

official digital newsletter of
Skywriter
AMA Charter Club #970 www.skymasters.org 24 year Gold Leader Club



Skymasters Radio Control Club of Michigan

it's another beautiful day at Skymasters...

June, 2021



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Happy June!

Wow, so happy with the new mower! John Billinger has been mowing the runway really short and more often than the pits and parking lot. So much easier to switch mowing heights compared to the old tractor. We plan to sell the Kubota tractor if anyone is interested.

Speaking of the field we were FINALLY able to roll it. We missed last year due to Covid closures and reopen timing. Ted Labbe and I picked up the roller last Saturday after Friday's soaking rain with his massive new RAM pickup truck. Rolling went well once we had

Michigan Equipment Rental out to fix a glitch with the vibrate function on the roller. Ted, Teo Terry, Paul Goelz and I took turns rolling the main runway and the CL/Heli field. I'd also like to thank Steve Kretschmer, Marv Middleton, Don Bennett, Dave Shea and Joe Rubenstein for making themselves available if we needed them.

I went to my first local flying event last Sunday. Had a great time at John's Jet Jam hosted by PMAC. Their field was in great shape for an afternoon event. Weather was really nice with light winds and lots of flying. Best part of that event for me is participating in the jet gaggles. While a bit smaller than normal with 5-7 airplanes up at once, they are lots of fun. Any 64 - 70 mm hand launch (ie. cheap) foamy jet will work fine!

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Other upcoming local events include Wednesday morning float flying at Addison Oaks hosted by Romeo Skyhawks (<http://www.romeoskyhawks.org/events/FloatFlying.pdf>). Typically 15-20 pilots are there every week.

Given the total elimination of mask requirements for outdoor gatherings by the State of Michigan, I'd like to gauge interest in having our annual Corn Roast and Family Picnic on August 22nd. John Hoover's Wing-It competition is also scheduled for that afternoon starting at 3PM. If you think you would want to participate in a Corn Roast potluck picnic, please shoot me an email at President@skymasters.org.

Don't forget Student and Family Night is in full swing every Wednesday night. I hope to restart the potluck BBQ later this month.

Stay Safe and See you at the field!

Pete

Pete Foss, President

Skymasters RC

president@skymasters.org



Front Cover

Pete Foss and Jim Satawa with their Joe Rubenstein designed "Quarantees".

