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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.

July 2007

CLEAR DOPE



**In this
Issue**

Hail Day

Tip & Spin

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**CHICHESTER AND DISTRICT
MODEL AERO CLUB**

Chichester and District Model Aero Club

Website - cadmac.co.uk

Committee 2007

Chairman	Tony Chant	01243 262816
Secretary &	Toni Reynaud	01243 370422
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Treasurer &	Keith Wood	01903 732595
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Porthole Farm Rep.	Mick Blundell	01243-670791
Slope Rep.	Ray Andrews	01243 604119
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CD Editor	Bruce Smith	01243-531602
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	email address: aerobruce@aol.com	

Committee appointed positions

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

Cover Photo:

Fearless Fred fends off ferocious forces. Fred Minay demonstrates mastery of the 'Zaggi' in near gale force winds during one of Ray Andrews' organised sloping session on the Trundle,

DIARY OF COMING EVENTS

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

Legend:	Club-nights	Outings	Comps	Indoor	Others
June	16	Scale Comp	Thorney	12 noon	
June	23	Wings and Wheels	North Weald		
July	07	Flying Legends Entry	Ad£28 Con£22 Dis£8		
July	07	Glider Comp	Thorney	12 noon	
July	12	c/l,f/f.p/f and BBQ	Fishbourne	7.00 pm	
July	14	Electric Glider	Thorney	12 noon	
July	14	Glider Comp	Thorney	12 noon	
July	21	Glider Comp	Thorney	12 noon	
July	28	Hastings Show			
August	09	c/l,f/f.p/f and BBQ	Fishbourne	7.00 pm	
August	11	Scramble/A Test	Thorney	12 noon	
August	18	Indoor Flying	Seaford Col.2	- 5pm	
August	25/27	Brit Nat Champs	Barkstone Heath		
Sept	13	Club Auction	Fishbourne	8.00 pm	
Sept	15	Slope Comp	Detail on the day		
Sept	15/16	Hop Farm Show			
Sept	22	Indoor Flying	Seaford Col.2	- 5pm	
Oct	11	Members Forum			
Oct	13	Loops, Rolls, Spins	Thorney	12 noon	
Oct	27	Indoor Flying	Seaford Col.2	- 5pm	
Nov	08	Plunge moulding / scale detail presentation			
Nov	24	Indoor Flying	Seaford Col.2	- 5pm	
Dec	13	Annual General Meet	Fishbourne	8.00 pm	
Dec	15	Indoor Flying	Seaford Col.2	- 5pm	

TeX & ReX by Cobbo



WINGS & WHEELS



With no Sandown Show this year W&W was our first Club Trip of the season. Once again courtesy of the Bosham Monday Club Minibus. We made reasonable time going clockwise round the M25 (Sally Sat Nav's choice) which kept us well away from any Festival of Speed traffic. Despite the deluge in these parts we got a couple of minutes drizzle then the sun stayed out all day - we also witnessed the thunder storms over London. The W&W bring and buy was massive, as usual and it was good to get a first look at the many new goodies on the traders' displays - although there were one or two noticeable absences this year—Just Engines for one. The flying displays were excellent as usual - there was an

accident though, when a quarter scale Tiggy seemed to tip stall and actually hit a member of the public. Absent was a big petrol smoker of the ilk which Ali or young Garry pilot - no doubt we'll see plenty of that at the Hastings show in a couple of weeks time. After struggling to stow the assorted models and large boxes in the bus we set off at about 5.00pm and Sally sent us the Dartford Crossing way home (fickle women) which for the anoraks amongst us turned out to be 5 miles shorter.

