

# FLYER

Southern Soaring League

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A very good video of a German F3J competition. For those who haven't seen one, it will give you a great idea of what goes on during the launch/landing phases.

<http://www.youtube.com/watch?v=3tBMMgoLOeg>

Front Cover: Mildura Open winner, Nick Chabrel  
Photo: Terry Dunn

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# Calendar

# 2009

## JANUARY

|          |                         |               |     |
|----------|-------------------------|---------------|-----|
| 18       | 2M CHALLENGE            | VICTORIA PARK | SSL |
| 22       | INDOOR FLYING           | ETSA PARK     | SSL |
| 24/25/26 | TAPANAPPA SLOPE WEEKEND | TAPANAPPA     | SSL |

## FEBRUARY

|    |                        |                 |     |
|----|------------------------|-----------------|-----|
| 8  | 2M CHALLENGE           | VICTORIA PARK   | SSL |
| 10 | CLUB MEETING           | BRUNSWICK       | SSL |
| 15 | RES/OPEN GLIDER        | SSL PARK MILANG | SSL |
| 19 | INDOOR FLYING          | ETSA PARK       | SSL |
| 22 | ELEC THERMAL / RADIANT | VICTORIA PARK   | SSL |

## MARCH

|       |                   |                 |     |
|-------|-------------------|-----------------|-----|
| 1     | SCALE AEROTOW     | SSL PARK MILANG | SS  |
| 6/7/8 | F3J INTERNATIONAL | SSL PARK MILANG | SSL |
| 10    | CLUB MEETING      | BRUNSWICK       | SSL |
| 15    | 2M CHALLENGE      | VICTORIA PARK   | SSL |
| 19    | INDOOR FLYING     | ETSA PARK       | SSL |

## APRIL

|    |                |                 |      |
|----|----------------|-----------------|------|
| 5  | GLIDER CLASSIC | SANDERSON       | ORAM |
| 14 | CLUB MEETING   | BRUNSWICK       | SSL  |
| 16 | INDOOR FLYING  | ETSA PARK       | SSL  |
| 19 | SCALE AEROTOW  | SSL PARK MILANG | SSL  |
| 26 | 2M CHALLENGE   | VICTORIA PARK   | SSL  |

## MAY

|    |                        |                 |       |
|----|------------------------|-----------------|-------|
| 3  | ELEC THERMAL / RADIANT | VICTORIA PARK   | SSL   |
| 12 | CLUB MEETING           | BRUNSWICK       | SSL   |
| 15 | INDOOR FLYING          | ETSA PARK       | SSL   |
| 17 | "FLYIN HOBBIES" FUNFLY | STRATHALBYN     | SMAC  |
| 17 | RES GLIDER             | BAROSSA VALLEY  | BVMAC |
| 24 | OPEN/RES               | SSL PARK MILANG | SSL   |
| 31 | SCALE AEROTOW          | SSL PARK MILANG | SSL   |

## JUNE

|       |                |                 |     |
|-------|----------------|-----------------|-----|
| 6/7/8 | LSF JERILDERIE | JERILDERIE      | LSF |
| 14    | 2M CHALLENGE   | VICTORIA PARK   | SSL |
| 16    | AGM            | TBA             | SSL |
| 21    | SCALE AEROTOW  | SSL PARK MILANG | SSL |
| 25    | INDOOR FLYING  | ETSA PARK       | SSL |
| 28    | RADIANT        | VICTORIA PARK   | SSL |

## JULY

|    |               |                 |     |
|----|---------------|-----------------|-----|
| 5  | OPEN/RES      | SSL PARK MILANG | SSL |
| 12 | ELEC THERMAL  | VICTORIA PARK   | SSL |
| 14 | CLUB MEETING  | BRUNSWICK       | SSL |
| 16 | INDOOR FLYING | ETSA PARK       | SSL |
| 19 | SCALE AEROTOW | WASLEYS         | NSL |
| 26 | 2M CHALLENGE  | STRATHALBYN     | SSL |

