Club Update--- June 2018

Some interesting discoveries... by Ian Crosland

I discovered this V1 in the Aero club hanger at Omako while obtaining more measurements of the Andrews A1. I thought for a minute it was the one that Allan Knox helped build. I was told it's one of two mock-ups that were going to be used in conjunction with the flying model but never happened, anyway, the Aero club plan to blow it up some time.

Photos by Ian Crosland

A Stan Moore from Martinborough built this engine for a hover craft, it ran remarkably well. The mind boggles on what one could do with a bunch of old model aircraft engines.

From the Prez.

Hi all.

Time marches on. This month will see the shortest day of the year and things can only improve from there (hopefully). There's been a few good flying days of late, although well interspersed with crap days. I feel for the weekend jockeys, as most of the good weather has been mid week. Just goes to show though, yesterday (Sat 26th May), the forecast wasn't up to much. The day started windy, I made other arrangements only to see a really good patch for a few hours in the middle of the day. (*Ed's note …some of the weekend warriors were there. ha ha*) . I reckon there's a special place in hell for weather forecasters! With the inclement weather though, hopefully new models are being finished, assembled, tuned and ready to grace the skies.
For me, the last few weeks have seen a lot of finishing work completed on the Smith Mini Plane. Certainly, working on a large model has completely different challenges to the smaller ones. Hopefully, all fingers crossed, next month we can report on the maiden flight!

The Kotare room is proving popular for club nights, and we're gradually getting the kinks out of opening and shutting the gate. In-spite of having documented procedures, there are still a few who aren't up to speed. The result was last month I was trying to get the meeting underway only for my cell to keep ringing. Which I ignored. There were some late comers who wanted entry. Fortunately, they had Don's number and he was able to oblige.
So, see below the procedure we will now follow.
The Kotare room is such a good amenity, we are now booking it for our committee meetings. With a number of the committee coming up from the Southern areas, it is more central. Also takes the hassle out of household interruptions.

Last month's club night was a beauty and I thank Andrew for arranging. We all learned plenty.

See you down there sometime.

Steve

Kotare Room – access.
As has been stated before, we will open the gates at regular times from about 7:10 through until 7:30. We will check there is nobody out there before we start the meeting.
If you come after 7:30, then the choice is to leave your car outside and walk up the path or send Don or I a txt and we will open the gate. Don't ring me. Once the meeting is started, the call will be ignored.
So best you load our cell numbers into your phones if you haven't already.

News from the Park

Licence
I am expecting that to be in the hands of Tim Penwarden who handles the actual license, fairly soon. Indications a few weeks ago was that it wasn't far off.

Rabbit control.
I understand there is a decrease in rabbit activity across the park and we have certainly seen a drop off around the club house. One carcase has been found and sent away for testing.

Tree planting
The date for the 5000 trees planted in a day is 29th July with a backup of 5th August. The area to be planted is over the back of the club house, beyond the farm fence where it was all mulched recently. We will again get a crew together to support the park

Parks Network Plan.
This is the plan that governs the management of all Regional Parks and each park is identified with its unique properties. Much of the licence application was to show that we met this plan. The plan is under review, something which is carried out every few years.
There is a public consultation process as part of this review.
This process has begun this week and closes the end of June.
We will look at this as a club and determine if we will make a submission. We should, as we are a stakeholder in the Park.
Members themselves may want to make their own submission, but these would be personal and not represent the club.
If any member wants to make their thoughts known on the Parks management, then let me know those thoughts within the next 2 weeks and they will be taken into consideration.
If you want some bedtime reading and look at the process, then refer to the website:
http://www.gw.govt.nz/parks-network-plan/

It's pretty in depth.
It's the preparation for this review process that has slowed down our licence application.

June Club Night
June club night will feature our very own Mike Hall.
For those that aren't aware, Mike flies full size as well as models and is passionate about flying. He owns his own microlight (although that term is a bit misleading).
Look up: www.jabiru.net.au
Mike has visited a number of airshows around the world over the last few years and will give us some insight into what he has seen.

Bob Burling trophy.
For those that fly old timers.
I believe this is now being held at Levin on the weekend of 9th/10th June.
Contact Warner for further details.

Club Night - May

As Steve mentioned earlier, it was a great evening .
Russell gave us a good talk in general about aerobatics, the design of the Giles 200 , how he obtained and transported his aircraft back to New Zealand and much more. Very interesting on how they fly the sequences, especially working out where you are in the sky.

