October 7, 2017

Greetings all,

This is the first in what I hope will be a series of many useful Team Rocket updates. I'll post a copy of these to the website too.

Before we get to the news, I want to review the recent Team Rocket history to refresh everyone's memory, dispel any rumors, and maybe start a few new ones. If you just want to hear the news, without my pithy commentary and witty banter, just scroll down to the **NEWS** section now.

Recent Team Rocket history:
Just over 2 years ago I approached Mark Frederick with the idea of building a 4 cylinder hybrid Rocket. Mark and I were soon discussing ways to get this idea rolling. As it turned out, there had already been some work done along these lines, work that eventually became Brad Hood's award winning F4. Great minds think alike, eh?

The reasoning behind using a 4 cylinder (and some say it's heresy to not use a 6 cylinder!) is that the power available in a 4 banger just keeps increasing. Given that they are 125+/-

pounds lighter than the big 6s, it really begs the question "How would a considerably lighter Rocket airframe handle?"

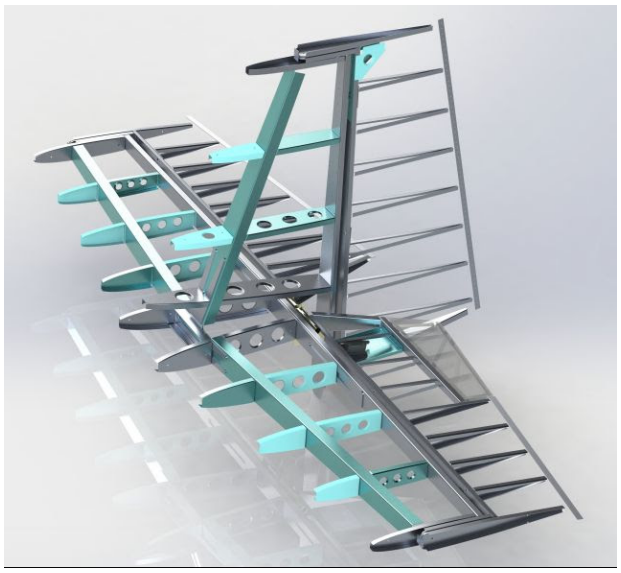
Then I found out that HRII owner/builder, Larry Vetterman, had swapped his IO-540 for an IO-360 and claimed that it flew great and that he was very pleased with the swap.

Well, this really got the juices flowing. Besides, if there was any chance of getting Rocket parts produced again, there had to be some flexibility added to the design to make it attractive to a larger audience, i.e. RVers who love the 4 cylinders, but are skittish about the big 6s, specifically RV-8 types.

A few months passed and I was eventually able to scrounge up most of the F1 fuselage bulkheads, an RV-4 wing and tail kit, a 210HP Titan engine, and instruments. I was well on the way to getting things really lined up. It was just about then that Mark said "Well, if you're making one for yourself, you may as well make a run of parts." Well, that seemed like a good idea, so I was soon heading to Taylor, Texas to pick up form blocks and other goodies. I had no idea what I was getting into. Ignorance is bliss.

Oshkosh 2016 rolled around and Blake, my son who runs www.flyboyaccessories.com, and I were feeling out the crowd at our booth to see if any of them were interested in the Rocket being put back into production. We had a few, admittedly crappy, parts to display, just to start conversations. Well, we had a LOT of conversations, including a few that went something like - *Me: "What'ya think about the Rockets?" Them:" TAKE MY MONEY!!"* Well now, that's encouraging.

With that enthusiasm to motivate me, I went in search of experts who could help. I soon found Aircorps Aviation, a warbird restoration shop with amazing metal fabrication skills, and laser scanning and CAD services. Boom! Jackpot! I was soon sending F1 parts to Minnesota to be scanned, drawn, and stamped. They do excellent work.



