Radio-Controlled Soaring Digest

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Front cover: Glauco Lago of the Mississippi Valley Soaring Association launching his Pike Superior after a club contest.
Photo by Mark Nankivil
Canon EOS Digital Rebel ISO 100, 1/500 sec., f57.1, 28 mm.

Back cover: A Pike Perfect coming back to the field from downwind on the last day of the 2006 LSF/AMA World Soaring Masters held at Muncie, Indiana, September 2006. (This is my favorite shot of the past few years...)
Photo by Mark Nankivil
Canon EOS Digital Rebel, ISO 100, 1/500 sec, f˙10, 100mm

R/C Soaring Digest

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R/C Soaring Digest (*RCSD*) is a reader-written monthly publication for the R/C sailplane enthusiast and has been published since January 1984. It is dedicated to sharing technical and educational information. All material contributed must be exclusive and original and not infringe upon the copyrights of others. It is the policy of *RCSD* to provide accurate information. Please let us know of any error that significantly affects the meaning of a story. Because we encourage new ideas, the content of each article is the opinion of the author and may not necessarily reflect those of *RCSD*. We encourage anyone who wishes to obtain additional information to contact the author.

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In the Air

This January issue marks the beginning of *RC Soaring Digest*'s 25th year serving the RC soaring community.

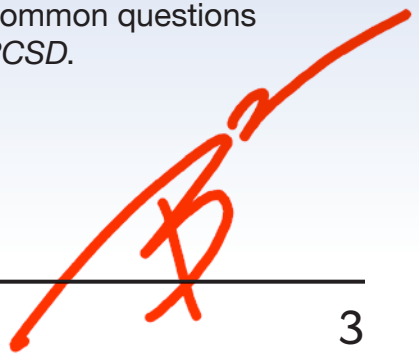
As many longtime readers know, *RCSD* began in 1984 with Jim Gray at the helm. Although the original intent of this magazine was to gather and publish articles from club newsletters, giving them a wider audience, it soon became apparent that *RCSD* could be sustained by simply publishing the original material readers were contributing. This has continued to be the case for the past two dozen years.

This issue, though smaller than has been the recent norm, contains contributions from a large number of readers. Coverage of the South Australia State Championships alone, for example, includes material from eight individuals. This is great to see, and we sincerely hope it continues.

We very much encourage *RCSD* readers to participate in the publication of this magazine by submitting material (text and/or photographs) for future issues. Subject matter can include anything of interest to fellow RC soaring enthusiasts, and there is no minimum or maximum article size. Photos suitable for front and back covers are always welcome.

The document <http://www.rcsoaringdigest.com/pdfs/Submissions.pdf> answers many common questions regarding submitting materials to *RCSD*.

Time to build another sailplane!



Triathalon

Highveldt Thermal League #7

By Gert Nieuwoudt <gnieuwoudt@telkomsa.net> and Evan Shaw <evanevshaw@gmail.com>
Photos by Evan Shaw

The Triathlon is about precision flying (as your mistakes get amplified), reading the air (as you get a bonus if you can predict two minutes ahead), and precision landing (the spot has a bonus of 200). The credit for the system goes to John Neven. See the notes on scoring system in *RCSD* December 2007.

Only one 2m model was entered so we could not test the handicap system fully. The Sawtooth system had been used for many years even before I took over the organising five years ago. It is a simple event to organise with no matrixing and fixed slots. I have developed a spread sheet which take care of the scoring and enable me to capture each slot's scores before the next slot start in three minutes. At the end of the round I have the results ready by the time the next working time starts.

The models used ranged from Supras, moulded and home built, Eish!, Experience-Pro, Pike Perfects and a variety of home built models.

In general the pilots were flying exceptionally well in difficult conditions. I believe we have developed over the past few years a broad base of competitive pilots. As the day progressed, the slightest of mistakes would change your place in the final results. The top four teams ended within 82 points. I am particularly proud of our Juniors Conrad Klintwoth and Kurt Stockton who ended 3rd and 10th with some magnificent flights during the day.

Well done to all who took up this most difficult gliding challenge and won!

I will be back again next year with the same format.

— Gert Nieuwoudt

Highveldt Thermal League #7 group photo.

Almost Red Hot BERG takes 2nd spot at HTL#7

Peter Joffe and I arrived at the Heidelberg field at about 07h30 on Sunday morning to find Derek, Martie and Alan Smith already there discussing where to set up the winch line. The wind was blowing quite hard out of the NW and there was a tractor still cutting one section of grass in the SW corner of the field. The majority of the field had already been cut.

The farm, situated just a few km form Heidelberg is owned by Derek's sister Che. The field that Che had prepared for us was ideal, with plenty of space and nice short freshly cut grass. To the N and NE there was a ridge of hills about 2 km away. Despite early reservation about downdrafts, etc., these hills had no adverse effect on the conditions at all. In fact, they probably had some effect on creating some rather interesting and challenging conditions.

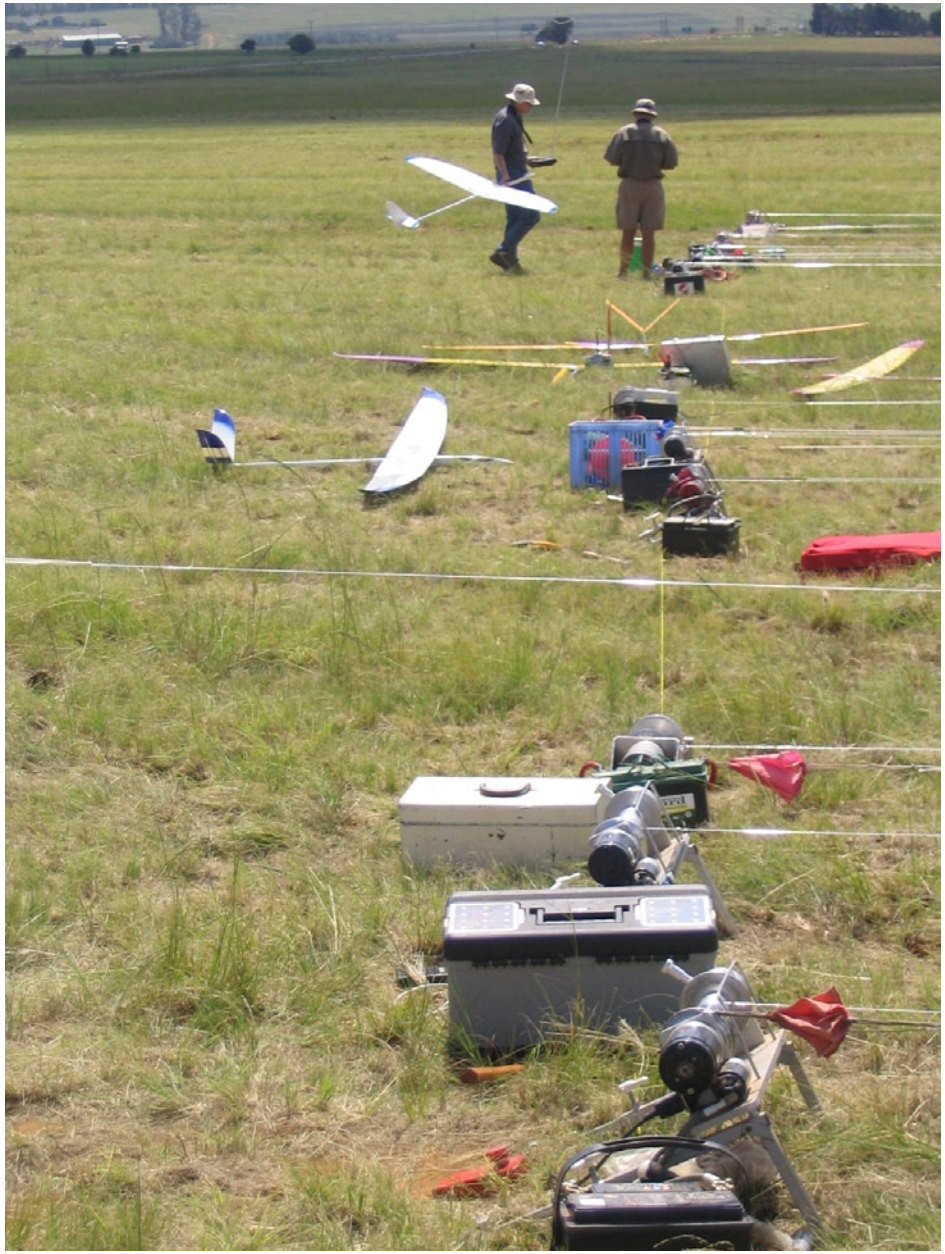
Peter drove down to the fence line at the far end of the field and then measured 250 meters back. And that is where we started unpacking.