## AUGUST

|          |                        |                 |     |
|----------|------------------------|-----------------|-----|
| 11       | CLUB MEETING           | BRUNSWICK       | SSL |
| 16       | OPEN / RES             | SSL PARK MILANG | SSL |
| 20       | INDOOR FLYING          | ETSA PARK       | SSL |
| 28/29/30 | SCALE AEROTOW          | LAMEROO         | SSL |
| 30       | ELEC THERMAL / RADIANT | VICTORIA PARK   | SSL |

## SEPTEMBER

|       |                      |                 |     |
|-------|----------------------|-----------------|-----|
| 8     | CLUB MEETING         | BRUNSWICK       | SSL |
| 13    | 2M CHALLENGE         | VICTORIA PARK   | SSL |
| 17    | INDOOR FLYING        | ETSA PARK       | SSL |
| 19/20 | STATE THERMAL CHAMPS | SSL PARK MILANG | SSL |

## OCTOBER

|       |                      |                 |            |
|-------|----------------------|-----------------|------------|
| 11    | SCALE AEROTOW        | SSL PARK MILANG | SSL        |
| 13    | CLUB MEETING         | BRUNSWICK       | SSL        |
| 15    | INDOOR FLYING        | ETSA PARK       | SSL        |
| 24/25 | MILDURA OPEN THERMAL | WENTWORTH       | SUNRAYSLIA |

## NOVEMBER

|    |                          |                 |     |
|----|--------------------------|-----------------|-----|
| 1  | 2M CHALLENGE             | VICTORIA PARK   | SSL |
| 8  | ELECTRIC THERMAL/RADIANT | VICTORIA PARK   | SSL |
| 10 | CLUB MEETING             | BRUNSWICK       | SSL |
| 15 | OPEN / RES               | SSL PARK MILANG | SSL |
| 19 | INDOOR FLYING            | ETSA PARK       | SSL |
| 29 | 2M CHALLENGE             | VICTORIA PARK   | SSL |

## DECEMBER

|    |                                |               |     |
|----|--------------------------------|---------------|-----|
| 6  | ELEC THERMAL / RADIANT         | VICTORIA PARK | SSL |
| 8  | THEO IKENHARG MEMORIAL FUN FLY | VICTORIA PARK | SSL |
| 17 | INDOOR FLYING                  | ETSA PARK     | SSL |

# PHOENIX - Oct 2009

When I arrived at ETSA Park at 8p.m. (half an hour early) on the third Thursday, October 22, there was a feeling of having arrived on the moon, for, not a sign of civilization was visible. No cars in the park, no bouncing, jumping or running feet on the polished floor of the stadium, nor any balls trying to wend their way skillfully into the nets. What is more, with no visible sign of the Duty Manager, I retrieved a model from its box and made the most of the huge space beneath the floodlights, to make an early start for the evening.

I had been forewarned that it was to be an exciting night as Michael O'Reilly had just returned from a business trip (yes, you may well say, "what again") to Shanghai and made it known, in his last E-mail, that he would be returning to ETSA Park with some outstanding new models.

Here you see the first, a fascinating P51D Mustang that comes complete with a 4-channel radio to control this Ultra-micro Warbird Classic.



