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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.

JANUARY 2007

CLEAR DOPE



In this issue:

AGM Pics and Report

Loop de Loop

Aresti System

**CHICHESTER AND DISTRICT
MODEL AERO CLUB**



Chichester and District Model Aero Club

Committee 2007

Chairman Tony Chant 01243 262816
 Secretary & Toni Reynaud 01243 370422
 Social Sec. email address: tonibr@onetel.com
 Treasurer & Keith Wood 01903 732595
 Membership Sec. 4 Buttermere Way, Littlehampton. BN17 6SX
 email address: keithwood@supanet.com

Safety Officer **Morris Campbell** **02392 464364**
 Competition Sec. Ray Beadle 01243 670163
 Thorney Rep. Harry Walton 01243 375156
 Porthole Farm Rep. Mick Blundell 01243-670791
Slope Rep. **Ray Andrews** **01243 604119**
 BMFA Rep. Ken Knox 02392-593104
 Webmaster Lee Hackett 01243-820689
 email address lee@cadmac.co.uk

Junior Rep Gavin Bidwell 01243-861293
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Indoor Rep **Allen Miller** **01243 261839**
 CD Editor Bruce Smith 01243-531602
 The Aylings, Queens Avenue, Chichester, West Sussex. PO19 8QB
 email address: aerobruce@aol.com

Committee appointed positions

Snr. Training Offr. John Riall 01243-782922
 Junior Members Protection Co-ordinator:
 Bruce Smith 01243 531602

Visit our great website
cadmac.co.uk
 Contribute!

Cover photo: Tony Chant presents Steve Skinner with his award for 'Most Improved Senior Pilot' - one of the three trophies Steve picked up during the evening.

Covering R/C Models with Laminating Film

Here's a link sent in by Toni Reynaud that gives details of how and where to buy laminating film along with a video clip demonstrating how to cover with the material:

<http://pldaniels.com/flying/balsa/using-laminating-film-for-models.html>

DIARY OF COMING EVENTS

The following is a list of proposed CADMAC Club events for your information

Legend:	Club-nights	Outings	Competitions	Others
January	11			Subscriptions
February	04		Indoor Flying Westergate	2 - 5 pm
February	08	tba		
March	04		Indoor Flying Westergate	2 - 5 pm
March	08	tba		
April	08		Indoor Flying Westergate	2 - 5 pm
April	12	tba		

TeX & ReX by Cobbo





I can't remember when I first heard of Harold Krier but it seems like I've always thrilled at his exploits in the fifties and sixties with his Great Lakes Special and Kriercraft. From the minute I'd finished building my first Precedent T180 R/C trainer I set to work on this 1:7 scale GLS from the Gordon Whitehead plan. With little knowledge at the time I built it belt and braces style, so being too heavily wing loaded it never made a good R/C flier. Still its now converted to control line with a third 'throttle' line and looks quite dramatic in the air with its checkerboard underwing paint scheme.

As you can also see from the picture, Santa was very good to me this year and brought me a Fuji 64cc petrol engine. Now I'm in the early stages of designing a quarter scale version of this beautiful aerobatic biplane which will work out at about 80" w/s. Hopefully, with a fitted smoke system, I'll eventually be able to re-enact some of Harold's breath-taking displays of the fifties and sixties.

Find out more about HK and GLS and see early footage of his breath-taking inverted ribbon pick-up by logging onto:

http://www.icasfoundation.org/hall_fame/2004/krier.htm
and then click on the 'View Harold Krier's Induction' link.

Editorial

HAPPY NEW YEAR

Right that's got that out ' the way!

Flying-wise its been any thing other than a Merry Christmas and a Happy New Year so far.

With Christmas and New Year's Days both falling on Mondays this year there was at least the theoretical possibility of two 'three day' weekends to be had on Thorney Island. As if! No, the ever popular Gale Force Winds soon put an end to any festive flying there this year.

There was the chance of mid-week flying down at Porthole Farm but it was so overcast and miserable most of the time - I just kept nice and warm cuddled up with a good bottle.

