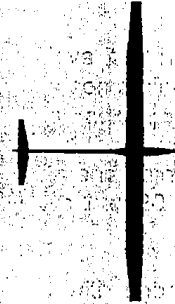


# ADS



## Aberdeen and District Soarers

Newsletter No 50

May 1993

7, Ashgrove Road West  
Aberdeen

### CHAIRMAN'S REPORT

The season has got off to a good start. At most of the meetings or events held this year so far, we have enjoyed good attendance's. Well done lads, keep it up! Once again we have a few new members and beginners and they've made excellent progress. No doubt they will be taking their bronze tests before too long! Even the weather has not hindered in spite of the wettest April for years. (I wrote this before the rain, snow wind and sun of the Slope Fly-in 15/16th May!)

It's 15 years this month since ADS was formed and believe it or not some of the founding members are still around. This must tell us something! Over the years we've seen faces come and go, some even come back again (well done Neil L.). It would be good to see some of these should they ever return to the NE or back to soaring. However, in spite of the losses and gains, over the years, we've crept up from an original membership of less than 20 to this year's current total of 45.

Included later is an up to date membership list together with phone numbers. If your name is not there, you've not paid your sub for this year (except in the unlikely event that the committee have made a mistake and not included you - let us know), and this will be your last newsletter. Pay up now.

## INDOOR, VINTAGE AND FREE FLIGHT

The last night of the winter indoor flying season at Muirfield School came to a successful conclusion on April 12th, culminating in a fabulous 2 mins 30 secs flight by Les Dempster's Pennyplane - a fine effort Les! Not to be outdone, Mike Prie clocked up 2 mins 18 secs just shortly afterwards with the microfilmed Easy 'B' (which still has two panels of the original microfilm interestingly enough, despite the inevitable collisions with walls, chairs etc during the season). Graham Donaldson has to find a propellor which produces more thrust for his Pennyplane and Davie Davidson has had some fine flights with his Easy 'B'. These indoor flyers are tremendous fun and beautiful to watch so I hope to see a few more in action next winter. For those interested in having a go, the Pennyplane is relatively easy to build and excellent kits are available from SAMS.

Peanut power is also becoming popular, but because of their speed and rate of climb, it is proving difficult to keep the models away from the walls and ceiling. Having said that, several peanut scale models have flown successfully within the hall proving that it can be done, and listed below are some pointers to think about when building your peanut for flying at Muirfield -

- 1) keep the weight down to reduce the flying speed
- 2) wash-in on the inner wing prevents steep angles of bank during tight turns
- 3) propeller diameter can be cut down to reduce thrust hence rate of climb
- 4) long motors helps eliminate initial thrust and extend duration

Successful peanuts at Muirfield School to date include the Piper Cub (Micro-X), the Kimberley Skyrider (I.M.S.), and the all-foam Volksplane. The Cub is capable of successful ROG's, circuits and landings within the hall. Very realistic too is Ray Stewart's 'profile' Mig 3, it's light wing loading resulting in good scale speed. The unorthodox class (so far we have a helicopter and an autogyro), has had limited success but I'm sure it's only a matter of time before we see them fly properly. Also I've heard mutterings about people building ornithopters for next year - I'll look forward to that!

Now to the outdoor stuff. Stonehaven was the venue for a fun free flight evening after the main event of the day (8th May) was over and the barbeque was started up. Near perfect conditions prevailed and a sizeable gathering of interested people saw impressive flights by Keilkraft classics (2 Senators and a Kestrel) and a number of rubber scale models (the Swiss AC4 Gentleman, the Taylorcraft Grasshopper and the Piper Cub). Ray's wheel-

less Senator took a trip to the golf course and Graham Mackintosh's Pee-Wee powered plane went O.O.S. (he found it!). Also on show was a clever little i.c. powered free flight helicopter. All in all an excellent evening, with the added bonus of perhaps having stimulated others into having a go at free flight. I hear there's a few K.K. Gypsies on the building board!

M.A.P. □

### INDOOR COMPETITION

Record durations characterised the night of the 23rd March at the Cammachmore. It was a pity more members did not turn up to enjoy the fun. Les Dempster holds the record duration. Watch out next year Les! The results were as follows, Graham narrowly grasping victory from Les.

