ABERDEEN AND DISTRICT SOARERS

Newsletter No.23

7 Ashgrove Road West

Aberdeen

AUGUST 1985

Throughout the summer (or what has been a laughing excuse for one!), a surprising amount of flying has been carried out. This is one reason for the late arrival of your regular (?) newsletter.

As usual our roving band of flyers have been to many events throughout the past few months. These events include Radioglide, Woodvale, British Waterplane Championships, Scottish Nationals and many more too numerous to mention.

To our knowledge our record thermal flight was clocked by John Meudell with over one hour fifteen minutes at Seaton during the two days of summer in May. We are sorry to see John leaving us for the south. We wish him all the best.

It is encouraging to see most members putting away those horrible smelly power planes for a few months and resorting to more gentlemanly behaviour. Roll on the winter so we can get some decent weather.

MORE DATES FOR YOUR DIARY

Elgin Fly-in & Scale at RAF Lossiemouth on 31st Aug and 1st Sept.

Lomond Cross Country on 8th & 9th September.

Loch Inch Waterplanes on 14th & 15th September.

Cairn Fly-in & Cross Country on 6th October (provisional).

Taylor Trophy — Elgin on 29th October.

Slope Pylon event - Lomonds on 13th October.

Fourdon Fly-in on 20th October (provisional)

NOTES

1. BARBECUE - this year Alan & Margaret Stewart kindly offered to have our barbecue at their home in Dyce. Although no flying was possible, this did not dampen the spirits despite the weather's attempts. A most enjoyable evening was had by all. Thankyou allan and Margaret for your hospitality.

2. NEW MEMBERS - this year we have been fortunate in having a fairly rapid growth in membership. This is an encouraging trend. To all new faces - welcome. The new members to date are :-

John Smith	95 32638
Matthew Strachan	896435
Frank Skilbeck	743052
Paul Shepherd	741670
Angus Brown	
Nigel Dodds	647636
Dave Norris	587800

3. NEWSLETTER - you will possibly recollect reading in the modelling press an offer made by Trevor Webb of the Ivinghoe Soaring Association to circulate newsletter editors with copy and news. We have joined this scheme and so will hopefully be adding suitable articles in due course. One even better method of filling the pages is to get YOU to put pen to paper. So come on get writing.

4. POWER SLOPE SOARERS - or PSS for short is one form of gliding activity which is catching on. There has been considerable discussion over the past months and a few ideas are formulating. There are even a few plans about! To get you going, a few possible subjects are illustrated later.

5. FLYING SITES - you will find a supplement attatched to this newsletter detailing the more popular flying sites used by ADS. This will be particularly useful to the newer members of the club. Please remember that at all times we must fly responsibly and safely. Always remember the Country Code.

RADIOGLIDE '85

No doubt you will all have heard or read about this prestigious event which tookplace at Pitreavie in May. Full reports have been published in the modelling press. However it is worth mentioning the number of ADS members present through the weekend. They included Norrie Kerr (C.D.), Jim and Neil Masson, Kevin Simpson, Brian Ord, John McConville (Freq. control),Bob McCluskie, Jim Anderson, John Barnes, John Barnetson and John Meudell. Well done ADS - thanks for your support.

WINDBAGGING AND OTHER STICKY PROBLEMS

The purpose of these ramblings is to provide an insight into the gentle art of 'windbagging' and othe mysterious processes of alchemy, as an alternative to the universal but dreadful Solarfilm and its expensive clones. The practice is not new of course, but many people sem to be hesitant about beginning and keen on tips that will minimise the chance of problems arising once started. I hope I can help on both counts.

Film coverings, with the possible exception of Micafilm and fabric type coverings add little or no strength to the structure. They do add parasitic weight. They provide only a shiny, if costly, finish which can hide a multitude of sins very colourfully from the eyes of fellow modellers.

I could never personally bring myself to use a finishing technique that did not add strength, and soon graduated to methods that do. The ones described here will achieve a finish equal to film leaving the modeller with wings that can be used as diving boards when not flying, for a very small weight penalty.

