Team Rocket Newsletter May 20, 2021

In this issue:

- Changes to international shipping procedures
- Phlogiston spars, matched center sections, and Sport wing ribs - now available
- Phlogiston building services
- Building tips - oil mist burner
- FX tapered wing update
- Al Mullenbach's RV-4 pedal plane
- RV-4 wings for sale
- Mk3 tail kits available

International Orders and Shipping:

Sadly, due to ever changing regulations among the 195 countries on Earth, we must change our international shipping procedures. **Beginning May 12, 2021, ALL freight and most small package shipping for international orders will be handled by a freight forwarder**, i.e. a professional who knows how to handle the paperwork required. The time savings should more than cover any small increases in costs. Using a professional freight forwarder also allows the shipment to be covered by secondary shipping insurance, normally included free or at a very inexpensive rate, as opposed to the carrier's typically useless insurance. *THIS IS A VERY GOOD THING!*

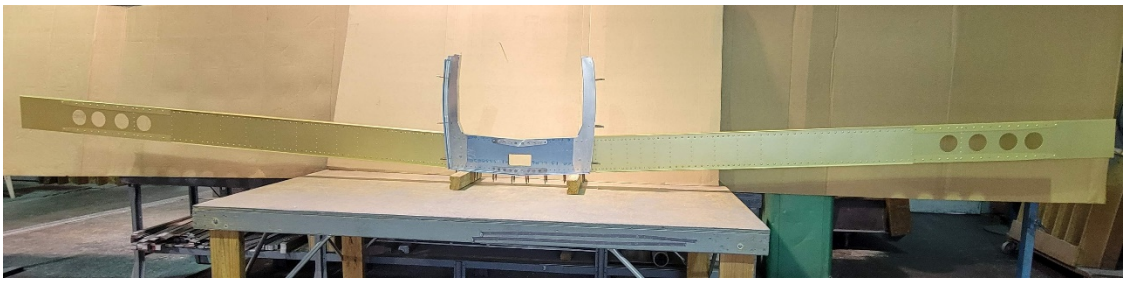
After you have placed an order that requires international shipping, we will ask how you want to handle the shipping. **You may use the freight forwarder that we have used for years.** Contact **Michael LeWinte**r at Globaltranz He can be reached at lewinter.m@globaltranz.com or phone (623) 230-4150. Michael is very familiar with our procedures and products.

When you contact Michael LeWinter, preferably by email, give him your name, shipping address, phone number, and any other relevant info. Michael will set up a shipping account for you at no cost. You'll then provide him with a credit card to pay for the shipping. Once this is done, your international shipping can be handled quickly and efficiently.

We will provide Michael LeWinter with the information that he needs so that your order transits through customs efficiently. Our shipping responsibility ends when the products are picked up by the carrier at our shop.

Alternately, you can provide your own freight forwarder. We will provide them with the information that they need so that your order transits through customs efficiently. Our shipping responsibility ends when the products are picked up by the carrier at our shop.

Phlogiston spars, Team Rocket center sections, and Sport wing ribs



Phlogiston anodized and assembled main spar and match drilled center section. Rear spars not shown.

Match drilled center section w splice plates.

A small sample of the newly available Sport wing heat treated ribs.

We are now able to offer main, nose, and tank ribs for the Sport wing. Combine this with the Phlogiston main spars, rear spars, and TR center sections and you're getting danged close to having a complete Sport wing set!!

These ribs are all stamped from T0 then heat treated to T3. This should reduce the need to hand form the flanges before installation. Woot! And the pricing is expected to be only minimally more than other options. And a greatly reduced lead time is also expected!