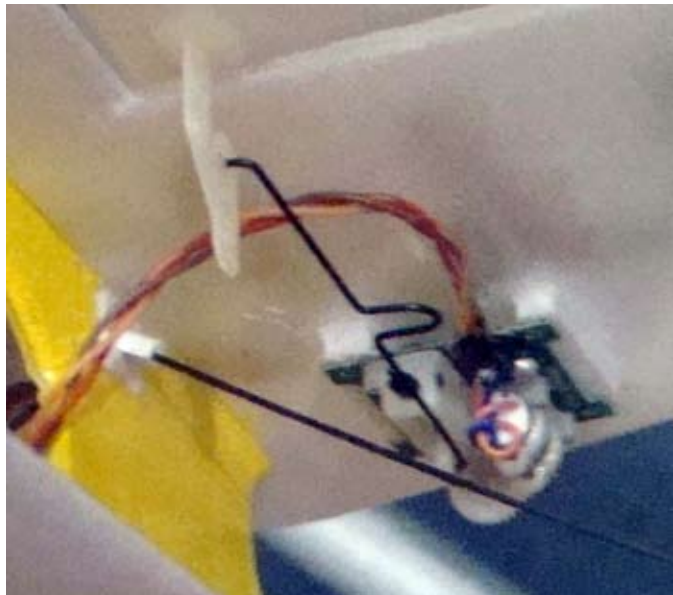
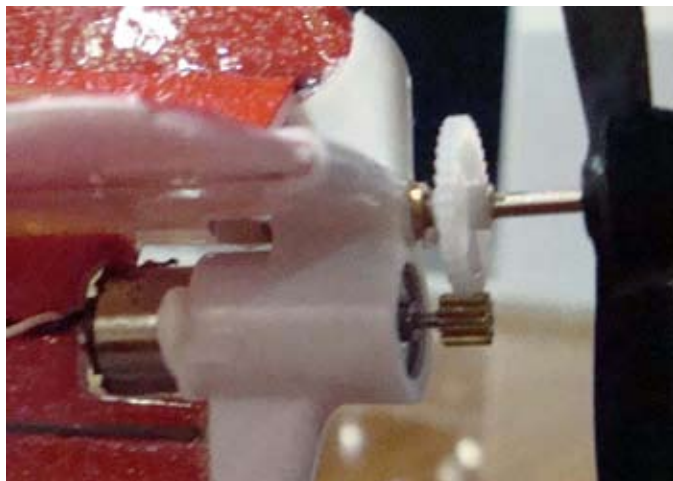
Out of the box it is completely assembled and flight ready. Parkzone have done an amazing job with this attractive model. The radio is on 2.4 GHz and the AR6-400 receiver is already installed with power emanating from a 3.7 volt 120 mah Li-Po battery pack that is maintained by an included portable DC fast-charger. Even the 8 dry cells for the transmitter are included in this very complete package.



This is such an attractive model and, as you can see, Matthew and Mike were deep in concentration as they check the controls in readiness for its inaugural Australian flight. What a revelation – magnificent picture of excellent control with an astounding turn of speed are some of the ways to describe its first appearance. It certainly won't be its last as supplies are expected to rapidly deplete as the word gets around the model flying community. It is reported that it is quite capable of well controlled flight in the outdoors as well.



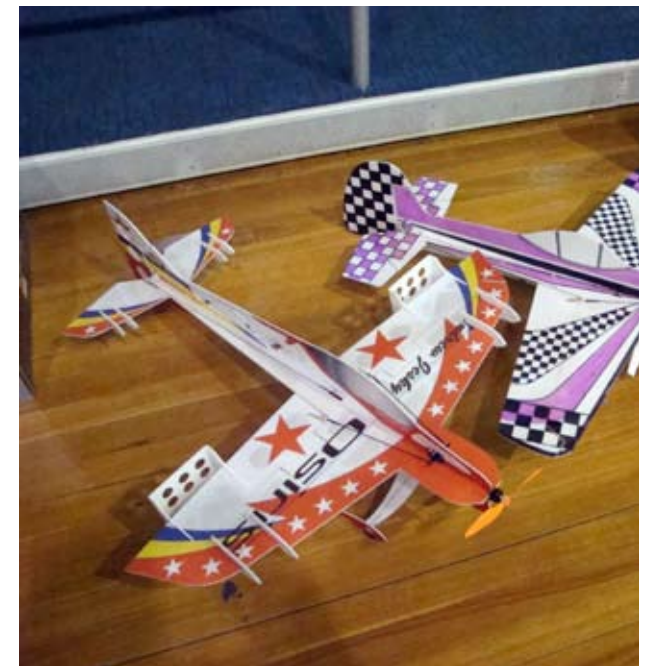
The other model that Mike is holding is the "4-State", an all-foam bi-plane of a most attractive design. As you look down on this aircraft, it is much easier to appreciate its fascinating construction. You will also notice, in other pix, that the motor has its own moulded compartment into which it snugly slides into position and the aileron control lines are also visible together with one of the bracing lines. This is another model that will almost be flying its way out of the container when it lands. In the yard at OMPS (O'Reilly Model Products) with buyers hanging around the opened doors, eager to catch sight of the boxes that are bursting with goodies.