Those of you who attended the AGM will know that Tony gave an impromptu invitation for a Barbie and Fly-in at Porthole on Friday the 29th. I wasted much good building time earning 'Brownie Points' over the holiday so that I could get my card stamped to attend the event - only to see the mid-week calm evaporate and the howling winds and driving rain return for the day.

Still, with modelling related time put aside, I was able to sit down and have a really good session with the new BMFA Handbook which we've all just received.

Not a riveting read I'll admit but with so much changed and so many new

inclusions (all line highlighted) an essential one for sure.

Do ensure you've given it a good looking over since I know our new Safety Officer, Morris Campbell, will be on his mettle and checking that we're all up to speed, since literally the whole of the publication is safety related.

JERRY DEVONISH TROPHY



At the AGM, Competition Secretary Ray Beadle displayed this beautiful cut glass and engraved rose bowl acquired in memory of Jerry who sadly passed away last year. The trophy will be awarded at this coming years AGM to recognise fine building skill and technique, a hallmark of all Jerry's models. All members are invited to tender their nominations for this award providing they are self built from scratch, plan or a kit with plan. i.e. no ARTFs.

BMFA

Minutes of the Committee Meeting
Tuesday 5th December
from Toni Reynaud
Hon Secretary



Present

Tony Chant, Toni Reynaud, Ron Hemblade, Ray Beadle, Bruce Smith, Harry Walton,

Keith Wood, Mick Blundell, Ken Knox.

Apologies

Andrew Gibbs, Gavin Bidwell.

Matters arising from previous minutes

Nil

Correspondence

Keith W – letter from Goodwood Estates. They wish to raise the rent for our use of the Trundle to £150. KW replied that this is a rise of 50% over two years, which seem excessive. A further letter from Goodwood Estates – The rise to £150 will be held for a number of years to ease the percentage change. Discussion and negotiation with them is ongoing.

Letter from a club member apologising for flying at Thorney Island on Remembrance Day, when flying was banned. No further action.

Letter from a club member apologising for non-attendance at AGM.

Club/Membership issues

Keith W stated that there were 2 applications this month. They were discussed and approved. Membership is now 143. He also briefly explained the Club Accounts to familiarise the committee with the content before the AGM. The value of some assets have been re-assessed to a more realistic level.

The Committee agenda for January should include discussion on projected and expected expenditure from Club funds for 2007.

Bruce S will republish the Club frequency usage pattern so that members can take advantage of the lesser used frequencies.

