

Scale Soaring UK

The forum for all your modelling requirements relating to scale gliders
<https://scalesoaring.co.uk/phpBB3/>

SF27 M

<https://scalesoaring.co.uk/phpBB3/viewtopic.php?f=12&t=100>

Re: SF27 M

by **Noël Rumers**

Page **1** of **1**

Posted: **30 Sep 2016, 00:39**

Thanks!!

Have added safety belts for the pilot now.

The lock can be unlocked easy to be able to take the pilot out.

A handle was made for the stick too.

Polymorph was the plastic I used. Water heated to 60° C the plastic will melt and you can handform the shape.

After cooled it was grinded to the shape as per real. An alu handle was installed too.

Noël



**Re: SF27 M**by **Peter Balcombe**Posted: **20 Sep 2016, 19:16**

Well done Noel.
A very fine achievement.

Re: SF27 Mby **RobbieB**Posted: **20 Sep 2016, 16:30**

Well done Noel, a great achievement.

Re: SF27 Mby **chris williams**Posted: **20 Sep 2016, 16:21**

Show off...!

Well done, Noel, a beautiful model fully realised and the last Middle Wallop coming up soon 😊

Re: SF27 Mby **Noël Rumers**Posted: **20 Sep 2016, 16:11**

...Due to hard work on our beloved site (thanks for all who are involved), I was not able to post any sooner...

Last Saturday, nice weather and good soaring weather too.

All checked, double checked and again...you know how things go I think.

The first test flight was on hand, no other excuses to delay...

As a result just a few pictures to the proof of concept, no pitch changes with the up and go in or out, neither with throttle high nor off!!!

Noël

BTW the CG was as shown on the picture above... 😊

Paperwork sorted due to over 12 kg.

From next weekend on more flights to come.





Re: SF27 M

by Noël Rumers

Posted: **16 Sep 2016, 01:21**

Chris,

no worry though, the wing tip is pointed backwards so...

The same wing has been flown twice with the same CG.

One time on a 1/3 scaled Milan, flew very well and soared very good too, I know I have flown it!

The other one was on a 1/2.5 scaled Milan and that one was flying last year in July at MW.

The big Milan even outsoared me with my SF25 C Falke, and that one soars very well too...
 Both these CGs where as on my glider, the only thing I did was stretching the wing instead of
 being 5 m to 5.67 m span.
 Compufoil gives you the exact spot on CG but too much forward!
 The flight box is 59 mm I am right in the middle of it as always...
 I let you know as soon it has flown.
 BTW I ran out of engineering stuff, however...
 Noël

Re: SF27 M

by **chris williams**

Posted: **16 Sep 2016, 00:52**

Noel, that CG looks too far back to me for a first flight...put some more engineering up front 😊
 😊😊

Good luck with the maiden

Re: SF27 M

by **Noël Rumers**

Posted: **16 Sep 2016, 00:37**

...and the CG wanders only 9 mm forward when the up and go is out...
 I did put the model backwards to see how much the CG was forward.
 Now the stick will be sorted and the safety belts must be installed. I do hope to get them
 tomorrow.

Oh yes, the CG was shown on the one picture with the hinge point. Note the left hand marked
 red area and the right hand red area...
 The left hand area is the mark of the most forward CG position.
 The RH one, is the point for me, marked most backward I want to fly the model.
 Know that I can get it normally 20 mm more to the right or backwards...
 Test flying the model will tell me the real good spot.
 Noël



Re: SF27 M

by **Noël Rumers**

Posted: **16 Sep 2016, 00:16**

...and closing in on the first flight now...
 A few thing have been sorted again.

The wings have their bags, the seat cushion is made new as per real 27, the CG is sorted today too.

A modeler needs to know some sewing too 😊

And yes the lettering...on the wing the old type was used, the fuselage has a new modern design...

See the model assembled in daylight now too.

Noël





Re: SF27 M

by **Noël Rumers**

Posted: **11 Sep 2016, 22:59**

Never rush things forward Gert!

I will know when "ALL" is ready.

The CG must look after first in the next few days.

But soon the first flight will be on, prepare for taking my SF27 up in a tow.

Noël

Re: SF27 Mby **Gert J.**Posted: **11 Sep 2016, 09:19**

Noël,

take it to the field today. I will make the maiden for you 😊😊

Greetings,Gert

Re: SF27 Mby **Barry_Cole**Posted: **09 Sep 2016, 13:34**

Nice Decals...



BC

Re: SF27 Mby **Peter Balcombe**Posted: **09 Sep 2016, 12:56**

Looking very nice Noel.

Let us know how the maiden goes.

Peter

Re: SF27 Mby **Noël Rumers**Posted: **09 Sep 2016, 01:28**

...painting is done now totally!!, Finally, uch...

This is not my most favoured thing to do, but behind me now.

The wing tips have the wheel in now. The batteries are sorted under the instrument cover as well, and easy to get at!

The fuselage got a foam supporting block made for transport and assembly.

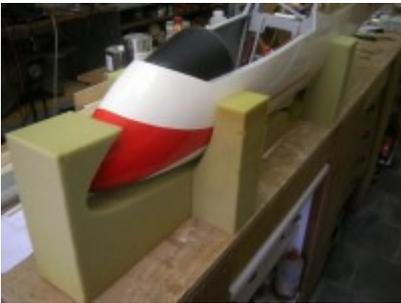
The inner sections have wing covering bags too, I need more bits to make the outer wing bags...

...and then I have done it again...just in time this evening for the SF27 B M " Nocturne ".

The first assembly, painted and almost ready to go!!!

Noël





Re: SF27 M

by Noël Rumers

...alu T profile with alu rivets...and some light ply...

Posted: **07 Sep 2016, 00:54**

Trust me Chris all will be all right...

Noël 😊

Re: SF27 M

by **chris williams**

Posted: **07 Sep 2016, 00:42**

More heavy engineering...! 😊😊😊

Re: SF27 M

by **Noël Rumers**

Posted: **07 Sep 2016, 00:38**

...the LIPO battery will sit on top of the tow hook.

A tray was made to secure it.

The instrument cover was made in black Polystereen.

Vacuum formed with a small vacuum cleaner unit.

A small canopy release kind of lock was made and the aluminum ball was painted red.

In the real SF27 gliders, this is the canopy release hook.

The tow hook has now the second pulling line on too.

This will be installed at the left hand side under the instrument panel.

This way I will be able to pull the hook without the need of switching the transmitter and receiver on, so the small tow line connecting piece will be ready when needed.

Noël





Re: SF27 M

by Noël Rumers

Posted: **07 Sep 2016, 00:23**

...aha, the bits and pieces...

Yep, they take the most of the time!

But nice to look at works better, so flies better...or am I mistaken?

The batteries have to be up front.

I will have 4 packs in, one LIPO two A123s and one 2500 Eneloop pack for the up and go servo motor.

I always want to get easy to them, and that was not easy at all.

Sorted now with the instrument cover installed.

Now the tray has to be cut to fit and installed. A small job for tomorrow.

The inner wings are painted and wing covers are now in the making too.

The outer parts need tomorrow the red wing tips before the tip wheel can be installed.

With all this done the model will near the end of the building process now.

A few bits and piece to decorate the inner fuselage and all ready to go.

The CG... is for later this week too...fingers crossed.

Noël







Re: SF27 M

by Noël Rumers

Posted: **29 Aug 2016, 23:19**

The tip wheels and the winglets are on.
Ready to paint now...all of the outer part of the wing.
I want to have that sorted by the end of this week.

The cover on top of the instrument panel is also under construction to be able to vacuum form this little part.

That is for tomorrow.

Noël





Re: SF27 M
by Noël Rumers
Simon,

Posted: **29 Aug 2016, 08:57**

Yes I did 😊 , it is just a piece of film put on the sheet of black polystyrene that I use for vacuum forming too.

The real stuff is better but I have to look for it first...

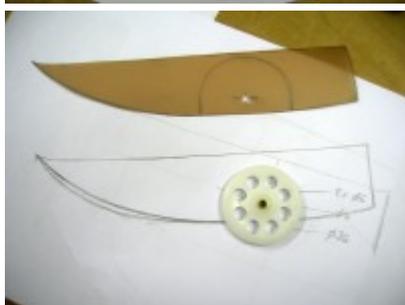
Maybe I would change it later.

Anyway The only thing I have to do is put winglets on the wing tips now.

The real one was changed this way, I was told by Marcel, the owner, that it now behaves better in slow flying.

Playing around with winglets long ago, I know they work...

Noël





Re: SF27 M

by **Simon WS**

Posted: **29 Aug 2016, 06:49**

Lovely work Noel. Aren't you worried about the non scale carbon weave though? (Only kidding!)

Simon

Re: SF27 M

by **Noël Rumers**

Posted: **29 Aug 2016, 00:12**

...and...



Re: SF27 M

by **Noël Rumers**

Posted: **29 Aug 2016, 00:12**

...The instrument panel is almost ready.

I am waiting to receive a picture of the real changed instrument panel of the real plane.

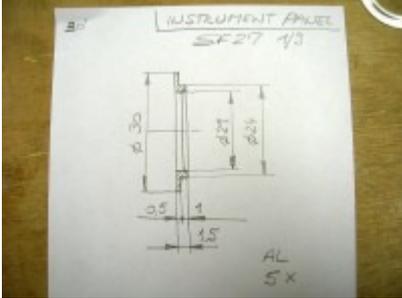
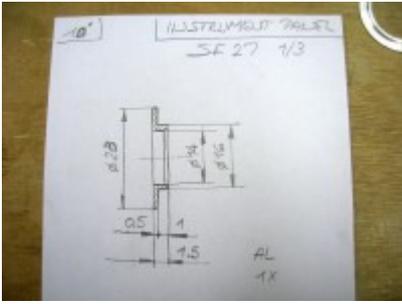
Marcel the owner has helped me already with a few very helpful pictures.

However one can never have enough when building to a good scale factor...

See the progress, the switches as well as the receiver battery control lamps will not to scale on the panel... 🙄

Anyway, I can live with that.

Noël





Re: SF27 M

by Noël Rumers

Posted: 27 Aug 2016, 01:57

Gert,

MNM, no...Classic 21, yes.

All electric wiring were finished today.

The up and go had a test run with doors etc. The throttle was only 1/4 or less up due to papers on the table.

The instrument panel is started to the new info I got from the owner in Germany.

The canopy opening and closing system is changed totally...that will be for some other time though.

The wing is in the process of being painted.

So closing in on the day to test fly my 27...

Noël



**Re: SF27 M**by **Gert J.**Posted: **22 Aug 2016, 08:38**

Hi Noël,

don't you listen to radio MNM ??? 😊 😊 :-p

Nice work!

Gert

Re: SF27 Mby **Noël Rumers**Posted: **22 Aug 2016, 00:47**

...Just wait and see... 😊

Noël

Re: SF27 Mby **chris williams**Posted: **22 Aug 2016, 00:40**

It will never get off the ground with all that engineering on board...! 😊 😊 😊

Re: SF27 Mby **Noël Rumers**Posted: **21 Aug 2016, 23:50**

Hi Chris,

Indeed I like this up and go!!!

Well done Gary!

However with my prop and motor this would not be possible...

I installed the servos and the locking system and made a test run.

Just working fine!!! I am happy with the result.

The doors need now new linkages to open and close them.

Noël

Re: SF27 M

by **chris williams**

Posted: **21 Aug 2016, 16:23**

Noel you might like this...? Gary Bennett's conversion of the 3.5 scale Topaze. The model has flown, he has yet to complete the doo



Re: SF27 M

by **Noël Rumers**

Posted: **21 Aug 2016, 16:03**

Hi,

all holidays are in the past now.

Yes Rossco, I like it too and want to fly it very soon now.

Getting back into the modeling with the up and go...

Due to a bit of play when the motor is sitting into the fuselage, I had planned to put a rubber damping block bellow the arm/motor, at the far end.

This way the arm still could move upwards hitting the doors.

You know as well as I do, what happens with landings on grass fields. All would be shaken like....

After a few nights sleep, I did find something that holds the arm rock solid.

