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The articles and views expressed by our members, are not necessarily the views of the editor or committee and therefore we reserve the right to modify and or refuse an article if it is considered in the best interest of the club.

APRIL 2005

# CLEAR



**In this issue:**  
**Super Air Review**  
**Yak 18 PS review**  
**+ Carburettors II**

**CHICHESTER AND DISTRICT**

## STOP PRESS No Flying on Thorney Island 22/23/24 April. Airfield Ops.

### Chichester and District Model Aero Club

#### Committee 2005

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Secretary &	Trevor Bowry	01243-780949
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CD Editor	Bruce Smith	01243-531602
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Email Address:		aerobruce@aol.com

#### Committee appointed positions

Junior Members Protection Co-ordinator:  
Bruce Smith 01243 531602

[Visit our great website](#)

Cover photo: Ever been to Duxford? This big Jug is just one of their many beautiful war-birds. See Ron Hemblade about the club visit for Battle of Britain Day.

## Congratulations

To Peter Doe and Will Prozesky on achieving their 'A'

### DIARY OF COMING EVENTS

16 April	12.30	Scramble Comp	Thorney Island
22 April	18.30	Balloon Bursting	Porthole Farm
29th April		Indoor Flying at Bosham Village Hall	7.00 pm
12th May.		The Club annual Skittles Night. £2.00 per head.	
14 May	12.30	Fast and Slow Comp	Thorney Island
14 May		Seaford College (A 285 Duncton)	2pm to 5pm £5.00
20 May	18.30	Limbo Comp	Porthole Farm
21st May		Sandown Trip	5 spaces
30th May		Club Gala Day	Porthole
9th June.		Club night - Make your own model night	
18 June	12.30	AULD (electric)	Thorney Island
19th June		Visit to Three Kings Control Line Site - Croydon	
24 June	18.30	Bomb Drop	Porthole Farm
25th June		Wings and Wheels	FULL
14th July		Flying Club night - Free flight, R/C Park Flyers and C/L	
16 July	12.30	Precision 'A' Flight	Thorney Island
22 July	18.30	Carrier Deck	Porthole Farm
30th July		Hastings Show	2 places
06 Aug	12.30	Thermal Glider	Thorney Island
11th Aug		Flying Club night - Free flight, R/C Park Flyers and C/L	
13 Aug	12.30	Thermal Glider	Thorney Island
8th Sept		DVD and Video Club night.	
17th Sept		Southern Model Air Show	6 places
13th Oct		2nd Auction night.	
8th Dec		Annual General Meeting.	

### TeX & ReX by Ecurb



## Fixing Cabin Glazing with Balsaloc

I get a bit wound-up trying to attach cabin glazing with the usual liquid oozy glues, as it seems to get everywhere, especially on the areas we are supposed to see through. I thought I'd try a different approach with what amounts in the end to a dry method with an immediate bond, and Balsaloc looked as though it might do the job.

I tack-taped my screens in place dry, in order to be able to apply some low-tack masking tape to define the adhesive areas. Removing the screens, I brushed on two thin coats of Balsaloc with a fine-haired brush, waiting about 20 mins between coats. When the second coat was dry to the touch, I tacked the screens in place again to locate them whilst attaching them with an iron, set to about 115 deg. C.

The adhesive went clear after heating, allowing the surface colour underneath to show through well. The window areas remained untainted, and applied to Solartex in my case, the bond seems enormously strong. I have successfully used temperatures from 100 -135 deg. C. Do a test-piece if in doubt.

I've also done repairs on acetate that had come unstuck from Profilm when stuck with conventional adhesive, and this method has worked nicely, too.

I was at a loss as how to attach the front-screen edge-on to the Solartex fus top coaming, so after doing a test-piece, I masked the attachment areas of the fus and screen-bottom, and pre-cemented them with ordinary balsa cement. With the screen

ironed in place at the sides and top, I ran a bead of cement along the bottom join to re-melt and finish. So far, it seems very strong and fuel-resistant, but if I did it again I'd be a little less generous with the pre-cementing on the screen.

### Caveats:

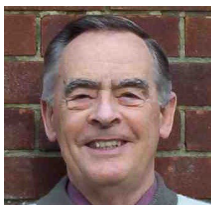
1/ It's a good idea to use a soft sock on the iron to avoid marking the acetate, but go-easy on the pressure, as at higher temperatures particularly, it's possible to transfer an imprint of the weave onto the acetate.