Of course, general flying went on after the initial exciting introduction of the Micro Mustang and the 4-State and I was fascinated to see the degree of thoroughness and organization that is shown in the photo of Andy's flight box. I have just shown the inside of the lid, where you



can see his rows of battery packs, each with its place reserved on one of several rows of Velcro fittings.



My final picture shows, yet another new model from the skillful hands of J.J. He has displayed three new models on each of



our last three monthly flying evenings, and this is another of foam construction with a slight change from his normal models. This is actually built from a kit, but once again featuring a most attractive and colourful finish.

Yes, dear readers, I AM raving but that is how these two models were received by the eager modelers when they were introduced on their arrival at ETSA Park. In the background of one of the pictures from the park, Andy can be seen ogling or gloating, together with Mike Schneider as the two new imports were shown in all their glory.

# Mildura Open Thermal 2009 - Greg potter

As usual many fliers arrived at the flying field at different times during the day on Friday for some practice, and as usual it was a beautiful day for it. Most had arrived by dinner time Friday.

Saturday dawned a lovely sunny day but the breeze was not as forecast but the winches were setup according to the forecasted Easterly which was then to turn Southerly. But we had a Westerly which turned to a Northerly just as the first heat was about to start at 9:30am. The first two launches showed how difficult it was going to be launching downwind so we all packed up, moved down the field about 75m and set up again towards the North.

This proved to be fine until mid afternoon when the forecast finally came true and the breeze turned Southerly so the last few rounds were downwind.

The conditions were excellent with light winds and big thermals. Most heats turned into landing comps for most of the competitors, so landings were critical.

There were a large number of Pike Perfects of different sizes and layups, interspersed with a new Tragi 801, a Zenith, a couple of Escapes, a Supra, an Explorer, a Shooter and an Aspire. Unfortunately the Supra was lost when Roy lost sight of it down wind and became dis-oriented.

We finished earlier than we could have due to the

downwind conditions and the fact that nobody wanted to move for a second time.

Sunday was scheduled to start at 8:30am and the forecast this time was spot on, cloudy, cool and a strong southerly. It was fairly consistently around 15 knots all day making for completely different conditions to Saturday. Out came all the F3B ships and the ballast.

Nick, Theo and Mike were making huge height with their Radical, Ceres and Freestyler respectively. There were several Carachos, an old Tragi, an Epada RL, a Victor and a Nyx amongst the Perfects etc. of those who did not have heavy weather models.

Despite the wind the thermals were huge. If you could get on to one early, you were way down wind and very high in a couple of minutes. Landings were extremely difficult due to the wind and the turbulence low down.

There were a number of out-landings. I think I hold the record though with two out-landings with two different models in one heat, fortunately with no damage to either model. However some were not as lucky. Paul unfortunately damaged two models with two nasty landings down wind.

At round 10 many people had had enough of the wind and there was vote as to whether to stop at 10 or go on to 12 to allow another dropper. A compromise decision was made to complete round 11 as another

round would have made the finish a bit late for those who had to travel 6 hours or so back to Melbourne.

Garry, Darrel, Jennifer and Michelle put on their legendary catering with roast meat and salad for lunch Saturday and a BBQ and salad for lunch on Sunday, cooked by some of the local flying club members.

Everyone received a prize and at least one bottle of wine at the presentation. Nick Chabrel won the weekend convincingly, followed by Mike O'Reilly and Dave Pratley. Our dual World Champ David Hobby was down the rankings because all of his models have been built and setup for the European conditions expected at the next WC and so after a close shave with a shed he did not fly the last three rounds. A wise decision under the circumstances.

As always Dave was offering his advice to whoever wanted it on model setup – especially for the Pike Perfect, and other pearls of wisdom. He had some great dinner time stories about his recent 6 week sojourn at McMurdoch base in the Antarctic. He has now built an igloo in the Arctic and the Antarctic.

