



Official Newsletter of the Southern Ontario Glider Group

TASK



Affiliated to the Model Aeronautics Association of Canada

OFFICIAL NEWSLETTER - MAY, 1989

Vol. 5 - #3

PRESIDENT:	OTTO BANDMANN R.R. #1 Dundas, Ontario L9H 5E1	519-623-2560
TREASURER:	G. FRITZ 19 Pepperwood Crescent Kitchener, Ontario N2A 2R4	519-893-7588
SECRETARY/ NEWSLETTER EDITOR:	F. J. FREEMAN U17 - 11 Colmar Place Dundas, Ontario L9H 4L1	416-627-9090

The Newsletter is published bi-monthly.

Any material for inclusion should be sent to:-

The Editor
F. J. Freeman
Unit 17 - 11 Colmar Place
Dundas, Ontario
L9H 4L1

EDITORIAL:

SUDDENLY, IT'S SPRING (???)

As I write this, the weatherman has just forecast sleet and snow (in MAY?) plus cool (read "cold") Temperatures for the next few days, but since this is supposed to be Spring, I make no apologies for the title.

To begin with it's the time when we should all be looking forward to another soaring season, and in order that we may all enjoy our flying this year, let's be sure that we have checked out our equipment and aircraft before we get started. I'm not going to give you a long spiel about what you should, or should not be doing - I'm sure that most of our members will have sufficient common sense to carry out any repairs or maintenance without me preaching about it; so much for that.

Next item is our new flying field - everyone knows where it is by now, and some of us have actually been out there trying to locate the thermals, from comments passed already it seems that most agree that, apart from a little restriction in a northerly and southerly direction, there will be plenty of room, and the access is quite passable - unless we have a lot of heavy rain. If that should happen we may be obliged to park nearer to the highway and carry our equipment up to the flying area. We shall just have to play that one by ear!

As a courtesy to the operator of this farm we have been asked to let them know when we are going on to the field - it's only fair that the farmer should know what traffic is passing by his home. So before proceeding onto this field, take a minute to knock on the door of the house - and don't forget to say "thanks".

We have an excellent field with good accessibility-let's not abuse the privilege.

This season maybe we should try to concentrate on launching techniques, both winch and hi-start, since the launch is one of the most important parts of the flight sequence.

Perhaps we should set up an evening session for this purpose.

It may also be fun to attempt to find out, what force is exerted on a towline by various models - eg. Gentle Lady, Olympic etc.

What do you think? - Give us a call and make your views known.

'Till next time, don't forget to

Drift with the lift.

F. J. Freeman

(Apologies for the brevity of this month's issue, but time is in short supply at the moment).

S. O. G. G.

MINUTES OF MEETING HELD SUNDAY, APRIL 23rd. 1989 at BEVERLY TOWNHALL.

Meeting opened at 1.15 p.m. with 11 members present.

1. Minutes of last meeting - passed as circulated.
2. Otto put forward a proposal that we award W. BENLEY an honorary membership. This proposal was passed unanimously.

3. WINCH:

Otto informed the meeting that Albert Fund had purchased the winch advertised by W. Waddington, and further that this winch, complete with battery, etc. would be kept at Otto's store. Otto guaranteed that he would monitor the charging of the battery.

Albert has kindly volunteered to make this equipment available to members on request on a "Sign OUT, Sign IN basis - in other words sign when you pick it up and when you return it. See that it is signed in, by whoever receives it.

We all owe a big vote of thanks to Albert for this gesture, so let's do our best to ensure that the privilege is not abused.

Here's a chance for everyone to become familiar with the operation of a winch (I suggest that we institute some form of qualification before we let just anybody have the winch - perhaps one of our members conversant with winches could be persuaded to arrange a period of instruction at the field under operating conditions - any offers?

4. TROPHIES:

Gerry showed the re-vamped trophies which were circulated so that we saw what had been done. It was agreed by all present that they looked just fine. Gerry said that work was progressing on the new Club Logo and that he would report later.

5. DECALS:

Kurt Fritz said that he had had a request from Paul Coppin, of "SKYCRAFT" that a supply of Club Decals be placed in the store. It was proposed by W. Moar and seconded by W. Rogers that a quantity of 50 be provided. Motion carried.