2/ The undersurface needs to be even and flat, as a ripples will transfer to the glazing, and will show-up under some lighting conditions, as Balsaloc is not self-levelling.

3/ To minimise the risk of distortions, keep the hot iron away from the glazing side of the attachment, or alternatively use a piece of card etc. as a heat shield.

4/ Try to avoid deep brush-marks in the Balsaloc, as they can show.

This has worked well for me, but let's know if you have a better method – I hate fixing glazing.



Colin Stevens  
*Colin*

## Editorial

Yes, this is actually me, writing words in the CD editorial column disproving those malicious slants currently circulating that I'd had to flee the country in a hurry or that I was residing at HM's pleasure. Truth is, the old 'burning issue' letters such as we've had from Arthur and Ken, in the last few months soon gobble up column inches and then combined with the excellent reports and reviews I've been receiving from you, has meant that space has been at a premium and I've had to marginalise my usual demented ramblings. This month we'll have the final contribution on the 'plane in the stable' fiasco as ex chairman, Keith Stanley, attempts to put it all in historical perspective. I apologise to Keith for having had to pare his letter to the bone. First though, a heartfelt letter from an old club member whom many of you will recall.



*Bruce*

Hello Bruce,

As a past member of CADMAC, I was sorry to read about the death of Jerry Devenish in the Obituaries section of the April issue of the BMFA news. Jerry, along with John Riall, Dave Etherton - and oth-

ers - taught me to fly R/C at Thorney. It's sad to learn that Jerry has gone.

And Roy Lever gone too!

As a spotty youth, and when I first got into aeromodelling, I bought my balsa (and, as I recall, a Mills .75 and, later, an Oliver Tiger) from Roland Scott's shop in Bolton when he and Roy worked together way back in the 1960s. Happy days - apart from the chopped fingers!

Regards,  
Mike Schofield,  
Bishop's Waltham, Hants.

### Dear Bruce

It now transpires that there have been two incidents of a model, out of control, flying into the stables. The one of which I was previously aware concerned a pupil pilot under guidance of the late Ray Hackett, who had thoroughly checked the model then supervised take off and flight until it went out of control and was seen to fly into the stables by the old control tower. It narrowly missed the C.O.'s daughter and struck a vertical post between two loose boxes. Typical of his approach to our hobby Ray submitted a written report of the incident to the club committee and this should still be on our files somewhere.

### Continued on page 16

We heard nothing more about this from the Regiment but I made myself known to the Sergeant whose full time job it was to be chief Groom and made him understand how un-





## Black Horse – Super Air (ARTF)

*by pete wills*

Well, Christmas is well over for another year and for all you kit and plan builders out there, I guess you're putting the finishing touches to your new masterpieces ready for another flying season.

But for the rest of us lazy ARTFers, you don't even have to leave your house nowadays. Just get on-line and order yourself a new plane (how lazy is that?). This particular plane has been around for some time now together with its sisters the Travel Air and Speed Air. To my mind the Super Air is the best looking being the only one of the three with a tapered wing. If you're in the market for a cheap low-wing sports hack, this has got to be worth a try. Suitable for 0.40 to 0.46 2-strokes. I

once had an OS 65 LA in one but it's a bit of a speed freak with that and is better suited to the Irvine .53, which gives a fair bit more grunt than the recommended .40 - .46 with no significant weight added.

Due to the untimely demise of mine in January at Thorney, I immediately ordered a replacement from Inwood Models and at £52 they're a real bargain. This will be my 4<sup>th</sup> Super Air over the last 6 years. The first one was trampled by cows at Thicket Farm after a dead-stick landing in their field. The second one hit the fence post hard on landing approach at Thicket Farm (pure pilot error), and the last one went in inexplicably at Thorney. Having checked all the servos, one of the

## Air Canada

from tony renauld

Part of Air Canada's recent settlement with the Unions was hiring handi-capped people.

So the other day passengers on a small commuter plane were waiting for the flight to leave. The entrance opened, and two men walked up the aisle, dressed in pilots' uniforms and both wearing dark glasses. One pilot was using a guide dog, and the other was tapping the aisle seats with a white cane.