Special thanks to Russell for giving up his time to come talk to us.

He owns and flies this Giles G200 single seater.

Helping (another) new club member getting started.

by Catherine Crosland

Photo by Ian Crosland

Prospective new members Dave Rennison and son Nico, age 11 with their new 'Bixler' being assembled ready for flight. This is another project similar to the one done last month where the expertise from club members can help others and make it fun. Good on you John Miller and John Ellison.

The maiden flight ... by Don

I was tasked with the maiden flight of the above mentioned as the model was set up on Mode 2. Despite the gusty conditions on the day, the model flew well. Unfortunately, the day did not end that well. There was no other radio set up, so I was persuaded to assist with a "non buddy radio" flight, relying on the outdated "snatch" method.

Well say no more ... was not long before the model was in a 45 deg downward attitude heading for mother earth. By the time I managed to get the radio in my hand the model was already trying to morph itself into a bean bag. Fortunately these aircraft are reasonably robust and the ground was soft from all of the rain we have had, plus the vegetation between the hill and the strip is long and soft so damage was not terminal.

On the good side, John Miller has already repaired the plane and had it back in the air and it flies well showing no adverse affects of it's near death experience.

Learnings here: The "Smash and Grab" method is not the best way to go, the model is usually smashed by the time the radio has been grabbed. The old method may work for some, but not me. Until the student is able to complete a full flight from take off to landing, without assistance I'll be sticking with the buddy system.

Building notes for “PLOUF”

by Bob McGrath

Plouf (French for Splash) is a micro slope soarer designed by A. Lomberty and is a very portable model that is capable of excellent performance in both light and strong winds. I have flown my Plouf off cliffs, hilltops and sand dunes from Cape Reinga to Queenstown and many places in between and have always been pleased by its versatility and performance.

This article is not intended as instructions, just as a guide and “build log” of my Plouf.

A quick search on the net will reveal plenty of threads on the Plouf however there is nothing really practical. The consensus is that they need to be light; a target weight of 150 grams including all radio gear, battery and ballast is reasonable and within the ability of most builders. Because this is a small & relatively fast model any slight departures from “true” will have a large effect, so accuracy in building is important. A jpeg image of the plan can be found at the link below, just scale it up when you print it.

https://www.rcgroups.com/forums/attachment.php?attachmentid=3857366

Before starting, make a couple of copies of the plan, it is useful to be able to cut pieces out. To build the “other” wing coat the plan with a little cooking oil and wipe clean; the plan can now be built on from the reverse side and both wings will be identical.

FUSELAGE

Start with the pod sides: laminate 1/64 ply to 3/32 balsa then cut out the side view of the plan and stick to one of the sides with 3M77, pin together and cut & sand to shape (make a left and a right). While still stacked together, drill the hole for the main joiner; don’t drill the incidence peg hole!

Select hard balsa for the nose block and cut out 3 lams using the “sandwich” method, make a hole in the centre to take 10 – 15 g of lead that may be needed as ballast (this is about 3/8 x 3/8 x 3/16 deep). I used 3 lams of 1/4" because my tail boom is 1/4” arrow shaft but you could use 1 lam of 3/16”and 2 of 1/4” or whatever suits your tail boom diameter, this choice dictates the width of the finished fuselage so make the choice to suit your radio gear and installation at this stage. Ditto for the tail block assembly, but laminate the centre part to give the correct alignment with the top of the tail- boom as per the plan. This

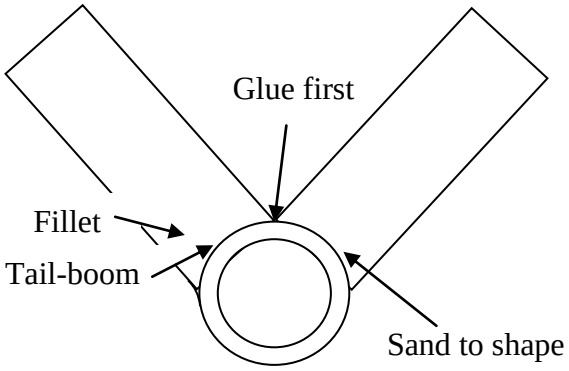
assembly will be glued to the sides and aligned with the fuselage top edge at the same time as the nose block.
Invert the sides on a flat surface and glue the tail-block in ensuring the sides are vertical and true, turn over and glue the nose block in, add a 1/2" strip to the fuselage top at the rear of the nose-block at this stage, turn over and sheet the bottom with cross-grain balsa. Do not sheet the top. Insert the tail-boom without gluing it and check the alignment, it should be parallel to, and slightly below the top of the fuse sides. Make a small packer to sit on top of it by sanding the boom profile into a piece of balsa, this saves the weight of excess glue, put this to one side until the boom is glued in. The top and hatch can now be made as one piece from hard long-grain balsa, note that this will extend right to the back of the boom mounting block. Glue a 1/32 ply tongue on the front of the hatch to sit under the 1/2" cross-grain strip located behind the nose-block then score the underside of the hatch and bend to the fuselage shape, glue with CA to retain the shape, do not glue to the fuselage yet. The rear part of this piece will form the top of the tail-boom block and the hatch will be cut free later after the latch is installed.