Brince



SHAME

It's very sad to report, but at the last club meeting (Skittles Night) there was a brushless motor stolen from the Flitehook trader table in the side room. I find it very difficult to believe that one of our members, our friend our colleague would stoop to this, but there seems no other conclusion to draw, unless someone inadvertently scooped it up with other purchases and never realised until they got home. Pauline and John Hook have been such brilliant servants to our club, turning up for as long as I can remember in all weathers and spending hours loading and unloading stock from their 'Tardis' of a van. They don't give discounts but you'd be hard pressed to find cheaper prices anywhere - and if they haven't got something on the van - they'll post it to you by return. They trust you to pay any balance if you can't make it on the night, they sponsor some of our competitions, they play a full and active role in the life of our club and we'd all be so much the poorer if they were to stop attending our meetings. For years they've been happy to leave their counter un-attended in the sure and certain knowledge that no one would take advantage but now, shamefully, that will all have to stop. Now we'll all feel under suspicion when we rummage through the vast array of goods they always present. **One person's momentary succumbing to temptation has brought shame and dishonour on the whole club and I seriously hope they'll find an opportunity to return the goods and redress the balance.**

Brince

Editorial

Minutes Confusion.

In editing the Minutes of May 2nd I've caused confusion - the last line of June CD Page 4 should read "south of the Pilots' Box" and not "south of the Peri track." Sorry.

Wonderful Footage

Have a look at these film clips. Some wonderful footage. They are linked from the previous link I sent. You need a (loud) stereo amp.

<http://www.flyingmachinestv.co.uk/Flying%20Machines/Videos.html>

Don't miss these!

TTFN, Colin S.

Club Printer for sale

Open to Offers

CADMAC has just invested in a laser printer for the production of Clear Dope, Pilots' Handbooks and other printing requirements. We now have surplus - one Canon i865 inkjet printer with duplexing unit. (Turns the pages over to print on the reverse.) Plus £20 worth of new ink tanks and a spare print head. It is in good working order at the moment - BUT it will, very shortly need the 'used ink tank' emptying - it's a messy job. Please have a chat with me to find out what's involved if you're at all interested in making an offer.



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



**Minutes of the Committee Meeting
Tuesday 5th June 2007**

Members Present

Tony Chant, Bruce Smith, Ray Andrews, Allen Miller, Harry Walton, Morris Campbell, Toni Reynaud Mick Blundell, Ray Beadle, John Fowler Ken Knox

Apologies

Gavin Bidwell

Matters Arising

Bruce S requested changes in the detail recorded for the discussion about flying at Thorney Island as follows: strike out as shown "*the box and pits, turning N or NE into wind to land*" and the competition dates as follows: "Add Check the actual dates in Clear Dope"

Correspondence

Bruce had apologies from the proprietor of Trains, Boats and Planes for probable non-attendance at the Gala Day.

Tony C had an email from Lee referring to flying taking place at Tangmere. No reply made – it's not our members and we don't need to get involved. Also had a phone call from the Liaison Officer at Thorney Island to say that up-to-date vehicle information had not been received. Now sent by post with sample membership cards. Passes at the gate are still in the process of being updated.

Treasurer and Membership Secretaries report

Current membership is 134. No new applications from previous members. Four new apps from John McCallum, Phill Gardiner, Mark Gardiner (father and son) and Jonathon Smith. Discussed and approved. All attended the last club meeting and spoke to several members. All have some experience of flying and Jonathon was a member of the club some years ago.

Payments since the last meeting:

Donation in memory of Roger Bedford, £50. Receipt from funeral directors.

Materials for resurfacing of drive at Porthole Farm £147 in addition to first payment of £238.