Anyone can do it. I would rate the difficulty at 25% of that I have experienced with film at various times: so now on to the good bits.

Glass is not all that heavy at 0.6 oz/sq.m. for the wing covering variety and does not need a great deal of resin to wet out completely. Investigation shows that a great deal of that lovingly applied resin is soaked up by the obechi or other veneer underneath. Whilst a good bond is required, resin soaked obechi is not the object of the exercise.

When the glass is applied, the small bundles of fibres that make up the weave expand and become engorged with resin, raising themselves up from the veneer surface in a glass sponge.

The first problem is easily overcome by simply brushing on a membrane in the form of Polycell wall paper adhesive, well thinned and allowed to dry thoroughly, to seal the veneer. The second problem is more difficult: how to squash down the fibres and expell the weighty excess resin. The technique for that is now available. Basically the glassed and resin covered wing is placed in a polythene bag: the bag is evacuated and good old atmospheric pressure does the rest.

Inside the bag, the fibres will be compressed into a slightly flatter section and the resin willbe squeezed off the wing where it forms rather nice fillets at the leading and trailing edges. A 2.75 sq.ft. wing will be subject to a total pressure of 11.09 lbs over both sides.

A little experimentation with pumps, bags and resin thinning provided me with an acceptable process, giving a very strong, light wing or other component, with an excellent finish straight out of the bag - have you ever seen the finish on the inside of a poythene bag?

The method can be adapted to glass under a veneer, or wherever widespread, even pressure is required, such as glass covered blue foam. The wings on Chris Greengrass's 'Sigma' pylon racer were produced this way.

The materials required are as follows :-

1. Glasscloth - 0.6 oz/sq.m. or lighter
2. Resin - SP113 or other good epoxy
3. Thinners - I use IPA (iso-propyl alcohol - not the beer!). It is readily obtailable, does not smell and works. The other alternative, methanol, is often full of water, and another, methylated spirits, has an odour, as well as giving you a certain reputation when taken into the garden shed in quantity.
4. Rubber gloves or non stick hands
5. Brush - preferably hairless.
6. Vacuum bag - 10" wide flat polythene tube.
7. Heat sealer - optional this, but I use a Pifco freezer bag unit.
8. Vacuum supply - described below.

The vacuum supply can be anything from a vacuum cleaner to a full-blown (full-sucked?) vacuum pump. Among vacuum pumps I have tried Hi-vane or Rotary, both good. Dave Woods has tried a vacuum cleaner but this is not efficient. A third possibility is a water venturi, which is fitted to an ordinary water tap and provides agood partial vacuum while the tap is running. A good one is available from Valeader.

Prepare the surface of the wing by careful sanding: this shows up any ripples caused by bad foam blanks or veneer faults.Give the wing its coat of Polycel, sanding off any lumps that form with fine garnet paper (240).

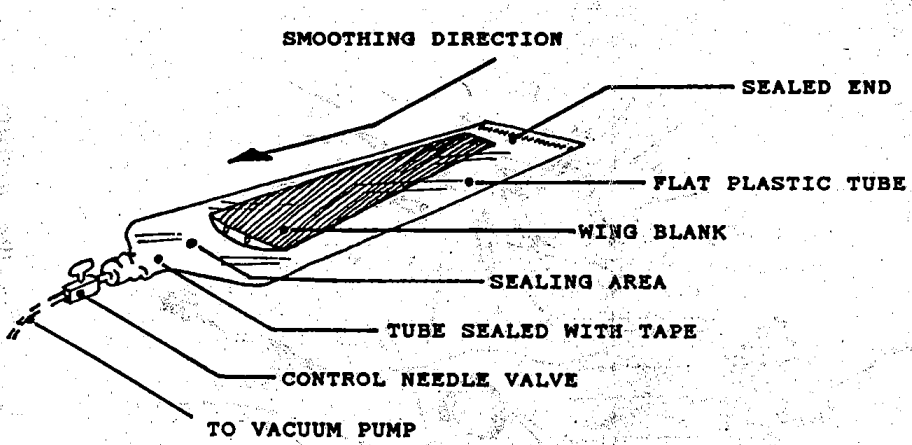
Coat the blank wing with a 20/80 thinner/resin mix, trying to obtain an even coating. This is made easier if the the work is carried out at a reasonable temperature. Lay up the glass and smooth down by hand - not forgetting the gloves. I do both sides of the blank in one operation and find the foam core female blank left from cutting a good table on which to rest the messy side.

