounds	0800 - 1500
	F1C	7 x 1 hour rounds	0800 - 1500
	Open Rubber	3 flights	0800 - 1500
Sunday, June 5	Fly-offs from Saturday		
	Scramble		0730 - 0830
	P-30	3 flights, 120s max	0800 - 1400
	Oz Diesel	5 flights, 120s max	0800 - 1400
Sunday, June 5	Evening. Presentation Dinner for SCC& AFFS