Paul Goelz photo

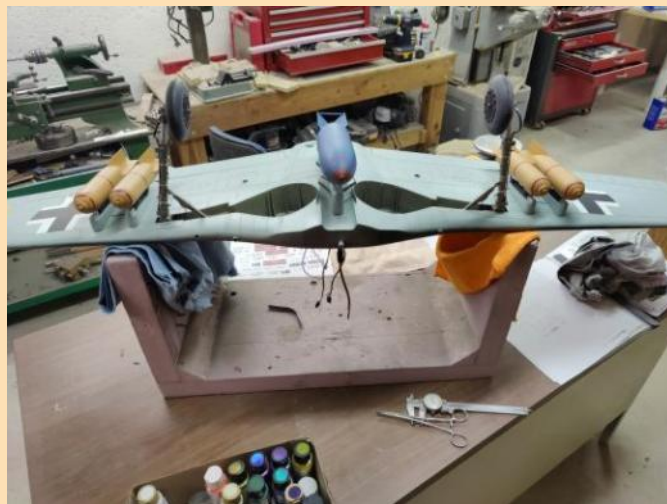


FW-190-F8-R1 Wrap Up and some other things

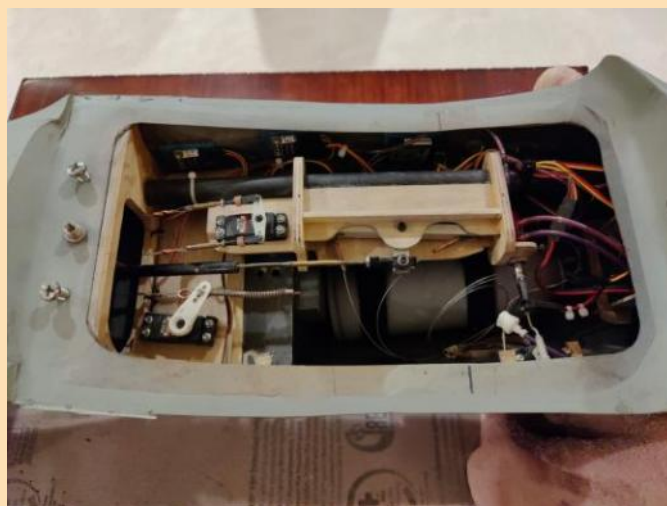
I left off last month's article saying that the only thing left to do on the model was to apply the tiny text markings to the model and a few small details. I have now done that and "White 7" is finished. So how did it come out? I would have to say I'm mostly satisfied. It has certainly been my most ambitious model project maybe even eclipsing my full scale self-launching build back "in the day". How many hours you might ask. I don't keep a log of things like that but I think I can calculate that I spent around 1500 hrs on this project over a 17 month period. Keep in mind that I took off a couple of months for building the Fierce Arrow and my cancer surgery. There was also time spent experimenting with techniques, re-doing things that I did not like and research/documentation for the static judging part of scale competition. And of course those hours don't include the time spent building the model in the first place. The time is just what it took to convert the model to control line and upgrade it to a level of precision I believe is necessary to be competitive in Authentic Scale competition. Was it worth it? Sure. I really enjoy the work and I am constantly learning how to do (and not do) new things. Would I do it again? Well....I don't think I'd do a control line conversion on an already built model like this. I've learned that I wound up having to do things in doing an after the fact conversion that created complexity, added weight and took much more time. So, I'm already considering a fresh **purpose built high level scale model.**

Ok so through a gallery of pictures I'll show you how it turned out. To really judge how faithful the model represents the 1:1 scale White 7 in the National Air And Space Museum you can find a nice set of photos of the museum piece here:

<https://www.ipms.nl/walkarounds/walkaround-vliegtuigen-props/1485-walkaround-focke-wulf-fw190>



The wing ready to mate to the fuselage



The inside of the fuselage. You can see the added bellcrank structure in the center along with a big carbon fiber tube connecting the bellcrank structure to the firewall and the next structure at the rear of the fuselage opening.

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Top views follow.



The bomb load (4) SC50 kg bombs and SC250 kg bomb. The SC250 is set up to be released during the competitive flights.



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Tail detail and markings. Note the rib stitching detail on the rudder. On the full scale, all control surfaces were fabric covered and the model shows the proper rib stitching detail on all surfaces.



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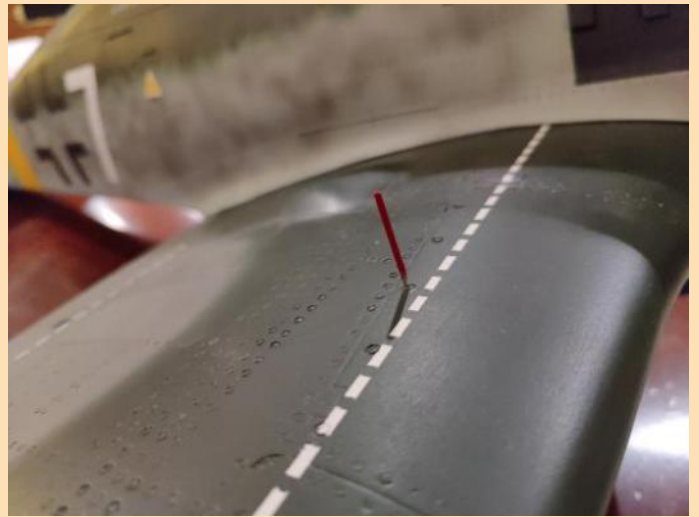
Antenna detail with spring tensioner and insulator. Note that the werk number is only 3 digits on the starboard side and 6 digits on the port side.