Name	Round 1	Round 2	Round 3	Round 4	Round 5	TOTAL	Position
Colin Stewart	2.12	2.26	2.03	2.20	2.02	10.63	10
Alan Stewart	3.07	3.27	2.72	2.14	2.09	13.29	9
Dave Davidson	2.97	3.94	3.28	2.00	3.40	15.59	8
Mike Pirie	6.07	6.97	5.95	7.34	6.13	32.46	3
Les Dempster	6.07	7.70	5.90	7.91	6.66	34.24	2
Bill Stark	3.90	3.96	3.25	2.91	2.59	16.61	6
Graham Donaldson	6.39	7.33	7.52	7.19	6.95	35.38	1
Norrie Kerr	4.76	5.70	3.64	5.71	3.42	23.23	4
Tom Bartlett	2.20	2.18	1.70	1.72	1.04	8.84	13
Gary Connell	3.64	3.52	3.32	3.15	3.53	17.16	5
Ben Bartlett	1.81	1.89	1.93	1.90	1.62	9.15	12
Andy Thoires	2.28	1.95	1.14	1.16	2.73	9.26	11
Richard Holt	3.35	3.27	2.94	3.42	3.58	16.56	7

## MEMBERSHIP LIST

Jim Anderson	594885	James Morgan	826746
Doug Bain	685843	Jim Masson	896794
John Barnes	06512 2368	Neil Masson	896794
Steve Barrie	0467 43284	Tom McPherson	0569 63868
Tom Bartlett	898945	John McConville	824179
David Bichan	0330 811231	Gerry Mitchell	324828
Garry Connel	488021	Dave Morris	742776
Ian Cowieson	820037	Brian Ord	698449
David Curry	0569 66794	Doug Patterson	702604
Dave Davidson	692922	David Patullo	638594
Les Dempster	0651 891402	Mike Pirie	323640
Craig Dew	0467 43284	Graham Philip	0569 64209
Graham Donaldson	486961	Malcolm Satterley	0569 62980
John Duncan	319869	Craig Scott	0569 64905
Mike Duthie	648739	Bill Sherriffs	0651 862590
Ron Grant	714454	Alan Smith	321536
Tom Hamilton	310306	Brian Smith	633576
Chris Harper	0467 681452	Bill Stark	640560
Richard Holt	0651 842777	Alan Stewart	722663
Graham Irvine		Colin Stewart	722663
Norrie Kerr	324722	Gordon Taylor	319075
Ron Lock	733693	Andy Thoires	712008
Neil Logan	0651 862647		

## DELTA'S

It was with much sadness when I saw the other month, that the last flying Vulcan (XH558), had been sold to a museum, thus ending another era of great British aircraft. No longer will our eardrums be savaged at Leuchars. But one thing is clear - deltas are show stealers. One Tomado looks like another - an airshow is not an airshow without a Vulcan!

I've long been interested in these curious machines and since 1976 have had some form of delta to fly - these being the 362, Lancet and now a PSS Vulcan.

**362** - Designed by Pete Russell in the late 60's/early 70's. It spans about 40" and is powered by a 15/30. It is made entirely from light sheet and strip, a lot of which can be found in the

scrap box. The airframe should cost no more than £20. It has incredible performance, especially with a 30 and is particularly good at vertical manoeuvres both up and down.

**Lanset** - A Robbe kit, now out of production (but I still have the plan, it is rather different from the 362. It has a fuselage and the engine is a pusher with no undercarriage. It looks like a space shuttle. Only a 20 is needed as the Lanset tends to groove more than the 362 and it flies (and sounds) like a ducted fan.

**PSS Vulcan** - A recent build from the RCM&E plan, it is a straightforward semi scale Vulcan for power slope soaring. This one is finished in Solartex and Humbrol paint to resemble XH558 camouflage. It can fly well in as little as 5kts and is perfectly aerobatic needing only two channels.

All these deltas are very easy to build and are totally indestructible in the air. One manoeuvre the 362 is great at, is the Space Shuttle landing approach. This comprises climbing high, short of the threshold, shut the throttle, dive vertically, pull out and land. No other aircraft could cope with this. The normal height for an airliner on a nine mile final is 3000', the Space Shuttle is on the glide at 27,000' and the Vulcan could loose 20,000' in 90 seconds! Say no more.

Flying a delta requires concentration, especially with orientation. Some people try different colours top and bottom. I found this of benefit on the Lancet, but the undercarriage is a bit better on the 362. However the main tip is to be careful - all deltas are very agile in roll, so if in doubt just pull lots of up to make it mush. Another good tip is to keep the aileron rate on and the speed down until you are completely sure how it looks airborne.

Landing technique is also different. They can be flown very slowly with high angles of attack and lots of power (e.g. Concorde) or a steep glide with a long flare (e.g. Space Shuttle). The number one rule is to use lots of up elevator and land nose up. It is also necessary on the powered versions to keep back stick applied and hold the nose leg off after landing. The two reasons for this are :-

1. The increased drag from the increased angle of attack will slow down the delta.
2. To prevent nose leg bounce, causing the delta to become airborne rapidly with a high angle of attack with the consequent drop in airspeed, altitude and ideas! If it does bounce badly, get the nose down, apply full power and get out. A small bounce just needs more up and it will come down eventually.

The practicality of a delta is second to none. No rubber bands or silly bolts. Just fill it up and chuck it off. The 362 lends itself nicely to retracts and air brakes. I've tried mine on floats at Loch Insh and it looked weird. The PSS Vulcan is the most versatile PSS I've come across. Its ideal for all those two channel radio sets hatching eggs and can fly in 5 - 25 kts. I built mine almost totally from the scrapbox. It look good in the air as well.

