My Balsa & Glass Workshop

1914 Rumpler 4C Taube Scratch Build Description

Updated as of 8 November 2026

While working on the coding for the January 2027 edition to my "Build of the Month Series," I found the model selection so interesting that I decided to make it another scratch build project.



Image Source: Outerzone.co.uk.

Figure 1 - Rumpler 4C Taube RC Model

Taubes became popular in Europe, as both civilian and military aircraft, during the four years preceding World War I. In 1910, the German firm of Rumpler gained a license from Etrich to manufacture the Taube design. By 1914, Rumpler improved on the basic design to develop the 4C, which was built to military specifications for numerous roles including flight training, observation, communications, and bombing.

Rudy Hergenrother developed his Rumpler 4C Taube RC Model using the Balsa USA Taube 40 kit (which is based on the original Etrich design of 1910) as a basis, employing many of its precut structural parts. His resulting Rumpler 4C Taube design has an entirely different tail, a modified landing gear, and fuselage, and a wing which employs a modified airfoil and ailerons. The tail control surfaces of the 4C are much larger than that of the Etrich, improving low speed maneuverability. As a result, the flight

characteristics of the 4C showed an improvement over the original Balsa USA Taube 40 kit in the areas of inverted flight, outside maneuvers, speed range, rolls, and spins.

The Rumpler 4C Taube RC Model wing is built flat on the building table over the wing plan (using a total of **41 ribs**). The wing is built as left & right halves, then joined together using plywood dihedral joints and the two 1/8"x2"x3/4" plywood wing mount blocks. A dihedral of 3/4" per wing half should be used. Locate the aileron control servo between the lower spars and at the center of the wing. Use a Sullivan Gold-N-Cable #514 Control Rod Set to actuate the ailerons with the ailerons hinged at the bottom of the wing with the control cables exiting the wing on the top surface ahead of the aileron, and the control horn attached to the top of the ailerons. Use an aileron throw of 1" in each direction.

The tail feathers can be entirely built with 3/16" sheet balsa and using a balsa stripper for the balsa sticks. Again, these are built flat on the building board directly over the plans. Rudy recommends assembly of the rudder and elevator using the full length of the 3/16"x 3/8" leading edges. When dry, cut the elevators and rudder away from the stabilizer and fin. This ensures correct alignment. Before cutting the 3/16"x3/8" leading edge of the elevators at the center, drill, insert, and cement the 3/32" music wire, linking the elevator halves.

The fuselage is just a simple modified box build, with the sides and bottom cut from 1/8" medium grade balsa sheet, and the top sheeted with 3/32" balsa. All the fuselage formers are cut from 1/8" plywood (Birch or Lite) except for the engine firewall which uses 1/4" Birch plywood. An important step in the fuselage build is joining it with the wing. Lay the wing in place on the fuselage and drill the wing mount holes through both the wing and fuselage plywood mounting blocks. Be sure that the wing is properly located and aligned when this is done. Tap the wing mounting blocks in the fuselage for the 1/4-20 nylon mounting bolts. Per the plans, the wing wires are threaded through solder lugs that are held by the pylon bolts and attached to the wings by small screw eyes screwed into the 1/4" square vertical posts in the wings at the locations shown on the plans.

This model should weigh in at 68 oz. depending on power system, producing a low wing loading of 15 oz./sq. ft. The low wing loading and high power to weight ratio give the model a large flying speed range and good maneuverability. The large wheeled, taildragger configuration makes for excellent grass and rough field performance. Using full power on take-off, the model travels about 10 feet in about one second to become airborne. Reduced power achieves realistic slow flight and engine sound. The plane is easy to fly and aerobatic. If you have built at least one RC plane and understand basic construction techniques, you can build this 4C Taube.

Rumpler 4C Taube RC Model Specifications:

Model Type: 1/8th Stand-Off Scale Pioneer Aviation
Flight Performance Category: General Sport
Wingspan: 62"
Wing Chord: 10" Average
Wing Area: 650 sq.in.
Wing Location: Shoulder Wing
Wing Dihedral: 0.75" at wingtips
Horizontal Stab/Elevator Span: 17.5"
Horizontal Stab/Elevator Chord: 7"
Vertical Stab/Rudder Height: 5.5"

Vertical Stab/Rudder Chord: 9.5”
Overall Fuselage Length: 43”
Center of Gravity Location: approx. 3.9” aft of Wing LE
Required No. of Channels: 4 or 5 - Throttle, Ailerons, Rudder, Elevator, and Bomb Drop
Landing Gear: Conventional Tail Dragger
Glow Fuel Engine: .40 4-stroke
Electric Powered: Output of 800 Watts, 60-80 amp ESC, 4-Cell 4,000mah LiPo
Ready to Fly Weight: 68 oz. depending on power system
Wing Loading: Approximately 15 oz/sq. ft.

My 4C Taube will be built using a great set of **free** full size plans (Figure 2 below), and the Rudy Hergenrother article from the August 1994 edition of RCModeler. Both are available for download from Outerzone.co.uk (https://outerzone.co.uk/plan_details.asp?ID=6007). ***So, how about we get started with the planning for this scratch build!***