Nervous laughter spreads through the cabin; but the men enter the cockpit, the door closes, and the engines start up. The passengers begin glancing nervously around, searching for some sign that this is just a little practical joke.

None is forthcoming. The plane moves faster down the runway, and people at the windows realize that they are headed straight for the water at the edge of the airport perimeter. As it begins to look as though the plane will never take off, that it will plough into the water, panicked screams fill the cabin.

At that moment, the plane lifts smoothly into the air. The passengers relax and laugh a little sheepishly, and soon they have all retreated into their magazines, secure in the knowledge that the plane is in good hands.

Up front in the cockpit, the co-pilot turns to the pilot and says, "You know Bob, one of these days, they're going to scream too late, and we're all going to die...."

## Gibbs Guides

User friendly guides by Andrew Gibbs

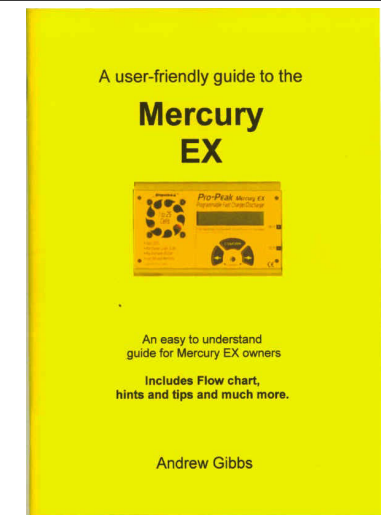
Lithium batteries	£7.75
Nicad and Hydride batteries	£6.75
Mercury EX	£6.25
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Andrew Gibbs 01243 861 804



likely it was that anything like this could happen again !!! .

It was Chris Merry, who on a landing circuit flew over the young Officer riding with two lady companions, knowing Chris it would not have been at dangerously low level, but the horse threw the young man and cantered into the distance, pursued by the ladies. The young man's behaviour and language was most 'Un Officer-like' and he accused Chris of deliberately 'Buzzing' him. Again, I like to think that because of the good will we had earned from the Regiment we heard no more about it.

I have the clearest memory in September 1993 of receiving the 'phone call from Major Davis informing me that we were given one month's notice to quit the airfield. The reason was that two R.A.F. Engineer Officers had been inspecting the Red and White Beacon to the east of our present flying site and had discovered an Aeromodeller deploying a bungee and flying a glider adjacent to the beacon. They had vehemently complained to the C.O. At that time our flying site was the south western end of the runway running S.W. to N.E. so the Beacon was half a mile at least from where we were allowed to be.

The Red and White beacon is an Omni-directional Emergency Direction Finder on permanent operation and it is one of several. Any aircraft, civil or military in distress can transmit a special frequency and its position will be instantaneously displayed at Air Traffic Control, Bursle-

don. It is maintained by the R.A.F. Engineering Branch and the 47 Regiment R.A. have responsibility of guardianship of it. You can imagine the anger of the C.O. when the R.A.F. informed him that his regiment had failed in their duty (or words to that effect). Obviously CADMAC had to go, we were not to be trusted and nobody should anger a Lieutenant Colonel who is in command. I immediately sought help from Chacksfield House and they put me in touch with Roger Bellingham, BMFA flying site specialist, Roger put me in touch with the Squadron Leader who was then Chairman of RAFMAA. I received a very sympathetic hearing and to cut a long story short, through RAF Engineering contacts the hiatus over the rebel Modeller near their beacon was put into sensible perspective for the Regiment, who then informed us that they were ready to discuss terms under which we could return to fly. This is when we lost our Thursday afternoon access as well as Saturdays and when we had to accept stringent compliance with BMFA noise levels. Chris Merry and others of our ace flyers left us at that point to join clubs with more relaxed conditions.

*Keith Stanley*

aileron servos was "twitching" madly when connected to a receiver. Whether this was the cause of the crash or was caused by it I guess I'll never know (probably a fair element of "pilot error" too). Suffice to say I binned the receiver and the offending servo as I could never trust either again. But enough of my rambling and back to the review. First impression upon opening the box is the extremely low parts count. This kit is truly "Almost Ready to Fly". Major components consist of the fuselage, two wing halves, horizontal stab, and vertical stab. All control surfaces are hinged and attached and the hinges are even pinned. Nice touch! All parts are well packed with the fuzz, tail feathers and both wing halves all individually wrapped although there are no dividers for them. Having said that, on close inspection there was no visible damage. The hardware pack is suitably foreign but some is of it is useable. There's even a ready fitted pilot and instrument panel. The canopy is factory fitted using tape and screws.