The rest of the mob continued arriving and it was not long before the teams had established their positions and their camps were set up.

In the mean time Lionel and Gert set out the winch and turnaround lines so the teams could get their winches set up.

Derek and his sister Che

The BERG team Peter, Evan, Derek & Piet (Almost all Red Hot)



Winches set up and ready to go.

After the pilots briefing to once again familiarise ourselves with the Triathlon Sawtooth event, the comp got under way at about 10h00.

The wind had not let up at all and was blowing a steady 15 knots. There was talk all along the winch line that this was going to be a short event with no lift about. But, it was soon apparent that there was in fact quite a bit of wave lift and almost everyone in the first slot managed to get close to the eight minute mark.

Remember that the Sawtooth landing system awards higher points for landing on the even minutes. So most pilots elected to land on eight minutes, rather than risk trying to extend to the ten minute max.

Gert was on the ball all day and kept us informed all the time as to positions of the teams and pretty soon a nice rivalry had started between the teams.

BERG was in 1st position after Round 1.

ETB soon took up the challenge and after Round 2 they had taken over the top spot.

Berg had fallen to 4th at the end of round three.

Then Berg started crawling it's way back up and ended the comp in 2nd spot, just 50 points behind, after Round 5.

There was no throwaway, so any mistake or mishaps cost a team plenty. Teams were made up of four pilots and the best three scores for the round were counted towards the teams total.

In light of that, ETB is to be commended for doing so well, because they lost one of their top pilots when Izak fell out with a broken model in round 3.

The BERG team camp

Derek about to launch Piet's Makula, with Peter checking out the conditions.

Martie was there with her travelling diner of course, and it wasn't long before she had breakfast on the go, ably assisted by Shirley. AAMOF (As a matter of Fact) my tummy started rumbling the minute I went down wind and got a whiff of bacon frying. Hot coffee and bacon and eggs for breakfast was just what the doctor ordered.

Che and her entourage had a constant shuttle service between the farm and the field, bringing all the necessary stuff to keep us hungry souls satisfied.

Two big braai's were brought down to the field so we could all do our own braai pack.

The idea was to have lunch after the event, but when it was noticed that there was someone flying a power model on an

adjacent field about 1km away, we decided to halt proceedings for an early lunch and dispatch someone to go and investigate the rough pilot.

Lionel drove around there and found someone flying a 60-size Stick off the public road. The incredible thing was that this guy (a SAMAA member BTW) had stopped at the field earlier and watched us flying. Luckily he was on 2,4 gig so we didn't have any interference problems.

By Round 2 the conditions had changed a little and coupled with the fact that some had worked out where to get lift the flight times were being maxed. One could launch high in the strong wind and ride the wave for the first part of the flight and then thermal back downwind without getting too far back. This didn't always work and some slots were really short with absolutely no lift at all and six minutes was hard to achieve, but then other slots were an absolute doddle.

There were many factors that made this event special. Firstly, a new and untried venue, secondly the Triathlon and Sawtooth event. It is quite challenging and team work is essential if you want to do well. The emphasis is not on the individual at all.

A very nice event and a fitting end to a very enjoyable HTL season.

Results are posted on the next page.

— Evan Shaw

The scoring tent. Gert was on the ball all day and kept us informed all the time as to positions of the teams and pretty soon a nice rivalry had started between the teams.

Scores for Highveldt Thermal League #7

Position	Team	Score
1	ETB	12024
2	Berg	11974
3	CCIP	11945
4	3G	11942
5	MALK	10763
6	JAWV	9062

Position	Name	Team	Class	Score
1	Craig Goodrum	3G	Open	4825
2	Deon Liebenberg	ETB	Open	4695
3	Conrad Klintworth	CCIP	Open	4562
4	Evan Shaw	Berg	Open	4559
5	Mark Stockton	MALK	Open	4227
6	Chris Adrian	CCIP	Open	4084
7	Anton Coetzee	JAWV	Open	4008
8	Paul Carnall	ETB	Open	3954
9	Rodney Goodrum	3G	Open	3760
10	Kurt Stockton	MALK	Open	3573
11	Piet Rheeders	Berg	Open	3535
12	Michelle Goodrum	3G	Open	3357
13	Herman Weber	ETB	Open	3281
14	Ian Lessim	CCIP	Open	3268
15	Derek Marusich	Berg	2m	3033
16	Alan Smith	MALK	Open	2878
17	Peter Joffe	Berg	Open	2704
18	Volney Klintworth	JAWV	Open	2582
19	Wolfgang Steffny	JAWV	Open	2062
20	Johan Bruwer	JAWV	Open	2012
21	Peter Moore	CCIP	Open	1828
22	Lionel Brink	MALK	Open	1711
23	Izak Theron	ETB	Open	1134

Overall Winners of the Highveldt Thermal League, from the top:
Derek Marusich (L), 2 meter
Alan Smith (R), RES
Paul Carnall (L), Open

South Australian State Thermal Championships Milang 2007

Photography by Terry Dunn and Jamie Nancarrow

The South Australian State Thermal Championships were held on Sunday, 18th November 2007 at the Southern Soaring League's field at Milang which is located approximately an hour's drive south east of Adelaide, the capital city of South Australia. The SSL's Milang field is a superb flying site of approximately 105 acres of which 70 acres are cropped and the remaining 35 acres are left pastured for our winches and aero-tow events. The South Australian climate allows us to fly 12 months of the year and although the summer heat can be a bit uncomfortable at times, the afternoon sea breeze from nearby Lake Alexandrina keeps conditions bearable.