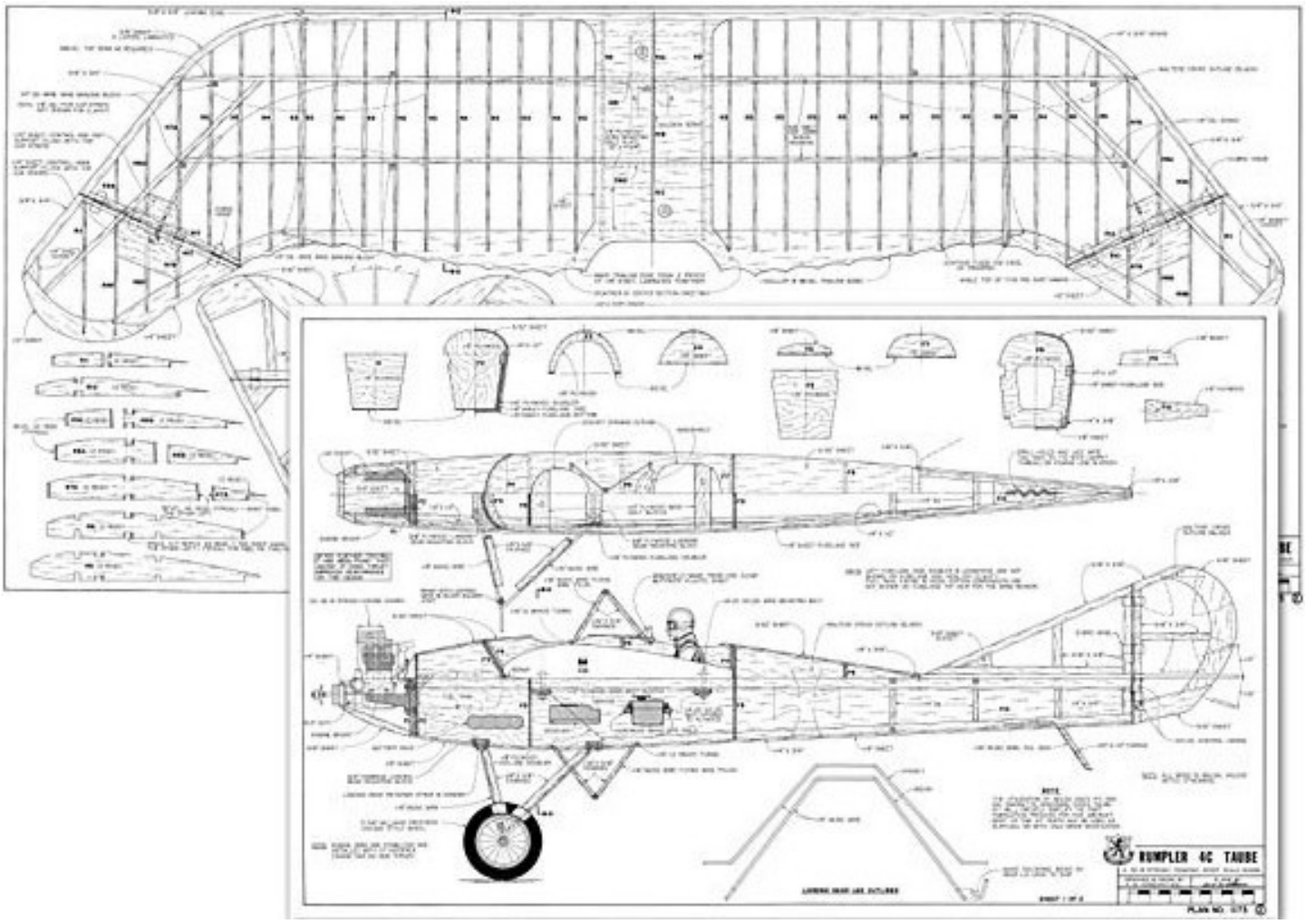

Image Source: Outerzone.co.uk.

Figure 2 - Rumpler 4C Taube Plan Sheets

Rumpler 4C Taube Scratch Build Planning

As with all my scratch builds, my first task is to print out the full-size plans using my Canon TS9120, and then I put all the pages together resulting in a full-size set of plans. You can also have the plans printed out on the large format printers at your local FedEx store for a little over $25. From the plan sheets I develop a detail list (as seen below) of all required materials and hardware that I will need for this build. Any balsa, basswood, birch and Lite plywood that I do not have in my back stock will be ordered from Balsa USA. I will pick up any required hardware, servos, fuel tank, etc. from my local hobby shop, Anderson RC. I plan to use an old O.S. .46 LA 2-stroke that I have sitting on the shelf for power. I also plan to use wire pull-pull control cables for the elevator and rudder. *I will try and note any changes or deviations I make from the Rudy plans during my scratch build in this document.*

Rumpler 4C Taube Materials and Hardware List

Amount	Description	Use
Balsa		
2	3/32" x 3" x 36" balsa sheet	fuselage top surface sheeting
7	1/8" x 3" x 36" balsa sheet	wing ribs R1-R9 & R11
6	1/8" x 4" x 36" balsa sheet	fuselage sides & bottom, wing trailing edges & center section sheeting, fuselage formers F6, F7 & F9
3	3/16" x 4" x 36" balsa sheet	horizontal stab/elevator & vertical stab/rudder structure, wing spars sheer webbing
2	1/4" x 3" x 24" balsa sheet	wing trailing edges, R10, aileron filler blocks
1	3/8" x 3" x 24" balsa sheet	fuselage engine compartment
1	1/2" x 3" x 24" balsa sheet	wing tips
12	1/8" x 1/4" x 36" balsa sticks	wing ribs top cap strips
1	1/4" x 1/4" x 36" balsa sticks	aft fuselage structure
2	1/4" x 3/8" x 36" balsa sticks	fuselage bottom longerons
2	1/4" x 1/2" x 36" balsa sticks	fuselage top longerons
2	3/8" x 3/4" x 36" balsa sticks	wing leading edge
Basswood/Hardwood		
6	1/4" x 1/4" x 36" basswood sticks	wing aft & diagonal top & bottom main spars
4	1/4" x 3/8" x 24" basswood sticks	wing front top & bottom main spars
1	1/4" x 1/4" x 24" hardwood sticks	wing flying wire rigging blocks
1	3/8" x 3/4" x 12" maple grooved MLG mount (1/8")	
Plywood		
1	1/16" x 6" x 6" birch plywood	wing aileron servo hatch covers
1	1/8" x 12" x 12" poplar Lite plywood	fuselage doublers & formers F3, F4
1	1/8" x 12" x 24" birch plywood	fuselage formers F2, F5, F8 & F10, wing mounting bolt plates & front/aft dihedral braces
1	1/4" x 6" x 6" birch ply	fuselage F1 (engine firewall), wing bolt blocks
1	1/64th scrap birch plywood	strengthen elevator/rudder control horn areas

Flight Control System

1	Spektrum RC AR6200 6-Channel 2.4GHz DSMX receiver	
1	Hitec HS-225BB Mini Servo	throttle
2	Hitec HS-425BB Dual Ball Bearing Servo	elevator/rubber
2	Hitec HS-81 Mini Servo	aileron servos
1	6-volt 5-cell 2,700mAh NiMH receiver battery pack	
1	6" servo lead extension	fuselage aileron channel lead
1	servo channel lead "Y"	wing ailerons servo lead
2	14" servo leads extension	wing ailerons servo leads
1	receiver power/battery charging switch harness	
1	receiver battery pack digital voltage display	

Glow Fuel Power System

1	O.S. .46 LA 2-stroke RC engine	
1	adjustable nylon engine mount (medium: 40-70 size)	
1	6-8 oz. Sullivan Flex-Tank slant style	
1 set	Du-Bro #892 Medium Silicone Tubing	engine fuel & air lines
1	10x6 or 11x5 wooden prop	
1	Brass Heavy Spinner Nut	