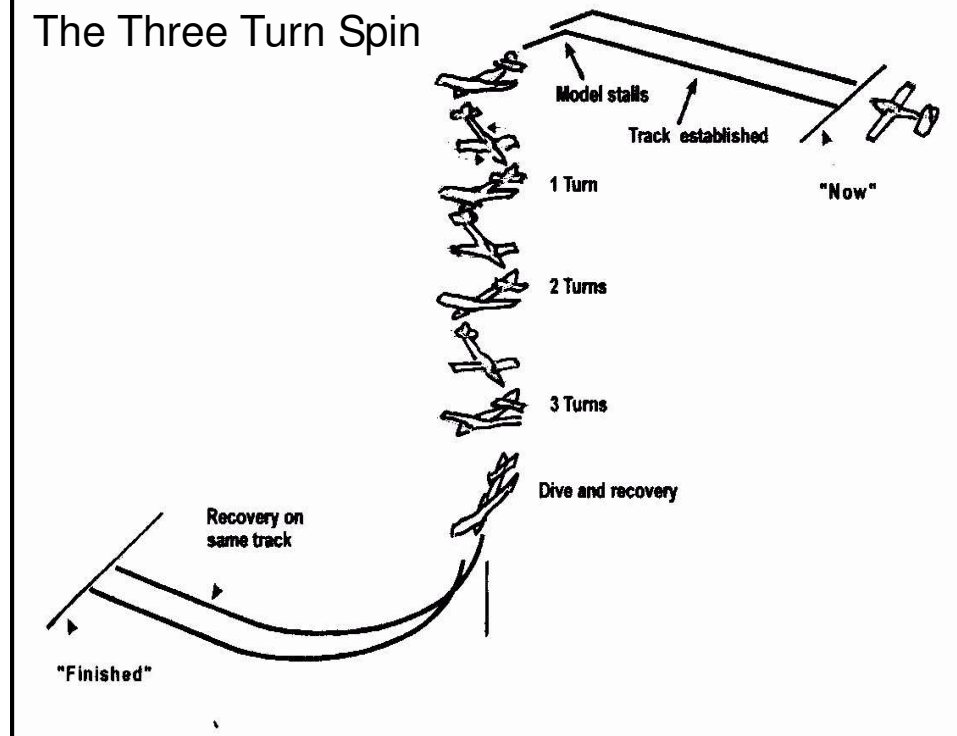
Payment to Bruce S for printing material.

Payment to Toni R £57 to cover cost of Skittles Evening.

Social Secretaries' report

Skittle evening took place as organised, Thanks to John Riall for running the event. Buffet was satisfactory, but only two thirds of the tickets were sold. Cost was £150, takings

The Three Turn Spin



Some models, particularly with an asymmetrical wing sections, will spin better once they've been inverted - obviously here you flare out with down elevator before hitting the rudder.

Most dramatic of the family is the 'Knife Edge Spin' or 'Hanno Screw' affectionately named after 90s Aerobatic Master, Hanno Pretner, where the craft rotates around its vertical wing plane and loses height at an alarming rate!...Later

Time to Practice

Come on, it's really great fun, and once you've done one, you'll be hooked.

1. Lots and lots and lots of height.
2. Steady track into wind.
3. Cut back the throttle.
4. Flare out slowly and let her almost stop; then
5. Whack in the rudder.
6. Keep your nerve; and
7. Just before she's heading into wind again
8. Release the controls and level out.
9. Power on MAGIC!



PERFORMING THE SPIN

Another way to induce a tip-stall is to cause one wing to move more quickly than the other as the aircraft approaches stall speed. This is the technique employed in the Spin and doesn't involve the use of aileron at all but elevator and rudder. [There are, of course many ways of entering a spin but the BMFA is adamant that it should be done the following way if you are either taking you 'B' Certificate or competing in a scale event.]

There is only one way to perform the spin. (BMFA B Test Schedule)

The model must be flown into wind and before it reaches a point in front of the pilot the throttle must be closed. As the model slows down, level flight must be maintained by steadily increasing amounts of up elevator until, at a point approximately in front of the pilot, full up elevator is reached (the model should be slow and nose up at this point but not climbing). Full rudder must then be applied and the model allowed to fall into the spin. The model should not stall and then spin but it should be flying close enough to the stall so that applying full rudder will cause one of the wings to stall and initiate the spin. Ailerons may be used in the spin (and many models will not stay in a spin without aileron being used) but they must NOT be applied until the model has begun to fall. Note that this does not mean that the model must actually be spinning before the ailerons are applied but it must at least be falling into the spin.

A 'flick' entry, which is not allowed, will always result in one wing of the model rising as the manoeuvre is entered and part of the first rotation will take place in the horizontal plane instead of the vertical.

What you are doing in effect is to apply rudder and make the aircraft yaw one way or the other just before its point of stall. If, say, it yaws to the right, then the left wing-tip will increase in speed and the right wing-tip will decrease in speed and thus stall, initiating the spin.

How do you get out of a spin?