6. MAN-ON-MAN June 19th.

Due to circumstances beyond his control Ray Munro has had to cancel his participation as C.D. Craig Packham and Bill Woodward volunteered to step into the breach for this event.

7. CANADIAN NATIONALS CENTRALIA - July.

Several members indicated that they would be going this year, so it looks like we shall be well represented.

There being no further business the meeting closed at 2:30 p.m.

NOTE: NO MEETINGS BETWEEN NOW AND SEPTEMBER.

Aletto

Alan Cooper

The first Aletto 100 was built by Alastair Maxfield after a good look at Bernard Henwood's Sciletto 100. Alastair used the Sciletto open class fuselage moulding, which has a 250mm wing root instead of the 240mm root on the Sciletto fuselage. This gives a thicker, stronger wing root, but to keep within the 800 sq. in. area restriction a smaller tip chord has to be used, giving a higher taper ratio than the Sciletto 100.

Two more Alettos were then built by the writer, using the same platform as Alastair, but with two different wing sections. As can be seen from the drawings, both the sections are a little thinner than average at 9.5% and 8.5%. The idea was to obtain better penetration at given loadings than could be achieved with thicker sections by reducing drag.

The 9.5% version handles and performs more or less as expected, having a good speed range and towing extremely well even when ballasted up to 18 oz/ft in light winds. It does, however, have a tendency to violent tip stalling if the sticks are handled clumsily. I suspect the high taper ratio and consequent small tip chord/low Reynolds Number might have something to do with this. C.G. on this wing is at 36%.

The 8.5% version took a lot of sorting out at first, its handling being somewhat bovine to say the least. I started out with the C.G. at about 40% which required a lot of down trim and required the thin section to be flown very fast in order to generate enough lift. This was a classic case of insufficient longitudinal dihedral (". . . Thinka? . . . Must build myself a canard sometime!) I ended up with the C.G. at 35.5% which necessitated flying the wing at +3 incidence, the handling now being virtually normal, although in winds below 3 knots, it's towing manners are "slightly unusual" and it requires a turbo-charged tow man, in strong to gale force winds this glider is in its element with a loading range from 9.8 oz/sq.ft. dry to 20 oz/sq.ft. total. It also makes a fine slope soarer.

Ballast carried in the spar tube can be loaded in various combinations of lead, steel, and wooden spacers to achieve desired loadings and C.G. position.

As the drawings show, the 9.5% Eppler derived wing uses 3 x 6 S.W.G. piano wire joiners while the 8.5% wing uses a 3/8 x 1/8 rectangular steel joiner. Bernard uses 2 x 1/4" ϕ piano wire joiners on his Sciletto 100. The rectangular joiner is made from the steel normally used for drop forged spanners which is heat treated to 65 ton/in² tensile. The finished joiner is worth about 3 1/2 x 6 S.W.G. piano wire joiners so there is a useful weight saving.

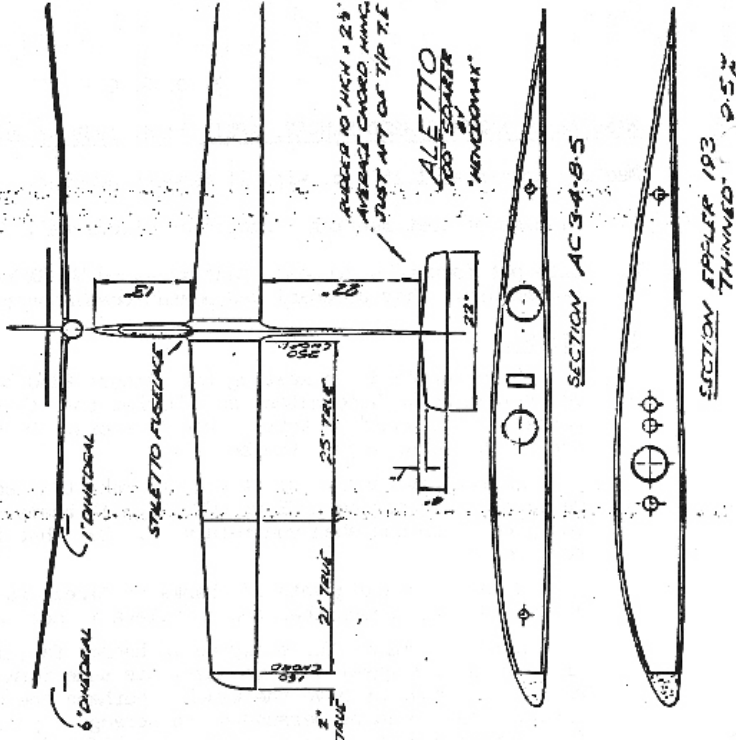
We are finding that the rectangular joiner is just strong enough to resist permanent deformation on a 100" soarer, but the lack of bend on the tow makes it difficult to judge line tension and this led to the breaking of several 75 lb lines. 100 lb line seems usually to survive, but it is more difficult to get