A kind of clamping system, is operated by the servo that opens one of the two doors.

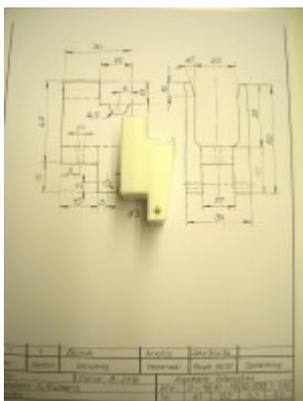
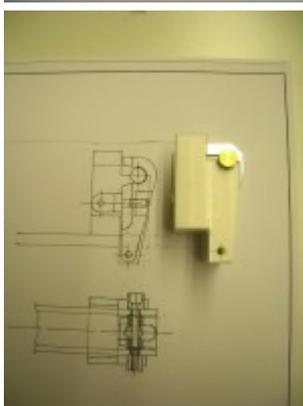
I left a 0.5 mm play for easy locking and unlocking the arm.

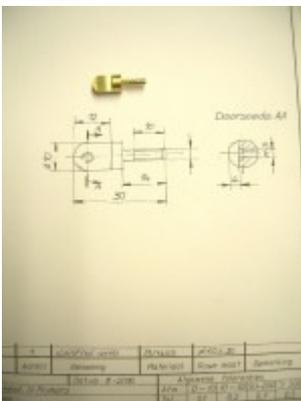
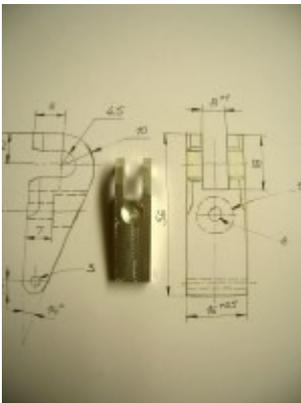
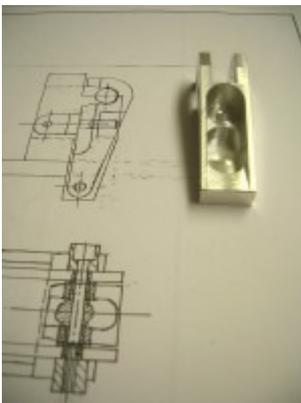
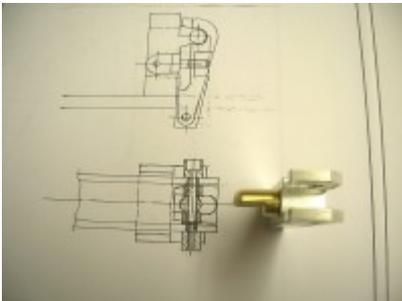
I never found anything how the problem is solved with similar systems...Probably I worry too much...

Building the lot into the fuselage now.

Fingers crossed now...

Noel





Re: SF27 M

by Noël Rumers

Posted: 02 Aug 2016, 01:18

With the holiday behind and the warm, say hot weather behind too, I was able to paint the

fuselage.

Looks nice and needs now the finishing touch...

The instrument panel will be made and the wings painted...

Noël





Re: SF27 M

by Noël Rumers

Posted: **02 Jul 2016, 17:34**

...well the fuselage is covered and ready for painting now.

I used for the first time Profi Cover from Tony Clarck. This comes in 1.2 m wide rolls.

To cover the fuselage a piece of 1.4 x .6 m was cut. I did start at the top of the fuselage.

The epoxy parts, the turtle back was covered 12 mm and the nose cone was covered 20 mm and on the wood only 8 mm.

The Profi cover, I was told by one of the co-workers from TC, that it would stick firmly to the epoxy parts. I did a test, and indeed the glue stayed on, the fabric was ripped off. It works easier than Solar Tex to put it on.

The seat cushion is made as well as the heat rest.

The wings are covered and ready to paint too.

All has to wait now till...after our holiday...

Noël





Re: SF27 M

by **Noël Rumers**

Posted: **29 Jun 2016, 11:37**

With the wing tip wheel finished the ailerons had to be cut out, boxed.

The tip is very strong and it would not be possible to twist it.

With the cut outs...the moving part of the aileron this is very flexible, after cutting them out.

Boxing them stop that very well.

Due to the flexibility, I made foam supports to glue the back strip on, so the wash out would be perfect.

This means the TE on both sides match perfect with the rest of the wing TE.

More later,

Noël





Re: SF27 M

by Noël Rumers

Posted: 26 Jun 2016, 02:33

...also the first paint work has been done...

The main wheel has two ball bearings in the Fema hub now. The roll resistance will be far less this way.

The rear wheel has a proper shaft and distance rings too.

The rudder has been finished and the wing tip has got its small outrigger wheel...

Noël





Re: SF27 M

by Noël Rumers

Posted: 26 Jun 2016, 02:25

Hi Gert, all will be ok in due time now...

I had to take some action towards the construction...

Looking back to the first post about the mid fuselage first dry fit...and the reaction...I did cut out the wrong bits, it seemed...

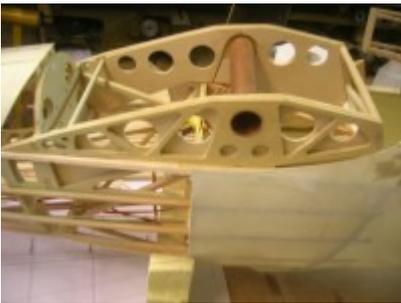
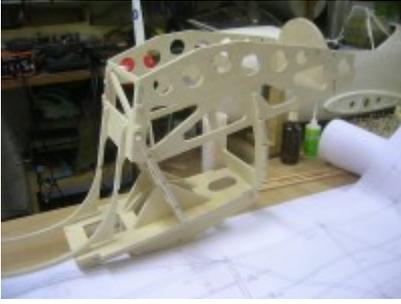
Twisting the fuselage like it was now, and I noticed this some time ago, behind the wing all was very movable when I twisted, left to right.

All has to do with the cutouts around the wing joiner and the engine bay.

So, what was cut out went back in and or I glued in a few new parts.

Now with all set, the fuselage is what I would call stable. That is why I will alter the drawing accordingly to have a more easy and stable construction.

Noël





Re: SF27 M

by **Gert J.**

Posted: **25 Jun 2016, 20:57**



Re: SF27 M

by **Noël Rumers**

Posted: **23 Jun 2016, 01:12**

After fitting the hinges and the control arm the wiring was done to control all.

From battery to the Merbold controller, to the servos and switches.

The up and go was mounted outside the fuselage onto a test stand.

All was connected and the doors were trimmed too for a perfect closing and equal opening. The door with the small hatch opens first and then the other, the motor runs high, the last door to open, closes first with a sec later the other. The 3 pos. switch operates first the tow hook(mid pos.) the next outer position is the doors and the motor out.

All looks OK now.

With the fuselage sorted, this can be covered and painted!

Noël





Re: SF27 M

by Noël Rumers

Posted: 21 Jun 2016, 10:52

The doors are fitted as well as the small hatch that will be open when the motor is out.

Now looking for the right spot on the ESC versus the receiver...

I have a distance of about 270 mm or 10.6" with the antennas at one side to the fuselage and

pointing away from the ESC, and the battery leads to the other side running all the way to the batteries up front.

On 2.4 is this a problem?

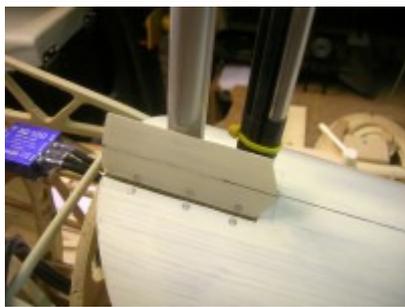
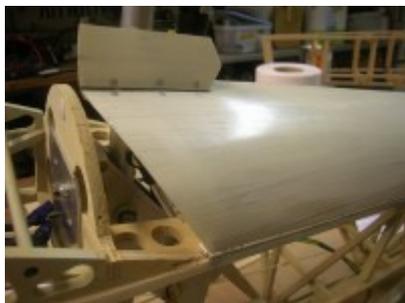
Any help or advise would be very welcome!!!

I will shorten the height of the up and go by 25 mm so I will have 20 mm or 3/4" from the prop tip to the wing cover.

The motor will be run with a 6S or 8S bat.

I was restricted to that motor due to the 6 mm shaft for the special prop...

Noël





Re: SF27 M

by Noël Rumers

Posted: **20 Jun 2016, 17:47**

The up and go is again in the fuselage.

To be able to do this the door opening was cut out totally.

With that done, work to make the doors more stable could start.

Having the mould it was easy, but next time I would do the reinforcing when the turtle back is made.

Easy to do it like I figured it out now...

Instead of vacuum forming the lot I when the way as shown in the pictures, using foam block glued to a 6 mm ply sheet.

All was pressed down over the inlays.

These inlay was two pieces of Honeycomb, and two layers of 40 gr/dm² glass fiber with epoxy. I used a plastic sheet to soak the glass fiber onto, before I turned the sheet over into the mould. Due to the 3 mm thickness of the honeycomb I had to angle the edges a bit. I mixed quite a bit micro balls with the epoxy to thicken it. With a syringe I squeezed it into place around the edges of the Honeycomb and a few spots to hold it down. This way all was pressed till almost set, than the plastic sheet was removed and the two wooden sticks went in, again with thickened epoxy. These sticks went in to take the other half of the alu piano hinge. I like these hinge, light and easy to install.

Noël







Re: SF27 M

by Noël Rumers

Posted: 18 Jun 2016, 13:55

...the elevator is also secured now with small rubber bands and two small hooks screwed into the rood ribs, just in front of the 5 mm steel rod. Works fine and easy to do.

The trim tab has be fixed with a small strip of 1 mm aluminum. This way it will not be controlled by a servo. for easy working.

The fact is also, I am not sure yet where the elevator level position will be at this moment. I can only sort this out, after flying the model. From there on a fixed point could pointed out be attached to the rear turtle back cover so the trim could work together with the all moving elevator. I know from my K13 that I could control the up or down flying by only controlling the trim tab. So, not sure what I will do...

More later,

Noël





Re: SF27 M

by Noël Rumers

Posted: **18 Jun 2016, 13:40**

Hi guys,

with the canopy installed the canopy window was to be cut out. The window was just on the knob to open the canopy. That works fine now.

With the window installed, the cover between the turtle back, canopy and both the wings was at hand. This was not too difficult in the end.

The final assembly looks very good now too. All is almost ready for covering and painting.

The ailerons still must be cut out, but I kept this work for the last.

Noël







Re: SF27 M

by Noël Rumers

Posted: 15 Jun 2016, 10:52

Work has finished on the canopy hinge and locking system now.

Normally the canopy is to hook into to small holes at the bottom of the rear edge of the fuselage canopy opening.

Up front the red knob can be pulled to open the canopy. That way the canopy is taken away from the fuselage to put it to either side to allow the pilot to get in or out of the fuselage.

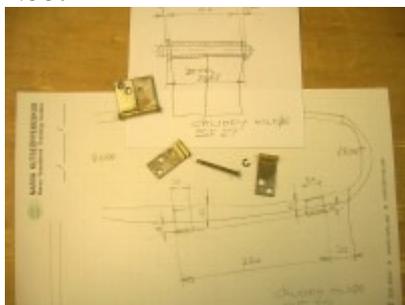
A few owners altered the canopy with a hinge system, and that was what I wanted to do too. I did go for a locking system like on my K16 and later the K14, worked very well!

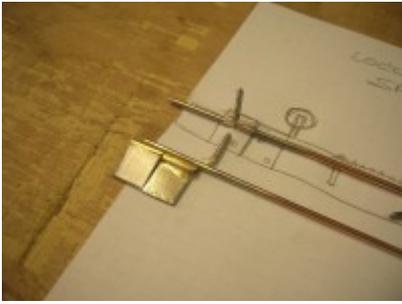
I know now also why the hinge system was not that obvious. I had to place the hinges way up front to allow the rear of the canopy to run free just in front of the LE of the wing...But it worked out perfect!

One thing is for sure, all the fitting, adjusting, fitting and adjusting again, and again, takes quite some time, making the parts is the easy bit...