Current prices for the wing sub-kits:

- Phlogiston **main** spar set, anodized and riveted, includes steel splice plates: $4943.50
- Team Rocket F1/F4 number 4 bulkhead, aka the center section: $1189.86 This might be optional if you use the Phlogiston spar to build your HR2, but is required if you're building an F1/F4. Phlogiston match drills these to the spar set.
- Phlogiston **rear** spar set, Alclad and unassambled. Buying this with the main spar set saves significantly by combining shipping costs: $298
- Rib kit for 42 gallon tanks, 54 ribs, stamped and heat treated: $2495
- Optional, Rib kit for 54 gallon tanks, 60 ribs, stamped and heat treated: $2772

Leading edge skins are expected soon. They are made at the same shop as the ribs, so if you're considering a rib kit, also consider a leading edge skin kit.

We'll keep plugging until we get the whole wing, but do us a favor and let us know your level of interest. Emails appreciated! vince@f1aircraft.com

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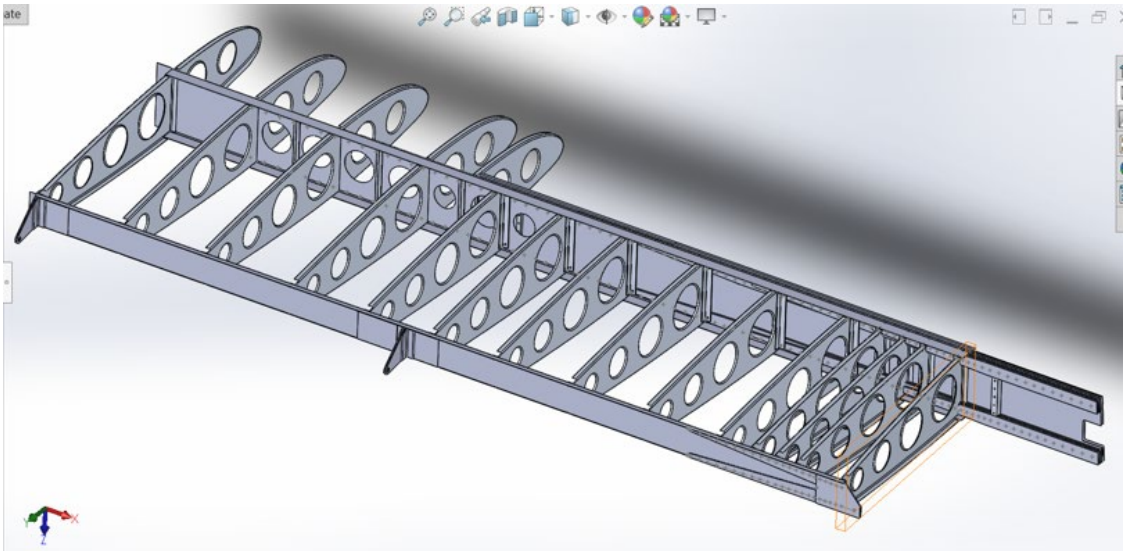

Phlogiston is now offering to build substructures for others.

They are known for wings, but can also build fuselages and tails. If you're interested in this option, please contact Tammy Ruiz at 503-985-3212, or email Tammy and Wayne at stoneyhill@aol.com