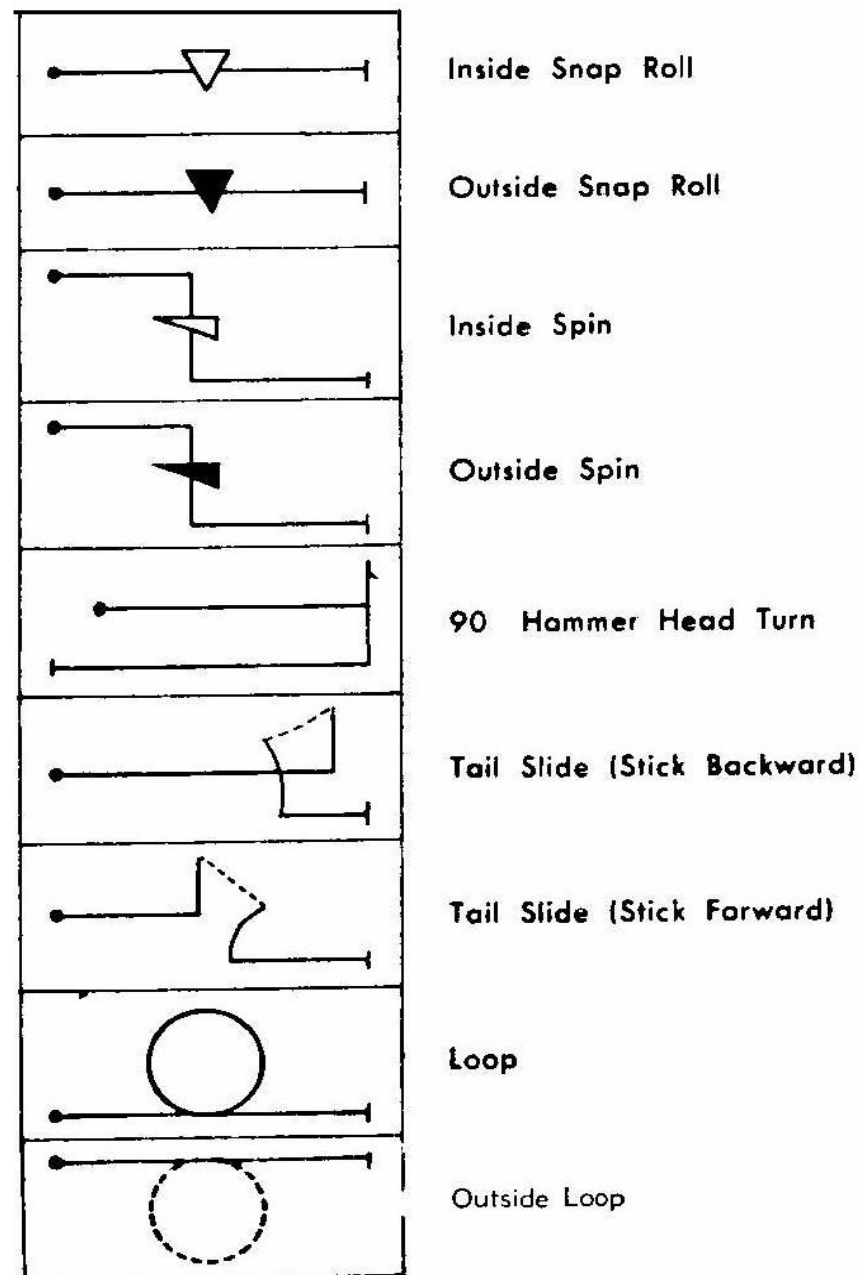
Andrew G wishes to stand down from the post of Safety Officer.

Monthly meetings/social programme

December - The AGM. A buffet has been arranged.

January – open.

February – Roger Blake will give a talk on low-tech repairs to hi-tech gliders.



Basic Keys to the Aresti System

	Normal Flight
	Inverted Flight
	Knife Edge Flight
	Slow Roll
	Super Slow Roll (More than 15 sec.)
	Inside Barrel Roll
	Outside Barrel Roll
	4 Point Roll
	8 Point Roll
	1/2 Slow Roll

Competitions

Ray B gave a report on preparation of the trophies for presentation at the AGM. The new Jerry Devenish trophy was displayed. Funds were allocated for the future maintenance of the trophies.

Training

Nothing to report.

Safety

Nothing to report.

Communications

Bruce S - CD is on track for printing this month. He is now in possession of two new print heads, which seem to be working OK. The probability is that the printer will last one more year. Website is OK.

Thorney Island

Fitment of the new bin is ongoing. Some models have been noted to be too loud – the Club noise meter is to be taken the site and all models present checked.

Trundle

Nothing to report. Not many flyers this month.

Porthole Farm

There has been a report from the Site Owner that a couple of models have been VERY noisy – the Club noise meter is to be taken the site and all models present checked. There was also mention of no further repairs to local sea defences, and that the flying site may disappear in the not too far distant future!

Indoor flying

Alan Lichfield was the Key Member for the Indoor Flying meet at Seaford College in November. 29 people attended and the Club is in profit at this stage. All who attended agreed that the meeting and the venue were very good. There is also the possibility of using Park Flyers outside the hall.

BMFA

Ken K went to the Southern Area AGM. The Royal Victoria park event is now becoming untenable due to the tight flying area and lack of appreciation from the organisers. In future the BMFA will probably support the Romsey show. John Riall is likely to stay on as Area Examiner. The BMFA wishes to see more "B" flyers. Ken was elected as the Southern Area PRO. Vote of thanks to Ken for being the Club Rep and congratulations on his new post.