WINGS

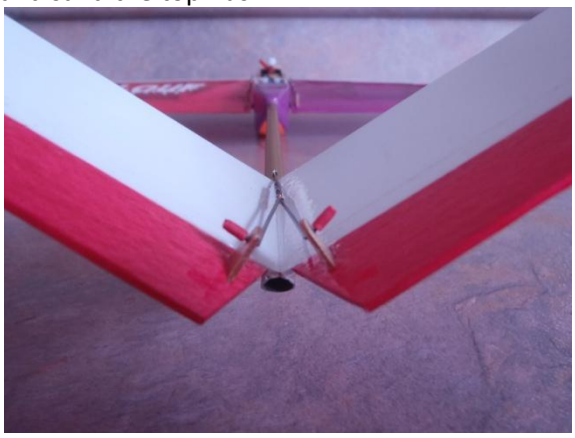
Some threads on the web suggest the wing incidence is too great but it is impossible to know whether the builder concerned managed to mount the tail surfaces at the correct incidence so these comments are of limited value. My feeling was that the incidence is a bit great so I reduced it to 2 degrees. As a rough guide this should give about 7 mm difference in height of the tail-boom over its visible length of approximately 200 mm.
For those of you who use airfoil plotting programmes the rib section is E193 so you could laser cut them or make paper templates. I made tin templates for cutting the ribs which I will make available for loan.
The wing is built in the traditional way however there is some difference between the plan chord and the size of the wing if built to the rib sizes on the plan and a small amount of "fettling" is needed to get a fit. I made the trailing edge from one piece and cut the ailerons out later. During gluing, the TE was supported along its entire length with a 1/4" strip of 1/64 ply located at the rear end of the rib position.
The ailerons need to be bevelled on the LE to get 3/16 to 1/4 " down movement, they will be top hinged with "Diamond" tape split to half width but any decent tape will do.
The joiner tubes are installed and with the joiner in place to maintain correct alignment they are glued into both wings. The short section of joiner tube that passes through the fuselage can now be installed with the wings in place to ensure correct alignment. Incidence pegs come later.
The only modification made was to take the angled half-rib from the TE to the spar instead of the plan position. I used 2 mm CF for the incidence pegs; these were added after the wing was covered. The covering is your choice, tissue, Litespan, Ora-lite or So-lite are all options.
Setting the incidence was done once the fuselage was complete, see below.

TAILPLANE

This is straightforward, quite by accident I set the included angle to 110° not the plan angle of 100° but this still works fine. Cut the elevators free and bevel the LEs. Glue the stabilisers together along the top edges using angle blocks to jig them accurately. Wrap the boom with fine sand paper and sand the joint carefully to the boom shape. Mounting the tail-plane to the boom requires care to get proper alignment so use the jig blocks from earlier to keep the correct angle and mark a centre-line on the boom to align with the stabiliser join line, glue on with CA. Invert the assembly and make a small fillet of baking soda along the junction of the boom and stabs on each side using a wooden BBQ skewer, put a drop of thin CA on the baking soda and a nice strong fillet will result.



Epoxy the boom assembly into the fuselage at this stage ensuring correct alignment of the stabs and fuselage top, insert the filler piece made earlier and sand the top flush.