The comp was run to the new LSF rules with 150m lines and F3J landing tapes. It worked well and showed that 150m is plenty for a good launch. Nick observed that he thought the general thermalling skills of most pilots had improved as a result.

Final scores are listed below. I have shown the SA pilots in bold. Five out of the top ten. A good effort showing that our skills are improving.

|    | Name                    | Score | Percent | Raw   |
|----|-------------------------|-------|---------|-------|
| 1  | <b>Chabrel, Nick</b>    | 9974  | 100     | 10909 |
| 2  | <b>O'Reilly, Mike</b>   | 9743  | 97.68   | 10405 |
| 3  | Pratley, David          | 9668  | 96.93   | 10339 |
| 4  | Whitfield, Garry        | 9483  | 95.08   | 10196 |
| 5  | Carter, Gerry           | 9398  | 94.22   | 9751  |
| 6  | <b>Nancarrow, Jamie</b> | 9262  | 92.86   | 9517  |
| 7  | Arvanitakis, Theo       | 9203  | 92.27   | 9670  |
| 8  | <b>Potter, Greg</b>     | 9150  | 91.74   | 9481  |
| 9  | Houdalakis, Jim         | 8946  | 89.69   | 9518  |
| 10 | <b>Morris, Simon</b>    | 8834  | 88.57   | 8834  |
| 11 | Blow, Darrel            | 8816  | 88.39   | 9042  |
| 12 | <b>Carpenter, Chris</b> | 8191  | 82.12   | 8508  |
| 13 | Hobby, David            | 8076  | 80.97   | 8076  |
| 14 | <b>McDougal, Jim</b>    | 7696  | 77.16   | 7786  |
| 15 | <b>Moorefield, Paul</b> | 6809  | 68.27   | 6809  |
| 16 | <b>Calnan, Roy</b>      | 6641  | 66.58   | 6641  |
| 17 | <b>Rufenacht, Joe</b>   | 6172  | 61.88   | 6418  |
| 18 | <b>Lewis, Waren</b>     | 2473  | 24.79   | 2473  |



Photos by  
Samantha Ibberson





Nick Chabrel

# Mildura Open Thermal



Photos by Samantha Ibberson



# Mildura Open Thermal



# Dynamic soaring, anyone? - Martin Simons

Did you know that you have been flying a UAV? (That is to say, an Unmanned Aerial Vehicle.)

The photograph, copied from the well known journal, *Technical Soaring*, published this month, shows a UAV which is being used in experiments carried out by a group of three University research workers in California: C K Patel, H K Lee and I M Kroo.



The objective, in slightly technical language, is to discover if it is possible, with a small UAV, to extract energy from random gusts in the atmosphere. In less technical terms, is it feasible with a model glider, with suitable controls, to accomplish dynamic soaring over flat land?

Dynamic soaring is a very old idea and it is now quite common, in hilly country, for models to be kept aloft indefinitely in this way. It has been shown

possible, by Joe Wurts and others, for a model to extract energy from the variations of wind strength and direction on the lee side of a ridge. The model may gain airspeed to the point where structural disintegration is possible. The energy may be converted to height. Very thrilling flights of long duration have been made. (A video of this type of soaring was shown at an SSL meeting some years ago when the club used to meet at the Western Youth Centre. An explanation is given in my book, *Model Aircraft Aerodynamics*, 4th Edtn pp 42 - 43.)

The Californian experiments are different. The model, 0.475 kg mass, span 1.97 metres and best glide ratio about 17:1, is fitted with a miniature, highly sophisticated auto pilot which is programmed to respond to gusts in flight in order to extract energy. That is, to soar dynamically. The auto pilot changes the flap settings as the gusts strike.

Results of one series of nine flights are shown in the diagram. The wind speeds at the test altitude of 125 metres were gusting between 10 and 13 knots. In some cases there was no gain or only a brief improvement, but a couple of flights saw quite substantial gains. In one case a 20 metre climb was achieved in straight flight.