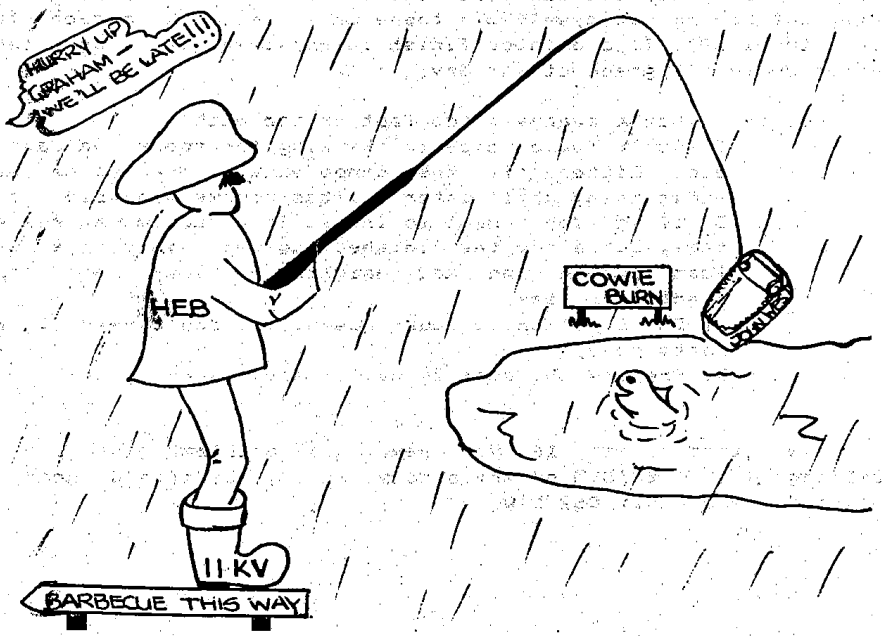
Next place the whole caboodle into your plastic tube and seal one end, preferably the tip. Evacuation can now start. It is most important not to evacuate too quickly. That can lead to crushing in an extreme case, or, more likely to partial evacuation. If you are using a vacuum pump, slow evacuation is best achieved by using a valve of some sort, preferably a needle valve. A satisfactory evacuation can be helped along by smoothing the outside of the bag from the tip towards the vacuum source to force any air bubbles out. The remaining end of the bag can then be sealed, still under vacuum, and another component processed while the first cures.

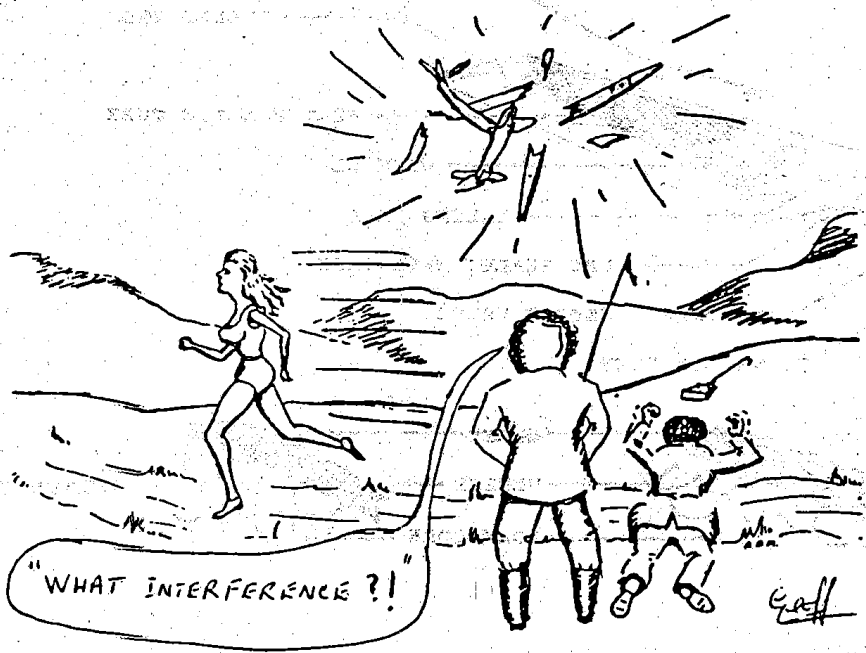
The finished bag can be opened the next day and the leading and trailing edges sanded down. It is possible to obtain a razor trailing edge, but having cut myself oin these many times, I prefer to sand back to 1/64". If a painted finish is required, it is best tokey the surface with 600 gradewet and dry.