### **The Assembly**

Having made three previous Super Airs, I have noticed a marked improvement in quality from the first to the last, which is surely the sign of a good company in that they are always looking to improve their quality. I won't go into the details of assembly as its all pretty self explanatory to anyone who has built a couple of planes before. A detailed instruction booklet is provided, well illustrated

in colour, although to be honest, the assembly is very straightforward and starts with the wings. There are separate servos required for each aileron. The aileron servo covers are taped into position and just require removing the covering from the servo arm slot and screwing the servos in place. A nice touch is pull strings taped in place to allow you to pull the servo leads through the wings. The wing joiner was a piece of flat hardwood on my original plane. But this latest incarnation boasts an Aluminium square extrusion supported inside by balsa so it is both light and strong.

I put the servos, battery, receiver and switch in the fuzz before adding the tail feathers purely to minimise any potential damage from swinging it around in my garage. The pushrods are again all pre-installed. All you need to do is cut a slit in the covering where the pushrods exit the fuzz and ease them through. There are two pushrods for the elevator (one for each half). These need to be adjusted to ensure that the two elevator halves are exactly in-line.

Remember to fit the wing to the fuzz first to enable accurate alignment to the horizontal stab.

### **Radio Installation**

Installing the radio equipment is very straight forward with a well positioned servo tray for the rudder, elevator and throttle servos. As my radio is JR, I used NES519's on all flying surfaces and a lower torque

NES507 for the throttle. I did notice that the throttle servo cut-out was a bit too big, and so I reduced it with a piece of liteply accordingly.

The battery suitably wrapped in foam, fits neatly in front of the servo tray. To secure it, I glued a couple of strips of ply to each inside face of the fuzz. This then provides a support for a liteply battery cover to be slid in over the battery and allows for easy removal if needed.

The C of G was checked with this set-up and found to be pretty much spot-on. I suppose one of the advantages of building a few of these now is that you know where everything goes to balance it correctly. Sure, different wood densities will affect things, but on this occasion it worked out just fine.

The receiver fits to the rear of the servo tray. I feed the antenna through the base of the fuzz (through a 1" piece of fuel tube) and run it along the underside of with a rubber band over the tail-wheel bracket to attach it to. The antenna is prevented from pulling through the fuel pipe by feeding it twice through a small ring of fuel tube, which rests on the larger piece inside the fuzz. This was shown to me by Graham Ousby and I use this technique on all my models now.

## Engine

Fitting the recommended sized engine is no problem with the ready fitted cast aluminium engine mount.

The mount uses a clamp plate on each side to secure the two engine mounting lugs. Some people don't like these, but I have never had a problem with them in the past. Of course we all periodically check the engine mounts for tightness don't we?

I'll be using my trusty Irvine .53 again, which is perfect for this plane. My original one flew well enough with a .40, but the extra grunt of the .53 provides that little bit in reserve for the big lazy loops. I find a 12 x 7 prop works a treat with this engine, although the "experts" among you will no doubt tell me I'm over-propping or under-propping it but it works for me.

## Final Checks & Flying

Many of you will have seen me flying (and I use the term in its loosest sense) at Thorney and will know how this model flies. It's a quick plane but with good low speed handling. The airplane is fairly clean and takes some time to slow down but handles very nicely at slower speeds.

For the average sport flier the Super Air is more than capable of all the usual aerobatics. Rolls are fairly axial, requiring little rudder correction. I haven't tried knife edge yet though!!

First flight was at Thorney on Sunday 6<sup>th</sup> Feb with gusts up to 15 mph. After the usual pre-flight checks (incl. range check) and fuelling up I started the trusty Irvine up and carried her over to the pilot

and then open one full turn. Make sure the barrel is fully open.

Prime the engine and start. (Note: due to design of the carburettor, the fuel flow is very free flowing.) Do not over choke.

Adjust the needle valve for a slightly rich two stroke run. Throttle down and listen carefully. If the engine gradually speeds up and dies it is too lean.