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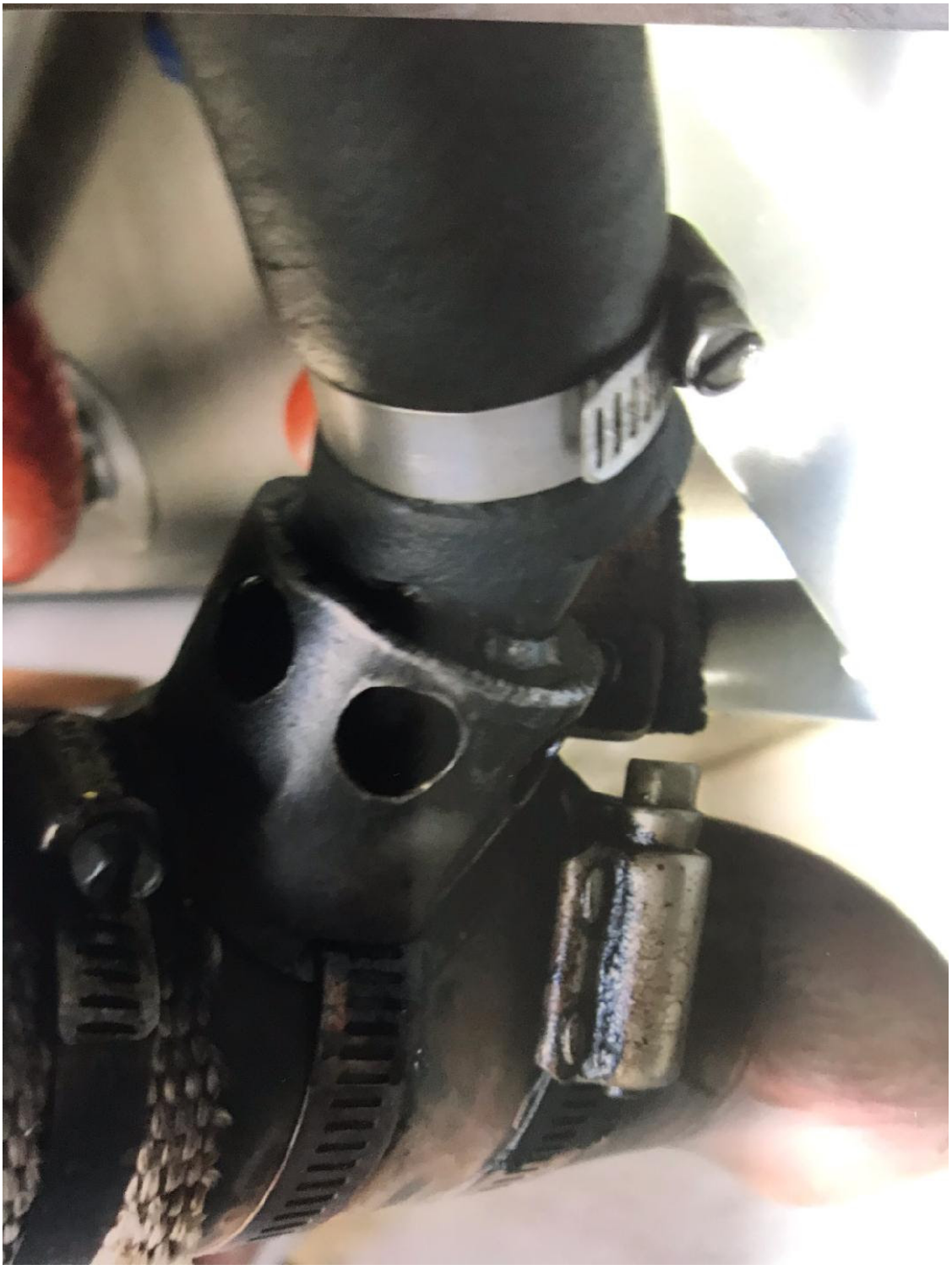


Oil mist/blowby burner:

Here's my answer to the hotly debated topic of "How to Get Rid of Excess Blow By" after air/oil separator.

I never liked the idea of putting the oil mist directly into the exhaust system and the attendant problems that go with. I also didn't like having the hose just "drip" on the exhaust pipe - the velocity of air exiting the cowling usually meant that most of the oil never came in contact with the exhaust pipe, but was swept along with the exit air, and on to the belly.

My fitting "clamps" to the exhaust pipe, and the internal design forces the oil mist/blowby onto a hot surface, then the cleaned air exits through the round holes in the outer shell.

Unfortunately, not visible in the photo, the internal design consists of the oil mist/blowby inlet tube inpinging on a hot plate, heated by the exhaust. The inlet flow is routed through vee shaped notches to escape the inlet tube while passing over the hot plate. The internal baffles are designed to "stir" the flow so that the oil burns on the hot plate before the flow escapes. The round holes on the exterior of the unit then allow the clean flow to escape and be swept out of the cowling.