Tips :- 1. Don't evacuate too fast or too much
2. Don't leave voids in the wing for spars, ballast tubes etc. Either fit the components beforehand or leave the whole thing until later - viods become non-voids at 14psi.
3. If you don't want to invest in a vacuum bag sealer, use tape, but place the finished bag back into the original foam outers and add weights - heavy man! Tape will eventually leak.
4. Don't put on too much resin. You don't need it and it costs money.
5. Prepare the surface well - sand! sand! sand!

Well, that's it! If you have any problems give me a ring on Cambridge (0223) 841585 or write to me at 18, Westfield Road, Great Shelford, Cambridge, CB2 5JW.

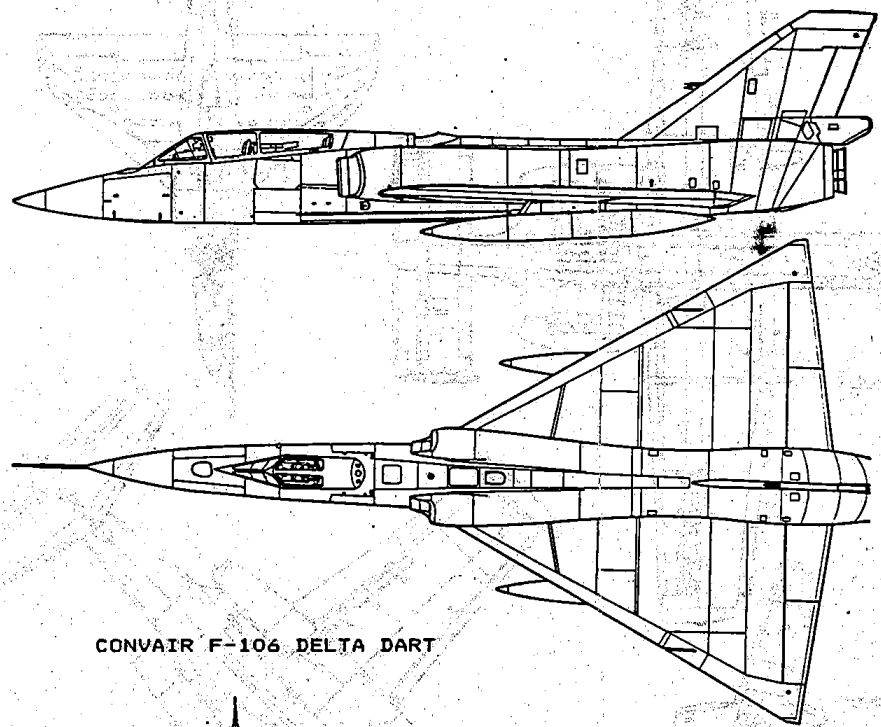




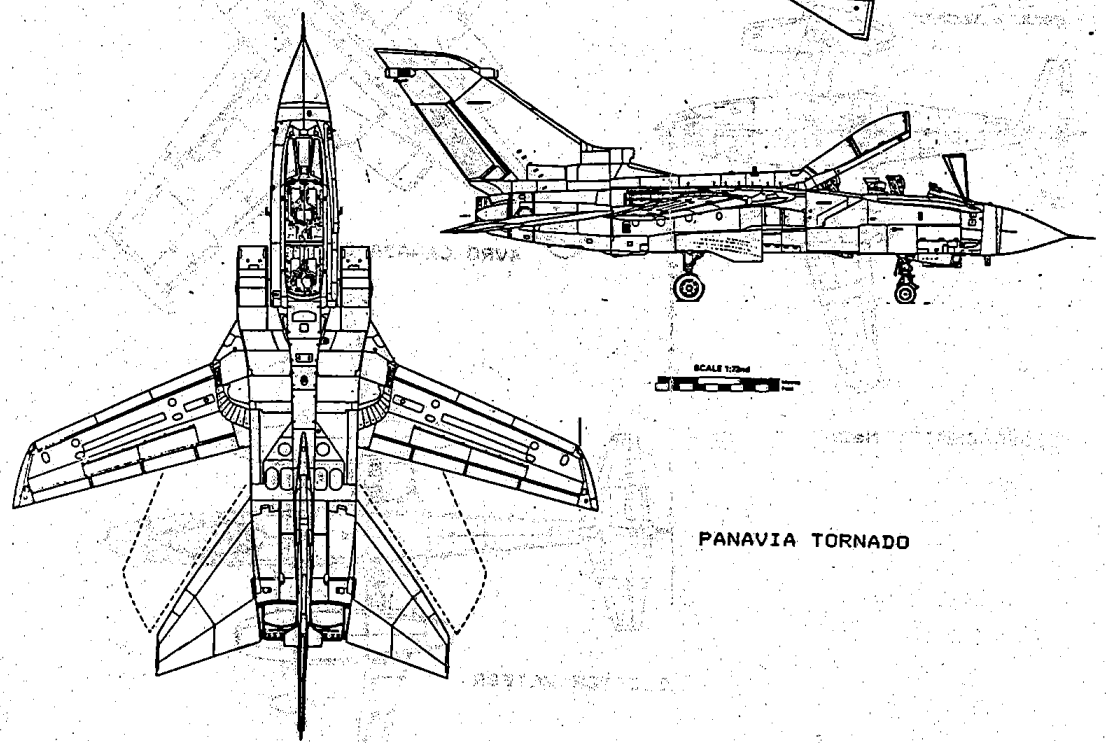


Taken, with thanks, from the June '84, BATCHAT

SUBJECTS FOR P.S.S.