AOB

Next meeting Tuesday 2nd January 2007, 20.00

Jon

CADMAC ACCOUNTS

1.STATEMENT OF ACCOUNT 2005-2006

Income

Members subscriptions	6,581.00
Auction revenue	128.70
Raffles	171.50
Donations	78.00
Logo Sales	23.60
Petty cash	37.16

Expenditure

BMFA Subscriptions	2,834.00
Fishbourne Club	780.00
Rents - Thorney	912.35
- Porthole	250.00
- Trundle	152.75
Mole repellent Porthole	18.50
Indoor flying costs	90.00
Trophies	138.00
Skittles prize	15.00
Thorney storage box	45.52
Clear Dope - inks+print heads	485.93
- paper/env.	227.66
- postage	197.00
Gen. postage +stationery	46.68
Bosham Bus repair	150.00
Book token R.Shrub	25.00
Total Expenditure	6,368.39

Total Income 7,019.96

2. FINANCIAL STATEMENT 2005 - 2006

Income

From above	7,019.96
Bank Interest	17.01
Total Income	7,036.97

Expenditure

From above	6,368.39
Surplus	668.58
Total Expenditure	7,036.97

3. ASSETS AT DECEMBER 2006

Deposit account	3,412.90
Current account	2,630.89
Petty cash	37.16
Book assets	779.00
Unsold logos	188.40
Total assets	7,048.35

2005

3,395.89
1,978.61
41.86
1,097.00
212.00
6,725.36

4. MEMBERSHIP

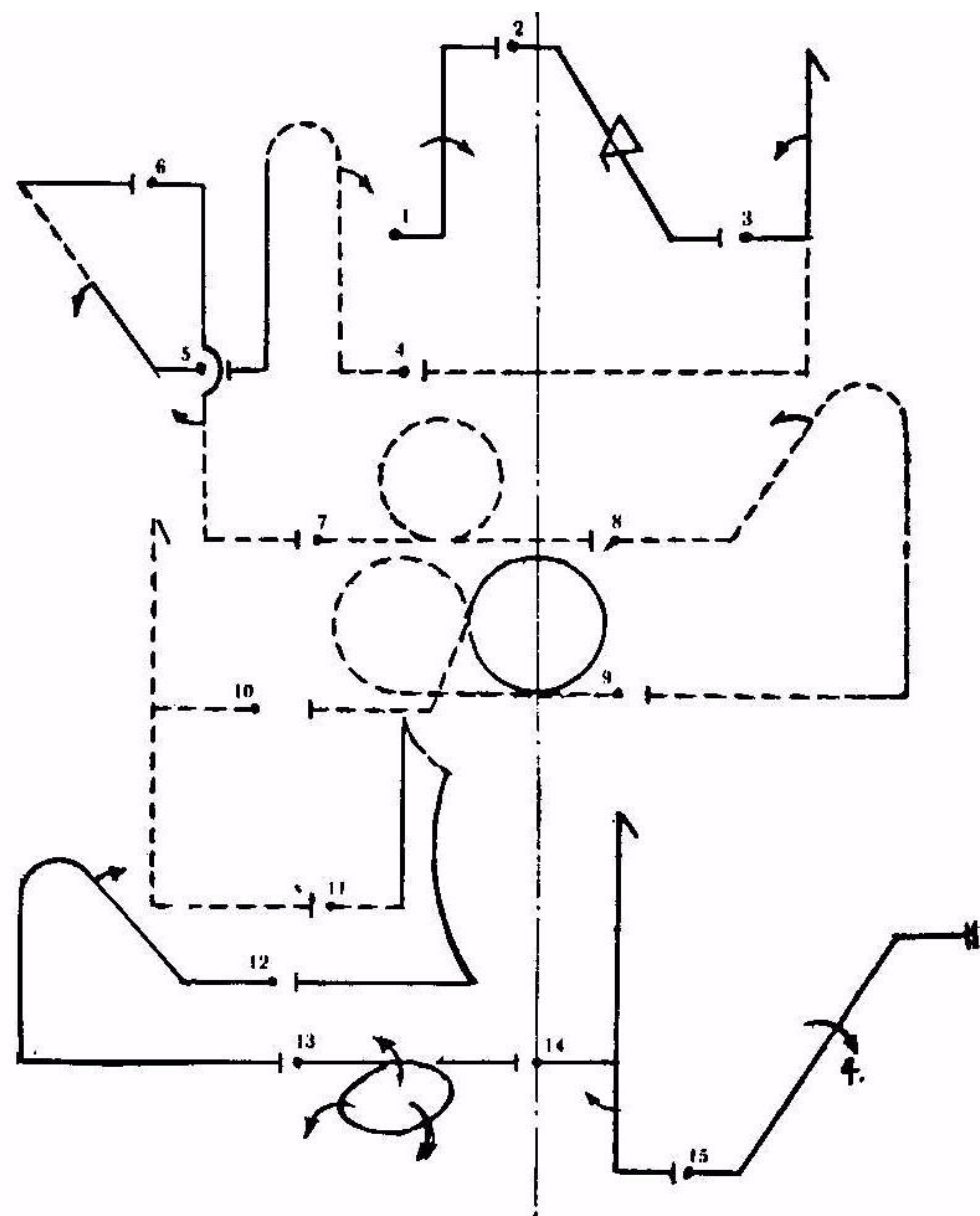
2006	2005	2004	2003	2002	2001
143	131	144	153	141	127