With Aircorps Aviation handling the sheet metal, it was time to find someone to help with the engine mount that we needed. I was still at Oshkosh 2016 at this time, so it didn't take long to find the Javron display. They were obviously steel tubing experts. Soon, they were making some gorgeous engine mounts just for the 4 cylinder F4s. Nice!

In the space between Oshkosh 2016 and 2017, we had a whirlwind of activity. Several fiberglass suppliers dug out the old F1 molds and started making new parts. Our local machine shop began cranking out gobs of nifty items, both things to make the plane, and also actual parts of the plane. Airplane Plastics is again making new canopy bubbles. Everything was rolling along as planned.

By Oshkosh 2017, Blake, Mark, and I could stand at our new outdoor display, complete with Brad's F4 and Mark's F1, and actually have *almost* a complete airframe to offer. We're still working on fuselage skins and some other minor things, but they're coming. The only major component that we aren't, and likely won't be, producing is the Sport wings. This is quite simply because the parts required to build the Sport wings are identical to RV-4 wing parts. Van's does a fabulous job building those parts. It would be crazy for us to try to compete with them on those parts. Those rumors that we're working on a tapered wing, um, are true. But that has no bearing on why we're not making our own Sport wings (wink, wink). Sadly, we can't promise when, or if, the tapered wing will be ready. (Hint: It's a lotta work!) And now that we're up to date, let's get to the NEWS.

NEWS 10/7/17:
Empennage: Mark and I sat down with Aircorps Aviation at Oshkosh 2017 and discussed how to optimize the existing F1 empennage. We expect the changes to provide a larger margin against any gremlins that might lurk up near Vne. You can see the changes in the empennage photo above. Extra ribs, stiffeners, doublers, a new trim tab layout, and other minor tweaks should serve well.

The empennage stamped parts are nearly ready to ship. Once here, we'll add hardware, fiberglass parts, then sort and pack them. We have 12 kits in this initial batch. 3 are still available for sale. Act fast!

Round inlet cowling: One of our Rocket guys down in Florida wanted a new round inlet cowling. He was able to get the molds from a "one-off" cowling that is currently flying. We expect several copies to be available in the not to distant future.

Gear leg clamps: Setting the wheel alignment can be difficult. We recently designed, and are now producing, a gear leg/axle socket clamp that should allow the alignment task to be delayed until the plane is nearly finished, when it will be at a proper weight to set the wheel alignment. I won't go into details here, but we think this is a cool idea that solves a real problem.

Tips, tricks, and advice from the home office:
Anyone who is even remotely interested in building, maintaining, or even helping someone with their homebuilt project has an absolute responsibility to educate themselves fully on everything related to the aircraft in question. For RVs, Rockets, and Raiders, this is readily achieved. Let's talk about this for a minute.

First off, the FAA regs (amateur-built regs) state that we're supposed to be knowledgeable about our aircraft as a condition of obtaining our repairman certificate for our pride and joy. If you haven't already, join EAA. Browse their website. It is an amazing wealth of GOOD information, for example their FAQs. Seriously, good stuff. Devour it.

Second, if you're going to build an F1 or F4, get on Van's website and buy a set of RV-4 preview plans

. These things are the best kept secret in aviation. Sure, they're geared toward the RV-4, but there is wealth of useful information, how-to articles, hardware descriptions, and other introductory stuff inside. Once you've absorbed all of that, there is also a complete set of miniature RV-4 blueprints included. You WILL need them. They have all sorts of views that help visualize what you'll be building. Yes, they are geared toward the RV-4, so they're not an exact match whatsoever, but the F1 and F4 lineage will be immediately obvious. Get them. It'll be the best $50 you'll spend on your project.

Third, and finally, get yourself an AC43.13. You can get this government publication from any number of places, including the FAA website as a .pdf file. Or just buy a copy. Here's one. Since it's a government publication, chances are good that if you read it cover to cover, you'll likely turn into a troll, or maybe Milton from *Office Space*. Nonetheless, you'll know enough by the end to build your own King Air.

More later! Until then, build wisely, and fly safely.
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