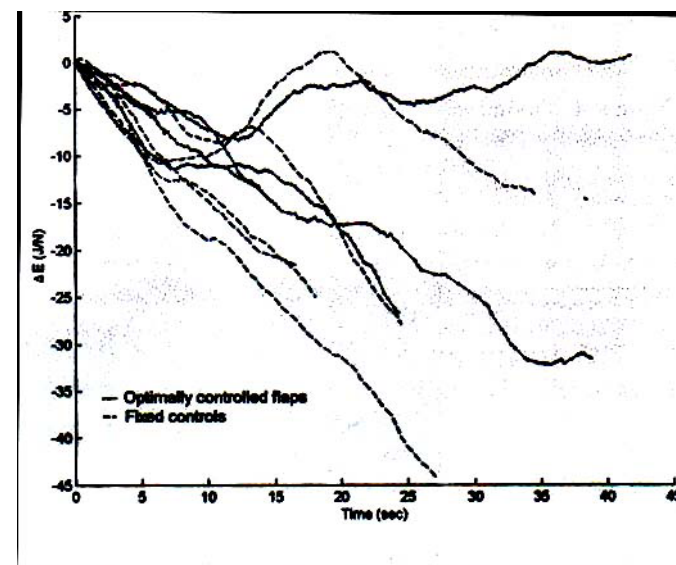


Figure 8 Flight test 1: Variation of specific total energy.

No attempt was made to circle the model in the fashion of a soaring Albatross over the ocean.

There is little doubt that with suitable control settings and skill, dynamic soaring over flat land is feasible. Who would like to try?

I can supply a copy of the (technical) article which includes E-mail contact addresses if anyone is sufficiently interested.

# Contest Reports - Mal Pring & Greg Potter

## Electric Thermal 8th November 2009

|                          | Rnd1 | Rnd2 | Rnd3 | Rnd4 | Rnd5 | Rnd6 | Total | Drop | Final | Rd Pts |
|--------------------------|------|------|------|------|------|------|-------|------|-------|--------|
| <b>Mal Pring</b>         | 1000 | 997  | 728  | 917  | 1000 | 1000 | 5642  | 728  | 4914  | 1000   |
| <b>Brian Lockett</b>     | 969  | 1000 | 375  | 1000 | 718  | 561  | 4623  | 375  | 4248  | 864    |
| <b>Mark Stone</b>        | 916  | 966  | 635  | 787  | 701  | 808  | 4813  | 635  | 4178  | 850    |
| <b>Mike O'Reilly</b>     | 978  | 1000 | 1000 | 430  | 581  | 544  | 4533  | 430  | 4103  | 835    |
| <b>Brad Merryweather</b> | 889  | 951  | 539  | 770  | 419  | 495  | 4063  | 419  | 3644  | 742    |

## 2 metre 1st November 2009

|                    | 1    | 2    | 3    | 4    | 5    | 6    | Total | Dropper | Final | Landing | Place |
|--------------------|------|------|------|------|------|------|-------|---------|-------|---------|-------|
| <b>Greg Potter</b> | 1000 | 980  | 763  | 978  | 942  | 1000 | 5663  | 763     | 4900  | 175     | 1     |
| <b>Mark Stone</b>  | 887  | 943  | 1000 | 989  | 916  | 696  | 5430  | 696     | 4734  | 230     | 2     |
| <b>David Leigh</b> | 443  | 415  | 678  | 1000 | 1000 | 907  | 4442  | 415     | 4028  | 185     | 3     |
| <b>Robert Gunn</b> | 0    | 1000 | 485  | 446  | 814  | 318  | 3063  | 0       | 3063  | 130     | 4     |

Conditions were very calm, hot, humid and there was very little thermal activity at all. A couple of very light thermals were picked up around 11 am but that was about it.

Robert suffered some severe interference towards the old grandstand which put his Boar down very hard breaking the fuselage.

Later in the morning 2 models flying on Spektrum 2.4 went in with a few seconds of each other obviously without any control.

Robert counted 26 fliers at the park including the four of us.