Rotate the idle mixture disc a very small amount anti-clockwise to richer the mixture. Use a small screwdriver in the reference slot of the idle mixture disc to rotate it while the engine is running. If the engine runs slower and slower and stops it is too rich. Rotate the disc clockwise to lean the idle setting. The idle mixture disc need only to be moved a few thou. At a time to obtain the idle setting.

Once the idle mixture has been adjusted the "O" ring seals will take a set and will remain at that setting virtually indefinitely.

A final test is to hold the nose of the model up then down for about ten seconds each. If it stops in the up position the mixture is too lean and if it stops in the down position it is too rich.

By experience I have found that most engines idle near the centre reference mark. See figure 3

I hope that this article has gone some way to explaining some of the problems that modellers have with their carburettors and the way to

adjust them. There are always rogue carburettors that need constant and very fine adjustment and the performance of those carburettors can give an otherwise fine engine a bad reputation.

I have possibly not covered all types in this article but if you have problems with setting up your carburettor, a visit to me can usually sort it out. I do have many satisfied customers!

This concludes my series on engine maintenance and operation. I hope that the newcomers to our hobby have gleaned some useful information from them even maybe some of our longer-term members. Technology goes in leaps and bounds these days and they even surprise me sometimes with a new engine.

I am going to take a break now for a couple of month's to let someone else help fill the Clear Dope up, but I am already preparing an article on Compression Ignition engines from the early days to the present. I intend to use a lot of illustrations, so if you have a rare or exotic engine that I could photograph and use in the article, give me a call.

Telephone: 01243 780949

Therov.



# MOTOR TORQUE

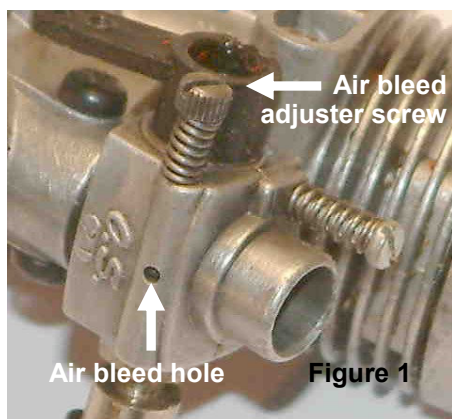
with  
trevor  
bowry



## Part 2 of Trevor's article on setting up carburettors.

### Air Bleed Carburettors

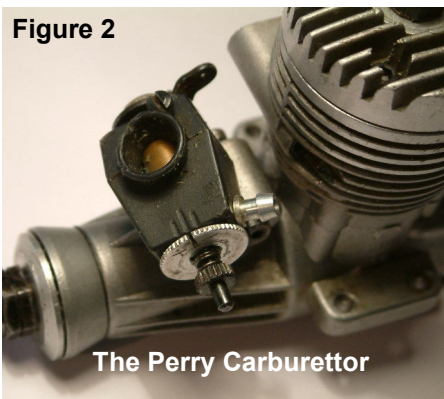
The air bleed type of carburettor, (see figure 1) is adjusted in the same manner as the twin needle carburettors covered last month except that the idle/mid range adjustment is carried out by screwing the needle at the front of the carburettor



in or out to achieve the best pick up. It is usually best to start adjustment with the screw showing halfway across the bleed hole.

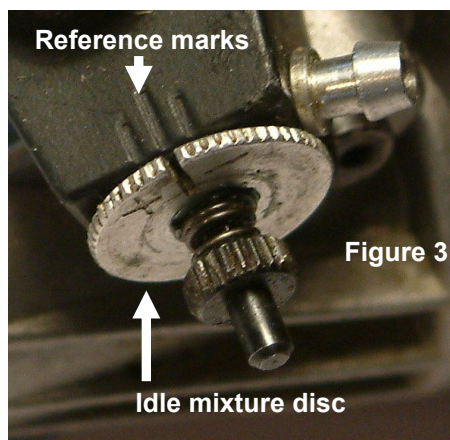
### Perry Carburettors

The final type of carburettor that we will adjust is the Perry Carb. (fig 2) You may never come across this carburettor but if you do, it's worth



knowing what to do because it's rather peculiar.

Adjustment for High and Low speed. Close the needle valve completely



box. A quick wiggle on the sticks to check everything's moving in the right direction again then open up the throttle. After 50' she was at flying speed and ready to go, gently back on the stick and she was airborne. I got her up to a safe height and she only needed one click of right aileron but 4 clicks of down elevator. Needs some downthrust. After 10 minutes of loops, reversals, rolls, high speed low passes and generally throwing her around, I brought her in for a gentle albeit 2-bounce landing. Moley had a go next (funny how he never has a model of his own to fly these days) and seemed to love every minute of it.