The glider sliding window, one I did buy, will now be installed as well as a small knob that must be to be able to open and close the canopy properly. The window will be just on top of the knob.

Noël







Re: SF27 M

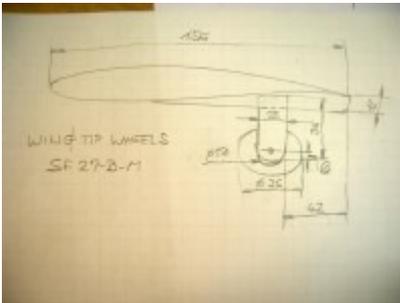
by Noël Rumers

Posted: 12 Jun 2016, 14:59

The outer wing tips are prepared to have a tip wheel installed. I did cover all with a layer of glass fiber and epoxy to secure all around the tip.

The wheel is for later.

Noël



Re: SF27 M

by **Noël Rumers**

Posted: **12 Jun 2016, 14:54**

..Yes the turtle back was what is should!

I made a kind of Gell coat to make sure no air bubbles would be on the cover. This is done with a drop of white Polyester paint, some Aerosil and epoxy. Mixed with Aerosil so it is not to running. Have that to set till still a bit sticky, to lay the epoxy with glass fiber into the mould. The outside must be painted afterwards, so the not so nice look...

I colored the mould black the same way. So the white is also in to see that you cover all of the surface and see air bubbles easy...If I don't use this method...air bubbles all the way and these are hard to fill afterwards...how do I know?

Yesterday out of the mould and fitted to the fuselage.

I first cut off the central wing cover, than with Tec 7, I did glue the turtle back onto the rear fuselage.

Before I did this the elevator control was screwed to the tail part and the cutouts in the cover were made.

With the rudder in place it was easy to adjust the cover to set.

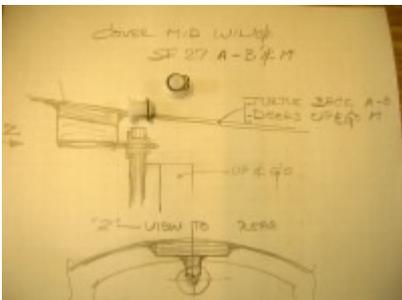
The central wing cover...how to get this fixed...

... with a small drawing made, I decided to go this way...see the drawing.

I drilled a hole in the former where the up and go will be screwed to. The Acetal or Pom turnable plastic part went in and secured it with a Seeger ring. The hook will easy glide into this hole.

The front part of the cover is in the process of design now...

Noël







Re: SF27 M

by Noël Rumers

Posted: 10 Jun 2016, 00:46

Finally the turtle back is ready to be made to fit the fuselage.

This means the mould is made and prepared to make the first turtle back cover out.

If the cover will fit as good as the mould does, I will be very happy too.

All to be able to make the mould is again taken of the fuselage.

Ready to take the real turtle back cover on.

Noël







Re: SF27 M

by Noël Rumers

Posted: 31 May 2016, 14:22

Both wings are fully sheeted now.

In the outer part the ailerons must be cut out now.

I did put it together once more and the model SF27 B M looks very impressive with its 5.67 m span!

The center cover over both wings is the next part to make. the next thing will be both moulds, the centre cover and the turtle back up to the rudder. Here doors will be reinforced because I need them for the up and go system.

The locking system on Both wings are fully sheeted now.

In the outer part the ailerons must be cut out now.

I did put it together once more and the model SF27 B M looks very impressive with its 5.67 m span!

The center cover over both wings is the next part to make. the next thing will be both moulds, the centre cover and the turtle back up to the rudder. Here doors will be reinforced because I need them for the up and go system.

The locking system on mid wing, to connect both the inner and outer part of the wing, is working very well too and I made a special pin/knob to undo the two wing parts easy.

The airbrakes are covered now too. I made a 100% ready to fit cutout in the sheeting before glueing this onto the ribs. This cut-out strip was shortened and the width was reduced by 2 mm to fit the gap on top of the alu airbrake. To glue this strip on I used Tec7. Due to the big nozzle that is on these tubes, like the silicon once, I used a syringe filled with the glue, to put a 2 mm wide glue line on top of the aluminum brake. I tried to do in the middle so no glue was squeezed out to one side glueing all together...you don't want that to happen. With steel blocks I pushed the strip down to be level with the top wing sheeting. Checked that the strip was in the middle and let all harden out to the next day.

Tests are in the process how to do the covering and painting now.

Noël mid wing, to connect both the inner and outer part of the wing, is working very well too and I made a special pin/knob to undo the two wing parts easy.

Tests are in the process how to do the covering and painting now.

Noël







Re: SF27 M

by Noël Rumers

Posted: **26 May 2016, 01:41**

The outer wing parts are now ready for sheeting the bottom part.

A block of scrap balsa was glued in for the aileron control arm.

More work was done to the back of the fuselage as well.

Filling and grinding the turtle back takes a while but it pays off!

Noël







Re: SF27 M

by Noël Rumers

Posted: **24 May 2016, 02:27**

...with the LE on and grinded to the right contour, the inner wing is ready to cover now.

The servos for the ailerons are build in the outer wing.

I always cover the top of the wing first.

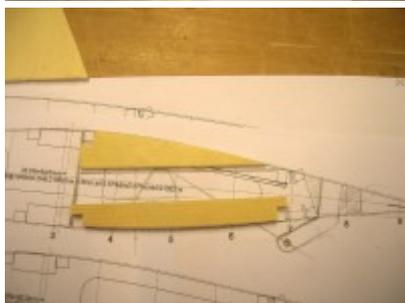
To mark the aileron I drill 1 mm holes from the bottom up so I can cut the aileron later out just where I should have the cut...

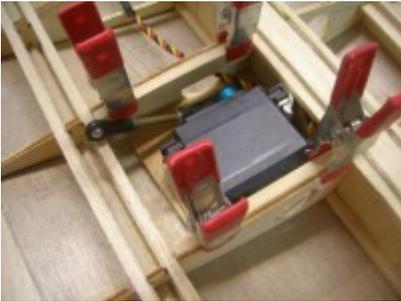
1 mm clearance to cover the bottom without hitting the servo...HS 5625MG should do the trick.

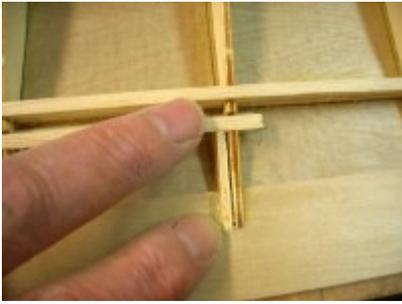
I glued small triangles in to support the servo tray. I shaped level with the bottom of the wing ribs, a 5 mm piece of hard wood, to screw the servo cover onto and glued them in place.

Ready to cover the bottom part too now.

Noël







Re: SF27 M

by Noël Rumers

Posted: 23 May 2016, 12:48

The LE of the wing is now about to be finished.

With the center wing so far ready, the turtle back of the fuselage was first on the list.

I designed and made some additional formers on the top where in the end only 3 will stay.

This was only done to have enough support for the ply cover.

The far end up to the rudder was a bit special. Here a balsa block was used to make a nice fit.

This fit starts at the L.E. of the elevator in normal position.

All is almost ready to make a mould of it. A lightweight epoxy/glass fiber construction can be made that will be glued on.

This way, the option, with or without the up and go, say doors, can be chosen. These will be stiffened accordingly to make them stable when opening and closing and keeping the good shape.

That is for later on. Fingers crossed that the wetness will give way to the most liked dryness this afternoon... 😊

Need space to make the wing centre cover...

Noël

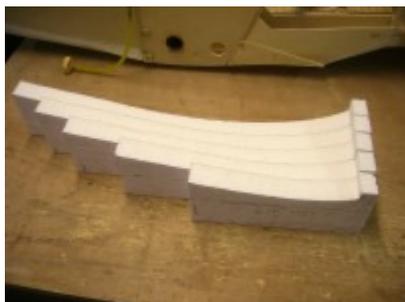




Re: SF27 M

by Noël Rumers

Posted: 21 May 2016, 16:18



...the bottom of the centre section of the wings are sheeted now too.
Templates are made to put the wing on. With one side covered you still can twist the wing

around.

One needs the good setting to have the wash out 100%.

The T.E. was supported by a 10 mm thick balsa strip.

The LE is glued on now and ready for shaping.

The covering of the rear of the fuselage is in the making now as well as the cover over the two wings at the root of the wing, between the back of the canopy and the turtle back.

More to come...

Noël

Re: SF27 M

by Noël Rumers

Posted: 08 May 2016, 00:18

...the outer wing was also sheeted on the top.

But before this was done, I added two pieces of 6 mm ply to the tip rib.

The mid T.E. ply was too long so a slot was made in the two extra ribs to be positioned to this ply.

These two extra ribs allow me later to add a tip wheel to start off the ground with the up and go more easy.

Some real SF27 gliders with an engine have these wheels as well.

Now the servo must build in first before the bottom sheeting can be glued on.

Noël





Re: SF27 M

by Noël Rumers

Posted: 08 May 2016, 00:10

Hi,

the wings are now taken on.

Both the inner and outer sections are covered on the top.

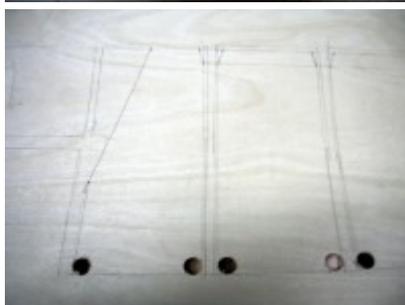
I need the wing inner second to be able to finish the parts like the canopy with the hinges, the Cover between both LH and RH wing as well as the doors for the up and go up to the rudder.

I cut out the sheeting as per real drawing. The slot for the airbrakes are also cut out. Had to be done very carefully. I used baking paper between the sheeting and the ribs to position this slot perfectly. To cut out the not sheeted parts I drilled 1 mm holes in the corners. This way you feel the Knife in the corner to prevent cutting too far. At the T.E. 10mm holes are drilled with a normal wood drill.

All worked out fine!!!

Noël





Re: SF27 M

by Noël Rumers

Posted: **30 Apr 2016, 00:35**

The airbrakes are in and the electricity too...

To connect both upper and bottom airbrake, I used the Simprop dual rate and reverse module. Also the setting for both opening the same amount can be set with a small screw on the back of the module.

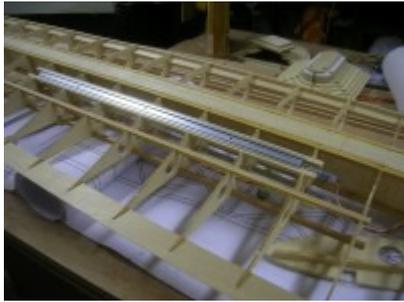
It saves also two channels on the receiver and transmitter. Could be done by a Y- lead but never sure both are opening and closing/locking the same way...

All servo leads are fixed and the sheeting being 0.6 mm ply is cut and marked, so I know where

to put the glue.

Again, warmer weather would help me here too. Need a bit more room for this job.

Noël



Re: SF27 M

by Noël Rumers

Posted: 14 Apr 2016, 11:01

This mortal started working on the SF27 again too.

Need to prepare the wing for sheeting now.

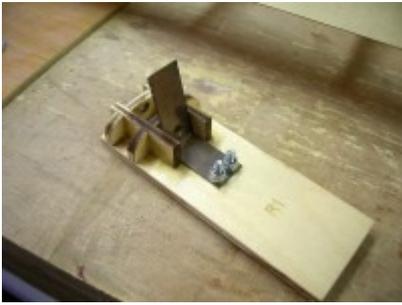
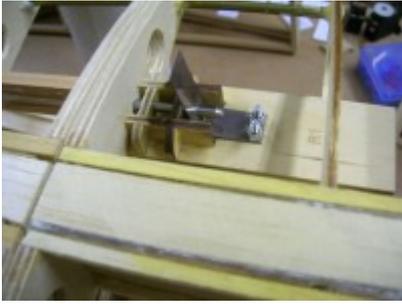
The high wing with a cover at the center will allow a elastic band as a retainer at the root of the wing a simple hook was installed.