Well usually all you have to do is let go of the controls and your aircraft will come out on its own. I've never flown a model yet that hasn't - having said that I haven't flown my big Stearman yet! If that fails, of course you should apply the opposite controls i.e. reverse the rudder and apply down elevator.

There are many factors that will affect how your aircraft will spin. Heavily wing-loaded models will drop into a spin (tip-stall) at a higher speed than their light loaded cousins and the more rearward your Centre of Gravity the more flat, generally, the spin will be. Also, as stated earlier, if your aircraft has non-parallel wings it's usually far easier to get it to spin.

£93 at £3 per head. Rethink for next year. Plane Game won by Steve Skinner. £20 to him and to Club Funds

Letter from Fishbourne Club describing withdrawal of catering services but stating that already booked functions will be honoured. *Minutes of Tuesday 5th April. Toni has contacted FPFA re dates of evening flying with BBQ. Ratified by their committee and in diary. BBQs organised, but will remind each month before the Club nights.*

Meetings/Social Events Programme.

Few of the minibus places have been reserved so far – hope to get more at Club meetings. Saturday 23rd June Wings and Wheels trip has two places open, the rest are slowly filling up

Saturday 7th July Flying Legends display at Duxford

Saturday 28th July Hastings Show

Saturday 15th Sept Southern Model Airshow (Hop Farm)

July – C/L, Park Fly and Free Flight Flying & BBQ

August – C/L, Park Fly and Free Flight Flying & BBQ

September - Club Auction.

October – TBA

November – TBA

December – AGM

Thorney Island report

There have been problems with the passes for access recently, but these have all been due to Army problems – unfamiliarity of the gate staff and the passes being updated. White lines round the boxes are fading. The Pit Board is faded and out of date – to undergo maintenance. Tony C and Harry W.

BMFA Report

Ken K reported That there is to be an Area Examiner's meeting shortly with a view to ensuring a consistent approach to marking A and B certificate flights. Workshops are in progress to this end – details on the BMFA website. There will be an electric scale day at Winchester which is worth visiting. The Christchurch Club joined the BMFA to get advice on policing flying and use of equipment within the club. Drones are being flown over heathland in Dorset, but the control frequencies are Secret! Manny Williams has offered to give talks to clubs if requested about his participation in flying an egg across the Fish River Canyon in Namibia.

Safety Officer's Report

Morris C reported lots of activity by external personnel on the airfield, but no clashes. At Porthole Farm, concern was being expressed about the trial of the new layout, specifically the long walk to the pits and the flight line direction on take off in some wind directions. He suggested a return to the original layout. The committee will visit the site on Thursday 7th June to discuss the situation on the ground.

The bill for the toilets supplied for the gala day need to be covered by the Club – proposed Tony C, seconded John F, unanimous vote for. Morris also suggested insurance cover against future events being cancelled due to weather conditions. Ken K proposed that £100 be paid to Morris to assist in covering his expenses towards Club business Seconded

Toni R, unanimous vote for.

Porthole Farm report

Mick B reported that the driveway is 75% done and the work is going well. Tony C minuted thanks to the working parties for assistance in the work. Models are occasionally being lost in the rape crop! Less people are flying over the barn. The mole repeller doesn't seem to be very effective.

Clear Dope Report

Bruce S reported that Clear Dope is finished ready for printing. He repeated last month's statement that ink prices have risen dramatically, and that it is possibly time to seriously investigate a laser printer. Discussion revealed that it takes Bruce about 1 ½ week work to produce and despatch the CD, and that the cost is about £1 per copy.

Trundle Hill Report

Ray A reported that there has been good attendance recently and that a good time has been had by all. Some older members have difficulty walking to the top of the hill, so Ray will talk to Goodwood Estates with a view to getting permission to use a vehicle to take members to the top, then return to the car park. The Committee commended Ray for boosting attendance at the site.

Indoor Flying Report

Allen M said that there are no events this month. Some of the float (£40 out of £93) was handed to John F for Club Funds. Next scheduled meetings at Seaford are August 18th, September 22nd, October 27th, November 24th and December 15th. This information has been sent to the BMFA.

