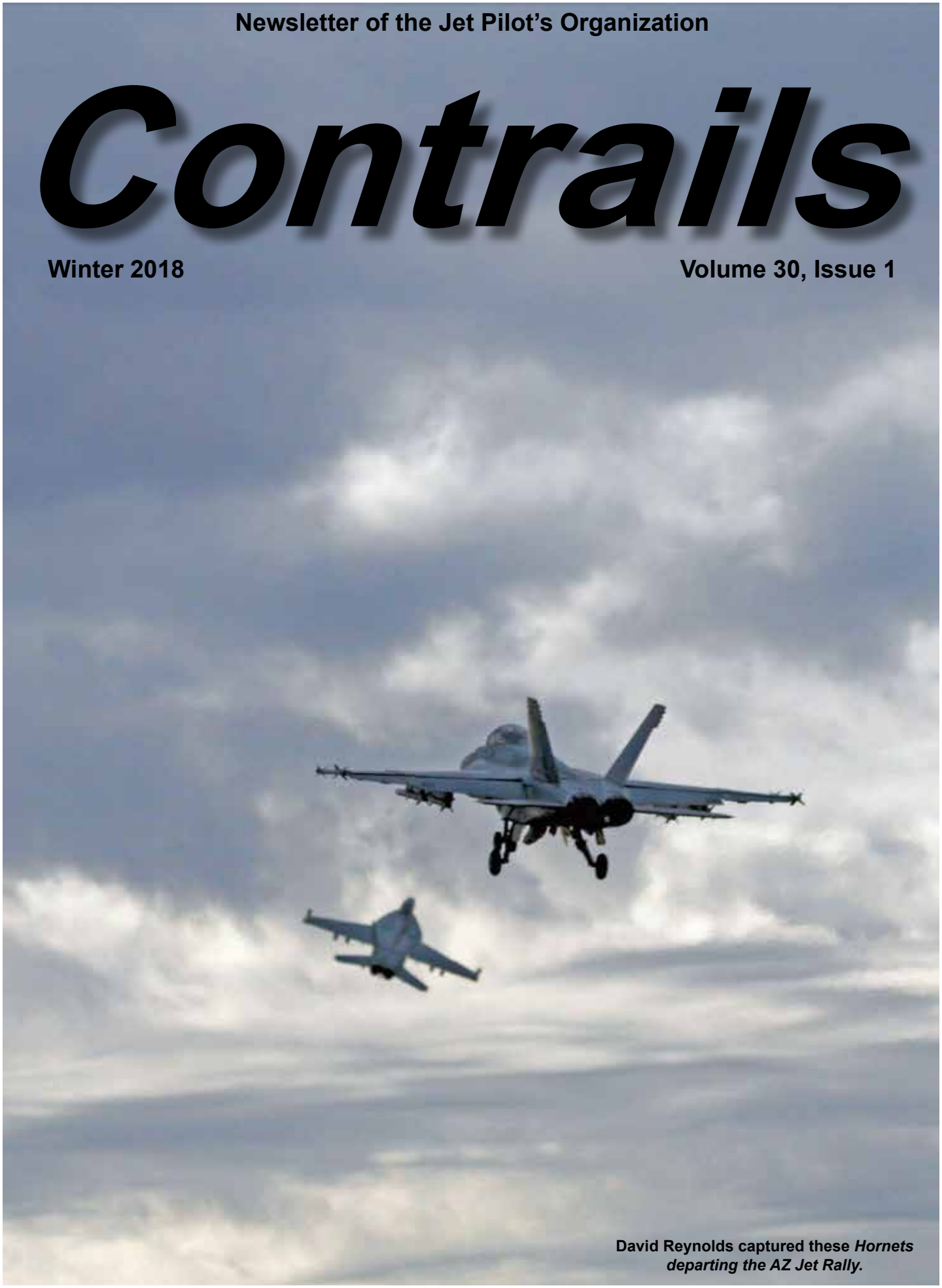
Newsletter of the Jet Pilot's Organization