Due to the fact, we decided to split the wing there was a need for a retainer system.

We have chosen this one, see the pictures.

Also both incidence pins are in place too.
The airbrakes and servos will be for today.

Noël





Re: SF27 M

by **Noël Rumers**

Posted: **27 Mar 2016, 01:21**

Hi Robbie...mortals hey... 😊

I was able to build them with these hands... 😊

I will post all info on the prop now separately.

Noël



Re: SF27 M

by **roo Hawkins**

Posted: **21 Mar 2016, 09:37**

Yes please post . thanks ROO 😊😊😊

Re: SF27 M

by **Tom Pack**

Posted: **21 Mar 2016, 04:21**

Yes.....please do post pictures of your prop build.

Re: SF27 Mby **RobbieB**Posted: **20 Mar 2016, 23:50**

Noel,

Your stuff is of great interest to us mortals here on the forum - please do post regarding your construction methods.

Re: SF27 Mby **Noël Rumers**Posted: **20 Mar 2016, 23:38**

Hi Simon, yes I have a few bits and pieces to build a few things.

To do the feathering prop you don't need special tools though...

And the umlaut...I have the same problem on the tablet, no worry 😊

Roo, all is not that heavy in a way it couldn't be compensated, I think.

On the Windex it is not that far behind the CG...

The prop size is 17 x 9" and when fitted almost 18 " dia so a bit bigger than a folding prop. The spinner has a +/- 80 mm dia.

That brings me to you Chris. You can't benefit from both worlds here, it is either folding or feathering, not both...

My thinking however...cutting the air in two with the feathered prop, will give you less drag on the rest of the model flying through that cut air, not?

Nonono, joking here... 😊

Roo, the spinner is a full aluminum one, when you would go for an epoxy one this would help to make things less heavy, see the picture.

The wall thickness is less than 1 mm on the spinner cone, the back plate is the heavy part here with the steel screws of M 2.5.

Q: would it be to your interest to post all pictures how I made the parts etc, in order to get to the assembly?

If so I will post all pictures with my drawing/sketches...in a separate thread.

Noël





Re: SF27 M

by **chris williams**

Posted: **20 Mar 2016, 13:12**

Simultaneous feathering & folding...now, that's taking drag *seriously*...! 😊

Re: SF27 M

by **roo Hawkins**

Posted: **20 Mar 2016, 10:28**

Hi Noel I love the feathering props. One of those would look great on my windex if it wasn't for the weight in the tail. Great work . ROO 😊😊

Re: SF27 M

by **Simon WS**

Posted: **20 Mar 2016, 10:14**

Fabulous - that must be some workshop you've got there Noel! (Sorry I don't seem to be able to get an umlaut on my tablet!)

Simon

Re: SF27 M

by **Noël Rumers**

Posted: **20 Mar 2016, 00:11**

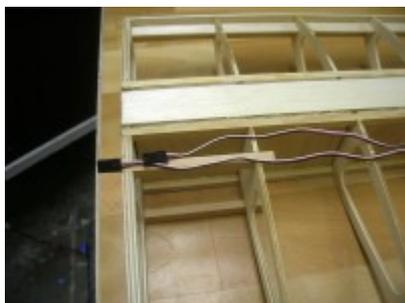
Hi, back again after a few parts made...

Checking on the airbrakes now so the wings can be sheeted.

Noël







Re: SF27 M

by Noël Rumers

Posted: 17 Feb 2016, 01:33

...and a few more...

The sticks are working with two servos as well.

Hands made by 3D printing.

Noël





Re: SF27 M

by Noël Rumers

Posted: 17 Feb 2016, 01:29

...my friend Jan came by today.

He had his 1/2 scaled Ka 4 with him again.

A lot of progress was made to last time.

See a few pictures...

He made the canopy closing and opening hook very well hidden.

See the details...

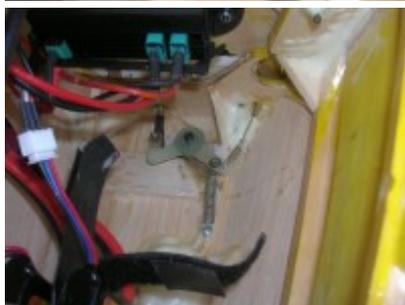
He added a small cable pull hook just behind the wheel.

The canopy can also be opened by pushing the cable through the side window.

...he had forgotten the rudder though...

The next will be the wings. More to come later on this build.

Noël





Re: SF27 M

by Noël Rumers

Posted: 17 Feb 2016, 01:15

Hi Walter and Gert,

Walter, I have no problem with the canopy...I made already two good ones. These will be used to glue on the frame.

I have my own vacuum machine... 😊

See the picture of the first rough fit. The frame needs some more grinding, hinges and more. All is on a hold due to another job...Hope to get on it by next week.

Gert, 😊 good try!!! ...but... I would need a hand to hold the wing level for the first flight...

That way you can have also a feel of the model 😊

However it still will be a while before that moment...

Noël





Re: SF27 M

by **Gert J.**

Posted: **15 Feb 2016, 22:07**

Noël,

if you want I will do the first flight! 😊

Gert

Re: SF27 M

by **Noël Rumers**

Posted: **10 Feb 2016, 18:34**

...



Re: SF27 M

by **Noël Rumers**

Posted: **10 Feb 2016, 18:31**

Hi Simon,

the glue on the parts that fit together like done on a laser cut kit, slots etc, there I used wood

glue.

To build up the fuselage to the rear with the 6 X 6 mm sticks, I used 5 min epoxy with micro balls and aerosil. The last stuff is to stop the epoxy to run away, what it would do if just mixed. Later on when all was set and cured, the toooooo much of the epoxy etc was milled away with the Dremel tool.

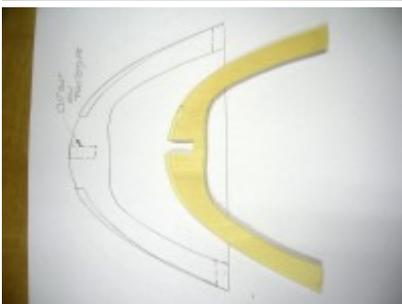
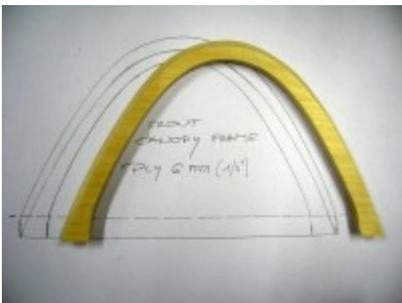
The canopy was taken care of and fitted also the elliptical front edge on the fixed hull.

The frame fits and needs a bit adjustment I believe when the good canopy will be shaped and glued on.

Now I have a 0.5 mm one to play with and it looks OK to me. The 1 mm one is ready but will be put on later.

Till later,
Noël





Re: SF27 M

by Noël Rumers

... no need for that finger to fly a model... 😊

Posted: 05 Feb 2016, 14:49

W'll see...
Noël

Re: SF27 M

by **chris williams**

Posted: **05 Feb 2016, 12:55**

Spike is all talk, nobody has ever seen him fly anything....

I have...! I have...!



Re: SF27 M

by **spike spencer**

Posted: **05 Feb 2016, 12:35**

No. I just build slightly slower than Barry 😊

Re: SF27 M

by **Barry_Cole**

Posted: **05 Feb 2016, 11:59**

Noel,

Spike is all talk, nobody has ever seen him fly anything....



BC

Re: SF27 M

by **spike spencer**

Posted: **05 Feb 2016, 11:44**



Kind offer Noël. Just to see a graceful model like that will make an old man very happy ! I look forward to seeing it at MW someday.

(I must finish my vintage tug refurb sometime soon 😞 !)

Re: SF27 Mby **Noël Rumers**Posted: **05 Feb 2016, 10:54**

Hi John,
Tec 7 is a glue as thick as silicon but not that elastic.
It is when dry or cured much harder.
It feels like a good hard rubber like substance.
You can buy this in most colors like silicon.
However I have no good experiences with the clear version though...

You can find it in the UK too.
Google it and try it one day.
Just too late, but yes that is the one.
I used it also to seal off the edge of the bad and shower.
Silicon, when being cleaned will give way on the edges, in a way so fungus/mildew (the black one) gets underneath after a while.
TEC 7 is much more firm on the edges and stands much longer...how do I know??? 😊
You have also other products now...

Spike, when the model Milan is finished you can have a go with it at MW e.g.!
There will be no better judge to tell me about the flying characteristics 😊

Till later,
Noël

Re: SF27 Mby **john greenfield**Posted: **05 Feb 2016, 10:34**

Hi Noel

What is TEC 7 ? I guess some kind of glue but it is not something I have heard of before.

AEB

Re: SF27 Mby **spike spencer**Posted: **04 Feb 2016, 12:44**

["the Milan is not far away and will be next soon..."](#)

With many happy hours in the SFS31, I'm looking forward to that one.

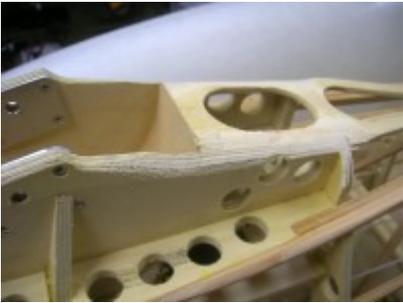
Painstaking engineering. Thanks Noël for an excellent series of informative photos.

Re: SF27 Mby **Noël Rumers**Posted: **04 Feb 2016, 11:52**

Thanks Peter, the Milan is not far away and will be next soon...

...to fit the hull some grinding was done to make it a perfect fit.
This was the thinking behind the design.
And TEC 7 is a perfect way to glue the hull onto the frame.
Strong, can be cut when dry, milled/grinded with the Dremel (if needed), and what is more painted without any problem.

Noël



Re: SF27 M

by **Peter Balcombe**

Posted: **04 Feb 2016, 11:50**

Noel,

Coming on very nicely with beautiful engineering as usual. 😊

Re: SF27 M

by **Noël Rumers**

Posted: **04 Feb 2016, 11:44**

...rudder and hull...

Noël





Re: SF27 M

by Noël Rumers

Posted: 04 Feb 2016, 11:38

...the controls for rudder and elevator.

The elevator has a spring loaded balance build in to lift the weight of the servo.

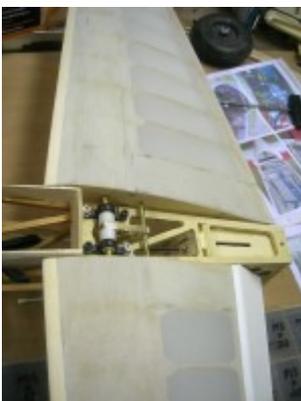
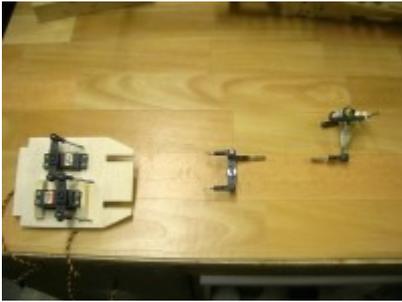
Like in the real SF27 to help the pilot...

With both elevator halves in place, the hang a bit down at the T.E.

Worked well on the K14 this way, but there weights are used.

No play on the pull lines at all.

Noël





Re: SF27 M

by Noël Rumers

Posted: **04 Feb 2016, 11:29**

Hi Walter and Spike,

...Spike, that is why I keep my feet on the ground...looking up and dream flying it 😊

Walter, thank you for all the info you send over!!!

And yes a lot has happened since last update, but in a different order... Whith the hull glued on I would have made live more difficult.

Decided to install the servos first with the elevator and rudder controls. The tow hook has its servo too now and tested to pull under all possible circumstances. 7 kg servo...does the job perfect, even half way the line pulls out due to the mechanical build up. The hook is still closed but allows to pull open due to a not fixed connection with the servo. The rudder is now fixed and removable too, and last but not least the nose was glued on last night...