A popular venue for both state and national events, the SSL club will be conducting the 2008 F3b International on this field on March 7th, 8th and 9th. and will feature pilots from Germany, Japan, New Zealand and Australia. More information about this event can be found on the club's website: **http://www.ssl.org.au/**.

South Australian State Thermal Championships 2007 Final Scores

	Competitor	RD1	RD2	RD3	RD4	RD5	RD6	TOTAL
1	Mike O'Reilly	1000.0	1000.0	1000.0	1000.0	1000.0	934.0	**5000.0**
2	Jamie Nancarrow	962.3	1000.0	1000.0	1000.0	995.7	1000.0	**4995.7**
3	Garry Whitfield	938.8	977.1	984.3	1000.0	1000.0	866.0	**4900.2**
4	Don Berry	1000.0	763.3	0.0	1000.0	1000.0	968.6	**4732.0**
5	Darrel Blow	943.5	1000.0	1000.0	618.0	1000.0	770.9	**4714.3**
6	Nick Chabrel	850.8	994.2	1000.0	982.6	882.5	772.8	**4710.1**
7	Simon Morris	830.9	751.8	998.6	981.3	666.7	925.0	**4487.5**
8	Michael Abraham	1000.0	635.2	969.9	997.1	804.8	690.6	**4462.4**
9	Eddie Smith	576.4	641.0	781.5	1000.0	949.6	1000.0	**4372.1**
10	John Blanchard	1000.0	1000.0	991.4	588.0	592.3	760.7	**4344.4**
11	Max Newcombe	682.6	306.7	687.1	969.7	946.2	1000.0	**4285.7**
12	Joe Rufenacht	940.6	845.5	813.8	674.4	602.3	1000.0	**4274.3**
13	Jim McDougall	986.9	968.3	621.4	517.9	858.8	787.0	**4222.4**
14	Chris Carpenter	432.0	805.2	500.0	860.0	854.5	816.0	**3835.7**
15	Trevor Schultz	888.4	604.1	610.0	585.8	227.2	813.5	**3501.7**
16	Peter White	567.2	511.6	945.5	509.4	455.9	715.8	**3249.4**

Don Berry's Sharon comes in for max points

Jamie Nancarrow

Well South Australia offered up a brilliant Sunday for those who attended the SA Thermal Soaring Championships at Milang for 2007.

The week prior to the event had offered several days exceeding 35C (95F) so expectations were high for both a difficult, but also a very clear day. In Australia this type of weather pattern means “booming,” healthy thermals, coupled with very, very strong sink. Milang lived up to this expectation and all pilots were looking forward to a very enjoyable, albeit trying day at the field.

In the first few hours the wind direction altered three to four times and this trend continued throughout the day, most pilots struggled with these trying conditions particularly on approach to landing. In the first few rounds, many heats were being won with times around or less than six minutes.

Mike O’Reilly and Don Berry lead the way with some very impressive flights over the first rounds, judging the air very well, and inflicting some “pain” on other fliers. Most pilots who managed to win respective heats needed to read the tricky air very very well.

As the day progressed the conditions become tougher and the old adage of “reading the air” become the critical factor.

All teams involved in the day had some very experienced

fliers and made some very different decisions. Many pilots were taking the safer option of searching up-wind for most of the morning with a consistent success rate and better average scores. In the afternoon, with the conditions becoming more difficult, pilots chose to go on much larger search patterns to find lift - some being rewarded and others not.

Simon Morris offered one of the most impressive flights of the day scoring a very strong thermal on launch.

Jamie’s team members, Mike O’Reilly, Nick Chabrel and Simon Morris

Unfortunately after a few minutes it dropped out, and Simon was left with extreme “Puss” (using Matt Wood’s terminology). Simon performed one of the best David Copperfields, and magically pulled his plane back from kilometres away, dissecting trees and very nearly gaining good landing points - all in a days work for Simon.

My main focus for this event was spot landings. In previous events my landings had cost me immensely. As most of us know landing

points can hurt you in overall rankings. After watching many people in the first few rounds of this competition I was still confused with various styles and what was the best method.

I quickly learnt that there is no correct, or even a best method!

I was lucky enough to “call” for Nic Chabrel, current Australian F3B Team member, in the first round. Nic utilises a “zig-zag” approach to the spot, and manages to wash 45-60 seconds and still control the energy of his plane, giving him the best possible chance at maximum points. Nic’s style still amazes, as I really wouldn’t have confidence in my ability to control the slight turns on approach.

The most common technique on display was a traditional style mechanical “taxi” approach (e.g., down-wind, final, spot), but even these differed drastically.

Many pilots such as Michael Abrahams and Max Newcombe, used a very high approach carrying a lot of energy to the spot and relied heavily on the “dork” style landing (pronounce with a strong European accent, it sounds much better). I always find this style both aggressive and the most impressive, although with the hardness of Australian soil at the moment, possibly not the best for the fuselage.

Another variation of this technique was on display from pilots such as Darrel Blow and Mike O’Reilly. Both use a very low controlled approach to have just enough energy to get to the spot.

All-in-all, practice is the single biggest factor and I look forward to improving my landings in future competitions.

Thanks to all the support cast, organizers, and of course to the Southern Soaring League for holding a great event!

Above all I would like to thank my team members; without a team we couldn’t fly this style of competition.

Jim McDougall

Today, Sunday, is State Thermal Comp Day.

That means getting up at 6.30 am, without disturbing her Royal Sweetness (not good on a Sunday), to get ready, finish loading up the vehicle and travel for about an hour to the SSL Milang field.

On the preceding days the models were checked out for any required maintenance and batteries fully charged so everything is go for a good day’s competition. The forecast is for over 30 degrees C, about 85 F, with light winds, which is not too bad for Ozzy conditions, so shady hat gear and an esky with ice water and a couple of beers to drink with the team afterwards is the go. (did you know that a recent Swedish study suggests that beer actually initially re-hydrates the body quicker than any other sports drink !!)

Arriving at the field sees conditions pretty well as forecast and some others already setting up winch lines and models for a 10.00 am start and an attempt at eight rounds with sixteen competitors.

The comp got started on time and everyone in the first heat got away ok. Being drawn in the first heat is usually a bit nerve racking, it was much more relaxing being in the 4th heat of the first round. This gives the opportunity to see what sort of thermals are around and where they are likely to be. (referred to as sand bagging)

During the morning the comp was run very smoothly but the usual few line breaks and resulting line crosses caused some loss of time. At the end of round three the lunch break was called and we were served with a great BBQ lunch prepared by the SSL members.

Jim in deep concentration, oblivious of the blowfly about to land on his right ear!!

In the afternoon session, the comp continued to run smoothly. All day the thermals were hit and miss, with some rounds easily achieving the full 10 minute times and others needing a re-launch. At this time of the day, the 400 Metre down and back trip to retrieve the line starts to became a bit of a work-out for some of the seniors.