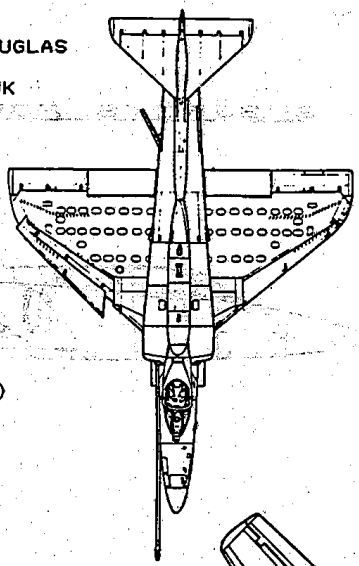
CONVAIR F-106 DELTA DART

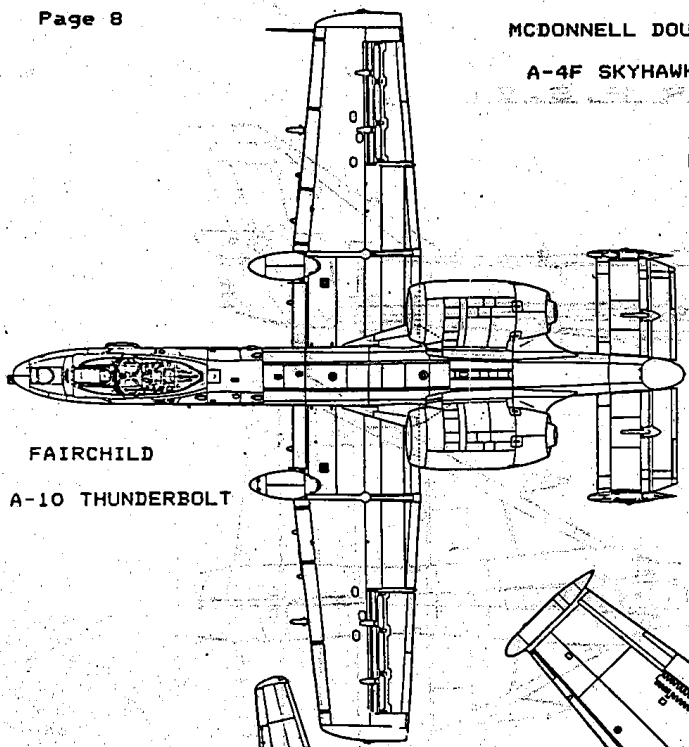


PANAVIA TORNADO

MCDONNELL DOUGLAS

A-4F SKYHAWK





FAIRCHILD

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