So why not try one. With modern radio, the versions are endless. Electric conversions look ideal as they fly so well on little power and can carry extra weight due to light wing loading. They are always a source of conversation, especially with members of the public, but most of all you'll never tire of flying one. Whilst the full sized deltas are becoming ancient relics, wouldn't it be a tribute to such a great design concept to keep flying them our way.

John McConville

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### CALYPSO SPORT REVIEW

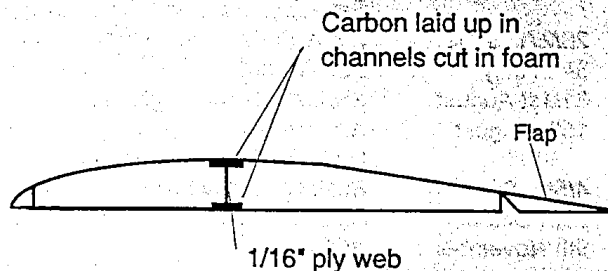
The Calypso Sport comes in two versions - 2.8m wing and a 3.0m wing using the same epoxy/glass fuselage. The wings of the sport version are blue foam cores with a layer of glass followed by a layer of obechi skin. In the proper kit they have the joiners already installed and the leading and trailing edges fitted. All you need to do is install the gear, cut out the ailerons and flaps and cover the wings and tail plane.

Being a tight Scotsman and finding it hard to justify to the wife if I broke my costly toy, I went for the cheaper option of buying the fuselage, blue foam cores and tail plane and glassed them myself. This worked out at about £150 instead of £285 for the real McCoy.

The fuselage is a beautiful piece of work. It has a vertical keel on the front where all the gear is mounted and the elevator linkage is already fitted to a ball link in the tail. The fit of everything is of high quality and very well made. I would go as far as to say that the moulding is the best I have ever seen.

I soon made a start on the foam cores. To start with, I cut a slot in the core the length of the wing panels to take a 1/16" vertical ply web. This was glued into place and then a 25mm by 5mm slot was cut, using a hot wire cutter, into the top and bottom. Carbon tows were laid into them with epoxy. Soft balsa was then laid on top of this and the whole thing weighted with bricks. You would be surprised how strong the resultant structure is. The

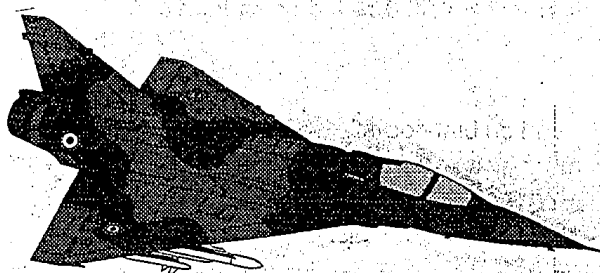
balsa is then sanded down to the required RG15 section. This is all shown on the high quality plan provided. One ounce glass cloth is then laid up on the wing and while the resin is still wet, the obechi skin is put on and the whole fitted into the blue foam blanks which the cores were cut from. A few building blocks compress everything whilst waiting for the resin to cure. The resultant structure is even stronger and the trailing edge can be sanded down very fine. I then covered the thing in Solarfilm and installed the required four servos in the wing. The weight came out at 6.2lbs which is about 8oz over (too much resin in the wings!).



The first flight I had with the machine was at East Lomond during a F3F Pylon race! Not the best place to trim a model, but it flew just fine - but fast! My first time was 100 seconds for the 1km course, but by the fifth round it was down to 57 seconds! (fastest time for the competition was about 52 seconds. This was with no ballast and a 25mph wind. I have since flown it off the line and had a few knocks which it has survived where other models would have perished. All in all a great all-rounder and once I get my second light weight one finished.....

Andy Thoires

**PSS Subject for Scale?**



## DIARY DATES

Please note changes and additions since last Newsletter

29/30/31st May	Radioglide at Pitreivie
5/6th June	ADS Hazlehead weekend. Fly-in on Saturday, 100S and Open Comp on Sunday
26/27th June	Slope Fly-in Scale. Comp on the 26th
3/4th July	Bon Accord
31/1st August	Scottish National (gliders) at Pitreivie
15th August	ADS barbecue at Calder Park, Altens with low key Electric Competition
4/5th Sept	Scottish 2-day X-country
29th October	ADS Dinner/Dance - Cammachmore
9th November	AGM

For those interested, there are a couple of waterplane events in the Dundee area as well as the usual Loch Inch weekend. Colin Maclean (tel 0241 75829) will be able to supply more information, but Graham Donaldson does have brief details, including location maps. The events are at Monikie Country Park on June 13th and Clatto Country Park on 4th July.

## PSS Subject for Scale?