See the pictures, Noël





Re: SF27 M

by **spike spencer**

Posted: **02 Feb 2016, 14:50**

Obelix ??

"The launch is voluntary landing optional"

Are you sure about that Aphorism; is there an acceptable alternative to an 'optional' landing, or are you still there ? 😊

Consider the other view:

"Whatever your experience level, it is better to be down here wishing you were up there than to be up there wishing you were down here." 😊

Re: SF27 M

by **Noël Rumers**

Posted: **01 Feb 2016, 14:05**

Hi Walter,

It would have made my live more easy if I would have know of your build!!!

Fantastic job you did there!

I would be pleased indeed with all info that can help finish my SF27 want I am about to do.

See the PM that I send you...

Thanks for your email!!

Noël

Re: SF27 M

by **Noël Rumers**

Posted: **29 Jan 2016, 11:35**

Thanks Chris and Tom,

never sure that I was on the right track to inform you...

Some like text, I like pictures; they tell me more...

Going to work again now...need the nose on to be able to make the canopy frame.

Later the wings need to be finished, specially the centre part.

The turtle back too, so I can do the cover fitting the 4 parts: the canopy, both the wings and

doors, for the up and go or the closed turtle back or top of the rear fuselage to make the pure glider the SF27 A or B.

Till later,

Noël

Re: SF27 M

by **Tom Pack**

Posted: **29 Jan 2016, 02:20**

Exactly! Super job....can't wait to see it fly!

Re: SF27 M

by **chris williams**

Posted: **29 Jan 2016, 00:56**

Nice work, Noël...a pleasure to watch

Re: SF27 M

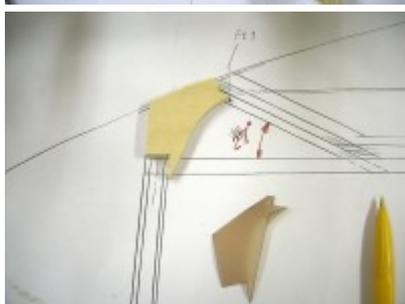
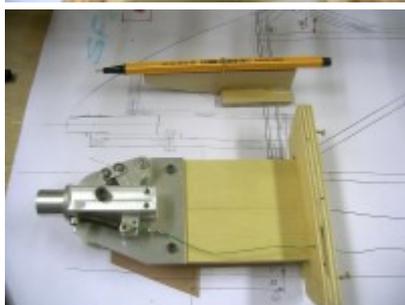
by **Noël Rumers**

Posted: **29 Jan 2016, 00:11**

...a few more...

Even the seat pan was made at the same time as the hull. I kept this process simple, foam block cut by band saw, brown packing tape, epoxy doesn't stick to it at all, glass fiber and epoxy over the shape and set to cure. The next day cut to shape... A few small screws will hold it in place later on.

See the result too. Noël



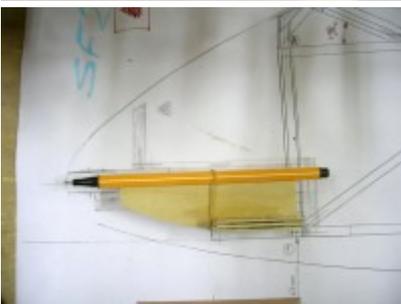


Re: SF27 M

by Noël Rumers

Posted: 29 Jan 2016, 00:03

And more...





Re: SF27 M

by Noël Rumers

Posted: 29 Jan 2016, 00:00

...well Barry, a lot has happened since I was able to get the plug out, even in one piece!!! Know that a lot of tears ran to the sea in the end but also a double rainbow cleared the skies in the south east... 😊 The first real nose hull is a fact too. I knew I had to sand edges off here and there, and with these out of the way all is like I imagined all to fit. At this point the tow hook will be put there where the air vent is with I think the Pitot tube right at the point of the nose. This will make it for us modelers a better spot, my thinking... The tow hook is normally on the real just in front of the wheel. I believe this would be a bit tricky to get off behind a tug... I believe this tow hook is called the CG tow hook.

See the pictures Noël





Re: SF27 M

by **Barry_Cole**

Posted: **22 Jan 2016, 10:33**

Saturday will be the big moment to get the plug out of the mould.

So Noel, If the air turns blue over Belgium on Saturday, we will know that it did not work out well.

I will keep a lookout to the south east over the weekend. Good Luck.

BC

Re: SF27 Mby **Peter Balcombe**Posted: **22 Jan 2016, 09:44**

That looks to be going very well so far Noel.

Good luck with the first attempt at getting your mounded item out in due course.

Perhaps if I ever get around to building the Ogar, I will try making a mounded fuselage.

Re: SF27 Mby **Noël Rumers**Posted: **22 Jan 2016, 01:36**

...and here the epoxy work...

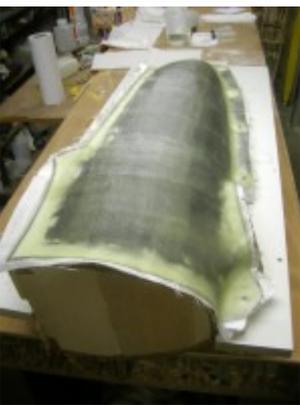
All was waxed to remove the mould easy later on.

First an epoxy gel coat (homemade) was applied to the plug, letting it set in a way it was still sticky but not wed. The glass fiber was put on after the edges were filed with epoxy/micro balls mixture and after the first half was taken of the board with care, not to loosen the plug, the edges were cut.

The sealer was removed and waxed again the new edge. The process was repeated, now to wait more curing...

Noël







Re: SF27 M

by Noël Rumers

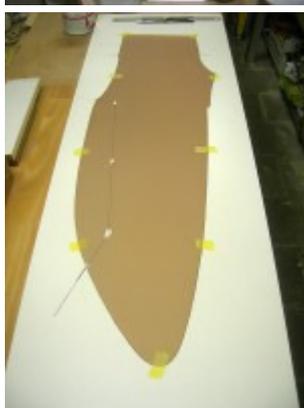
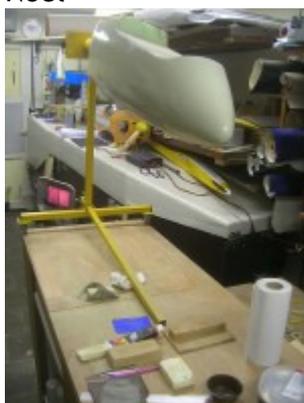
Posted: 22 Jan 2016, 01:33

The most difficult part is behind now...

The nose cone mould is curing now.

Saturday will be the big moment to get the plug out of the mould.

Noël





Re: SF27 M

by Noël Rumers

Posted: 12 Jan 2016, 22:18

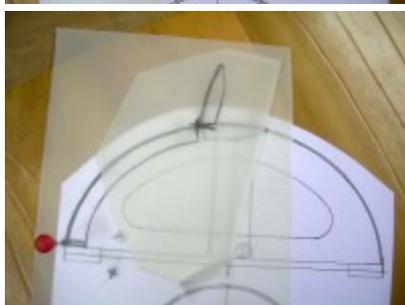
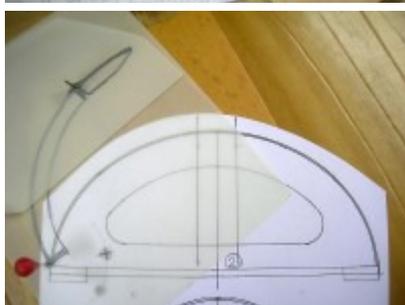
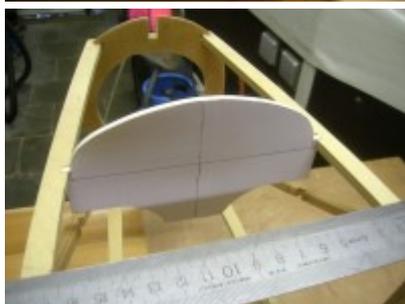
Hi,

All the best you can wish for in 2016!!!

Back to modeling at last. I have decided to go on the SF27 first now, the Milan will not be far

though...Working on the nose cone now, I hate that job...filling, grinding, filling, grinding again...The result will be easy I hope...but still a long way to go.The turtle back, being with or without the doors for the up and go and the rest of the fuselage top up to the rudder, is in the process as well.The elevator and rudder is covered too.

Noël





Re: SF27 M

by **Peter Balcombe**

It looks great Noel. Very nice craftsmanship.

Posted: **28 Sep 2015, 23:15**

Re: SF27 M

by **Noël Rumers**

a few more...

Posted: **28 Sep 2015, 22:50**





Re: SF27 M

by Noël Rumers

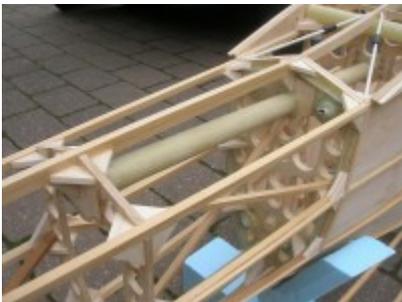
Posted: 28 Sep 2015, 22:48

Something on the move...

My friend came by to have the nose cone made by vacuum pulling in Vivak. That way he will make an epoxy nose to finish the front part. He also had the fuselage with him. Here a few pictures...Planning to finish this Ka 4 or Rhönlerche by next year. The drawing was a German FMT one that is enlarged to a 1/2.4 scale. Due to transport the fuselage was build up in two parts. That way with the vacuum machine out the canopy of the SF27 was made too. Now waiting for the Milan to be finished.

Noël





Re: SF27 M

by Noël Rumers

Posted: **15 Sep 2015, 00:43**

Hi,

Not much changed on the SF27 build...and this will be so for the time being.

However, the SF27 was a kind of double project with the SFS 31 Milan.

That is why I now focus on this one for a while till the fuselage is ready.

For this building thread see the motor gliders section.

Noël

Re: SF27 M

by Noël Rumers

Posted: **31 May 2015, 00:51**

Hi Rossco and all,

Roscco, this will be a big tug for a big glider!

Sorry for the delay on this build...does happen though...

Still one more thing to do before all is crossed from my list of the to do things.

However the SF27 wings got the second spar, so now top and bottom are ready for the sheeting.

The canopy plug is waiting to be finished with a soft grinding with a 600 grid paper and some water.

The fuselage plug needs now to be finished too.

Finally!!!

Noël



Re: SF27 M

by Noël Rumers

Posted: 10 Apr 2015, 23:34

...by the way, we can't do a few thing at the same time...I told you, but a little in between job with 1/3.8 scale and 3.21 m span with G38 and Fema starter was one of the things to prove that I could almost do 2 things at the same time. 😊

2.5 months work went into this one from start to finish or from the drawing to the finished model...







Wings, elevator and rudder of the SGS 1-26 to make it the SGS 1-30 motor glider alike plane.
Cowl from Tony Clark his J3 Cub, canopy of the 1/3 scaled K14, epoxy landing gear.
The rest was the usual, ply, sticks, etc...

Noël

Re: SF27 M

by Noël Rumers

Posted: **10 Apr 2015, 23:12**

...after all this time, here we are back to where we should be...

The SF27 B M in my case...





The weather was excellent to put it together for the first time.
5.67 m span almost ready to go...
Now the model will be build to a flying model in the end.

more soon,
Noël

Re: SF27 M

by **Noël Rumers**

Posted: **03 Apr 2015, 13:17**

Vince,

It's a nice one, no problem!!!

For those followers they know your face and never forget it, you are to be remembered for all the good work you did and still will do for us modelers!!!!

Will be doing the buzzard first now and then this build will move to the finish, fast!!!

Noël

Re: SF27 M

by **march**

Posted: **03 Apr 2015, 09:37**

Quite a lovely model, Vince, that surely has goodflying g characteristics, will you add a motor?

Re: SF27 M

by **VinceC**

Posted: **31 Mar 2015, 11:21**

Hi Noël - You can now finally stamp your name on it!!

Sorry about my face spoiling your posts, but that is not removable, Glad to have helped.

Re: SF27 M

by **Noël Rumers**

Posted: **31 Mar 2015, 09:38**

Hi Vince,

Thanks for the help!!!