3D Printing Materials

Creality CR-PETG: Gray	pilot & observer busts, MLG vintage spoke wheels
Creality CR-PETG: Beige	tail braces, wing & fuselage flying wire fixtures
Creality CR-PETG: Transparent	fuselage servo tray
Giantarm TPU: Black	MLG tires
Geeetech PETG: Silver	dummy vintage external fuel tank & small WW1 bomb

Miscellaneous Hardware Items & 3D Printed Parts

1	1/8" x 36" music wire	main landing gear assembly, elevator coupler
1	soft copper wire and 50/50 solder	main landing gear assembly
1 set	3.75" to 4" vintage scale wheels	3D printed main landing gear wheels & tires
1 set	Du-Bro #139 1/8" wheel collars	main landing gear wheels
1 set	Du-Bro #158 Steel Landing Gear Straps & Screws	
1	1/16" x 36" music wire	fabrication of upper & lower flying wire pylons, tail skid wire
1	1/16" ID x 12" brass tubing	fabrication of upper & lower flying wire pylons
1	3/16" OD x 4" brass tubing	fabrication of upper & lower flying wire pylons
1	Du-Bro #517 2-56 Pull-Pull System	wire control cables & connectors for rudder & elevator
3	36" nylon antenna housing tubes	rudder & elevator control cable fuselage guides
1	Sullivan Gold-N-Cable #508 Control Rod Set	throttle control cable
1	Du-Bro #121 E/Z Connectors	throttle cable connections

1	Du-Bro #117 Standard Nylon Hinges (15/pk)	hinging of rudder, elevator, and ailerons
3 sets	Du-Bro #237 T-style Nylon Control Horns	rudder, elevator, and ailerons rigging
2	Du-Bro #855 E/Z Links	aileron rigging
2	6" 2-56 control rods	aileron rigging
12	Du-Bro #600 2-56 Spring Steel Kwik-Link Clevises	flying wires cables & aileron rigging
1 pack	Aanraku Stained Glass black covered hanging line and crimps	flying wires
8	Du-Bro #201 2-56 Rigging Couplers	connect flying wires to clevises
2	M3-25mm socket head bolts & nuts	upper & lower flying wire pylons hardware
12	2-56 nuts	connect flying wires to clevises, aileron rigging
1 set	Du-Bro #129 4-40 blind nuts & bolts	engine mount
4	#6 x 3/4" hex head screws	connect engine to engine mount
2	1/4" x 20 nylon wing bolts	wing hold-downs
2	1/4" x 20 brass threaded inserts	wing hold-down blocks
8	#1 x 3/8" pan head screws	wing aileron servos hatch covers
1	.030 clear plastic sheet	aft cockpit windshield
1	12" small black heat shrink tubing	secure flying wire clevises
1	pilot bust figure of your choice	3D printed
1	observer bust figure of your choice	3D printed
1	1" diam. dummy Vintage external fuel tank	3D printed
1	3/4" diam. WW1 bomb	3D printed
2	tail feather braces	3D printed
16	wing FWF-1 flying wire fixtures	3D printed
4	fuselage FWF-2 flying wire fixtures	3D printed
1	fuselage servo tray for HS-425 & HS-225 servos	3D printed
1 bottle	Titebond Ultimate III wood glue	
1	20ml Glue Applicator Syringe with 18G 4" Blunt Tip Long Needle &Cap	
1 set	15 or 30 minute two-part epoxy	
1 can	Deluxe Materials Model Lite Balsa Filler	
1 sheet each	120 & 220 grit sandpaper	
1 can	Krylon Matt Finish Clear Lacquer spray paint	used on fuselage and wing covering
1 jar	Flat Black Enamel	used to paint cockpit interior
1 can	Coverite Balsarite or Deluxe Materials Cover-Grip	preps wood surfaces for covering
1 roll	Silver or Light Gray Top Flite MonoKote Covering Film	forward section of fuselage
2 rolls	Flat Tan Top Flite MonoKote Covering Film	fuselage, wing, and tail feathers
1 set	Maltese Cross Decals	from Callie Graphics (callie@callie-graphics.com)