Competitions Programme / Gala Day Update

Thanks to all who helped and turned up on the day, even if the weather was not good. A report is in CD. Tony C minuted thanks to Ray for all the hard work in setting up the Gala Day.

The Open Glider will be run on the 7th, 14th and 21st July. Electric Glider will be held on 14th in conjunction with the Open. The objective is to make 5, 6, 7 and 9 minute flights in succession with no battery recharge between flights and one battery only. All flights to be completed in 45 minutes. Maximum battery size to be 3.7Ahr

Junior Members Representative report

Nothing to report

Website report

There is a low hit rate on the website at the moment. Tony C will investigate as to possible causes.

AOB

Mick B asked if Members could attend Committee meetings. Answer is Yes, but only to observe and not to comment or take part.

Next Meeting

Date of next meeting 3rd July 2007, 8:00 pm

Toni

Fig. 1

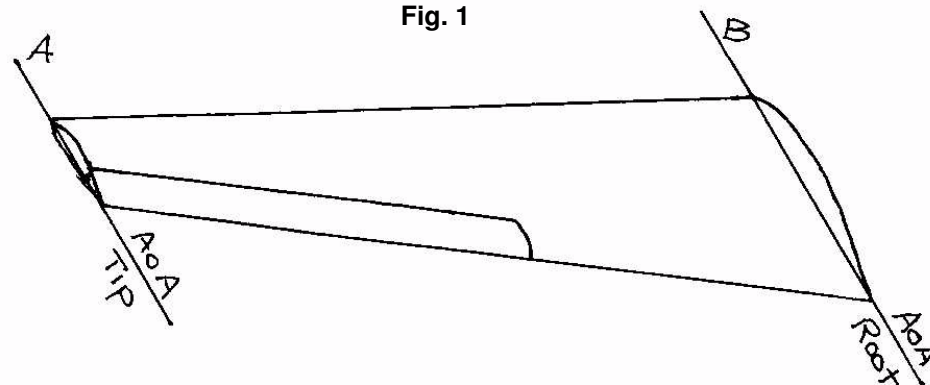
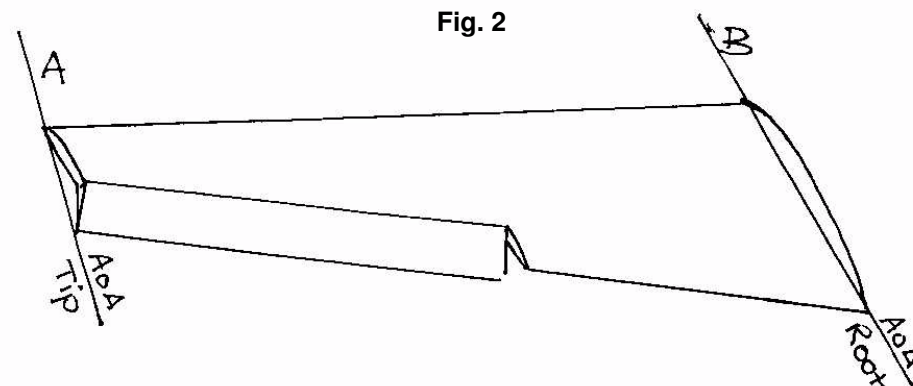


Fig. 2



In figure 1. the angle of attack (AoA) at the tip (A) is basically the same as at the root (B): but

In fig 2. when the aileron is deflected downwards the AoA at the tip becomes increased. Under these conditions the wing tip will stall before the root.

Very often on final approach a model will drop a wing fractionally (let's say the left wing) as it loses speed and the pilot flares out. If it's approaching too slowly, as soon as he applies right aileron to bring the model level - it suddenly rolls over to the left. It has tip-stalled because he increased the AoA of the left wing. This phenomenon is sometimes known as 'Reverse Aileron Effect.'

This applies to all wings but most dramatically tapered wings and can be avoided by: Deploying flaps to increase AoA at the root; Using highly tapered wing length ailerons; building in 'Wash-out' into the wing so that the trailing edge towards the tip is raised higher than at the root; or quite simply keeping more speed on during finals. Pilot, Andrew Gibbs, informs that most real aircraft land at approximately 130% of stall speed.