Noël

Re: SF27 M

by VinceC

Posted: 30 Mar 2015, 10:49

The wing of the SF27 have spars on one side in now and are ready grinded for sheeting, but first the other side needs the spar.

More milling and turning going on too.

So, trying a few things at the time...failed on me, can do only one at the time Undecided ..and more...

The other side will be the same soon.

The top of the roving is covered with a 3 mm balsa strip, pressed in wet in wet. This way the top can be shaped to the rip surface later the sheeting goes on there.

Oh yes, not worry about the wing wrapping yet...just need a drawing to put the ribs at the right distances, see where the sub spars have to come etc...this is the good thing about this building method!





Re: SF27 M

by **VinceC**

Posted: **30 Mar 2015, 10:47**

...a lot has been done again, but less than I had hoped for...

Retired and very busy...

The Tail wheel has been send, the wing has got it's gutter now ready to put the R- or S- glass rovings in.

First the shear webs go in. Ply at the joiner tubes, balsa for the rest of the wing. Than the balsa gutter, again between the joiner tubes and ply on top of the joiner tubes.

I always want to block up the wing joiner area so the top and bottom spar can't move at all. The shear web does the rest.

Rovings will be cut to length not so they fill up the gutter knowing the gutter is tapered to the mid wing and wing tip, for both parts, the inner and outer wing.

And again some milling and turning is done...for my Milan gear.

...and more...alu rings fitted, the shear webs build up.....and...Shear webs fitted with gutter bottom in balsa.....and...epoxy and cotton floks and or micro balls for the gap filling top and bottom...More later,

Noël



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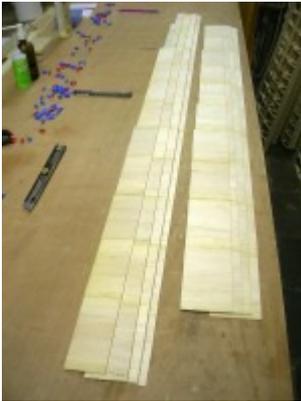
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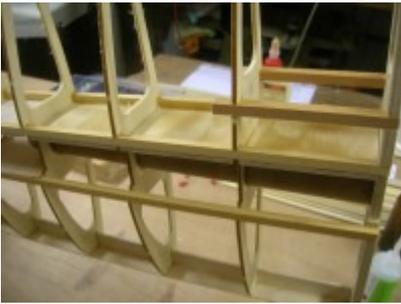
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Re: SF27 M

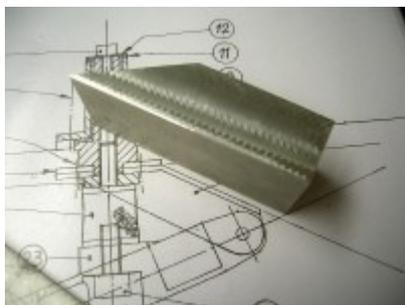
by **VinceC**Posted: **30 Mar 2015, 10:40**

The wing will get the gutter for the rovings tomorrow as well as the shear webs. Also the tail wheel of the Milan to a 40% scale was finished. Pictures later of the assembly. A few on the parts...

Noël

...the wing is big...I like it...Has all the joiner tubes in now. The real spar has still to be put in. The two top and bottom spars are just the supporting spars for the shear webs.

Noël



Re: SF27 M

by **VinceC**

Posted: **30 Mar 2015, 10:38**

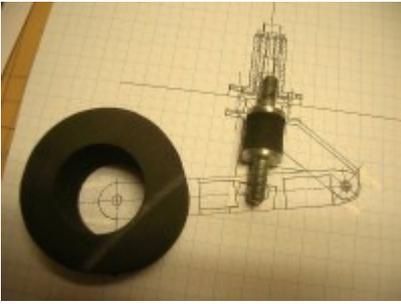
Working on a few things together at the time...try to prove man can do even more than two things the same time... Cheesy

First the wing joiner tubes. Due to my guiding tube to small I had to turn a few alu ring to solve the problem. They are in now and fitted like a glove should. No picture yet. The second outer wing is almost finished to the same level as the first one. All joiner tubes are also in now.

Because the wing will be part of the double project, as told before, I designed the tail wheel for the Milan now too. One is partly finished now.

This is for a friend who owns a 1/2.5 scaled RF4 that is now in the process to be transformed into a real Milan as well.

Noël



Re: SF27 M

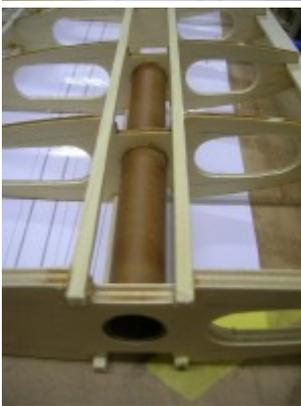
by VinceC

Posted: 30 Mar 2015, 10:36

Outer wing is now now as far as the inner wing part.

Noël





Re: SF27 M

by VinceC

Posted: 30 Mar 2015, 10:35

I am going to build it ,ready by MW yes!!!

The inner wing parts are ready to the point where the gutter, like I call it has to go in as well as the wing joiner tubes and incidence pins.

Problem though...The wing was designed to have a phenolite tube of 29 mm in. This was one sold in the UK and my friend had this size. Now I have the same tube from Germany being only 27 mm. A few small alu rings will deal with the play. Before anyone would ask if I have 4 spars in with a very wide gap...this is where the gutter comes in. The airbrakes will be both sides, top

and bottom. Now I have a wing of 2.86 m and 2.7 m to go on both tip parts.

Noël



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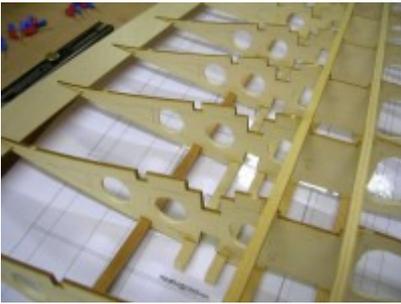
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Re: SF27 M

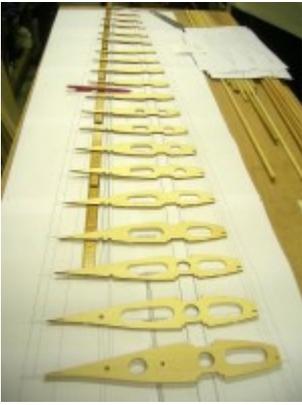
by **VinceC**Posted: **30 Mar 2015, 10:33**

All parts are ready now to build up the wing.

The wing joiners, both main as the half way span on each wing. The main joiner is a 25 mm glass rod and the half way is a 16 mm glass rod. The tubes are cut to size and end stops in Acetal where turned. The incidence pins are ass. too. Now only the T.E. needs to be cut in .6 mm ply. ...more...and the drawing has its plastic film for easy release...

Noël







Re: SF27 M

by **VinceC**

Posted: **30 Mar 2015, 10:30**

A lot happened after the last post on here. 2014 was not a good year to move on with model building. My RH arm has taken me out for almost 6 months due to two small problems, but now all is 200% again and I did some work on the SF27 again...finally!!!

The canopy was filled and sanded, not 100% yet but the Vacuum machine was out last week and pulled the first canopy so I have the shape to work my way on the fuselage later on.

But due to the weather it is not such a nice job filling and sanding the front end of the fuselage as well as the canopy inside the shop. Waiting for warmer days to come...

The wing however is now on the table. The ribs were cut a few years back by Slec. They did a fine job, but being the first time to have ribs cut by laser...you forget some things. Good that I did. E.G. the lightening holes were not cut in the ribs, this way I was able to add my wing fixing stuff in like I wanted it to be. Now the drawing in Compufoil is altered to this status.

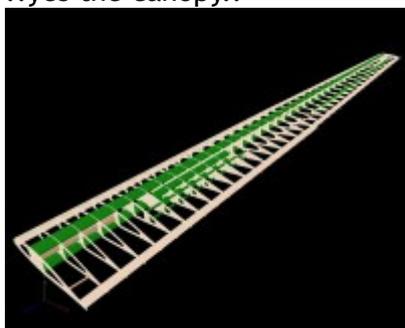
I was able to cut about 204 gr out of the ribs...not that much but it helps a bit. Doing so I can have a somewhat stronger spar in, more about this later in detail. In the end it took me two full days getting things sorted and now all is ready to start building the wing at last!!!

BTW I came across the info that not only a SF27 with 15 m, being the A version, was built but also one with 17 m span being the B version,...Knowing the surface on a 33% or 1/3 scaled one the span would go from 5 m to 5.67 m will help soaring even better. I changed the drawing accordingly and this wing is what I am going to build now being the SF27-B M, not sure, iffff???, there was a SF27-B M (motor version) built. This way you have with one set of ribs the possibility to build 3 sizes of wing. The SF27 "A" the "B" and the Milan wing. This will follow later on in a new thread. the SF27 fuselage has a centre piece of 150 mm and the Milan 200 mm.

My wings will be in two parts due to easy transportation, that is why the rudder is also be removable.

Noël

..yes the canopy..



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Re: SF27 M

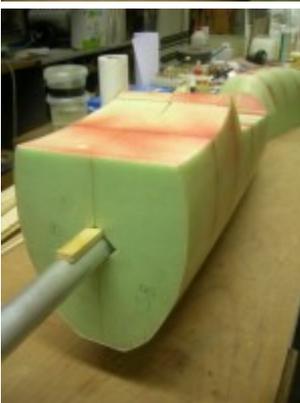
by **VinceC**Posted: **30 Mar 2015, 10:27**

Not much done this week due to other things that poked me too...

I however cut the leftovers of the foam blocks now and all is ready for sanding a bit preparing the lot for filler.

This however will have to wait a bit longer than expected due to coming inconvenience the week(s) to come. I however think the work can move on the week after...

Noël





Re: SF27 M

by **VinceC**

Posted: **30 Mar 2015, 09:11**

Each time again I try to invent the hot water, to solve all problems in each new building process...that is more the reality. We all have developed over the years a system how we build etc. That is why the forum helps so much to find good ideas...great isn't it? Thank you for all your efforts to keep it up!!!



And Brian, I'm trying to make this work. Complete new system for me.

The canopy was enlarged to have enough length and height for vacuum forming. The epoxy and glass fiber are on now. Waiting to have it cured for a few days before the messy part can start, filler and sanding, till it will be near perfect to make the two halve side moulds. Noël





..made a small template to cut the glass fiber...

BTW the squares I cut out in the foam blocks, Original to line up the blocks, I now used to push the alu tube in, worked very well.

Turning the foam nose cone around, I was able to get the glass fiber and epoxy easy on.

The stand meant to paint fuselages and even wings...

Noël



Re: SF27 Mby **VinceC**Posted: **30 Mar 2015, 09:08**

...the sanding was gently done because of the foam...

Someone told me once how to shape a plug...

Sand it till you think it is OK. Than go away and do something else or see the next day.

You will find new uneven things and sand it again till OK. Go again and come back and find new errors...

In the end he told me it will take a week to do it...

By cutting the foam block like I did now, you couldn't make that many mistakes, or overlook things. It went quite well actually, happy again.

Noël

**Re: SF27 M**by **VinceC**Posted: **30 Mar 2015, 09:06**

Fantastic work Noel thank you for sharing, makes me feel like going back into the shed and dokng some more on one of many projects.... (Rosco)

Hi Rosco,

I am far from the last shown pictures on the real nose cone.

But I am slowly getting closer every day...

Sometimes one needs a break from modeling I guess. I will send you a PM too.

Gluing the blocks together now and started shaping the lot...

A sharp long cutter was used to do this. Managed to cut without deep holes that would need to be filled up before finishing...

Now you see the rear line coming getting finer. In the end you just need to see the line about 1.5 to 2 mm wide...if you sand it further you still see the line because the back of the blocks are painted also, but you are sanding than the shape down...

Noël



Re: SF27 M

by VinceC

Posted: 30 Mar 2015, 09:03

Well I know how it is done on models. Cutting small strips, gluing them on, shape all with filler etc.