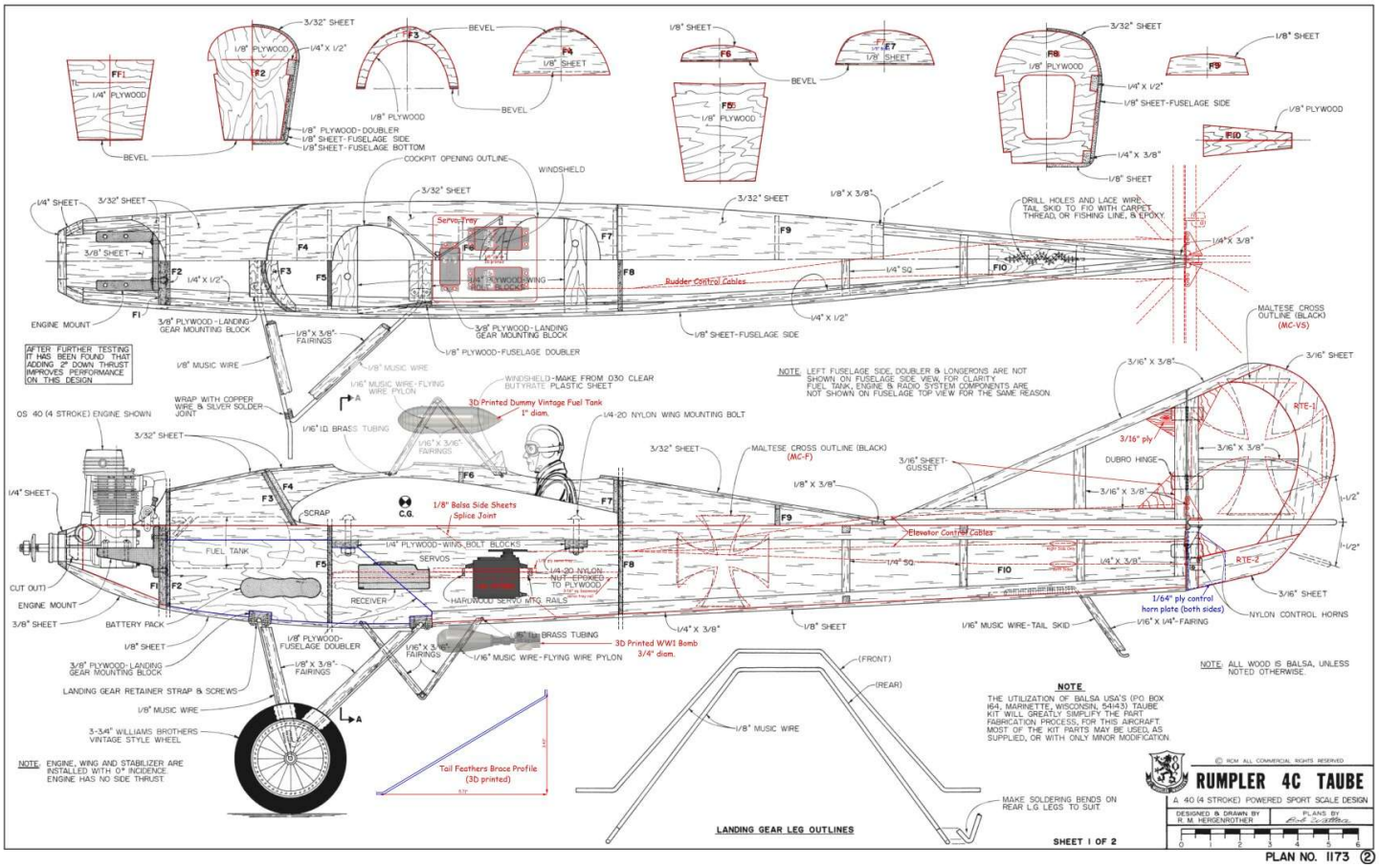

Figure 3 – Rumpler 4C Taube Plan Sheet #1 in 2D CAD Program

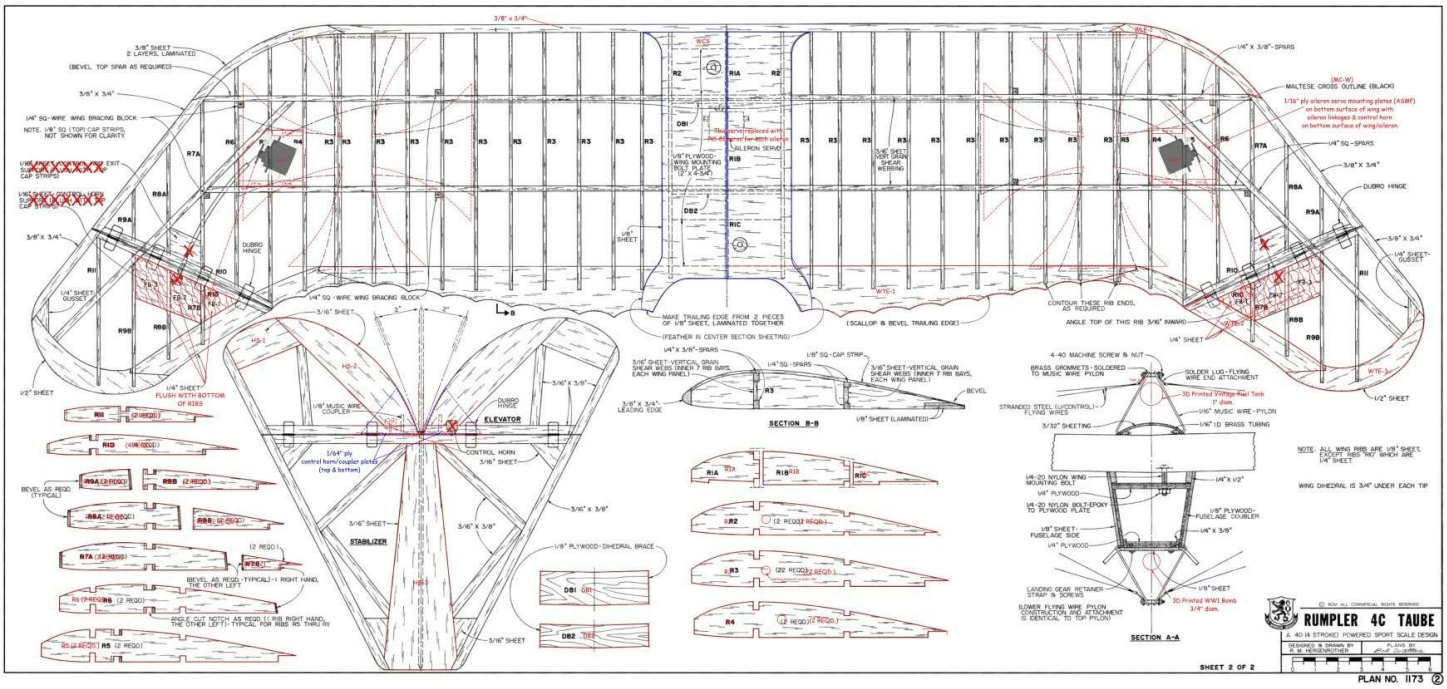

Figure 4 – Rumpler 4C Taube Plan Sheet #2 in 2D CAD Program

To help me develop the various templates needed for my scratch build, I import the two PDF plan sheets into my 2D CAD program **"Back to the Drawing Board"** (https://drawingboardapp.com/). Once that is done (as seen in Figures 3 & 4 above) I trace out (shown in red) all the parts I will need as templates

(fuselage formers, fuselage sides and doublers, all wing ribs, wing trailing edge parts, horizontal/vertical tail feather parts, etc.) so these can then be placed on separate template sheets (examples in Figure 5 below) which I print out using 80# heavy paper, or card stock. This is similar to the *"Key to Die Cut Parts"* pages in the USA Balsa Taube 40 Assembly Manual, which can be download for ***free*** from Manualslib.com (https://www.manualslib.com/manual/893044/Balsa-Taube-40.html).