Pitot tube



Starboard 20mmMG-150-20 gun barrel



The red pin is a mechanical indicator that the pilot can see to verify that the landing gear is down

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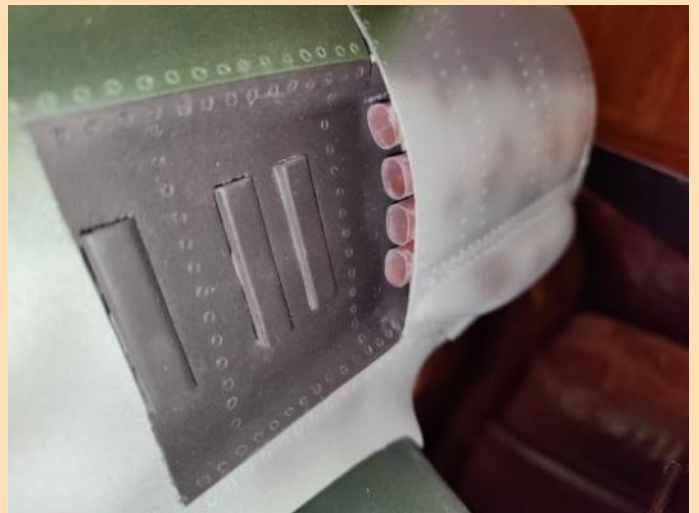
13mm MG-151 gun barrels



Two of four ETC50 bomb racks with adjustable sway brace detail. Note the fuse detail on the nose of the SC50 bombs.



ETC501 centerline bomb rack with adjustable sway braces. You can also see the curved vanes that deflect exhaust heat away from the open wheel wells. With the bomb rack mounted the inner gear doors were removed exposing the tires to the exhaust heat.



Four of the exhaust stacks and cooling flap detail. The exhaust shape matches the full scale shape.

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within the cowl and then exited through that odd fairing seen in the previous picture.



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One of 3 fuel fill hatches. All of the hatches on the model have simulated piano hinges like the full scale. The markings were really tough for me to do. They are small and difficult to mask and include the most difficult paint color (yellow) to work with. I experimented before I tried to paint these and couldn't get it to look right. I made the triangles by cutting white and yellow pieces out of Monokote trim material. I then applied the 2 home-made text decals and then airbrushed satin clear to knock down the high gloss from the Monokote.

I mounted the lower 5 exhaust stacks on the removable battery hatch on the bottom of the cowl. The odd shapes are reproduced.



The battery (6S-5000) compartment.

The Fw-190 flew with a BMW 801 14 cylinder radial engine. But there are only 13 exhaust stacks. Why? After a lot of study of pictures of the BMW engine installed in an Fw 190 I discovered that 2 exhausts were siamesed

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I used the Monokote trick here also.

The next 4 pictures show more home made decals. Some Fw-190's have more nomenclature than White 7. I applied everything that I could see in photos of the full scale plane. It took a long time for me to develop the technique and materials to make the decals and apply them over textured surfaces.



On the full scale plane there are 8 bolts that hold the gear doors to the struts. There were covers over the bolt recesses. In the case of the model I wanted to be able to remove the gear doors without damaging them. There are 4 small flat head screws that you can see in the picture above that I use to attach them. You can

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see 2 of my simulated bolt covers near the top of the picture. I made a set of 3/16" diameter removable covers out of 0.005" plastic that is painted to match the doors to cover the 4 real mounting screws. They are not present in the picture above.