Prepared by
Keith Wood, Treasurer and Membership Secretary
05.12.2006



Please don't forget to send me your email address if you haven't already done so.
Happy New Year - Keith

Aresti Diagram of an Aerobic Sequence



The Aresti Aerocryptographic System

The Aresti Aerocryptographic System, or the "Aresti Key," as it is often called, is the written, universal language of the acrobatic pilot. It has been adopted by the Federation Aero-nautique Internationale, the keeper and arbiter of all aviation records, as standard throughout the world, and all official acrobatic contests employ it.

Use of the Aresti Key makes it possible to diagram any acrobatic sequence, and allows a positive frame of reference within which any precision performance may be accurately judged. It was devised by Count Jose L. Aresti, a colonel in the Spanish Air Force and a famous akro-pilot himself.

It has been called a form of "shorthand," because it employs simple symbols to represent all basic maneuvers such as loops, rolls, turns, etc. Combinations of these are put together to diagram more complex maneuvers.

Aresti divided all maneuvers into nine "families:"

1. Lines and lines plus angles.
2. Horizontal turns.
3. Vertical turns.
4. Spins.
5. Wing slides.
6. Tail slides.
7. Loops.
8. Rolls.
9. U loops and l/g rolls; and 1/2 rolls plus 1/2 loops (the split-S is an example of a maneuver in this family).

Each Aresti figure is numbered for instant identification.

For example, an inside loop is figure 7.1.1. In addition, each figure has been given a carefully calculated "coefficient of difficulty" (K). The inside loop, figure 7.1.1., has a K-value of 12 in competition.

In scoring a performance, judges award a grade of 1 to 10 for each maneuver, then this grade is multiplied by the maneuver's coefficient of difficulty. Therefore, if a contestant is awarded a grade of, say, 9 for his loop, his score from that particular judge will be 9×12 or 108.

However, one good loop doesn't necessarily call for another one, because each time a maneuver from the same line of Aresti figures is repeated, its K-value decreases and soon reaches zero.

From Modern Aerobatics and Precision Flying by Harold Krier
Pub. Sports Car Press (1963)



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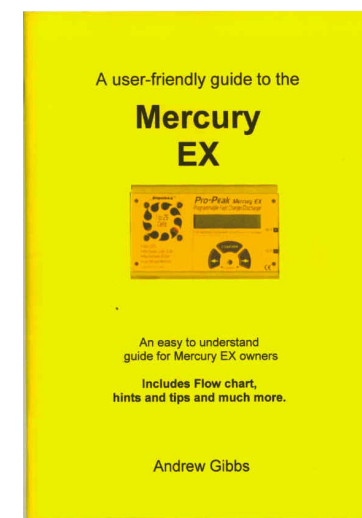
Lithium batteries	£7.75
Nicad and Hydride batteries	£6.75
Mercury EX	£6.25
Super Nova	£6.00

Cadmac members may enjoy a £1 discount on above prices when buying at a club meeting.