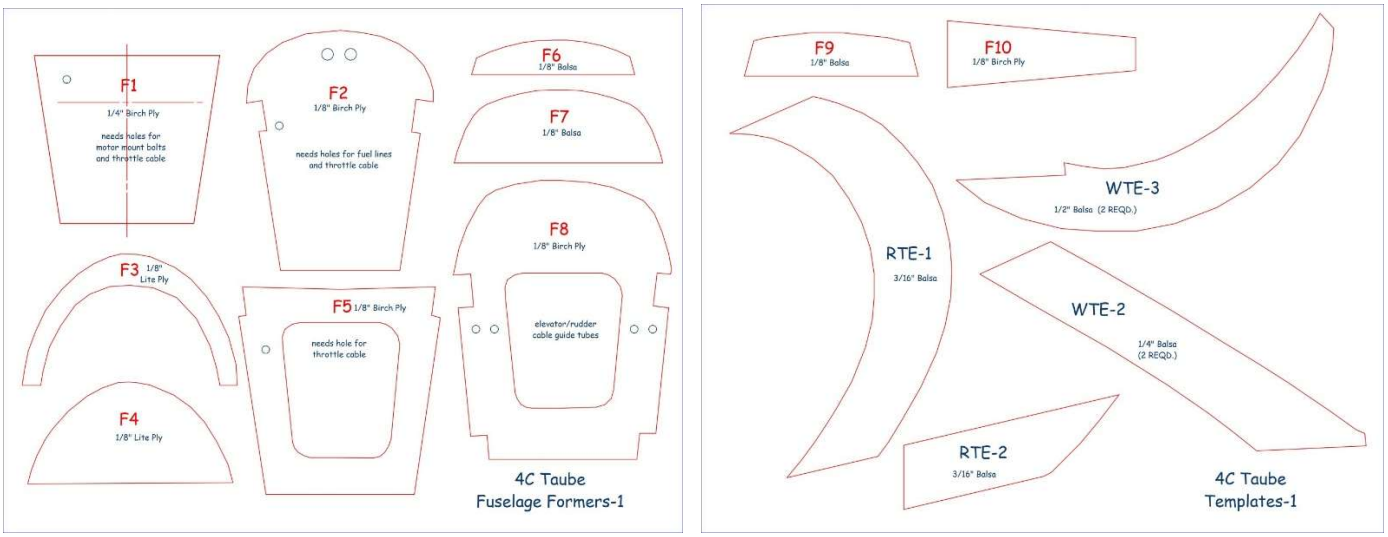

Figure 5 – Example Rumpler 4C Taube Template Sheets

Rumpler 4C Taube 3D Modeling & Printing

While waiting for my Balsa USA order to arrive I decided to work on modeling and printing some 3D parts I wanted for this scratch build. The first two items were the forward cockpit observer, and the aft cockpit pilot busts. I found the observer STL file on the Thingiverse.com website (https://www.thingiverse.com/thing:3723933), and a nice pilot STL file on the Slicefoundry.com website (https://slicefoundry.com/?model=ww1-german-pilot-bust-0cd240). I loaded these two files into my Creality Print slicer and set-up the print profile using some Grey Creality CR-PETG, a 0.4mm nozzle with a 0.12mm layer height, 0.42mm layer width, two wall loops using the Arachne wall generator, five top & three bottom shell layers, a 15% rectilinear space infill density, at a 100mm/sec print speed with Organic Tree supports enabled, and two skirt loops to purge the nozzle. With this set-up **each** bust requires approx. 1 hr. 30min. to print, and 16 grams of filament. As shown in Figure 6, they both came out pretty nice. Now all they need is some detailed painting.



Figure 6 – Observer and Pilot Busts

Next up were the Vintage spoke wheels. For these I found the STL files I needed on Grabcad.com (https://grabcad.com/library/pseudo-vintage-spoked-wheels-for-rc-model-planes-1). These are four inch diameter 3D printed pseudo 32 spoke (16 in each wheel half) vintage wheels for RC model planes. While not a true "spoke" wheel due to the stress that would result on very small diameter printed spokes, these will work for me. I printed these using a standard Ender-3 V3 0.4mm nozzle print profile but at a reduced 100mm/sec print speed. The two wheel halves required 29 min. and 10 grams of Silver Geeeteck PETG filament. For the tires I found a nice STL file on the Printables.com website (https://www.printables.com/model/816330-91mm-spoked-wheel-and-tire-for-rc-planes-with-desi). Again, I used the standard Ender-3 V3 0.4mm nozzle print profile but at a 50mm/sec print speed and a 20% Gyroid sparse infill. A single tire required 56 min. and 14 grams of Black Giantarm TPU filament. A wheel/tire set is shown below.



Figure 7 – 4C Taube Vintage Spoked Wheels & Tires

With those finished I wanted to model a Vintage external fuel tank which I noticed in several of the 4C Taube images I found during my Jan 2027 "Build of the Month" Edition research. I first drew a tank profile in my 2D CAD program for the 1" diameter by 3.5" long tank I felt matched those in the images, then exported a .DXF file, which I then imported into Fusion 360. Using this 3D CAD program I generated the 3D fuel tank by "rotating" the profile around the centerline axis of the profile. Simple yet worked great. I exported the resulting STL file for the model and loaded that up into Creality Print. Using the same print profile as I used for the pilot bust, the tank required 1 hr. 17 min. to print using 14 grams of Silver Geeeteck PETG filament.



Figure 8 – 4C Taube Vintage External Fuel Tank

The next 3D model I needed was a WW1 aircraft bomb. These were normally ***dropped by hand*** from the WW1 aircraft, but for the Taube, I found some images where the bomb was attached to the bottom of the fuselage, so I elected to go that route. I was able to locate an STL file of a 1/2 Scale WW1 20# aircraft bomb on the Makerworld.com website (https://makerworld.com/en/models/1882828-ww1-aircraft-bomb-1-2-scale#profileId-2016215). Using that file, I took the various parts for the bomb and put them all together in Fusion 360 to make a single piece 3D model (included a mounting rail) STL file, which I imported into Creality Print. Yes, a 1/2 scale model is way too large to even print on my printer, so I reduced the size of the 3D model until I came up with a 3/4" diameter x 3.5" long bomb. This is still larger than 1/8th scale, but I couldn't reduce it any further and still get the tiny rear fins to print properly. Again, using the print profile I established for the pilot bust, the bomb required 1 hr. 9 min. to print using nine grams of Silver Geeeteck PETG filament. After a little detail painting and this will be ready to install.



Figure 9 – 4C Taube WW1 Bombs

Another 3D model I needed was two tail feather braces. Per the image in Figure 1, the braces are mounted between the upper surface of the horizontal stabilizer and the sides of the vertical stabilizer to provide some strength and stability to the overall tail feather structure (eliminates potential flutter issues). I took some measures from the two main plan sheets and then sketched up a profile in my 2D CAD program for the brace, and an airfoil profile. I exported a .DXF file which was then imported into Fusion 360. Using this 3D CAD program I generated the 3D brace by "extruding" the brace sketch 6.25 mm, cut 1.2 mm diameter holes for attachment screws at each end, and rounded some edges of the brace by 0.5 mm. I then "extruding" the airfoil profile sketch 163 mm, and overlayed the resulting body on the brace body. Simple yet worked great. I exported the resulting STL file for the tail brace 3D model and loaded that up into Creality Print. Using the same print profile as I used for the pilot bust, a set of two braces required 40 min. to print using 8.5 grams of Beige Creality CR-PETG filament.