A view of the spinner, prop hub, dummy cooling fan and BMW 801 engine. The prop is of scale size and shape. I found a Turnigy "classic" 20x8 wood prop where the blade shape could be modified to match the full scale. I cut two props in half and re-shaped the blade as well as the hub end. I then machined dummy blade attachments and a hub to accept the 3 blades. I modified the static display spinner to be held on with a magnet and then added the rivet and screw details



The main gear struts are custom made by me. I use Robart pneumatic mechanics. The 1/2" heat treated aluminum struts go into machined bores in the Robart trunnions. The Full scale had electric mechanisms that used an over-center knee link that you can see replicated in the picture. For a variety of reasons I couldn't make the dummy knee link actually fold. After a bunch of head scratching I decided to have the wing end of the link

slide inside of the strut trough in the wing as the gear retracted. I have a dummy replica of the electric retract gear motor attached at the wing end of the link so the judges can see it during static judging.

The Full scale has hydraulic oleo struts. There is a service valve with a removable dust cover. The cover has a short length of chain to prevent loss. I replicated that detail. If you look closely you can see the cap and chain in the picture above. I also added hard and flexible brake lines and swage fittings. I did not attempt to duplicate the swage marks! I also made the anti-rotation links (barely visible here) at the telescoping end of the oleo strut.



The wheels are Williams Brothers "Smooth Contour" units. I selected them because the tire looks remarkably like the full scale. I removed the molded in Williams Brothers name from the tire and machined the hub to accept 24 bolts to replicate the look of the full scale wheel. I also added the tire servicing valve inside of the triangle shaped notch in the hub. To complete the details I added a barrel nut and cotter pin wheel retainer

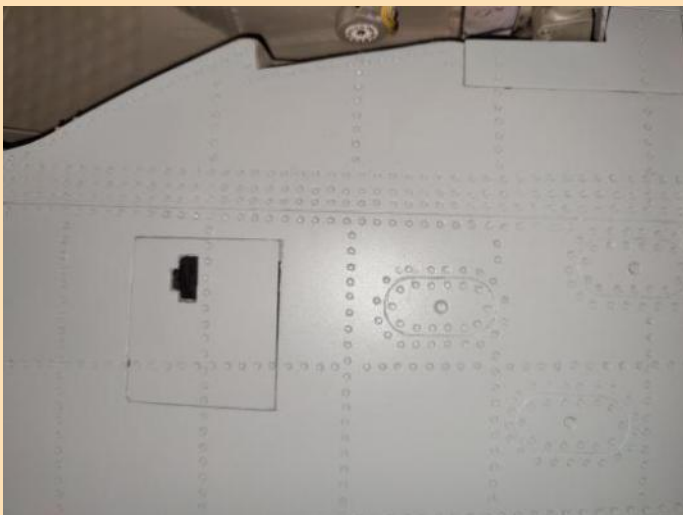
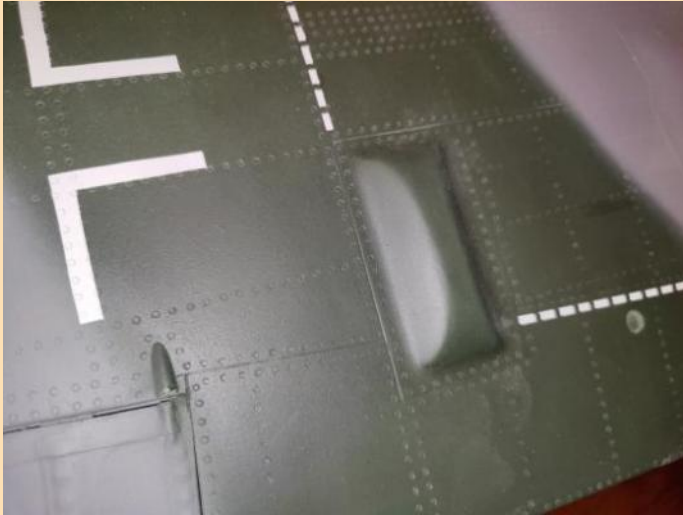
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like the full scale.

The following 3 pictures are examples of the surface details showing rivets, panel lines, hatches etc.

There are 3 different rivet sizes and I believe that I applied roughly 25,000 in total. Each was formed one at a time using custom made tools and spacing guides. Whew!!



So that's it for the construction.