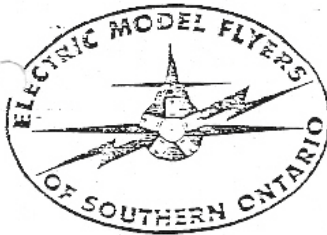
a good zoom from this weight of line so we generally use 75 lb line for wind speeds below 15 knots.

Bending loads are fed from the joiner into the spar via high tensile aluminium alloy spar fittings and the spar tube is HT15TF high tensile aluminium apart from the tubular spar the wing construction is straight forward 1/16" balsa ribs at 1" spacing with 1/16" balsa skins. The spar tube extends to the dihedral break and the tip panels use vertical grain balsa webbing. The whole wing is glassed and tufted in the normal way.

Rudder and tailplane are both driven by closed loop from Futaba 30M mini-servos with ball race outputs. This combination gives a position error at the tailplane I.E. of .004" or better which is important.

Contest record to date is five placings in both open and 100" events and fifth place in the Northern League.





THE ELECTRIC MODEL FLYERS OF SOUTHERN ONTARIO

AND THE Kitchener-Waterloo Flying Dutchmen
Radio Control Model Club Inc. H O S T

6TH

CANADIAN

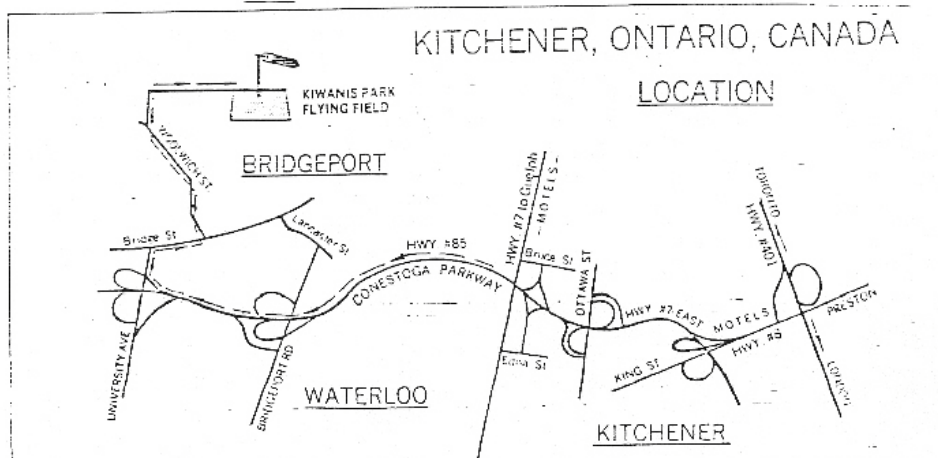
ELECTRIC FUN FLY

SUNDAY, May 28, 1989

10 am TO 4 pm

THIS UNCONTEST IS INTENDED TO PROMOTE ELECTRIC FLIGHT IN CANADA AND TO PROVIDE AN OPPORTUNITY FOR THE UNINITIATED TO SEE QUIET ELECTRIC POWER AT ITS BEST.

ALL TYPES OF ELECTRIC POWERED MODELS ARE WELCOME - SCALE, SPORT, AEROBATIC, OLD TIMER, POWERED GLIDER - ANYTHING!



FOR MORE INFORMATION CONTACT: STEVE GRAY, PHONE (519) 742-7141