All the oil which comes in contact with the hot plate burns off while being protected from the unrestricted sweep of exit air. Thanks, DH

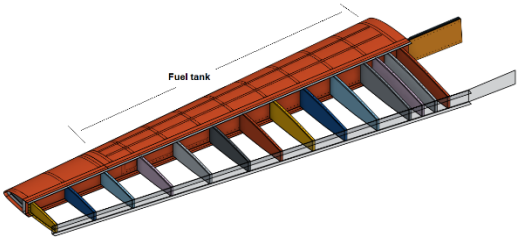
FX tapered wing update:

Like the tortoise and the hare, we're racing ahead on the new FX tapered wing. We're the tortoise in case there's any confusion, but we're steadily moving forward.

Our new wing is specifically designed for the F1/F4 fuselage. Compared to the Evo wing, it should be substantially lighter, but with similar handling and efficiencies at altitude. Unlike the Evo wing, which Mark Frederick has been modifying, there is no plan to add retractable gear to the FX wing design. Our design philosophy for the FX wing is to keep it light, but strong, and efficient, while optimizing it for cross country speed, but with very tame landing speeds.

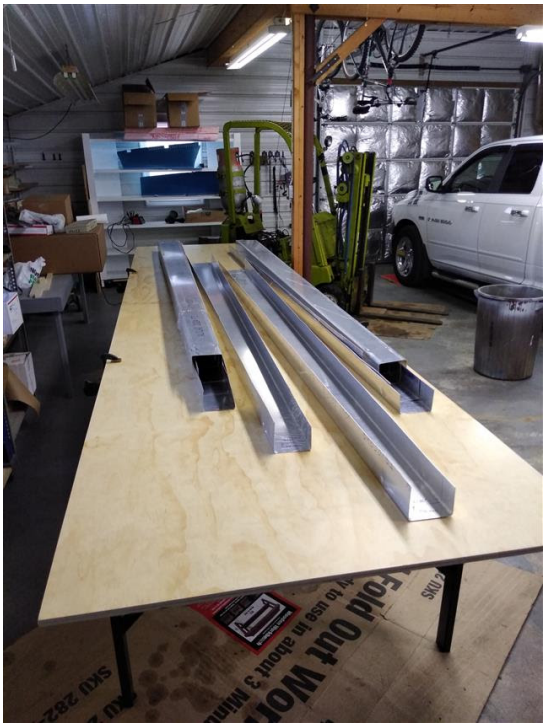
In summary:

- If you want hair on fire, down low, proven performance, build the Sport wing.
- If you want a cross country cruiser, with sedate landing speeds, consider the FX wing.
- And if you want retractable gear, well, talk to Mark Frederick.



The FX wing will have roughly 60 gallons of fuel.

The relationship of the spars to the wing is shown, many details omitted for clarity. The rear spar attach point remains in its original position.



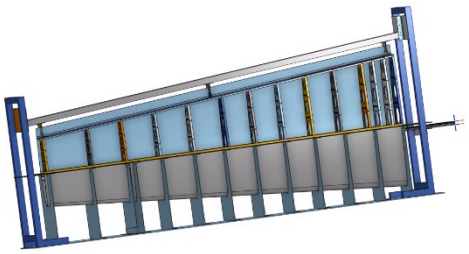
Untrimmed spar and tank C-channels before being installed in the destructive test wing.

Note: You can't imagine how hard it is to wrap your head around knowing that you're building a set of wings just to load them to destruction. It's enough to make a grown man cry.

Stacks of ribs, ready to go into the first sets of prototype wings.

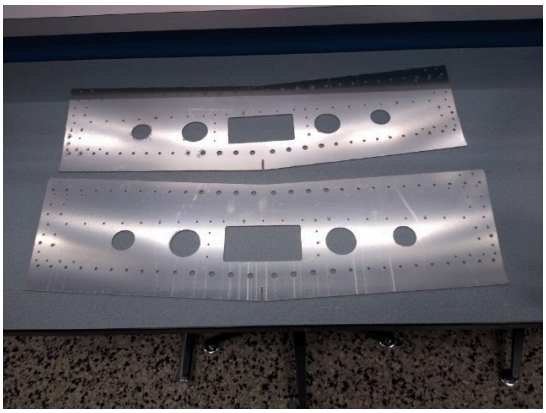
A couple of spar web tooling parts and a couple of CNC spar carry thru plates.