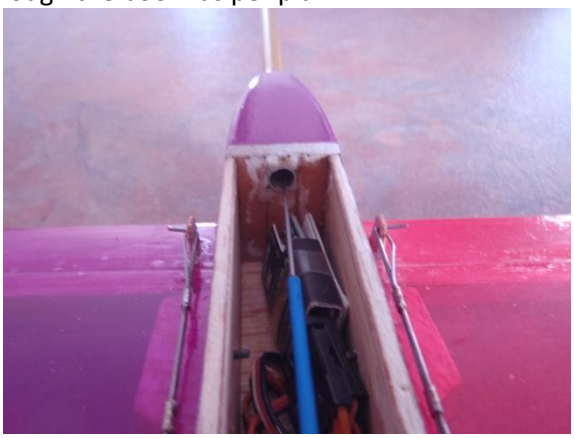


Fit the wings and block them up the same on both sides so the fuse can pivot around the joiner tube, set the incidence by lifting the boom to a height that gives the correct incidence. Use an incidence gauge if you think you can do so without warping the wing (which is doubtful).
The canopy latch is just an L shaped wire (see first photo) through a slot close to the rear end of the hatch and running in a piece of small tube, glue this tube to the hatch with 10 to 15 mm protruding beyond the rear end (cut line) of the hatch and make a slot in the packer above the boom to take this tube, tack the rear end of the hatch in place, where it sits on top of the boom mount, slice through both the hatch and the tube, this way the latch aligns perfectly. Make sure your wire latch doesn't protrude too far or you won't be able to cut the tube. Sand the curved edges to shape and cover. I glassed the fuselage bottom with 2 oz. cloth for durability.

You have now made yourself a complete POOF …. Sorry, I mean PLOUF, time to put the gear in!