TIP STALLING AND THE SPIN

(Hairybatics 4)

It's a strange thing, the spin. While being one of the most dramatic aerobatic manoeuvres, its actually one of the easiest to perform. On the other hand, while most trainers can be coaxed into one, some of the broad chord aerobatic models like the Limbo Dancer and Cougar literally won't spin. Why is this?

Well it's all to do with the stall characteristics of the model. Technically speaking, an aeroplane goes into a spin following a 'tip-stall' - that is when the airspeed over and under the wing is no longer sufficient to create lift at the tip of one wing or the other and so that wing literally falls out of the sky. We frequently observe this phenomenon when a pilot tries to drag out the landing glide too long – suddenly the model rolls over and noses into the deck. If this had occurred at a higher altitude it would have culminated in a spin.

It's worth, at this point, taking a closer look at the causes of tip stalling.

Without getting too technical its all to do with air-speed and 'angle of attack' which is basically the angle between the centre of the leading edge and the lowest part of the trailing edge. To explain this very simply:

1. As an aircraft slows it reaches a point where to maintain altitude, elevator has to be applied to raise the nose so that engine power can counter-act gravity.
2. As the nose is raised, the angle of attack is raised by a few degrees.
3. This starts to create drag, which slows the aircraft further. It also begins to disrupt the smooth flow of air over and under the wing responsible for lift.
4. As the aircraft slows further, or the angle of attack is increased further the drag/turbulence will increase to a point where the wing can no longer achieve lift. At this point we say it 'stalls' and it will fall.

Lets now consider how wing shape impacts on these factors.


A trainer. Limbo or Cougar will all have a parallel wing shape. When the wing begins to stall at very low speeds, the stall will take place all the way along the wing, so the whole aircraft begins to drop (we say it nods its head) without any loss of lateral stability. (It doesn't roll.)

Now lets consider the wings on some scale aircraft, war-birds, pattern ships and other highly aerobatic models. The main difference here is that the wing shape is not parallel, but tapered - some times from the front, some times from the back and some times both. Then there are rounded wing-tips and elliptically shaped wings. All of these shapes are prone to tip-stalling to a greater or lesser extent and we need to look at a tapered wing to see why.

ROGER BEDFORD

I'm sure you will have noted the sad news of Roger's passing and read the wonderful tribute paid to him in the latest BMFA magazine, for his work both at Southern level as well as the national organisation.

At the committee meeting 05 June a resolution was passed, unanimously. to send a donation of £50.00 in gratitude and recognition of Roger's long-standing work on our behalf.



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01794 513393

Facsimile:
01794 518768

Email:
peace@ahcheater.co.uk

8th May 2007

Mr J Fowler
28 Church Lane
Upper Beeding
West Sussex
BN44 3HP

Dear Mr Fowler,

Re: The Late Mr Roger Bedford


Thank you for your donation of £50.00, which will be forwarded to the selected charity in due course.

Donated to: Winchester Medical Foundation.

As donations are collected over a number of weeks please do not be surprised if your cheque takes some time to pass through your account.

Once all donations have been collated a complete list of donors will be forwarded to the family to advise them of the total amount received.

Yours sincerely,



Giles Sadd

BOWLS COMP



The May Clubnight was dominated by the Annual Bowls Competition and Buffet once again very successfully MC'd by John Riall and Sponsored by Chant Refrigeration. Following a lively competition between 'A' and 'B' teams a final play-off was held in which Malcolm Farrington beat Richard Ethridge to take the title and cash prize.