For those of you with Aerofly Pro Deluxe simulator, the Super Air is on there (described as a "trainer"). This flies just like mine and I can even perform inverted flat spins with it, something I don't have the bottle to try with the real thing yet, though.

All in all a good all round Sports hack for general flying and at under £50 (from Inwoods) it's a bargain too!!

*Pete Wills*

### Specification

Manufacturer:	Black Horse
Wingspan:	61"
Length:	43"
Weight:	5 lbs
Rec. Engine:	.40 - .46
Engine Used:	Irvine .53
Radio Used:	JR 652 with NES 591 servos on all flying surfaces
Wing Loading:	24 oz per sq ft

### HITS

Good overall packing with all components well protected.  
Pinned hinges on all surfaces.  
Well illustrated instruction booklet.  
All pushrods pre-installed  
Pull strings for aileron servo leads.  
Excellent flight performance.

### MISSES

Stick on Covering  
Not cow-proof

**Minutes of the  
CADMAC Committee Meeting - Tuesday 1st  
March  
from trevor bowry - hon secretary**



**Matters arising from the previous minutes** Under Safety, the word "Application" should read, "Register". Under BMFA, the word "Communications" should read "Correspondence"

**Correspondence** Reference the BMFA Scale Day at Thorney Island. Letter from Tony C to Major Hallam was read out to the Committee. A reply had been received from Major Hallam asking for more details although he couldn't see any problems as long as the usual security arrangements were in place. Tony C asked Ken K to liaise with Steve Warren. In the meantime e-mail arrived from Steve Warren and a covering letter from the BMFA will be sent to Tony C who will then go back to Major Hallam.

**Club Membership issues** Tony C gave Alan M approx. £86 that was collected in memory of Jerry Devenish who passed away recently. Alan M will send a cheque to St. Wilfred's Hospice as requested by his Widow. The club members would be informed of this. It was agreed to rescind the proposal to hold an EGM. This was proposed by Bruce Smith and seconded by Harry Walton. Proposal carried. Instead, the membership card would be altered to give expiry date of membership plus the fact that BMFA Insurance would expire on that date also. A flyer would be inserted into the Clear Dope giving details and Members would be required to carry current membership cards at all times when flying at Club sites and produce it if required. No card, No fly!

**Monthly Meetings/ Social Events Programme** All monthly meetings and social events are still running as stated at the last Committee meeting. Preparations for the Gala are well in hand with everything now in place. A programme in the form of a folded A4 sheet will be included in the Clear Dope preceding the Event.

**Competitions Programme** A Competition calendar was produced for 2005. These were as follows. Sat. 16<sup>th</sup> April, Scramble, Thorney Island. Fri. 22<sup>nd</sup> April, Balloon Bursting, Porthole Farm. Sat. 14<sup>th</sup> May, Fast and Slow - Thorney Island. Fri. 20<sup>th</sup> May, Limbo, Porthole Farm. Sat. 18<sup>th</sup> June, AULD, Thorney Island. Fri. 24<sup>th</sup> June, Bomb drop, Porthole Farm. Sat. 16<sup>th</sup> July, Precision "A" Flight. Fri. 22<sup>nd</sup> July, Carrier Deck, Porthole Farm. Sat. 6<sup>th</sup> and 13<sup>th</sup> Aug., Thermal Glider.

**Training** John R is glad to see more people helping out with training and he said that Peter Doe had passed his "A".

**Safety** Nothing to report. Frequency meter has now been updated and passed to Andrew G. The guest form was presented to the committee and it's format agreed.

**Communications** Bruce S. said that the Clear Dope is now full up and there is a backlog of articles awaiting publication. Pilots Handbook is progressing well. Lee H. said that he is now making progress on the web site

**Thorney Island** Proposals for the location of pit/ flying boxes to be submitted by next meeting. Trevor B. and Bruce S. will mark out the control line and helicopter flying area when the weather improves.

detailed 3-sheet plan, with full size information and some scale documentation including colour schemes. I followed the detail provided for the Yak 18 PS as seen at the World Championships at Hullavington in July 1970 but it took ages.