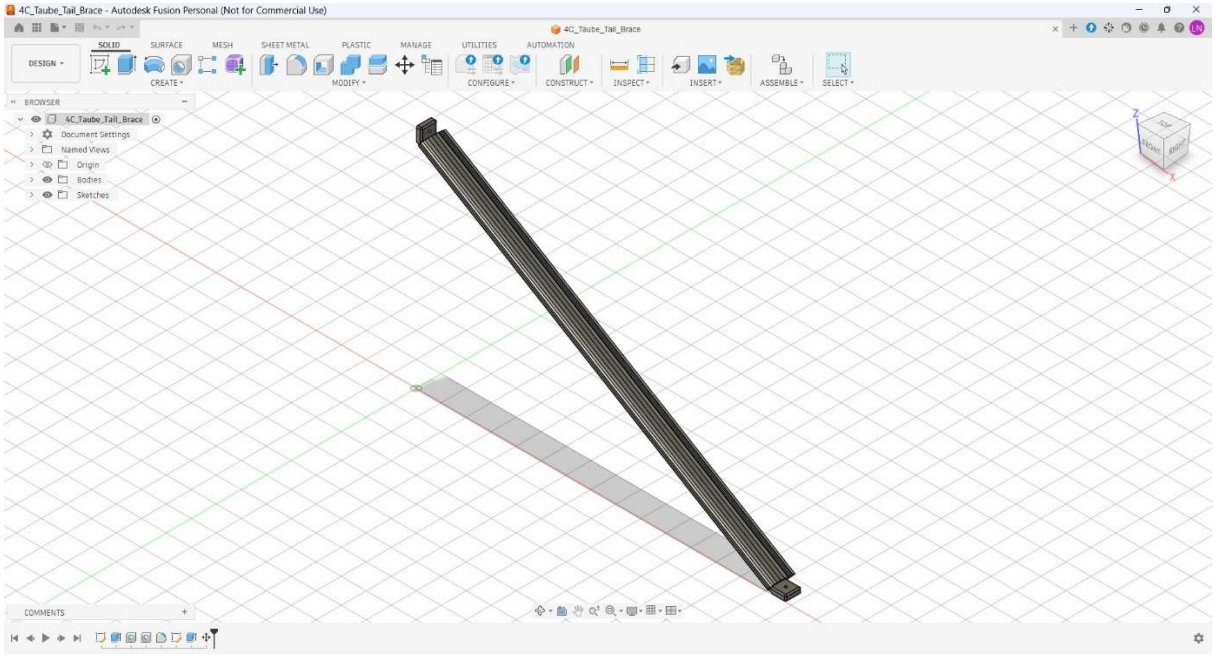

Figure 10 – 4C Taube Tail Feather Brace in Fusion 360

I initially planned on making the wing flying wire fixtures using flat brass stock as I did for my Miss Vintage, but after some thought, I decided to make two 3D models I needed for the wing flying wire fixture (FWF-1) and the fuselage pylon flying wire fixture (FWF-2). Here again I took some measures from the two main plan sheets and then sketched up a couple profiles in my 2D CAD program for each fixture. I exported a .DXF file which was then imported into Fusion 360. Using this 3D CAD program I generated each 3D fixture by "extruding" the profile sketches, cut holes for attachment screws & flying wires, and rounded some edges of the fixtures. Again, simple yet worked great. I exported the resulting STL file for the two fixture 3D models and loaded that up into Creality Print. Using the same print profile as I used for tail feather braces, a set of eight FWF-1 and two FWF-2 required 19 min. to print using 2 grams of Beige Creality CR-PETG filament.

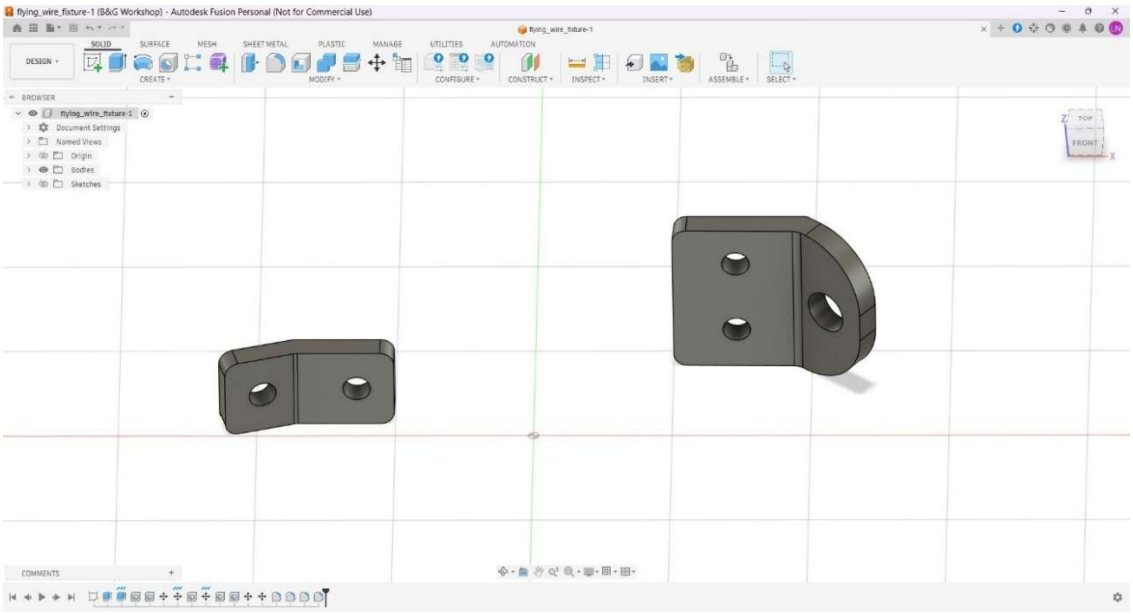

Figure 11 – 4C Taube Flying Wire Fixtures in Fusion 360

Rumpler 4C Taube Scratch Build

Well, my Balsa USA material order has arrived, ***so let's get started with a scratch build of this Early Pioneering Era War Bird.*** Modifications I currently see for this scratch build will be substitution of basswood for all balsa wing spars, replacement of the single wing center section aileron servo with individual aileron servos at each end of wing, use 1/8" x 1/4" balsa cap strips on the tops of wing ribs R3-R11, and install wire pull-pull cables to control the elevator and rudder. I also plan to install the top and bottom wire rigging wing, and as discussed earlier I will add a 3D printed vintage external fuel tank hung from the top flying wire pylon, and a small 3D printed WW1 aircraft bomb hung from the bottom of the fuselage just aft of the lower flying wire pylon. Figure 12 shows everything that will be needed for this scratch build.