Latest Release

Gibbs Guide to Lead acid batteries

Andrew Gibbs 01243 861 804



2006 AGM



Arthur Horton accepts the Scale Trophy on behalf of son Robert



Tony presents Steve Skinner with the Rolls, Loops, Spins Award

We'll also assume that you're flying a mid-range sports model or a trainer with a power to weight ratio of less than '1' i.e. the model can't sustain a vertical climb indefinitely.

ARC 1

At point 'A' the aircraft is on full throttle at maximum speed creating maximum lift so the stick is gently eased back until a vertical attitude is achieved. This may well not be the maximum amount of stick travel. Aircraft easily attain this attitude as the headwind also helps create lift.

ARC 2

From point 'B' the aircraft is losing airspeed from its climb so the lift effect of the wings is decreasing and this is compounded as its direction becomes increasingly down wind. To compensate, the up elevator is eased off, progressively during this part of the loop literally to a neutral position as the craft becomes inverted. The model is battling with gravity now and maintaining the same degree of up elevator will cause it to literally flip over at its slowest airspeed point and describe more of a tadpole shape!

ARC 3

It may be necessary to introduce a slight amount of down elevator at point 'C' to initially maintain the radius of the curve we've flown so far. From a horizontal (inverted) attitude the airspeed will quickly increase on the first part of the downward leg so we cut back the throttle, substantially, as we begin to ease in the up elevator (the model will virtually fall of its own accord through its own momentum and the effects of gravity). Once again we reach the maximum required amount of elevator stick movement when the model is in the vertical dive position - now we're compensating for being blown down-wind and out of shape.

ARC 4

At point 'D' the model has picked up speed and subsequently the wings are creating more lift. This is about to be aided further as the craft rotates back into the headwind. The elevator control can be eased off gently to a position where it is neutral again at point 'A' - before this, however, the throttle will be fed in again smoothly as the craft approaches a horizontally upright attitude.

N.B. The increases and decreases in elevator authority that you make should be characteristically more of an exponential function than a linear progression. (i.e. not at the same rate.) Although all stick movements will be relatively slow, the slowness will increase (slower) or decrease (faster) as it progresses. Don't worry if this sounds absolute gobbledygook. You don't need to understand it to fly good loops. BUT you will need to PRACTICE. PRACTICE. PRACTICE. Every loop you fly will be in different conditions as your entry speed, the headwind speed and the crosswind vary. The best aid you can possibly have is a friend on your shoulder who sees the whole manoeuvre relative to the horizon and surroundings. The second best aid you can have is the humility to accept their account of the manoeuvre and heed their advice!!

Brince

HERE WE GO

(Hairybatics #3)

LOOP de LOOP

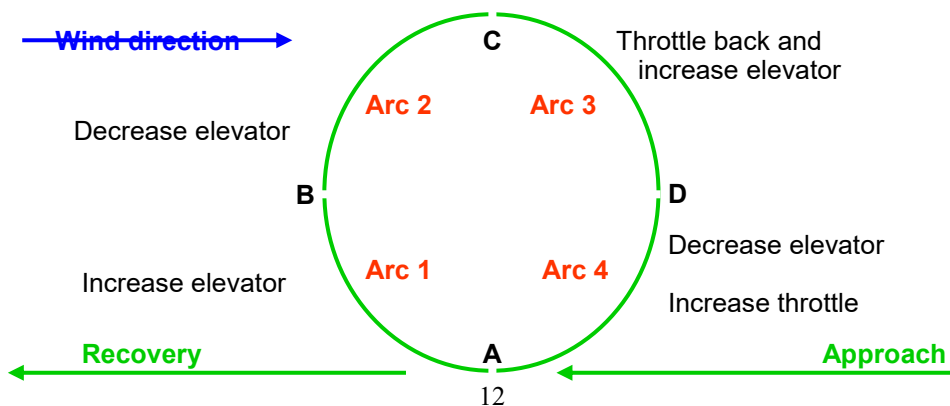
Ask a member of the public to name an aerobatic manoeuvre and the chances are they'll come up with 'Loop the loop.' Just where this expression, for what we now refer to as an 'Inside Loop,' comes from I've no idea but the first recorded inside loop was performed by the early French aviator, Pegoud, in 1913 and the first outside loop by Jimmy Doolittle on May 27th 1927. You can just imagine the stress on those early 'Blue Peter built' airframes and the nerves of steel required by pioneer aerobats. At the US National Air Races in 1929, Jimmy Doolittle's Hawk P-1 shed its wings in the preliminaries. He baled out, jumped into another plane and finished his exhibition. Eighty years on and we too need to 'have a care' as we attempt this first manoeuvre to put our whole airframe and not just the control surfaces under stress.