The tapered design incorporates a twist. A special fixture, CAD designed and using CNC cut parts,was built so that the wings are accurate and reproducible. The fixture shown is for the leading edge portion.There are similar fixtures for the main wing portion.



The FX wing fixture looks something like this now.

I could share more photos, but if you want to see/hear more about the project, come see us at Oshkosh, space 645, about 50 yards SW of the Van's Aircraft display in the Homebuilt vendor area just South of the warbirds. We plan to have a wing panel on display, Covid permitting!



A couple of the #4 bulkhead carry through webs. These are slightly different than the Sport wing webs, so a wing swap, while possible, will require replacing these also.

FWIW, we're not taking deposits. Crazy, right? When the wings are actually ready to be in production, then we'll take your money. And lots of it. ;)

Al Mullenbach's super cute daughter with a pretty cool pedal plane and RV-4 too

Al Mullenbach built this superb pedal RV-4 for his daughter. As you can see, no shortcuts were taken. Al reports "I built the pedal plane for my daughter for her 1st Christmas. Other than changing the stripe color to pink I built it to replicate to my Dads RV4."

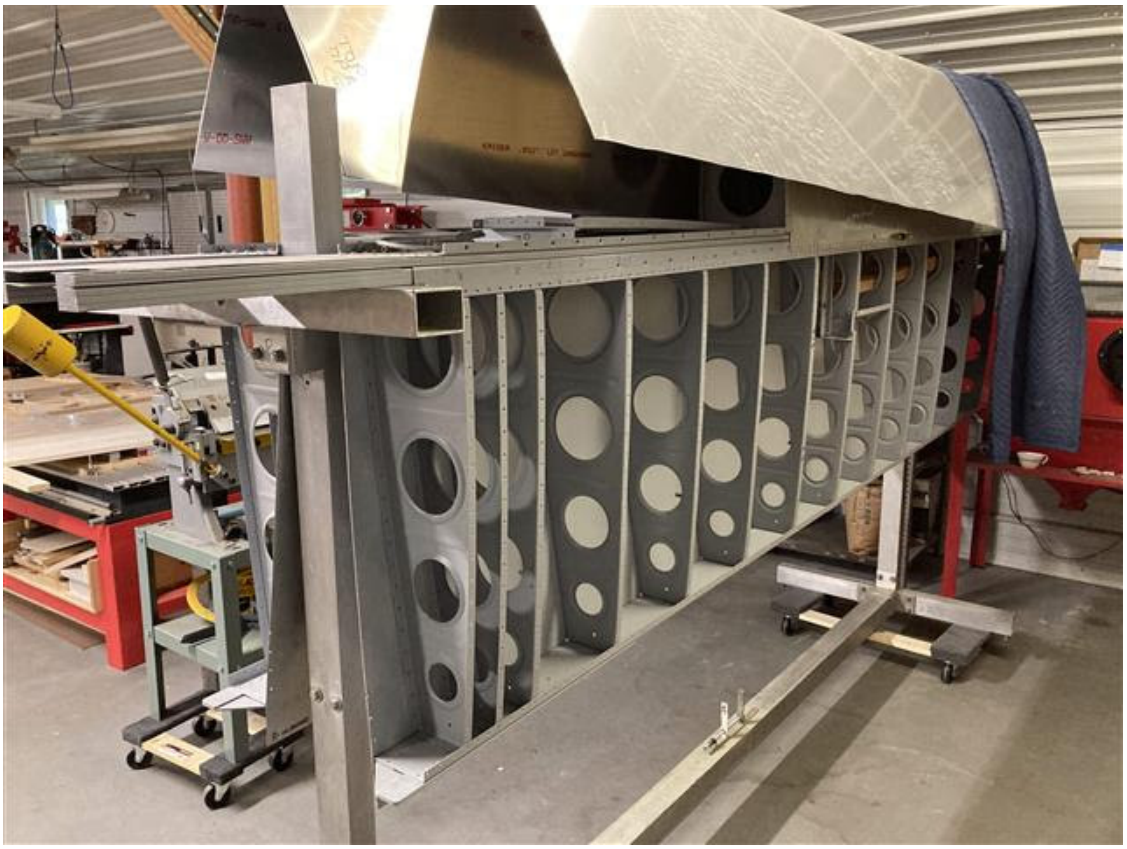
So cool, and his infant daughter is super cute too.