Now for the flying part. Fellow Skymaster Jim Satawa (who will be flying My 1/4 Scale Miss Los Angeles in Fun Scale) took the Fw-190 out for her maiden flight one calm Saturday morning. I had searched high and low to find a good blacktop surface without curbs, light poles, sewer covers, pot holes, lumps, bumps or other airplane damaging features. I found what is a nearly perfect spot. The Delta Kelly Elementary school in Rochester Hills has a parking lot that I believe was resurfaced within the last couple of years. It's almost dead level and very smooth. So We put her together stuffed the battery In and checked everything out. Before I go on I must acknowledge she's HEAVY. 15lb HEAVY. So I was concerned about the stall speed. Continuing... I dropped the flaps and slowly added power. She accelerated nicely, the tail came up just like it should and as soon as I saw her get light on her wheels I lifted off. She flew very nicely but pulls VERY hard on the control handle. A couple laps of level flight and I pulled the gear up switch. The left gear came up nicely but the right didn't move (I later discovered an issue with the way the dummy over-center link works and corrected it) any way I extended the gear and prepared to land her. I slowly pulled back on the power and got lower and lower and suddenly she fell out of the sky from 4 or 5 ft altitude. She fell like a stone and hit on her main gear very hard. The impact broke the motor mount and the motor then hit the cowl and broke the cowl mounts.

The motor, cowl and battery skidded across the black top for 20 yards or so. WHOA!!! WTF just happened?? **Pilot error**. I failed to lower the flaps and got too slow on the landing approach and she stalled. It was the thing that I was concerned about and I muffed it up anyway. Fortunately the damage wasn't bad. I repaired and strengthened the motor mount, repaired the scuffs in the cowl, and fixed the paint. The next Saturday we took her back to Delta Kelly. I took her off just like before. I was going to fly a few laps and then try the gear again when all of a sudden the battery hatch flew off followed by the battery! So now she's 25 ft up with a dead motor and 1.5 pounds lighter in the nose (we're talking enormously tail heavy now). After a few big pitch oscillations she hit the ground HARD on the main gear and snapped the right oleo strut off in the middle. She skidded to a stop dragging the right wing tip on the blacktop. Other than the ruined oleo struts, the scrape on the wing tip, some minor damage to the battery hatch

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and a seriously crunched battery she fared pretty well. What happened? I screwed up again. This time When I installed the battery I must not have firmly secured the velcro straps. In retrospect, I carried the velcro paradigm to a bad application. It turns out that during the construction, dust and debris got into the nap of the velcro and reduced its effectiveness. Nevertheless it was a bad choice. Again the repairs are going to be easy. I've got the material to make new oleo struts and the other repairs are pretty trivial. All it takes is time.

So what's next? Well I've made a tough but I think wise decision regarding the Nats. The event is now 2 weeks away and there just isn't enough time left to fix the plane and get any meaningful practice flying. So I'm going to cancel out on the competition. As a aside, we were working with a bit of a handicap this spring with weather and limited access to the Delta Kelly parking lot (teachers seem to think it's ok to park there) and the Nats being a month earlier than normal. There were several other options that surfaced to go to the competition but I concluded that the inability to fly in the Authentic Scale event which was the principal objective from the beginning along with the travel, food and lodging costs says stick with the original objective and just wait until next year.

While the Fw flies ok, the landings are going to be a challenge. I'll get her fixed and try again. But I'd really like to do a competitive scale model built as a control line model from the start and save the time, weight and cost of re-purposing an already built r/c plane. It promises to be an exciting build for me.

Finally, It is with a bit of sadness that I am announcing that this will be the final installment of my "Some Assembly Required" series of articles. I'd planned to end next month with a Nats wrap-up but events have said that this will be the last article. I've written 60 some articles totaling more than 450 pages and I have a library of over 3000 pictures taken in the process of documenting my work. Why am I ending the series? In my first article 5-1/2 years ago I said I was writing in order to "give back to a hobby that has given me so much over the years". In doing that I hoped that I could help modelers advance their capabilities in building models. Over the past year or so I have reflected on whether I am accomplishing anything. I know that there are a few people who read the articles and may get something out of them. But at the end of a couple of articles I asked the reader to drop me a one line email saying "Hey, I Read your stuff". I got 1 response (thanks Sandy). I also know some of my closest friends read the articles.