Figure 12 - Rumpler 4C Taube Scratch Build Materials, Hardware, & 3D Printed Parts

Rumpler 4C Taube Tail Feathers Build

I'm going to diverge from the build sequence in both the Balsa USA assembly manual and Rudy's RCM article by starting my scratch build with the tail feathers. Both the horizontal stabilizer/elevator (HSE) and vertical stabilizer/rudder (VSR) can be built using 3/16" x 4" x 36" balsa sheets, with all required 3/16" x 3/8" balsa sticks cut from the sheets using a balsa stripper tool or an X-ACTO knife and a steel ruler. After cropping out and printing just the VSR potion of my **4C_Taube_Plan_Sheet-1.pdf** file, and the templates in my **4C_Taube_Templates-1.pdf** file, I layout the VSR plan on my magnetic build board and cover it with clear plastic, then I cutout the required templates from the card stock template sheet.

I start my 4C build by cutting all the required VSR balsa strips and template parts from a 3/16" balsa sheet and then position the parts flat over the VSR plan sheet (holding everything in place with various magnetic fixtures) to do a complete VSR dry *(no glue)* fit check. Once I have everything fitting together as I want, I then go back and glue all balsa parts together using Titebond Ultimate III wood glue. ***Builders Note*** *– I find it much easier to apply the glue if you put the Titebond III in a 20ml Glue Applicator Syringe with 18G 4" Blunt Tip Long Needle and Cap, versus trying to place the glue straight from the large glue bottle.* With that complete I have what you see in Figure 13. ***Builders Note*** *– I use a 1/32" ply spacer between the vertical stab trailing edge and the rudder leading edge for a hinge pin gap. I also added four 3/16" balsa sheet gussets to some corner joints to increase the strength of the overall VSR structure. The plan sheets are updated to reflect this change.*

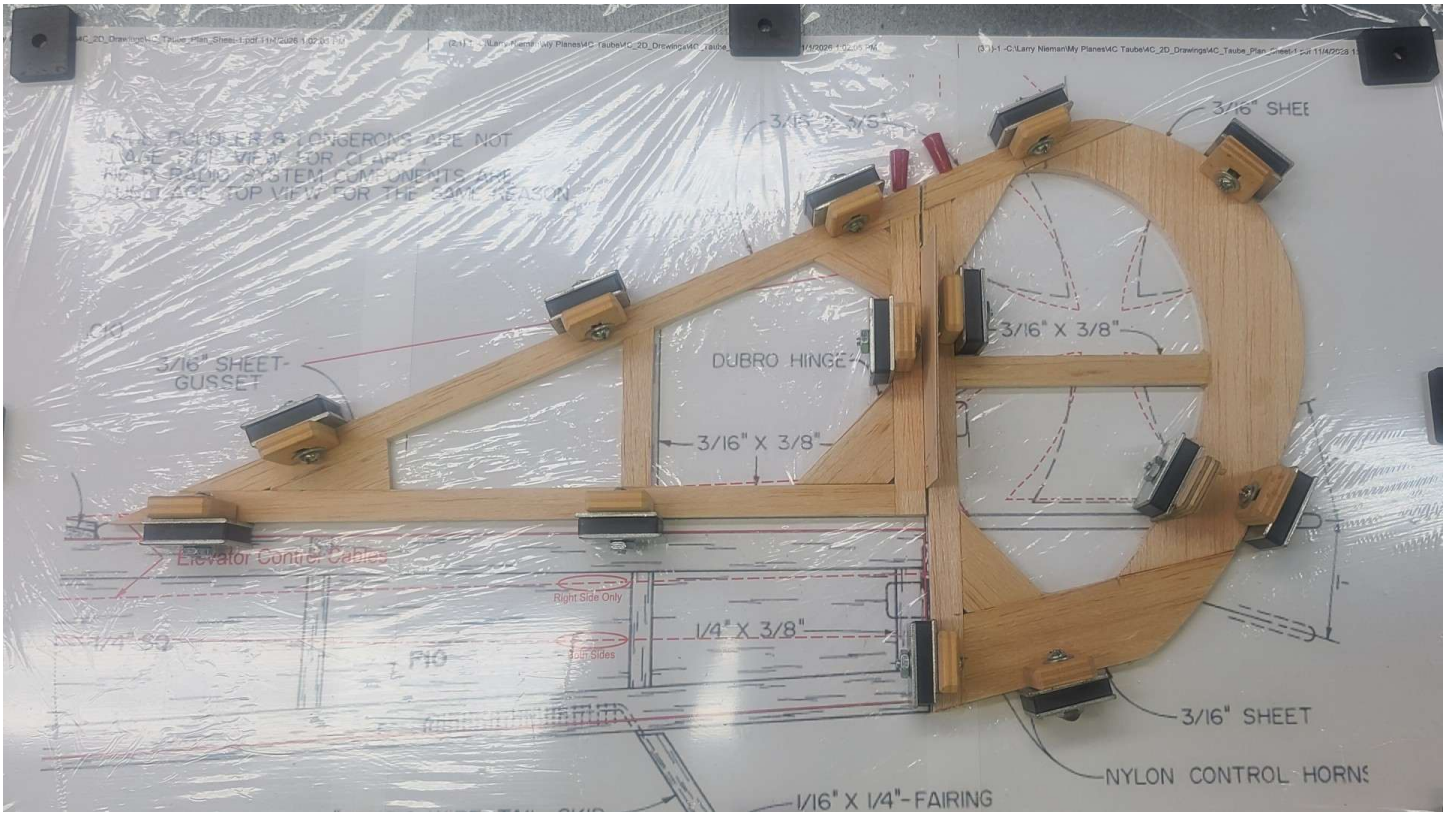

Figure 13 – 4C Taube Vertical Stabilizer/Rudder (VSR) Build

Once the VSR assembly dries overnight, I remove it from the build board and then glue the two 1/64" ply control horn plates (templates on the **4C_Taube_Templates-1.pdf** file) to each side of the lower rudder. With all glue completely dry I cut two hinge slots, drill holes for the control horn screws, and then I round the leading edge of the vertical stab and all aft edges of the rudder using 120 grit sandpaper. The VSR can now be set aside.