There were a couple of anxious moments where models were coming home low across the tree line at the edge of the field and they nearly touched their own shadows on the trees. The one real crash for the day happened when a “Sharon” wing broke at the base with a sickening ‘crack’ on the launch zoom. Luckily the wing didn’t completely detach and the model came down in a spiral stall. There appeared to be little extra damage. That contestant continued with a spare model and ended up scoring well for the day.

The comp continued ‘til the end of round six, about 4.30 pm and the finish was called. Having six rounds allows one round to be dropped, which is favourable to most competitors who usually have one round they’re not too pleased with. (some have more)

So that was it. A good competition and then time for some post mortems over a refreshing ale, like achieving a 9 minute 56 sec time and 1 metre landing, then touching your shoe with the wing tip and loosing all the landing points. With the scores being fairly close that probably cost about 3 places.

Yeh, Yeh, we’ve all got our stories, but we’ll be back to do it all over again and try and do it better.

Left: Eddie Smith adjusts for comfort on Aussie style winch line retrieval unit. Right: Trevor flying, with John and Chris assisting.

John prepares to launch for Chris Carpenter

John Blanchard

The forecast was for a hot day around 30 degrees. I was not looking forward to this. At the comp held in Wentworth only a couple of weeks prior, it was also unseasonally hot and I found it very difficult to cope with the conditions.

Trevor Schultz arrived to pick me up around 7:30 am so as to get to the field by 8:30am. Upon our arrival we were greeted with lots of flies so the repellent was the first thing to get out of the flightbox. The other members of our team, “Crash” Carpenter and Michael Abraham, arrived and we set up the winches. The competition, ably run by the contest director Mike O’Reilly, started on time.

I was flying my Stratos 5 for only the third time in a competition. I am still getting used to this plane and in the way it flies compared to my old Pike Superior. It appears to have a slippery wing section and needs to be flown and a bit faster than I am used too. Now that I have the Crow setup

on a curved mixer, the landing approach is very controlled and my landing scores have improved immensely.

My first three rounds before lunch were the best I've had for some time. I had two 1000's and a 991.

We adjourned to the club rooms for fine barbecue lunch cooked by Terry Clayton.

After lunch the conditions had changed slightly and I struggled to find lift for the next three rounds and my scores sadly reflected this. I was a bit disappointed at my final placing, 10th out of a field of sixteen, but it just goes to show that consistency is what wins a competition.

My congratulations to Mike O'Reilly for not only running the event but also taking out the comp!

Max Newcombe

The Barossa Team arrived at Milang for the 2007 State Thermal Champs relativelyearly to find perfect conditions awaiting the eager fliers. But, all is not what it seemsat Milang, and when the increasing temperature combined with the many andvaried surrounds of Milang field, the resulting thermals became small, broken andvery hard to find.

The early heats were very hard work, and at times winning scores were well underthe 10 minute task. To achieve a 10 minute flight meant having to work narrow liftat very low levels, and any mistake resulted in falling out

Peter White and Max Newcombe

of lift and missing landing points as well.
The usual tasty lunch provided by Terry and Ivan was a welcome reprieve from the high concentration of early flights and gave us a chance to relax our tired muscles (and bung knees and broken wrists etc) and refill the food reserves to tackle the afternoon session.
By the time we started the afternoon rounds the drift direction was a little more defined although the majority of the thermals were still small and broken. The start of the sea breeze also gave us more help with launches and at times there was some very strong lift, but still requiring recentering on the way up. Our tired limbs did not take too well to a long hot day, but we persevered and mproved our scores as we progressed through the rounds.
A couple of us continued to practice our DLG low level thermalling skills, and in one case getting away for a 10 minute flight, and also continued to improve scores by managing heat wins for 100 points in our last heats. Like golf, that might bring us back next time to try again.
All in all it was a relaxed enjoyable day (from our point of view anyway) with varied and interesting conditions to really test our skills.

Mike O'Reilly

A forecast high of 95F, 3-5 knot winds from the south, a 100 acre clear flying field and 16 eager contestants made for a very interesting days flying. All 16 pilots were flying moulded thermal ships including Pike Superior, Sharon, Estrella, Caracho 3000, Eraser, Nyx, Experience, Stratos 5 and more. We are fortunate to get most of the top European thermal ships in Australia and they really do work well in our conditions, despite our "air" being very different to Europe.

Mike O'Reilly prepares to launch Nick Chabrel who does some last minute surgery on his Carracho

Success on the day became a factor of how well you could 'read' the air. Thermal activity was quite strong in the morning with good indicators of lift being present. My team uses a telescopic fishing rod of approximately 20' height with a tape streamer on top and this was indicating wind shifts really well in the morning. That, coupled with a number of eagles who were out spotting thermals, gave our guys some good indicators of thermal direction.

Joe Rufenacht launches Max Newcombe's Estrella

Most competitors had a couple of good flights before lunch, but it was the afternoon which challenged.

The wind speed had increased to about eight knots and was coming steadily from a lake three miles upwind and the thermals became weaker and the sink much stronger. The eagles were having a siesta and the tape wasn't doing much!

The afternoon was spent more in an upwind/crosswind search pattern whereas the morning had definitely been a go to the downwind thermal style of flying.

On several occasions in the afternoon heats people were able to maintain their height in "European" style weak thermals at heights as low as 100' whereas normally our thermals are strong enough to climb out from 20-30'.

All in all a very challenging day's flying where the result was not totally determined by the landings. Some serious "pain" was inflicted in some heats where pilots failed to engage a thermal and were on the deck in 5-6 minutes whilst others flew out the 10 minute task.

Trev Schultz calling, Michael Abraham flying

Nick Chabrel

t has been a few months since a South Australian open themal event has been held due to weather cancelling the last two events. This day made up for past disappointment with a gentle breeze, lots of sun and plenty of thermals (if you could find them).

16 pilots in four teams of four enjoyed the day which gave plenty of variation typical of the Milang field. The earliest heats were won with 8 minute flying times, but as the air became more active, the 10 minute landing competitions became more the norm. Once the sea breeze became more of an influence after lunch the times again became harder to make, and relaunching was a common occurrence, even winning a few heats.

Some low level work was at times very spectacular, with Max Newcombe wowing all with a low level thermal from what should have been a landing approach, snatching the lift with his Estrella and thermalling away back to near launch height. Several other bubbles were found to save many pilots including myself.

Nick Chabrel assisting, Joe Rufenacht flying

The previous dominance of F3B style models is definitely ending, with stronger and harder launching now a feature of thermal oriented models coupled with their better handling and low sink. Two Carachos and one Estrella flew and despite much better launches the conditions rewarded the flying more than the launching. Pike Superiors, along with a Shadow, Escape, Sharon and a Stratos were all good weapons.

Mike O'Reilly was Mr. Consistent, with only one flight not scoring 1000, and rarely having trouble flying his well loved and beautifully trimmed Pike Superior. His first place was well deserved and he will represent Australia well at the next F3J world championships. Jamie Nancarrow I felt was a standout performer as a relative newcomer, flying very well to score 4995 points and get a hard earned second. ■

Relaxed flight line during one of the earlier rounds.