But in the final analysis very few people actually build models these days and it seems like the interest in what I do and write is too low to continue the effort.

So what's next? In the future I will continue to build, (possibly that new Nats model), I need to get back into my other hobbies that I've almost totally neglected and I plan to edit and assemble all of my articles into a single volume.....just because.... with no deadline.

See you at the field.

Thanks, **Steve Kretschmer**



Just another beautiful day at Skymasters!

Click anywhere in the collage to view the entire photo album on the Skymasters web site



ON THE WING



Notice:

The Retirees and
Wannabes Breakfast
At Red Olive

Is cancelled until further
notice due to COVID-19

Notice:

The Skymasters Breakfast
At Iris Café

Is cancelled until further notice
due to COVID-19

June 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 Addison Oaks Float flying 9AM Student Night 5PM-8PM Scripps field	3	4	5
6	7	8	9 Addison Oaks Float flying 9AM Student Night 5PM-8PM Scripps field	10	11	12
13	14	15	16 Addison Oaks Float flying 9AM Student Night 5PM-8PM Scripps field	17	18	19 Fly-In and Swap 9AM Gladwin
20	21	22	23 Addison Oaks Float flying 9AM Student Night 5PM-8PM Scripps field	24	25	26 Night Fly 6PM Scripps Field
27	28	29	30 Addison Oaks Float flying 9AM Student Night 5PM-8PM Scripps field			

Skymasters Information...

[The Skymasters field is located in Lake Orion, within the Bald Mountain Recreational Area](#) on Scripps Road, between M24 and Joslyn (see map). A recreation passport or sticker is required and can be obtained from the Park Headquarters located on Greenshield Road or you can check the box on your tab renewal for a "Recreational Passport".

Flying hours:

QUIET ELECTRICS ONLY from 8AM to 10AM and 8PM to 10PM. **The noise limit is 80dBa at ten feet.** Regular flying is permitted between 10 AM to 8 PM. **The noise limit is 94 dBa at 10 feet.** These noise limits are enforced.

Student Instruction & Pot Luck

Every Wednesday, May through September. Flying any time but we eat at 6:00 p.m. - rain or shine, literally!

For those participating we ask that

you bring something for the grill -

enough to feed (at least) you and your guests. **Notice:** a dish to pass -OR- bring your own (non-alcoholic) beverage. **Something for the pot luck on student night in the coming weeks.** Please continue to observe social distancing and wear a mask if you are closer than 6' to anyone unless everyone is fully vaccinated.

#####
At the field, don't forget to sign IN and OUT!

bring instead! Not sure to cook? A quick stop at local supermarket deli

for a side salad, or bakery for dessert always works!

From June through August, club meetings are held at the field, on the second and fourth Wednesday of the month at 8 PM. A great chance to fly and socialize. **Winter meetings (September through May)** are held at the Orion Center, 1335 Joslyn, in Lake Orion. Bring a model for Show and Tell, enjoy coffee and donuts and listen to the speaker of the evening.

The Skywriter newsletter is available online at the Skymasters web site and is free to all. It may also be printed from the web site if desired. All contributions are welcome. Please send photos and articles to newsletter@skymasters.org If you know of anyone who may be interested in R/C Aviation, please give them a link to this newsletter or give them a copy of an AMA magazine. It may spark their interest!



2020 Club Officers & Appointees...

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Newsletter Submissions

Please send all articles, photos and announcements to the Skywriter editor at:

newsletter@skymasters.org
Deadline is the 20th of each month.

The Skywriter newsletter is published bi-monthly by the Skymasters Radio Control Club of Michigan

www.skymasters.org