Contrails

Winter 2018

Volume 30, Issue 1



David Reynolds captured these *Hornets departing the AZ Jet Rally.*

President's Report — Bob Klenke

Happy New Year guys, welcome to the 18th year of the 21st century! It is certainly a unique time with a lot going on in the world. Regardless of the conversations discussing the decline of our hobby in several of the online forums, the activity in the jet community appears as strong as ever. The calendar of jet events is expanding with several new jet events starting up this year and the dates for the traditional events are getting filled in. While the current struggles and uncertainty of several model aircraft hobby companies like Hobbico and JR are disconcerting, we are lucky that one of our key vendors, Dreamworks RC, has committed to continue to keep their doors open to support our hobby in spite of the tragic and untimely passing of its founder, Todd Witkoff. Another of our long-time suppliers, BVM, has secured its future and continues to bring innovative and popular products to our market. In addition, there are several new USA-based vendors who are bringing us new jets and other jet-related products. We should do all we can to support these companies so that they will be around in the future to support us.

Those of you lucky enough to live in the more temperate areas of our country have events to attend coming up soon while those of us in more northern climates have to wait until later in the spring for the weather to be warm enough for the events to start. This year, we're planning on First-in-Flight, Kentucky Jets, Super Jet South, and perhaps a few events in South Carolina. We'd like to do more, but the work schedule, family obligations and the wallet are limitations we have to live with. I'm sure that's a story familiar to most. We always look forward to getting out there when we can and enjoy the company of our fellow jet buddies as much as the flying.

While we wait for better weather, the building/repairing season continues. I wanted to have a smaller jet that I could take out to our local club field for a day of flying without having to haul my trailer out as well. To make it even easier, I wanted to eliminate any air systems on the jet by going to electric retracts and brakes. I selected the TopRC Model *Cougar* for my effort and outfitted it with a JetCat P-60 turbine and Dreamworks RC electric retracts and brakes. It took at bit of modification to get the electric retracts to work in the *Cougar* (the retracts are 90-degrees and the *Cougar* requires 75-degree retracts to clear the engine), but the end result worked out very well. I'm anxiously awaiting warmer weather so I can do the maiden flight.

I've been using the same radio without problems for the last five years or so. Although it performs as well as it ever did, technology has been moving forward and it felt like it was time to move up. Of course the old radio didn't have telemetry and the new one does. I hadn't felt a real need for real-time information from the aircraft for flying for fun (flying an autopilot-equipped UAS for work is a bit different), but several years ago I experienced a loss of power on the P-120 in my F-4 which resulted in significant damage to the aircraft. Also, last fall Louie had a flameout in his *Hawk* at Georgia Jets. Luckily, he was flying by himself and could hear it quit and got it back to the runway, but if it had been earlier in the event with 5 guys flying, the result would have likely been much worse. So it seems that some telemetry could be very useful for certain aircraft.

For the *Cougar*, I decided not to add full engine telemetry at this point for casual flying at the local field. However, because the batteries are located in the nose of the aircraft for balance purposes and it takes removing the nose to get access to them, I decided to add full battery voltage telemetry so I could keep an eye on the batteries during the course of a flying day just by turning on the radio. The battery setup on the *Cougar* is the same as I typically use on my jets, consisting of two 2-cell LiPos connected to a regulator and a third 2-cell LiPo for the turbine ECU. The receiver automatically sends down its voltage in the telemetry, but because of the regulator this information doesn't tell much about the charge on the batteries. The receiver also has a 2nd voltage sensor built in for an external battery, so I used that to send down the voltage of one of the 2-cell LiPos. I then added an external battery voltage sensor and modified it slightly to be able to send down the voltages of the 2 other 2-cell LiPo batteries.

As shown below, the telemetry screen of my radio shows the receiver voltage (a steady 5.0V because of the regulator) and the voltage of the three 2-cell LiPo batteries, allowing me to keep an eye on them without having to remove the nose to get access. It's a simple thing, but its been fun to play with it and I'm now more of a believer in telemetry – for convenience sake if nothing else, than I was before. Full telemetry for the JetCat engines that I mainly fly is a bit too pricey to equip all of my jets with it, but my next telemetry experiment is to add the turbine pump voltage to the voltages being sent down. That way, I can at least see if the pump (and thus the turbine) is still running. In aircraft like my F-4 (which I'm currently rebuilding), where engine performance is critical, I will add full turbine telemetry so I can monitor not only pump voltage, but also RPM, temperature, and other parameters.