BARCS AGM, December 2007

Philip Kolb - F3J champion and Pike Perfect designer

In F3J competitions, Philip Kolb is an enduring "champion of champions." CONTEST-Eurotour is the world's most testing of F3J leagues, and he has been champion in the years 1999, 2001, 2003, 2004, 2005, 2006 and 2007. Only he can answer what went wrong in 2000 and 2002!

This year, he won the league in style. Although based now in Turkey, he flew in nine of the 13 competitions. He scored the maximum 103 points - 100 points for winning the preliminary rounds and three extra points for winning the fly-off - in four contests, Germany, Bulgaria, Holland and Slovenia.

Philp Kolb celebrating in the Czech Republic with the Vostrels on his visit to inspect the first production models of his Pike Perfect after a year of top-secret and furtive prototypes. (Winter 2006)

In the Hollandglide fly-off, the last metre is divided into five sections, pilots losing a point for every 20 cm away from the spot. Philip flew 14 minutes 56.70 seconds and landed 7 cms away, then 14 minutes 54.40 seconds landing 35 cm from the spot.

Winner of the Trnava Cup prior to the 2007 F3J European Championships with his prize of a "Supra" rather than the usual Pike Perfect. (Summer 2007)

Today, in awarding him the Eppler Trophy, BARCS not only honours Philip Kolb as a pilot, but recognises the design skills, aerodynamic knowledge and experience of moulded composites which he gave to SAMBA Models in the Czech Republic in the realisation of the Pike Perfect.

Designed and developed during 2005, flight tested, proven and already a winner during 2006, the Pike Perfect has proved to be the most successful F3J model in major competitions during 2007. Voted the world's best and most popular F3J model in an international pilot poll held by the Turkish Soarist Club in October, demand for the Pike Perfect still outstrips production with the Vostrel family - SAMBA - moulding up to seven models a week.

The Eppler Trophy was first awarded by BARCS 20 years ago for technical achievement. The trophy is an E193 wing rib signed by Professor Dr Richard Eppler on a visit to England in 1986, and it was made by Chris Tompkins.

The 2007 award is particularly appropriate because the success of the Pike Perfect is very largely due to its wing aerofoils which vary along the span in a non-linear transition, PK sections from 91A through to 94. Philip himself gives generous credit in his design to Professor Mark Drela at the MIT Department of Aeronautics and Astronautics, Frits Donker Dujvis of T U Delft and Andreas Herrig from IAG University of Stuttgart for past and ongoing development of model glider aerofoil understanding and exploitation.

BARCS salutes Philip Kolb and proudly awards him the Eppler Trophy 2007.

EPPLER TROPHY - Awarded for TECHNICAL ACHIEVEMENT

1987 SHEFFIELD SOARING GROUP - Development of high strength wing spars.

1988 CLENT SOARING ASSOCIATION - Promotion of BARCS Tech over many years.

1989 NICK WRIGHT - F3B World Champion.

1990 DENIS OGLESBY - Technical work with aerofoils.

1992 D & G WOODS, G LEWIS - For slope soaring models - aerobatic particularly

1993 PETERBOROUGH WINTER SERIES - Contests designed to appeal to both the competition beginner as well as the expert. (Still running in 2007-8)

1994 STU BLANCHARD - For the Calypso series of moulded models.

1997 S COCKER - PSS Models, particularly large ones.

1998 J STEVENS - The Eliminator series of wooden high performance soarers.

2001 N SHAW - Slope duration world record - 36 hours 3 minutes and 19 seconds at Ivinghoe Beacon.

2002 T BECKETT - BARCS web site 1997-2007

2003 BILL DULSON - Quality designs culminating in The Tracker 100S.

2004 M GODDEN, Mimic/Spectre Group, T ADAMS, S WITTICK and P YOUNG Development and flying of DLG/F3K models.

Das Box

By very professional product review specialist
Philip Randolph, amphioxus.philip@gmail.com

An objective and unbiased critique of Philip Randolph's toy airplane box and transmitter boxes, in the standard unbiased glowing-report kit evaluation protocol which requires that the boxes be considered as kits with no materials or plans supplied.

Allegations of conflict of interest based on allegations that the reviewer got to keep the boxes are spurious and otherwise without much merit.

Opposite: Das Box der Fuselages, holding Carbon Wing Blazer, Javelin, and Ionosphere. Das Flugel Bachs (Das Wing Box) was inspired by damage to the Encore wing, in the back of my truck. Encore wing is shown atop the Javelin wing, and a plastic spoon, which technically does not require protection. Das Corrugated Flugel Bachs is cardboard fluorescent light box. It accomplishes satisfactory hangar rash prophylaxis.

Included in kit

The lack of materials and parts not included were well packed and nothing that was there was missing.

There was, of course, a short list, left up to the assembler to write, of additional supplies needed. These included:

1-Plastic bin from Home Despots, $5.96
1-Cardboard fluorescent light box, empty, from Hominoid Depot, free.
Various downspout and PVC tubes, Home DePot, cheap
1 package 7" Cable ties, two bucks
2 beers
Packing tape (don't use on fuse box. Use the cable ties instead.)
1 Yoda Lunch Box
1 Old Ryobi Cordless Drill Box
2 more beers