Now it was time to run the Moki 134 in. My son Robert had offered to come over from Godalming to test fly the Yak on the condition that it was ready to fly. He did not want to spend the day making last minute adjustments to the untried model leaving no time for flying. (He knows my modelling skills or the lack of them only too well) So for the first time in our married life (47 Years) my wife agreed to visit Port Hole Farm and to assist me by holding the aircraft while I started it and gradually ran it in. We made about three visits in all and I can honestly say that her help and courage were truly amazing. I was quite shocked at the power of the engine. When the Moki first started it nearly blew my wife away. At first I could not flick the engine to start it. I nearly ruined my index finger. My trusted electric starter could not move the drive shaft. I then invested in chicken stick and this proved an excellent tool because it did the trick of getting a firm flick but also it saved my finger from a nasty injury when the Moki gave me a vicious kickback. Finally the engine did start and I gradually got it running fairly smoothly to the point when it was reasonably run in,

And so the great day arrived in July and the Yak 18, bought on 10 September 1992 finally flew in July 2004. Robert, having taken it off,

trimmed it and put it into some graceful manoeuvres then said, "Do you want it Dad?" I took over and really enjoyed myself. The Yak did fly very sedately-but Robert did land it. We've had several flights since and each time the flights have improved. I am very pleased that I stuck at finishing the Yak. I learned a great deal in the process and maybe there is some food for thought for anyone reading this article and contemplating a build of a large-scale acrobatic model for the first time!

Robert and Arthur Horton

*Arthur Horton*







installation of the radio gear. Bob had suggested separate metal-gear slim servos in each wing- a first for me (more expense!). Then I found I needed extension leads to connect the wing servos with the receiver, which in turn meant I had to cut suitable channels in the veneered wing. Another problem was how to ensure that the elevator pushed evenly which was solved by a push rod with two strong threaded rods connected in a Y formation. Remember this was my first experience in setting up a computerised transmitter and receiver to incorporate failsafe and separate wing ailerons. What a challenge after 25 years of Roy Tiller's ultra simple but safe gear. I am now much more familiar with the digital system and I realise it was vital to make the change. Now to fit the cowl. I had never had to smooth and cut a fibreglass cowl before but with the help

of some new tools (at a cost) I coped. By this time I had met what seemed to be a major problem fitting the propeller to the propeller drive and fixing it firmly to the engine with a spinner nut. The propeller drive shaft was too short. After a great deal of searching and experimenting, I turned to a former member of the Club Chris Merry for help mainly because I knew he had a number of various sized Moki engines and was very experienced in all their idiosyncrasies. He advised me of propeller size (what an experience-16x6 and 16x 8 wooden props-enormous!) and actually turned a captive nut for me on his lathe and modified the props to fit. His help saved a rapidly deteriorating situation. The time had come to cover the model and I wanted to make it as scale as was reasonable. Skyway Models provided some very useful materials including a fully

**Trundle** Nothing to report due to bad weather not allowing flying to take place.  
**Porthole Farm** The club trainer has been written off and Mick B. would like to put the Junior 60 into the auction to finance a replacement. It was suggested by Andrew G that SMC was approached to see if they would donate a replacement. Bruce S. and Trev. B to action.

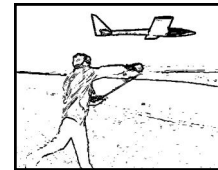
**Indoor Flying** Seaford College. There has been a small hiccup due to fact that Seaford has double booked the Hall, but we will be able to fly in the smaller Assembly Hall. Mick. B. Has booked the large Hall for April 2<sup>nd</sup>. The will also be Indoor Flying at Bosham Village Hall on Friday 29<sup>th</sup> April

**BMFA** Nothing to report

**Junior Rep.** Nothing to report

**AOB** Bruce S. handed out draft copies of the 2005 Pilot's Handbook for discussion at the next meeting.

**Date of next meeting.** Tuesday 5<sup>th</sup>. April @ 2000hrs



## ON THE SLOPE with Ron Hemblade



I Have been asked by some members to organise something on the Trundle. This is something I would like to do, but - where the wind is blowing on any day that we name is the problem. The last time it was tried, only four members turned up, the wind was not all that good, but it was flyable.

Anyhow I will have a word with Morris to try and get something organised on one Friday in July when there is no racing on as there is plenty of light in that month.