I'm going to make a mould for it, when something happens, it's an easy job to duplicate the lot. Also easy to make one if you need a second one...

I was taken by this idea finding the real on the net. It looks like this...

Note the peel ply in the cone so all can be glued on with thickened epoxy.

You have to pull it out. I do hope all will fit, fingers crossed



Re: SF27 M

by VinceC

Posted: 30 Mar 2015, 09:01

...now a with the eye stolen technique was used to mark the rear end of the blocks. Due to being foam, it was not possible to use the normal spray cans. These would melt the foam away and this would not what you want at that edge. I had a left over red water based spray can, black had been better but didn't find it behind the corner in the shop...

Be aware that I didn't finish this spray can before because it was not a good choice. I struggled a lot and in the end I was washing all paint off due to drops of paint that came out the nozzle. The shop didn't follow these cans any more due to this problem customers had with them. For marking the foam blocks all is well, and a drop here and there is no problem. But I had to replace the spraying head twice to finish the job Angry
Now you can see the edges that need to be cut and sanded away.

More to come...

Noël



Re: SF27 M

by VinceC

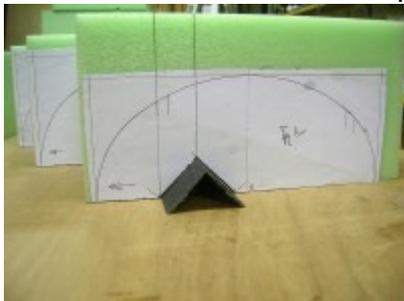
Posted: 30 Mar 2015, 08:59

Hi guys,

thanks but this is what the forum is about I think, showing others what and how you build etc. For me was it always like this:

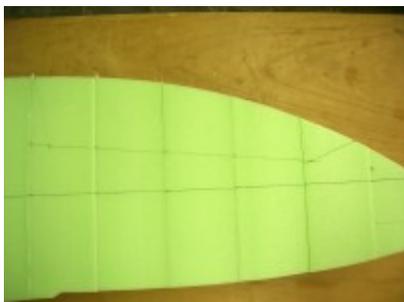
Rule nr one..."Steel with your eyes..."This is what I learned long ago, doing so and putting some

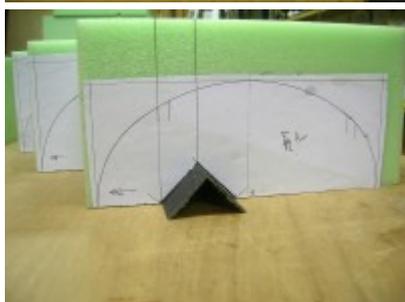
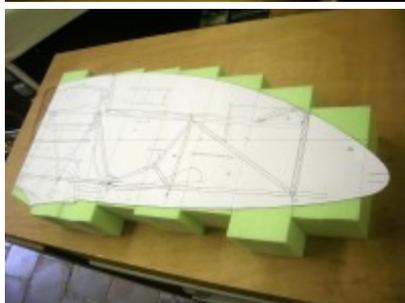
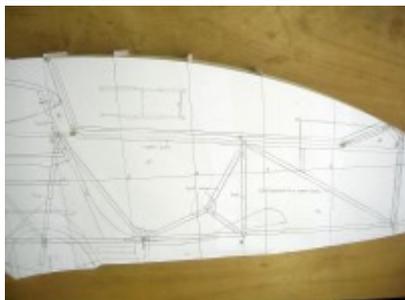
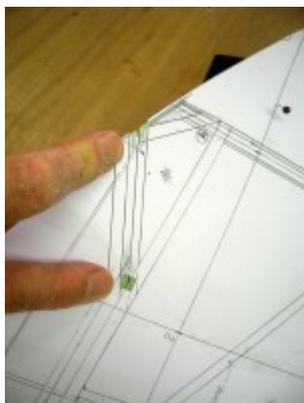
links between all systems on hand, you can sometime create something that looks new and stunning etc...Rule nr two..."You still have to try it, do it, build it etc...Sometimes this is taking too long, not sure I can do it, etc...Rule nr three...What he can do, (at least) I can too, and normally, better Winkl was kept down on the project of the SF27 M due to a fall on my shoulder end of January, trying to learn skiing, thinking being 26, always had some difficulty with numbers in the good order..Fixed now and getting back on modeling.This feels good again, but know this, for skiing the three rules above don't count Kiss not for me anyway...Here is what I was doing now, cutting block to make the nose cone.I used the paper patern, with small cut outs on the corners to mark these points. Later the blocks were cut out by a band saw.



Hope this will work...

Noël





After that was done the block were all cut out to the oval shape, drawn on them before. Note that the rear of each block was the ref line for the cutout.

The negative leftovers are also nice but useless



s.

Here a few views on the imaginable final shape.
Some cutting and grinding will be needed now to make it look like I want it to be.
No





ël

Re: SF27 M

by VinceC

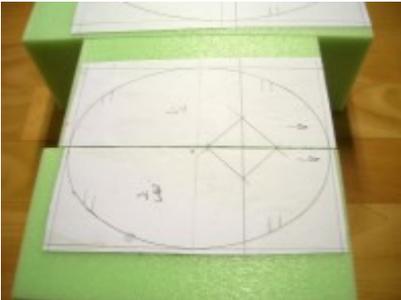
Posted: 30 Mar 2015, 08:53

..well here are we again...sorry for the delay... 🙄

Not much yet but more to come.

Noël





Re: SF27 M

by **Peter Balcombe**

Posted: **29 Mar 2015, 20:35**

The build looks super so far Noël.
Keep up the good work.
By the way what is a Seeger ring?

Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 20:25**



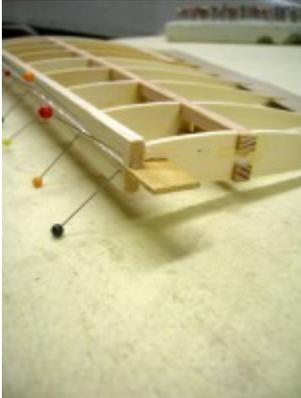
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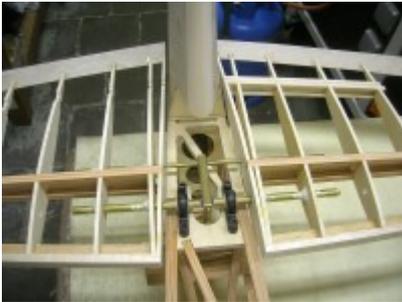
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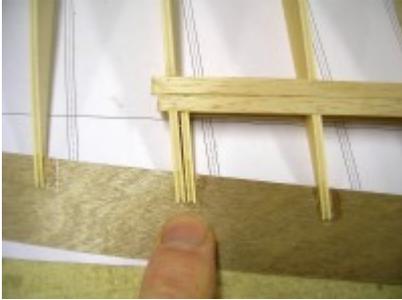
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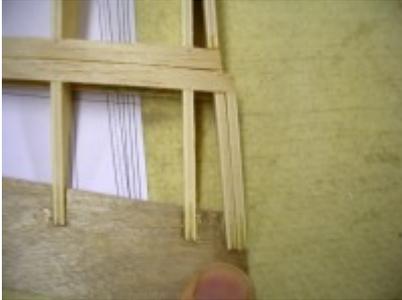
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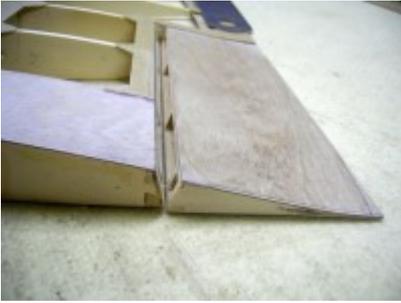
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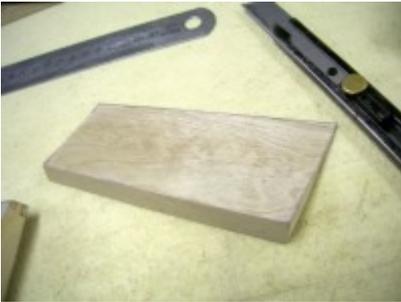
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Re: SF27 M

Reply #50 - Nov 28th, 2013 at 3:59pm Quote Modify Split this topic starting with this message as the first message in a new topic, followed by the other posts until the last post added to this thread. Remove Now the elevator has been finished the same way as the rudder. Only this was more easy to do. Again the foam bocks were used to have it straight after sheeting the D-box on both sides.

A few pictures...

The shear webs were glued in. The geodetic rib was angled to the fuselage and supported with a straight rib. Could do without that one though.

The RH will have a trim tab that will move with the elevator up and down. A 5 mm spar was added to hold the sheeting on.

Sheeting cut as per real drawing. Do not forget to make the lines where the glue has to go...

For the working trim we need a small extra TE rib, with a gap, where we later will cut, and at the rood where we have to grind about 2.5 mm off to screw the Alu arm onto...

Sheeting on its way and note the angled edge to put the centre piece on.

The foam blocks with the print out of the elevator rood and tip rib. The LE is not on yet due to good support to the edge.

The TE was under filled with a balsa strip to be able to have a straight TE after gluing the sheeting on. You only need the foam and support to close up the elevator or wing this way...

The trim tab was angled at the bottom, closed with a .4 ply strip as well as the gap on the elevator.

The other half was done the same way only without the tab. See the edges made for gluing.

The LE when on and shaped with now the tip edge made and shaped as well.

The 3 mm ply strip was slotted at the TE with the band saw, to fit over the .4 mm ply. A balsa block went on top and bottom to be shaped.

The cap strip glued on and ready!!!

The servos will go in next together with the rudder removing bolt.
Noël

Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 20:17**

The rudder control horn was made...

Noël





Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 20:01**

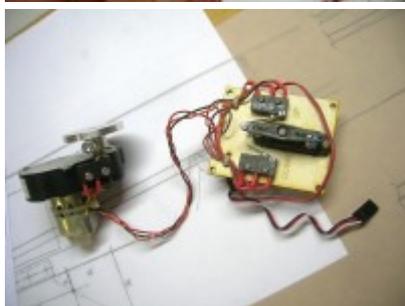
Rosco,
here it is...my way...

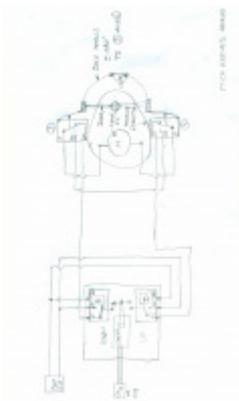
I have used that servo for the gear on the ASK16 in 2000. Works very well. With the servo, a small one, you can stop the moving disk at any time. This is good to be able to work on the system that you operate with it.

Be aware not to put your finger(s) in between moving arms etc...how I know...IT WILL NOT STOP!!!

I was just in time to stop and reverse it... Wink The name power servo is at it place.

Noël





Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:57**

Rosco,

I didn't find the wiring diagram of the Mick Reeves servo. But this is also the same as the one on the retract for the K14. Look into the motor glider section for the drawing on the retract.

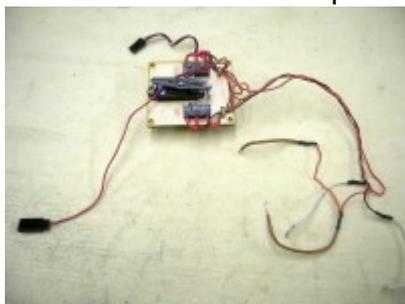
I have designed it too but have to scan it for you tomorrow.

In the end I will not need any of it except for two switches.

See the rebuild and the Merbold controller...He designs all up and go controllers...

<http://www.merbold-electronic.de/ktw.html>

Tomorrow a test run I hope...





Re: SF27 M

by VinceC

Posted: **29 Mar 2015, 19:49**

The nylon or Acetal bearing at the far fuselage end...Make sure the top of the bearing is 90° to the fuselage end former.

To do this a little of the 6 mm ply is taken off...A Seeger ring holds it in place.