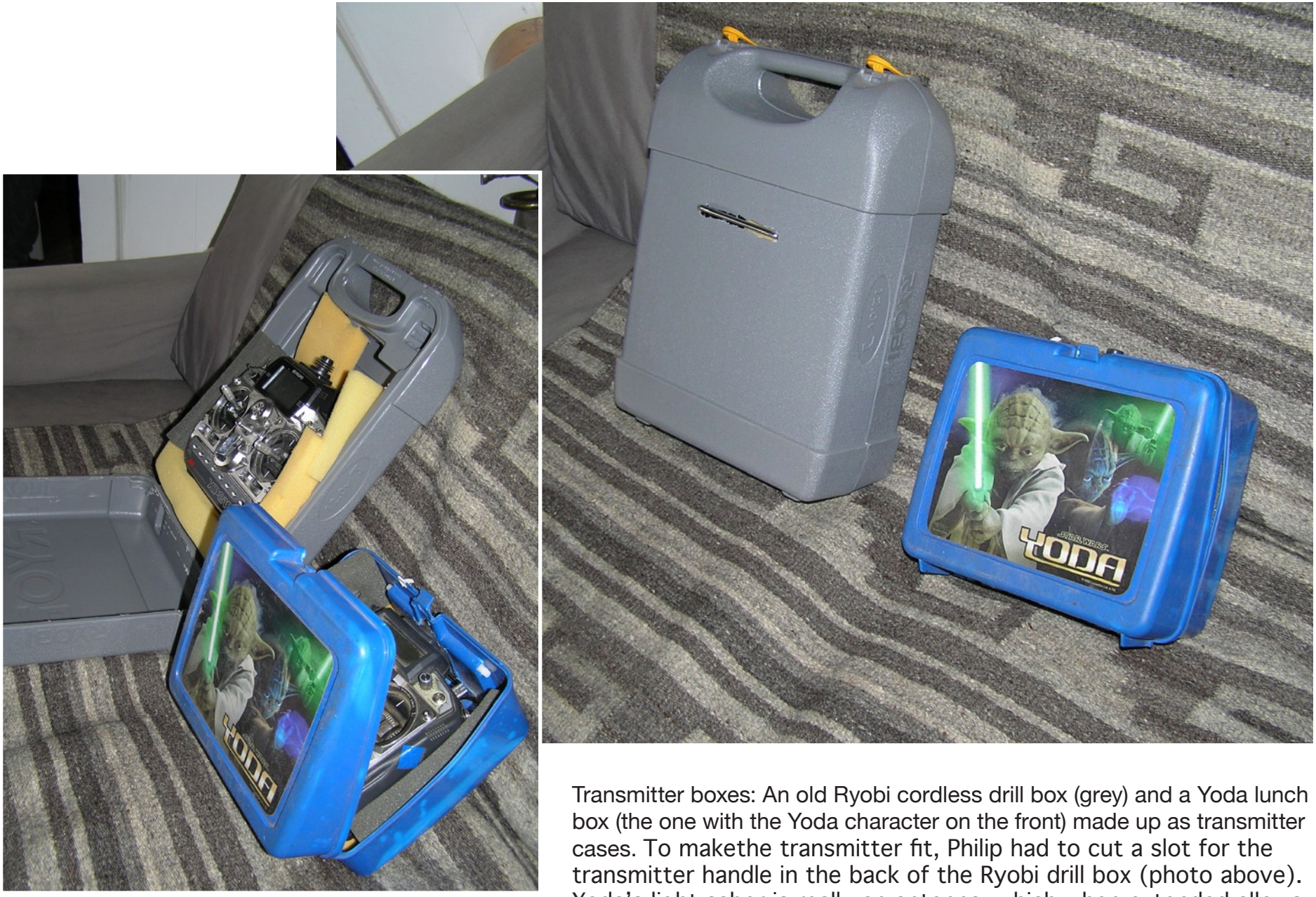
Something else, because everyone always forgets that little something else.

Tools required:

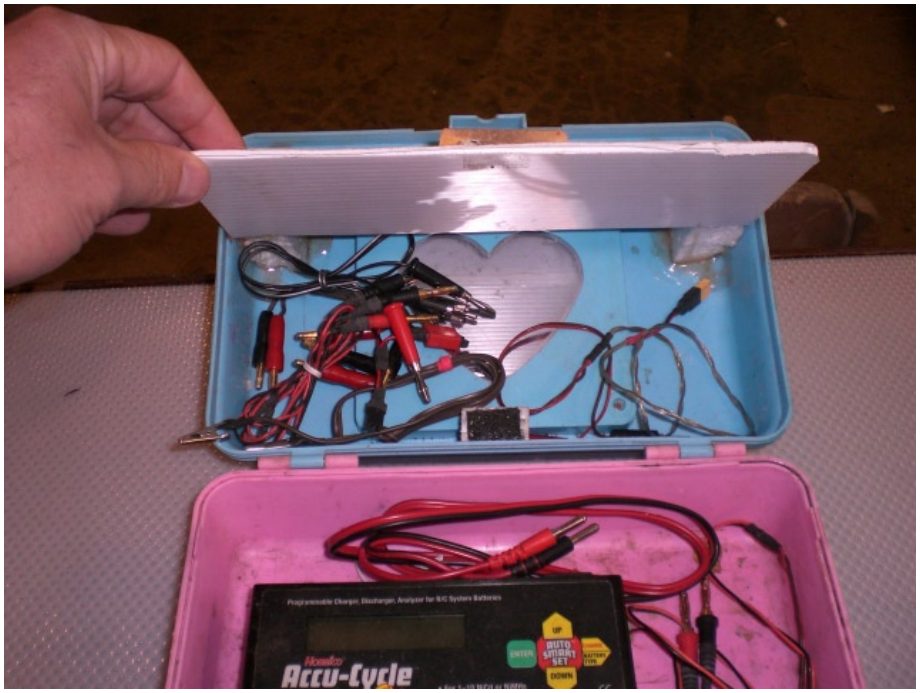
Drill, ¼" bit
Hole saws
Jig saw
Church key
Razor knife
Foam rubber (This should have gone under "materials and parts," but see? I told you everyone always forgets something.)

Above: Packing tape holds Das Box together less elegantly than cable ties.

Right: Cable ties hold Das Box together more elegantly than packing tape.



Transmitter boxes: An old Ryobi cordless drill box (grey) and a Yoda lunch box (the one with the Yoda character on the front) made up as transmitter cases. To makethe transmitter fit, Philip had to cut a slot for the transmitter handle in the back of the Ryobi drill box (photo above). Yoda's light saber is really an antenna, which when extended allows him to receive silly fantasies of righteousness and power.



Barbie Makeup Box, salvaged from trash for a charger box by Damian Monda. Please note the heart shaped clasp and handles. These have no aerodynamic function, that the reviewer is aware of.

Also note the heart so lovingly contained in its secret compartment beneath the precision coroplast lid.

Instructions

The instructions neither provided nor supplemented by this review were without ambiguity.

Assembly

Carefully following the lack of plans not provided, the reviewer assembled things this way or that. Some assembly was needed. The right of free assembly is guaranteed by the Constitution. There was no charge for free assembly. We feel the Constitution was upheld.

Downspout and PVC drain tubing should be sized larger than the fuselages which will go inside them. Various sizes of crate and tube arrangements are possible, but not supplied with this particular kit.

Oh, yeah, the big box is for fuselages, and the cardboard box was for wings, and the small boxes were for transmitters. See pics.

Don't read this

After a break for beers, the reviewer determined that there were opportunities for improved performance that he couldn't put in this review. That's because the reviewer wants to be like all those professional reviewers who write for those glossy toy magazines, which means he has to follow standard review protocol.

Standard review protocol is to say only good stuff because all those glossy rags and mags are basically an opportunity to charge people for glowing reports - free advertising articles - where the rag gets to keep the reviewed item and may even get kickbacks, perhaps in the form of additional advertising from the manufacturer for writing an objective, glowing-report article. Very professional I want be, yes.

However, what the reviewer won't say is that the assembler's sloppy job of simply taping the tubes together was a less efficacious and aesthetically pleasing experience than just drilling ¼" holes and using the cable ties.

Also not said: Drilling some 2" holes in the fuselage tubes for access to charge jacks would be good. And the best wing boxes store the wings with their leading edges down, rather than stacked flat.

Also not said: The non-supplier of the non-kits was going to make a few variations, including a single Encore fuselage box and a single 60" V-tail sloper fuselage box, but he didn't get around to it.

Performance Evaluations:

The professional reviewer threw the boxes off his front porch. They flew great! (Us professional reviewer persons always say, "They flew great!" It is just how it is done.) Glide ratios were approximately as expected.