Pilot	Xtal	Aircraft
Robert Horton		Yak 18 PS
Keith Stanley	76	Piper Cub
Stuart Whittle	79	Extra 300
Ray Beadle	72	Piper Grasshopper
Ken Knox		Corsair
Toni Reynaud	79	Auster AOP 9
Allen Miller		Fokker D7
George Friddlington	60	Spacewalker
Declan Cousins	79	ShoeString
Bruce Smith		ME Bf 109

Most of the sensible pilots departed for more favourable conditions after that but a few of us doggedly hung on for a bit a practice - not our best decision. We saw a few minutes of sunshine between the clouds but when it did start up again it came with a vengeance - and not content with torrential rain - which we just turned our backs on - it started hailing - and it was bl**dy painful on the back of our legs! This is the second time in three attempts that we've had to cancel so lets pray for better conditions later on in the season - and maybe one or two more entrants.

What do you think?

Amge



Robert and Arthur sorting out a fuel problem.

HAIL DAY

Inspite of a very mixed weather forecast all ten promised competitors turned up dutifully at Thorney Island on Saturday 16th June for the Scale Competition as did Tony Chant and John Riall who'd agreed to act as Judges.

Thanks Guys, great spirit. It was fairly obvious, though, as we emerged from the sanctity of our cars that the blustery winds and the ominous clouds weren't going to co-operate. I took Fred Minay's smart Messerschmitt up to assess the wind and it coped quite well although half the assembled models would have really struggled and we'd no sooner made the decision to postpone to a later date when we all had to run for cover from a torrential downpour.



Fred's Bf 109 coped with the wind...



.... As did Declan's Shoe String.

BOOK YOUR PLACE QUICKLY

Don't miss out!

CADMAC OUTINGS 2007

Hastings + LMA - 28th July

Leaves Fishbourne at 8.00

Hop Farm - 15th September

Leaves Fishbourne at 8.00

Contact Toni Reynaud

Phone: 01243 370422

Email: tonibr@onetel.com

Clevis Cleavage Problem

I prefer to use the Sullivan Gold-N-Clevises in my installations, but I find that all of these metal clevises can be very aggravating when it comes to prising them apart for fitting or removal. I usually manage to break bits off my finger-nails, and my frequent slips threaten damage to the model.

Setting-up push-rods on a new model the other day, I decided to step-back and take a fresh look at this problem. The answer was simple - I took a spare clevis of the same make and size, grabbed the Dremel and with a small grinding-wheel removed the arm carrying the hole. That's it, a one-armed clevis, leaving just the pin. This can now be used for set-up activities very quickly and efficiently, and the locking-nut, if used, can be used as a gauge to show the position for the final clevis fitting. It worked very well for me, so now I think I'll start a set of different makes and sizes, adding as I go along. I'm aware that Sullivan offer a special opening tool for theirs, but I've not seen them on the shelves. Perhaps the solution above is still the speedier one in the build stage.

Colin Stevens

A handwritten signature in blue ink that reads "Colin".

TRUNDEL SLOPING

(Photos by Roger & Ray Andrews)

Phil Claridge on retrieval duties



On Saturday 12th May a few hardy people met up the trundle the wind for once was in the right direction but it was gusting probably up to 25 mph Terry Burley had a really good couple of flights but then unfortunately took his eyes of his plane for a second. That was all it needed to go from about 60 feet to zero feet and transform from a nice plane into a pile of wood but the next day it was repaired and ready to fly.

Fred had a good flight to start with but the wind picked up and his Zaggi proved difficult to get up above the turbulence although once it was up there it flew well. Roger had a good flight but his plane was a bit light as soon as he added some weight which he borrowed from Terry's wreck he was away and flying well and was doing a few acrobatics too.

John Riall turned up with a new plane for its first flight but decided it was far to light for the strong wind as did Bruce with his light plane but at least he had his lunch.

Jeremy launched his plane and flew for about ten minutes. He got above the turbulent air and had a brilliant flight throwing his plane all over the place.

All in all it was a very enjoyable morning and hopefully it will be repeated soon. If you're interested in flying up there, please let me have your email address and I will email you as and when the wind is in the right direction.

My e-mail address is ray@hsac.net

Terry and Fred demonstrate 'where not to launch' on the Trundel.



As a foot note Morris mentioned that Plane Nutz would probably be getting some gliders at a reasonable price very soon so hopefully this year we will see a lot more people up at the Trundel as it is the most underused site we have .

Ray Andrews - CADMAC Slope Rep.