503/01

Snap-on
Acetone

N449PM

RV-4 wings, partly converted for use in an F4 Raider - for sale



Several years ago I bought a set of RV-4 wings, intending to put them on my F4. Things changed and now I intend to put the new FX wing on instead. That means that I have a nearly completed set of wings, along with the control surfaces, to sell. Overall, the workmanship appears quite good.

I had done some work to convert the center section, but more work remains, such as moving the root rib, tank flange modifications, and (probably) building new tanks. There is a set of completed and sealed 32 gallon fuel tanks included.

There may be a few items missing, i.e. small hardware, but I believe that all of the structure is there. The flaps, if I recall, are completed, while the ailerons are untouched. The matching splice plates are included. I will include an up to date set of sheared Rocket wingtips with the sale since no fiberglass tips came with them when I bought them.

Contact at vincefrazier@gmail.com for more info.

I have a crate that these could be shipped in, BUT I don't recommend freight shipping for these. The freight monkey odds would be 9:1 that they'd damage them. However, when you

come to pick up the wings, you can pack then in the HUGE crate and haul them away on your trailer. Bring lotsa packing blankets.

The wing kit is **sold "as is".** I don't know of anything that would preclude using these parts on any project, but I am not guaranteeing it. This was the same guarantee I received when I bought them. **Asking $8000 OBO.**

(Please note: the large leading edge skins on top of the wings are for the FX wing and are not included.)

Just received! 12 new Mk3 tail kits

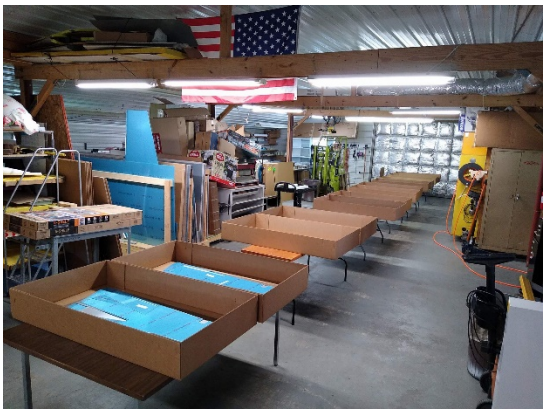
The price remains unchanged... rare in this era of inflation.... $3595. Add $255 if you don't have the Ray Allen B6-11C servo that you'll need.

In case you haven't seen a Mk3 kit, the frame is pre-punched to fit together quickly. Skins are not drilled to allow for minor variations. Hardware and fiberglass tips are all included.

Contact at vincefrazier@gmail.com for more info.

This is the packing table where Mk3 tail kits get sorted, wrapped, and packed.

In the upper right, there is a large box. You can only see about 1/2 of it. It contains a set of leading edge skins for the FX wing.



We set out 12 large shipping boxes at a time. Stacks of parts are carefully counted out, 12 sets at a time, wrapped up, then placed in the boxes. This helps to make sure that all of the boxes have all of the correct parts!

Until next time, fly safely and build on! Read the Dropbox info, and when you can, please post stuff to the forum. Builders and owners, please contact Vince for the Dropbox URL.

Thanks,

Vince Frazier,
a Team Rocket authorized distributor
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