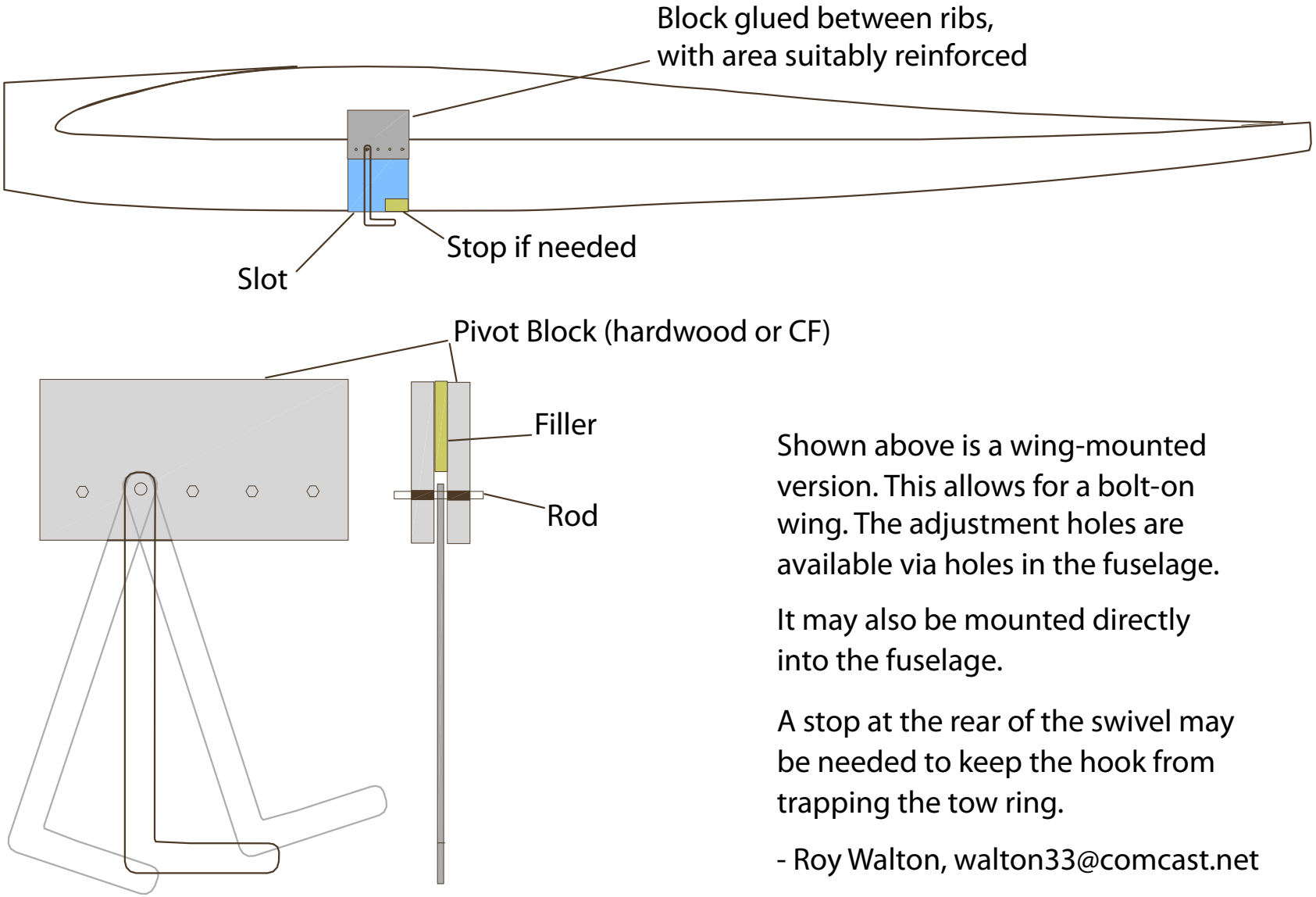
Pros: The beer was Mirror Pond something or other, with a piquant hint of hops, skips, and flights of fancy, and a tendency toward fleeting visions of armadillos, though that many were not consumed.

Cons: That many were not consumed. ■

An outstanding example

The outstanding box of all time is CEWAMS Damian Monda's daughter's pink Barbie Dollsy Wollsy Precious Baby makeup box, complete with mirror (well, it once had a mirror), that he salvaged from the garbage can and converted to a charger box. (See photos on the opposite page.) Damian works for Boeing, and so was able to accomplish the engineering of the hinged lid that hides the heart shape and spare cables all by himself.

ADJUSTABLE PIVOTING TOWHOOK



Shown above is a wing-mounted version. This allows for a bolt-on wing. The adjustment holes are available via holes in the fuselage.

It may also be mounted directly into the fuselage.

A stop at the rear of the swivel may be needed to keep the hook from trapping the tow ring.

- Roy Walton, walton33@comcast.net

KEEP YOUR CARBON FUSELAGE!

Dale Nutter, dendkn@aol.com

After joining others in the joys of putting a Spektrum 2.4 GHz receiver in a carbon or carbon/Kevlar weave fuselage so that the antennas could be mostly outside or away from the carbon fuselage structure, I decided to give the 7 Channel Futaba FASST 2.4 GHz System a try.

This was also a convenient cost-effective way to go using Futaba's 2.4 TM-7 Module. These modules are a simple plug in replacements for other transmitter modules used in a 9C Super and several other Futaba transmitter models.

The greatest advantage of this system, however, was the difference in receiver antenna placement flexibility. The R607FS Model receiver has two individual coax/antennas coming from the end opposite the servo plug receptacles. Each antenna has an insulated "coax" portion approximately 3 1/4 inches long, and a "bare" antenna portion about 1 1/4inches long for a total of 4 1/2 inches.

They can be installed completely inside a carbon fuselage shell and intermixed with servo wiring up to the bare antenna end portions of the two antennas that are conveniently directed out of the carbon fuselage.

This receiver antenna flexibility is usually sufficient for locating the receiver into an existing installation without moving servos or batteries.

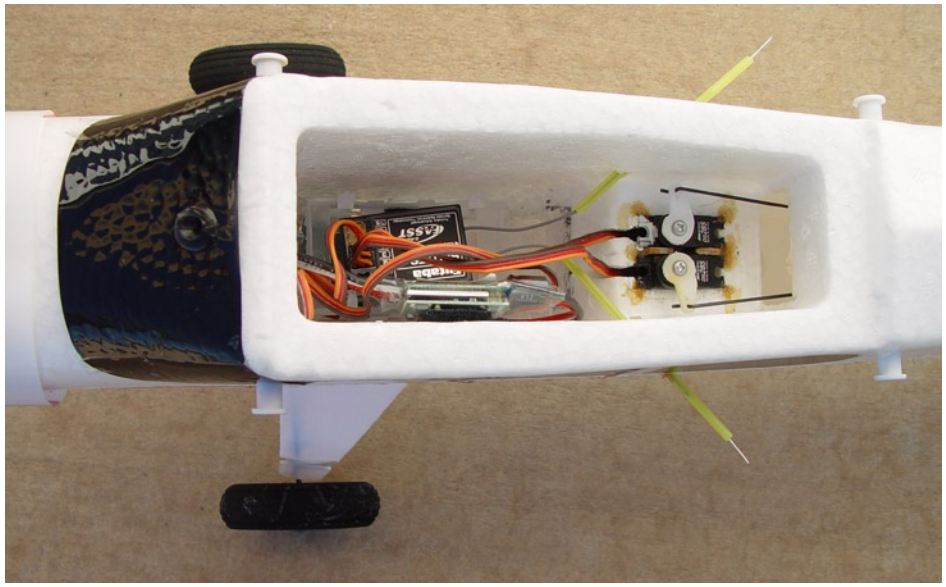
Cub park flyer installation

Successful initial antenna placement experiments were first conducted with this Futaba System using a foam Cub park flyer.