Rather than climbing to a great altitude and then just yanking the stick back we need to fly our aircraft through this manoeuvre so let's start by looking at the physics of it and the requirements of pilot and aircraft.

We'll consider an inside loop flown from an upright orientation and sub-divide the perfect circle, which we're aiming for, into four arcs.

We must begin from the assumptions that:

- (i) From your own experience or from that of an experienced member your model has been safety checked and the wings will take the likely G force;
- (ii) The model is well trimmed out and reasonably balanced near the CG; and
- (iii) You've made a good approach line at about forty feet (a shallow dive to gain speed if required) and that your heading is dead into wind so you don't need to make aileron corrections throughout the manoeuvre.



COMPETITION RESULTS IN FULL

Climb & Glide	1st 2nd 3rd	Bruce Smith John Riall Pete Wills	CADMAC 1/2 A Tankard
Bomb Drop	1st 2nd 3rd	Harry Hook Steve Skinner Bruce Smith	Pohill Team Race Trophy
Open Glider	1st 2nd 3rd	Ray Beadle Eric Gregory Mick Blundell	Vince Barlow Memorial Cup
Scale Symposium	1st 2nd 3rd	Robert Horton Keith Stanley Ray Beadle	Flying Scale Trophy MP Wingate
3 Loops, Rolls, Spins	1st 2nd 3rd	Steve Skinner Tony Chant John Riall	Precision Power Trophy Gutteridge Cup
Victor Ludorum	1st =2nd =2nd 3rd	Steve Skinner 1,2 Ray Beadle 1,3 Bruce Smith 1.3 John Riall	Gerry Williams Memorial Trophy
Most Improved Junior Flier		Philip Roberts	Junior Proficiency Shield Thorney Trophy
Most Improved Senior Flier		Steve Skinner	CADMAC Radio Cup

There was a good turn out for the AGM this year of about 70+ members and it has been noted that attendance has been growing from the committee plus 20s experienced a few years back.

After committee members report's and the presentation of trophies for the year's competition calendar there was decent buffet and chance to re-charge glasses. Just as the assembly was beginning to feel relaxed and comfortable after the refreshments they were jolted back to reality as the guest cabaret of internationally renowned singer songwriters 'Pieman and Carbunkle' took to the stage with their renditions of 'The Interference Song' and the Monty Python Philosophers' Drinking Song. However order was quickly restored and the second part of the evening and election of the new committee for 2007 passed uneventfully and the posts of Safety Officer, Slope Rep and Indoor Rep were filled by new committee members, unopposed.



Philip Roberts receives the Thorney Trophy for most improved Junior.



Chairman, Tony Chant and Competition Secretary, Ray Beadle, present Steve with the Victor Ludorum Trophy.



Pieman and Carbunkle sing and enact the Philosopher's Drinking Song



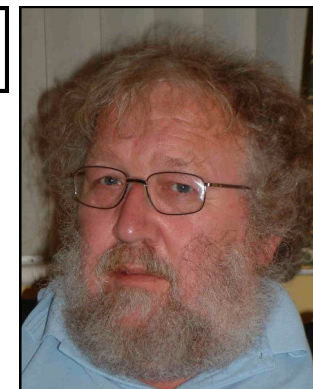
Morris Campbell - Safety Officer

CADMAC'S

Ray Andrews
Slope Representative



Allen Miller
Indoor Representative



New Committee