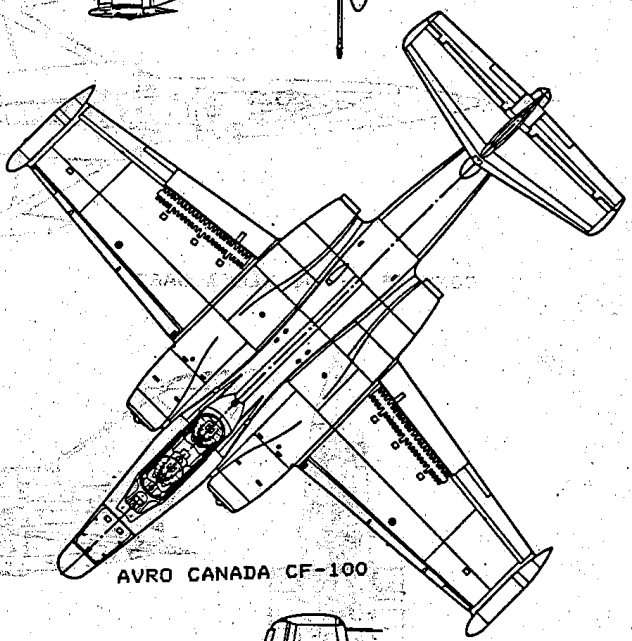
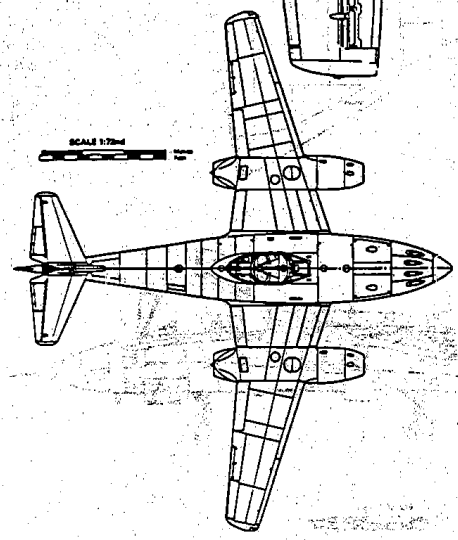
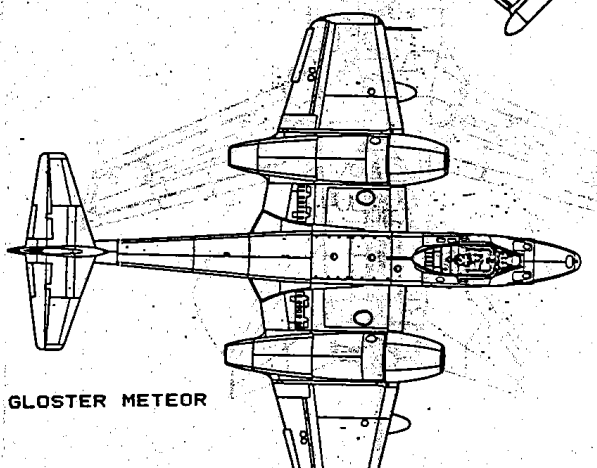


AVRO CANADA CF-100



MESSERSCHMITT Me262



GLOSTER METEOR