The HSE assembly is basically a repeat of the VSR, by cropping out and printing just the HSE potion of my **4C_Taube_Plan_Sheet-2.pdf** file, and the templates in my **4C_Taube_Templates-5.pdf** file. I use small copper tubing to notch the elevators leading edges to fit the 1/8" music wire coupler. ***Builders Note*** *– To provide a hard surface to attach the tail feather braces, I substitute 3/16" ply for the 3/16" balsa sheet called out on the plan for the aft gussets in the horizontal stabilizer. The plan sheets are updated to reflect this change.* With that complete I have what you see in Figure 14.

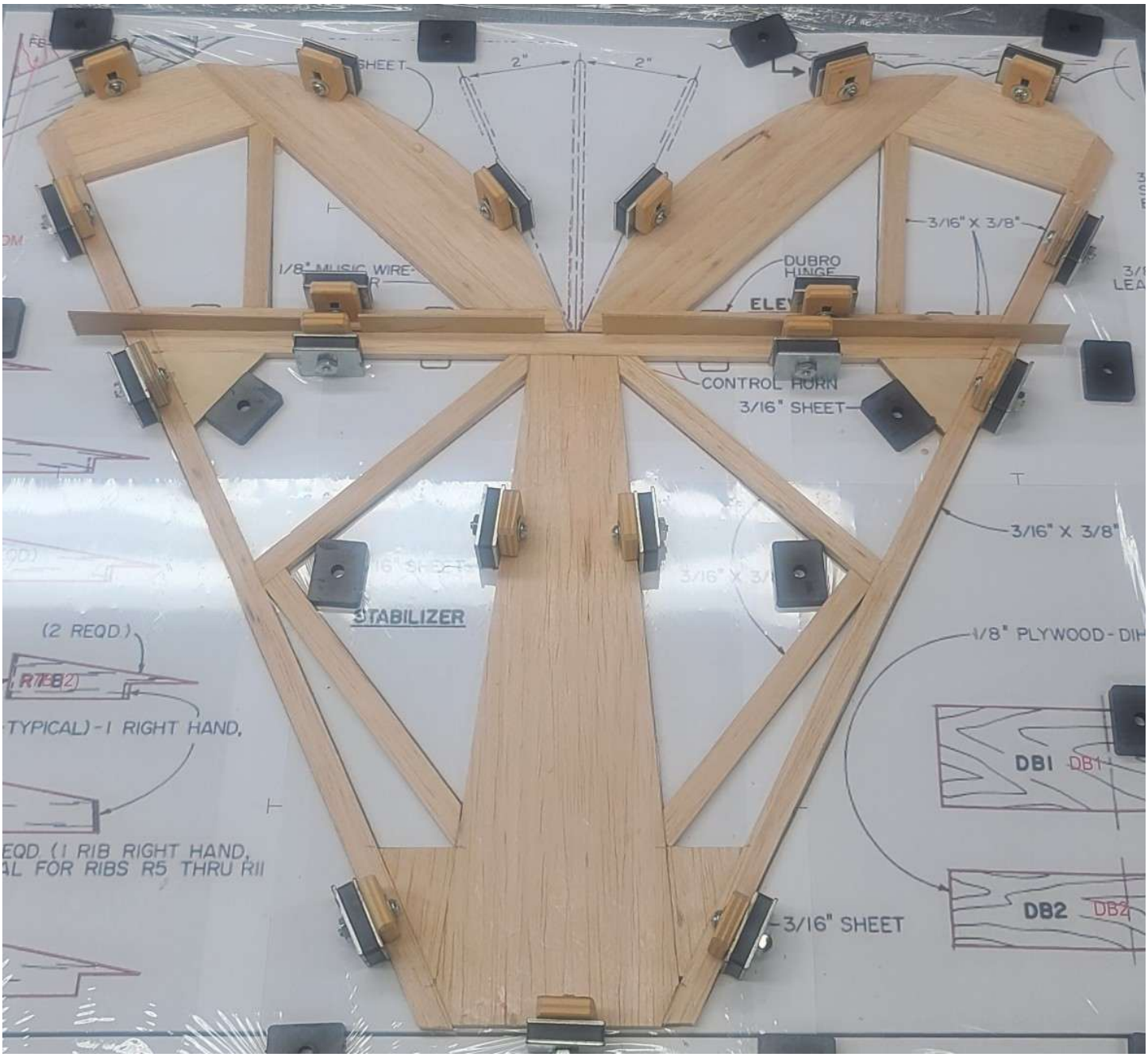

Figure 14 – 4C Taube Horizontal Stabilizer/Elevator (HSE) Build

Once the HSE assembly dries overnight, I remove it from the build board and then glue the four 1/64" ply control horn/coupler plates (templates on the **4C_Taube_Templates-5.pdf** file) to the upper & lower surfaces of the two elevator halves. With all glue completely dry I cut four hinge slots, cut the leading edge of the elevator halves and drill holes for the 1/8" music wire coupler, drill holes for the control horn screws, and then I round the leading edges of the horizontal stab and all aft edges of the elevators using 120 grit sandpaper. The HSE assembly can now be set aside.

Rumpler 4C Taube Wing Build

Alright, it's time to get into the ***"real meat"*** of any RC airplane scratch build, the wing. You want to see a wing scratch build like I've never done before, take a look at my Big Double Trouble (https://balsaandglass.com/Balsa_Builds.html#BDT) wing build. That wing was 152" long and had 77 hand cut ribs. Well, at least this wing scratch build isn't anywhere near that large. So, I'm ready to get started.

My first step is to layout the wing plan sheet **4C_Taube_Plan_Sheet-2.pdf** on my magnetic build board so I can build the left wing (I'm left handed). If you are really interested in a magnetic build board, check out my https://balsaandglass.com/Balsa_Builds.html#MAGTBL webpage. You will find lots of good info and other links to get you setup and building. So as to not mess up my large plan, I cover it with wax paper or Saran™ Wrap. I start with the wing ribs, and for the 4C Taube all ribs are cut from 1/8" balsa sheets, except for the four R10 ribs which are cut from 1/4" balsa sheet. To determine how to best fit the ribs on the balsa sheets and minimize wasting an *expensive material*, I took each of the 11 rib templates (R1-R11) and placed them into 3" x 36" sheets using my 2D CAD program. Also, being that I need to cut 22 each R3 ribs, I took the time to 3D print an R3 template so I could quickly run my X-Acto knife blade along the outside edge of the plastic R3 template. I print out all other rib templates using heavy 80# card stock paper. The results of my work to create the ribs can be seen in Figure 15 below.

Image Coming Soon!

Figure 15 – 4C Taube Wing Ribs R1-R11 (41 ribs total)