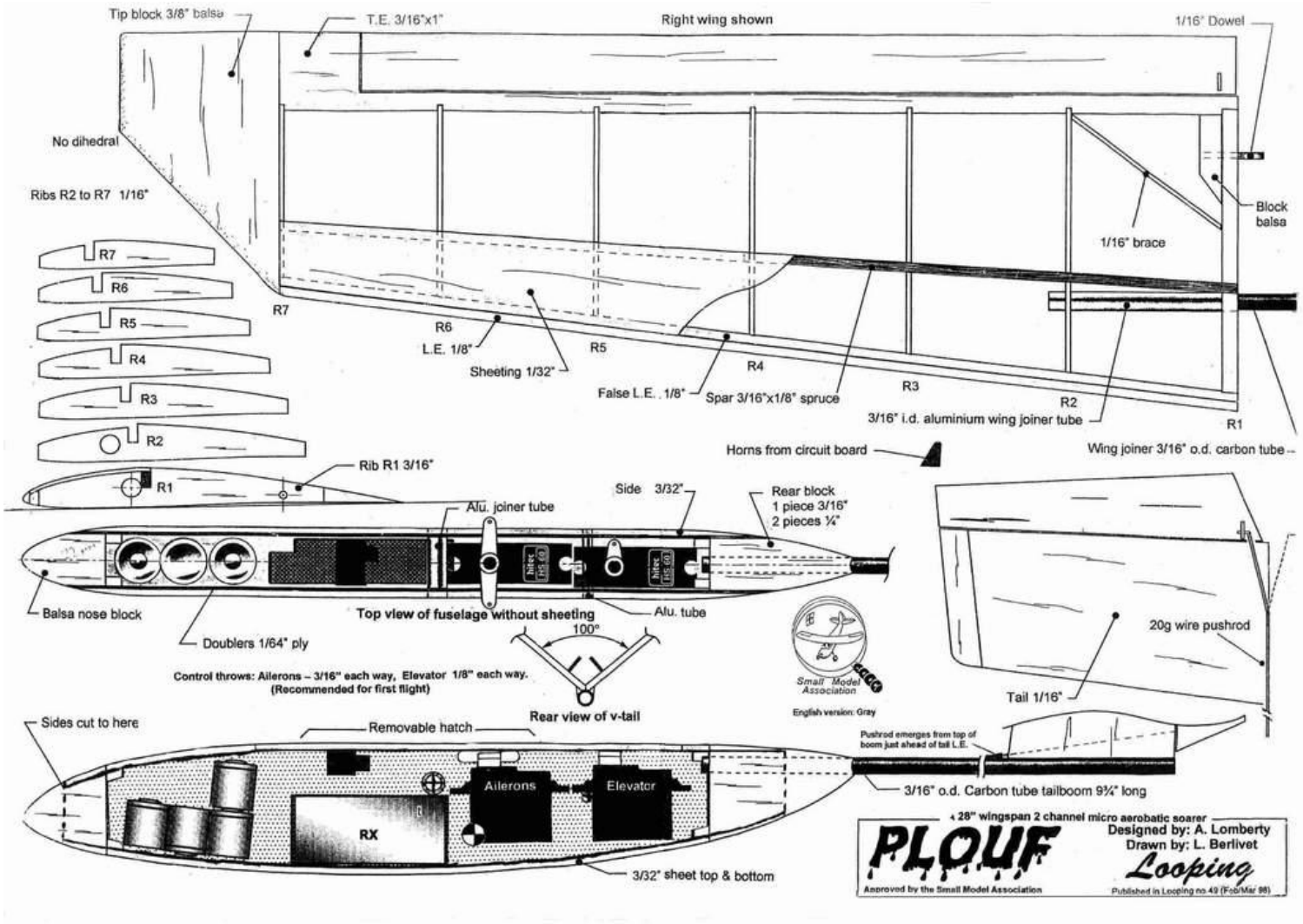
RADIO

I used 2 x 4.7 g aileron servos located just behind the fuselage joiner tube and one Naroservo for elevator located in front of the joiner tube. The battery is an 850 mAh 1S LiPo with a voltage doubler and fits neatly up front. The FrSky 4 channel Rx is located right at the back in front of the tail-boom block with the aerial passing through a tube. All linkages are 20G wire through 1/32 ply control horns. The elevator rod is 2 mm CF as far as the boom, then 20G wire through the boom as per plan.



FLYING

My Plouf was successfully test flown at Titahi Bay with wind-speed of 20 knots onto the slope. It flew without trim change and handled this wind with ease. It is fast and the controls were sufficiently responsive when set up as per the plan, I used no differential or exponential. Loops, rolls and stall turns are quick and clean, I did not try inverted flight but expect it will be no problem. I have yet to explore the low wind-speed performance but, again, I expect it will be OK as the AUW is only 152 g. Visible colour schemes and good eyesight are recommended!


Tip block 3/8" balsa
T.E. 3/16"x1"
Right wing shown
1/16" Dowel
No dihedral
Ribs R2 to R7 1/16"
R7
R6
R5
R4
R3
R2
R1
L.E. 1/8"
Sheeting 1/32"
False L.E. 1/8"
Spar 3/16"x1/8" spruce
3/16" i.d. aluminium wing joiner tube
1/16" brace
Block balsa
Wing joiner 3/16" o.d. carbon tube
Horns from circuit board
Rib R1 3/16"
Alu. joiner tube
Side 3/32"
Rear block
1 piece 3/16"
2 pieces ¼"
Balsa nose block
Doublers 1/64" ply
Top view of fuselage without sheeting
Alu. tube
100°
Control throws: Ailerons – 3/16" each way, Elevator 1/8" each way.
(Recommended for first flight)
Rear view of v-tail
Small Model Association
English version: Gray
20g wire pushrod
Tail 1/16"
Sides cut to here
Removable hatch
Ailerons
Elevator
RX
Pushrod emerges from top of boom just ahead of tail L.E.
3/16" o.d. Carbon tube tailboom 9¾" long
3/32" sheet top & bottom
28" wingspan 2 channel micro aerobatic soarer
PLOUF
Designed by: A. Lomberty
Drawn by: L. Berlivet
Looping
Approved by the Small Model Association
Published in Looping no.49 (Feb/Mar 98)

Projects on the go?... how to it ... how not to do it.

- Do you have anything on the go that you would like to share with fellow club members?.
- Would you like to put something in the newsletter, but couldn't be bothered? i.e. (Leave it up to others)
- Are you too busy or lazy to type or hand write something.?
- Do you keep thinking " I should really share this great tip that I have".?
- Do you have any items you'd like to take a picture of , but your camera batteries are flat, or you don't have any film in your camera.?

Well, worry no more . We have had a great offer from our roving reporters, Ian Crosland and Alastair Rivers. Give them a call and they will arrange to meet up, have a chat and write up an article on your behalf. Ian can talk a good story and Alastair takes a mean photo. He can even dial down the resolution if you don't want to show any rough work.

Plus... it means more news for the club, less typing for me, so we all win.

So that's about it for this month.

Thanks to those that sent in their contribution, much appreciated .

I have another great article by Bob McGrath, but you'll have to wait until next month.

If you have anything to contribute , re-read the paragraph above, then give Ian or Alastair a call.

Till next time.

Fly hard... land soft.

Cheers
Don