Re: SF27 M

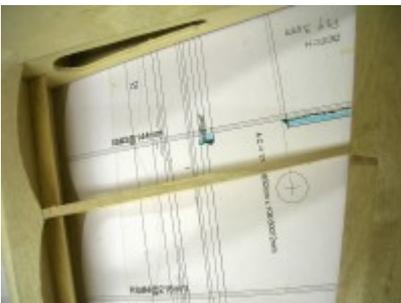
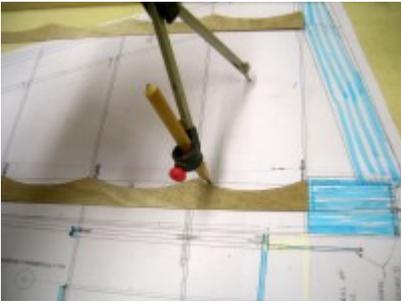
by **VinceC**

Posted: **29 Mar 2015, 19:47**

Again some work done...
see the pictures.

The last bit of 0.4 mm ply was cut to shape by the scissors shown here. You can buy also a RH one, not often to use but...Works fine for ply as well. Long parts, use a knife and ruler in metal...

The cap strips were also installed now the hinges. The top is scale and the bottom one is there to hold the rudder together properly when it is take off for transport.
At het far end of the fuselage there is another hinge point...



Re: SF27 M

by VinceC

Posted: 29 Mar 2015, 19:45

This is a Mick Reeves servo. The switches are originally screwed to the body of the retract servo.

I have taken them to stop the motor in the up and down position.

I have the diagram somewhere...

I will look for it.

Also some work was done on the rudder. Hope to finish it by tomorrow.

Noël





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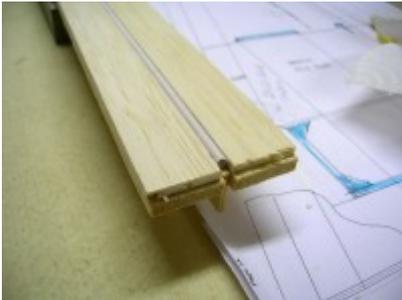
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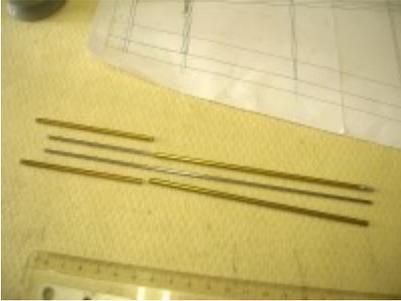
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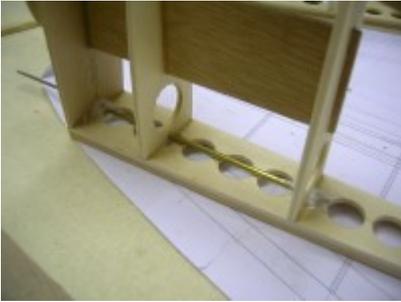
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Re: SF27 M

by VinceC

Posted: 29 Mar 2015, 19:40

already some time ago...retired and never time enough... However I managed to build my up and go to make the SF27 "M" version.Now the test can be done before anything else will be build on there.The rudder will be next as well as the elevators.

Noël







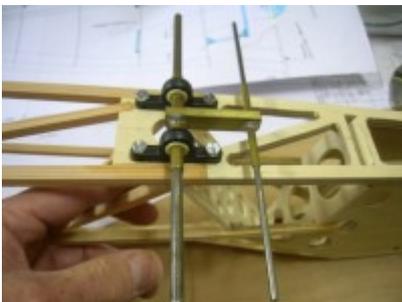
Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:37**

...the fuselage so far...More about the hinge system for the elevator later.

Noël



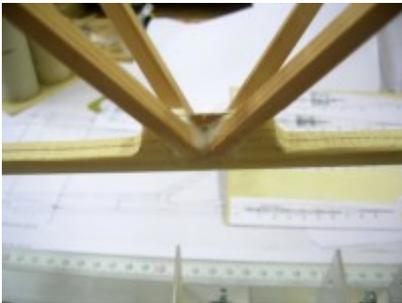
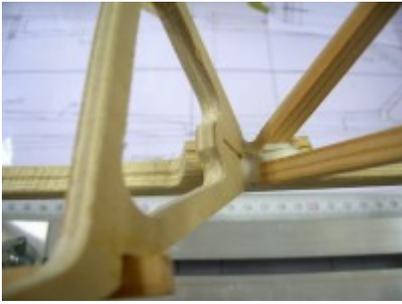
Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:36**

...see the mid ply piece that was used to build the 6x6 sqs to. The angle was cut in the two, lh and rh side spruce halves. The toooooo much of epoxy Roll Eyes, when mixed with the above will be easy to grind out.

Noël



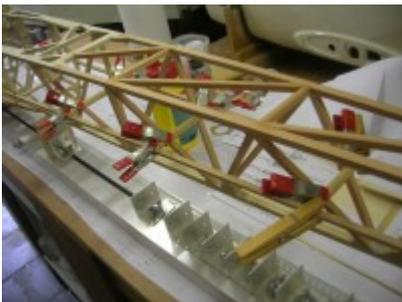
Re: SF27 M

by VinceC

Posted: 29 Mar 2015, 19:35

...more...triangles went in. Now the fuselage is very stiff and almost ready for the nose and rear turtle back cover. Will take some time though.

Noël





Re: SF27 M

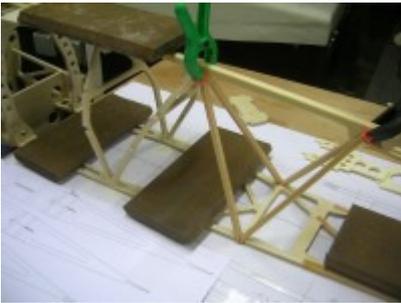
by VinceC

Posted: 29 Mar 2015, 19:31

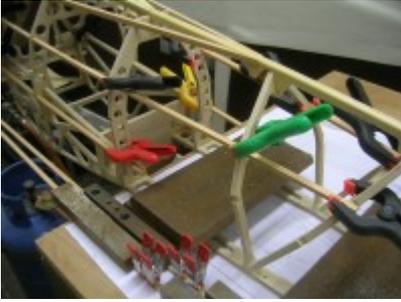
Last week work in a few pictures... To build the rear part with the square sticks all was flat on the table with some weight. 5 min epoxy with aerosil and micro was used to put the lot together. Later all that I could grind out was taken out with a Perma-grit burr...easy and fast. The 6x4 spars to hold the fabric are all glued in with wood glue.



1



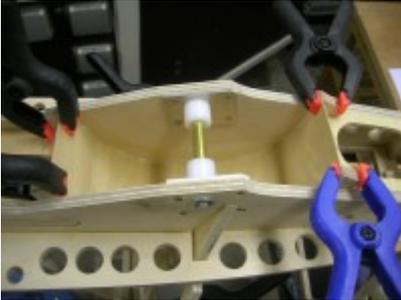
2



3



4



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6



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11



12

Re: SF27 M

by VinceC

Posted: 29 Mar 2015, 19:30

The top here...and new parts cut for the tail part.
Noël





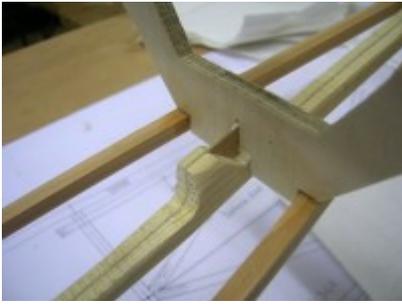
Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:29**

The top longerons and bottom spar is glued in now.
No need for a jig.





Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:27**

For the colour...

I missed this one not so far from Antwerp, now sold to mid Germany.

But maybe this one...



Re: SF27 M

by **VinceC**

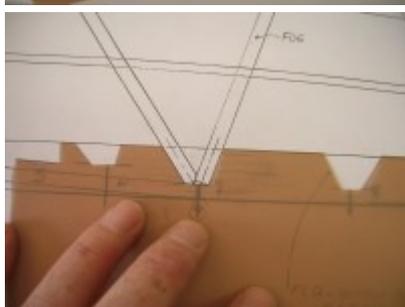
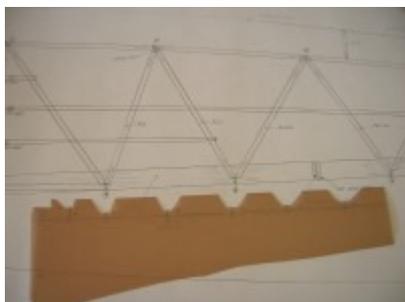
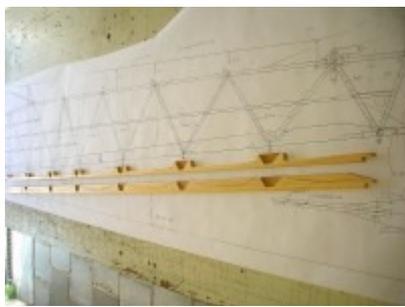
Posted: **29 Mar 2015, 19:26**

How I cut the V- notches...

First made a template, than as per drawing marked all the V-notches, later all was trimmed for weight saving.

Why the ply in the middle?

I will build with sticks triangles in. The ply is the support for easy glueing the sticks both sides...



Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:24**

Chris this one is too small for a welded frame. Brian, for the router... Made two sets by hand. The cutting was done in two days... Band saw, grinder and jig saw mounted upside down, drill with a few good wood drills, almost no edges to trim when drilled on side so you see the point of the drill on the other side, turn it over and a small wooden disk falls out.

But that you knew... Roll Eyes

Now the rear part of the fuselage was looked after. The bottom spar was built up with two wooden sticks with a 0.6 mm ply in the middle. Later all was cut out for weight saving too. The top frame was glued to the mid fuselage part with the engine bay. Tomorrow more.





Re: SF27 M

by VinceC

Posted: **29 Mar 2015, 19:21**

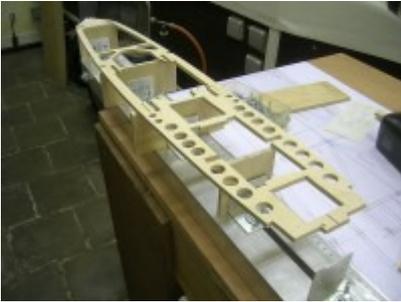
Hi,

after our holiday I have done some work on the fuselage. I managed to take about 17 ounces of the parts and ..they still are stiff enough... Embarrassed

The floor, seat up to the mid part are put together with glue now. Now the rear fuselage can be build up.

A few pictures and parts...

Noël





Re: SF27 M

by **VinceC**

Posted: **29 Mar 2015, 19:20**

I looked for cutting out more material and the next thing will be a few new in lite ply cut parts...

A new seat rest was cut too. The top one is fitting better.

Noël





Re: SF27 M

by VinceC

Posted: **29 Mar 2015, 19:18**

Wow Noël, that looks strong enough to park your car on it...! (CW)

Maybe so...Looks smaller on paper too. I will see if a few things can shaped down...
But this is only the beginning. I need the strong center piece for the rest of this design. Wink
Noël



SF27 M

by VinceC

Posted: **29 Mar 2015, 19:15**

TRANSFERRING IN PROGRESS

Noël Rumers thread:

SF27 M

Aug 12th, 2013 at 10:07am Quote Modify Remove Hi,

after a long delay finally the cutting/building could start!!! Retired...and all kinds of things keep you busy... Huh Lips Sealed

Here the first pictures of my fuselage. I have designed the fuselage in the way an up and go can be build in. Why the SF27 M, I like it very much as well as well as the Laravia Topaze. This design of the master we know! The only thing is you can't get an up and go in there. I used as much as possible the original fuselage drawings. The wing was already drawn and laser cut due to a RF4 conversion to a Milan for my friend. The idea for a SF27 M was given by the possibility to have a double project.

The wing for both the SF27 and the Milan are the same. Daimler Binz in Germany did design and build the Milan. In this way one would have half way of both plane when the wings are ready!! See the pictures on the parts. The first set was hand cut...and looks fine. The fit was almost 100%, a few extra cuts where needed (design bugs) See the tail section designed to have a removable rudder, one screw only, and the centre part for the wing joiner.

More later,

Noël