There are race meetings on three Friday evenings in June and as there is flying the last Friday of the month at Porthole - June is out. I suggest we have a meeting on Friday the 8th of July depending on the weather !

As I write this article it is 19/3 and I have been flying on the Trundle three times this week. I hope we are coming to the end of this cold snap which has meant the north winds blowing and a long walk over the hills to do any flying.

*Ron Hemblade*

# Building the Yak 18 PS



This article is an account of my efforts to build a large, scale model aircraft, something I had not attempted before. I had flirted with several possibilities such as the Russian Sukhoi 26, even as far as getting plans and examining various kits. Around about this time, (about 1991!) I actually wrote an article on the Sukhoi for Clear Dope. It was at the World Aerobatic Championships held at South Cemey in 1986 that I had first seen the Sukhoi and I was fascinated by the large radial engine and the deep growl that it emitted in flight. David Etherington (he was flying powered aircraft at that time and very ably) had suggested that we fill a car and so Dave, Dave's Dad, Robert (my son) and I set off for a wonderful day out. After much soul searching, I opted to build a Sukhoi 26 from a plan. I cut out the

formers, the ribs and the sides but somehow I began to lose interest. The project just seemed too big and complicated. So all the plans and ribs and formers etc. were placed in a large cardboard box, which is still in the shed-Somewhere!

Then there was a long lull but in visiting various model shows, I saw a Yak 18 model being flown. I made enquiries and discovered that it was derived from a Skyway Models plan pack for the YAK 18 PS/PM. Several people including one of our then existing members, Mick Galvin, assured me that it was a 'Pussy Cat' to fly! As a very average 'A' pilot, I thought this was a possibility for my ambitions and I ordered the kit. I was very impressed when I opened the enormous cardboard box and made a start on the 3 piece veneered foam wing, assembled the cut ply

parts and plywood bulkheads, plus the fuselage side plywood blanks and the foam top decks, front and rear sides. Initially then, the construction appeared quite straightforward with rather a unique ply/sheet balsa self-jigging fuselage construction and three piece veneered foam wing. And then it all stopped! I cannot remember why but it happened. Everything was buried in yet another large cardboard box and dumped in the bottom corner of the shed! This was approximately September 1992!

Early in 2004, after suffering from guilt feelings of not finishing something that I had started (and many prompts from Robert such as "when are you going to finish that Yak?") I recommenced building. I now had to face up to many decisions and so the problems began, not the least of which were financial. I needed a suitable engine but what to choose? I decided on a Moki 134 from Just Engines (maybe a 180 would have been better to achieve a vertical climb but I was worried about fitting the engine inside the cowl without too much cutting away). The next problem was to get a silencer to achieve 82 decibels and which would look scale-like. Just Engines came up with the goods (but at a price). I thought I had centred the engine on the front former but oh no, it was horribly out. So I had to get a new half-inch ply plate, cut the old former out and replace it and start all over again.

It was high time to consider my radio gear. Roy Tiller had looked after our Gold Wing and Skyleader equipment for about 25 years but he

decided to retire and strongly advised us to purchase some new gear. So down to SMC and a chat to Bob resulted in a Futaba Field Force 6 but Bob pointed out that with such a large engine, I would need stronger servos, stronger connectors and stronger clips than I was used to. I would also need a receiver, which would give me a failsafe facility. At this point I would like to recognize the considerable help and advice that Bob supplied over a number of visits to SMC concerning the building of the YAK. It was dawning on me that my choice of a large-scale (fifth scale) aircraft was taking me into areas where I had never been before and was not likely to go again. The problems continued. What size Tank? Answer-'the biggest you can get into the fuselage.' It seemed enormous and what about all that fuel to fill it! What about the under carriage? I wanted it to be as scale-like as possible so this meant a pair of oleo legs. These have proved to be a good investment (but at a price!). To see Robert land this aircraft at Thomey and to see the way it settles on landing is a real treat. Then there was the problem of how to fix appropriately strong ply plates into the veneered wing i.e. strong and reliable to support the undercarriage and no doubt the occasional heavy landing? I found the answer in 'Scale Problems Solved' by Simon Delaney. By this time, I had decided to build the Yak 18 PS (which was a tail dragger with 'clipped' wings) as opposed to the Yak 18 PM that was the tricycle version. I now had to face up to the