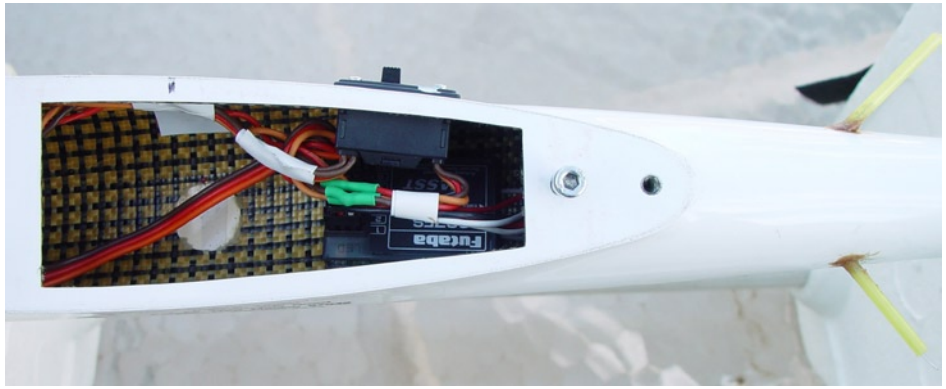
The two antennas are directed back 45 degrees, pass through the foam and are protected by Golden Rod guides. (See photo on next page.)

AVA EF installation

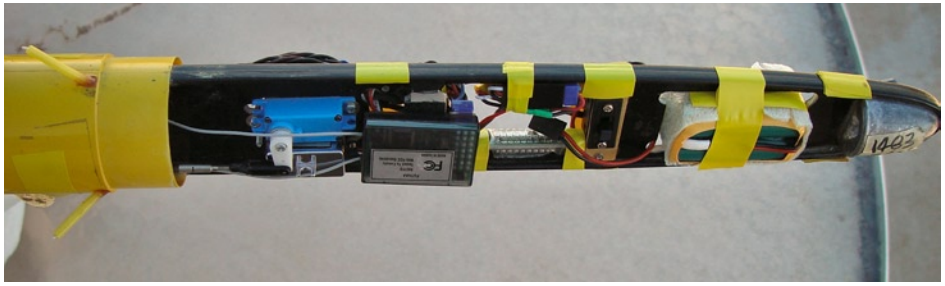
I am flying the old standard AVA EF (flapped electric with a lot of carbon). The receiver is mounted on a Velcro pad on the bottom of the carbon/Kevlar-weave pod with its antenna output side in line with the back of the AVA EF pod access



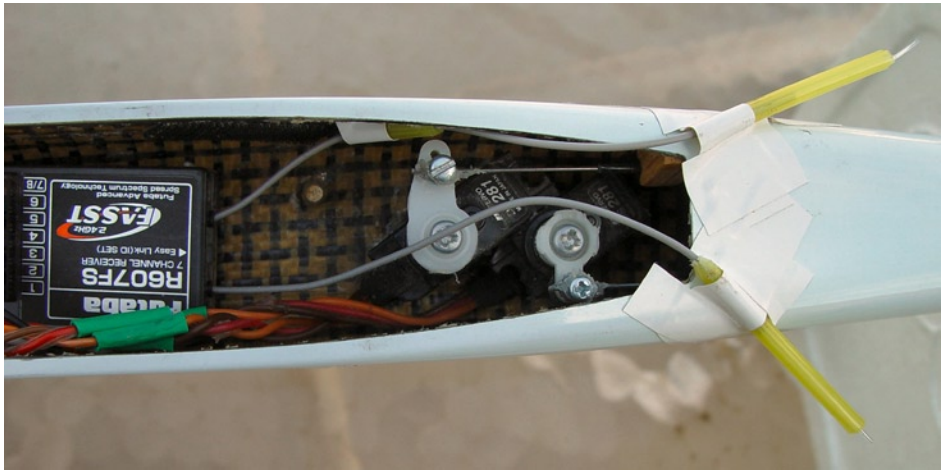
Cub park flyer: Successful initial antenna placement experiments using a foam Cub park flyer. The two antennas are directed back 45 degrees, pass through the foam and are protected by Golden Rod guides.



AVA EF: Excellent operation and range have been achieved with this antenna setup in two AVAs.



Stratos SL sailplane: Excellent operation and range were also achieved with this installation.



Electron F5J Outrunner Class sailplane: This sailplane has made more than 25 completely successful flights, some at extreme range using this system and a similar antenna installation with no glitches.

opening. There is a lot of carbon in the pod in that area.

The antennas are routed toward the carbon boom and exit 3 1/2 inches back of the pod access opening and a half inch above the pod seam. Golden Rod brand pushrod tubes can be used to make antenna guides to protect and direct the bare wire antenna portions out of the fuselage.

When the guides are inclined back 45 degrees relative to the fuselage centerline on each side, and located behind the wing, they are at an optimum placement and orientation.

Excellent operation and range have been achieved with this antenna setup in two AVAs.

Stratos SL installation

Another example was an installation in a Stratos SL sailplane.

It has a totally carbon covered vertical central keel with a nose cone, as can be seen in the photo on the opposite page.

The coax antenna lead outs were just long enough to reach past the existing servos and nose cone carbon seat ring allowing the bare wire antenna guides to exit just behind the nose cone and in front of the wing.

These antenna exits were oriented tangent to the keel upward and about one third of the fuselage circumference above the bottom on the same side of the fuselage keel.

Again, using Golden Rod guides, the antennas are at 45 degrees sweep relative to the fuselage centerline. The receiver mount offsets the receiver just enough for the coax leads to pass smoothly over the top ends of the servos.

With the receiver plug receptacles turned into the keel there was plenty of room for the servo and power wires plugged into the receiver to lay down 90 degrees and clear the nose cone.

Excellent operation and range were also achieved with this installation.

All these aircraft, except for the foam Cub park flyer, have extensive carbon rib cap strips, carbon spars and carbon/Kevlar-weave components.

Electron installation

My first competition model installation with this Futaba System was made with an Electron F5J Outrunner Class sailplane.

This sailplane has made more than 25 completely successful flights, some at extreme range using this system and a similar antenna installation with no glitches.

All these aircraft, except for the foam Cub park flyer, have extensive carbon rib cap strips, carbon spars and carbon/Kevlar-weave components. ■