That's it for now. Next time I'll have an update on a few things that the JPO will be working on for this year and show you what a few jet guys in our area are working on for the 2018 flying season.

Bob

Vice President's Report

Jim McEwen

Greetings! As I write this, much of the US and Canada lay under a blanket of snow so jet flying may be the furthest thing from your mind. I was in Canada earlier this week on a business trip to Toronto, with a side trip to Montreal, where I had a wonderful visit with my daughters who are now in their twenties and full of life, hopes, and dreams. I see the same sort of energy at my job where I often work with young engineers to help them with projects, improve their skill sets, and further their careers. "What does this have to do with jets?" you ask. Well, this has to do with everything.

Youth are the future, plain and simple. I'm 54 years old and though I hardly consider myself old, I have seen a tremendous change in my daily life, and in this hobby that I love. Gone are my frequent trips to the local hobby shop, as many of those hobby shops are gone. I no longer make the annual pilgrimage to Toledo to see the latest and greatest products. A quick Google search now brings the information to me and, with a few clicks of the mouse, brings the products to my door. Progress, good or bad ... it is what it is.

While one may argue that the plight of the local hobby shop is due to e-commerce, I hear of big name hobby businesses in serious financial trouble. I look around at the flying field and club meetings and I don't see many young folks ... and I find this is very troubling. I fear that our hobby is dying and I have to wonder what the next ten, twenty, or thirty years will bring if we allow this trend to continue. What we need is youth and their energy if this hobby is to survive, and IT IS UP TO US to ensure that survival.

So how can we do that in today's world? Well, I had an idea. What if every last one of us helps organize a mall show with our flying club? Instead of being hunkered down and unseen in our workshops, let's get out into the public and show them what a great pastime radio control models are. Local malls are great gathering places, particularly in the winter, and offer a great opportunity to bring new faces into the hobby.

My daughters Karina and Laura. Energy and dreams, the youth are our future. (Yes, that's some serious hat head I've got going on!)

Part of the static display at the Buckeye Air Fair. A great opportunity to engage new people with our hobby.

This past weekend, I was part of a static and flying display put on by the Buckeye R/C Flyers at a local municipal airport event. Approximately 20,000 people were in attendance. The models got a lot of attention, especially the jets (of course), and I spoke to a variety of young adults and teens extensively about our models and our hobby and we gave them a bit of literature about the AMA and the club. The flying portion of the show was particularly exciting. A big 3D *Extra*, a couple of jets, warbirds, and a couple of 40-sized sport planes took turns flying for an hour and the crowd was pressed against the safety fence watching the show. What great FREE publicity this is, I thought. How many future flyers are standing in that crowd right now, I wondered. I dare say that we managed to spark some interest in them and wouldn't be surprised to see a few new people at the local flying field. As I drove away from the event, I found myself excited; I may have played a part in bringing this wonderful hobby into someone's life, and have given back to this wonderful hobby which has meant so much to me.

Just a few thoughts on airshow flying ... I've flown at public airshow-type events over the years and have learned a few do's and don'ts that I'd like to share with you. Basically, it's all about SAFETY and PREPARATION:

• Thoroughly, and I mean thoroughly, check out your plane beforehand to make sure that it is in top working order. The last thing you want is to have an issue which prevents you from flying or can lead to an incident.

• Check out the flying site beforehand to make sure you are aware of any less than ideal conditions. In the case of the Buckeye show, we faced west and flew off a taxiway that ran roughly north/south. The R/C flying started at 1:30pm so the sun was a factor that eliminated high maneuvers to the left and the flight routine needed to be biased to the right (where most of the crowd was).

• Plan on flying a safe and simple routine. High speed passes at 100 feet, an inverted or knife edge pass, vertical rolls, huge loops, a split-S, and an airshow break to point the exhaust (and noise) at the crowd will give them a great experience. I think the most popular maneuver I fly is the *Happy Face* (smoke on - fly a loop starting at the bottom, smoke off when you reach the bottom again, pull up into a tighter loop and blip the smoke twice for the eyes, pull a bit tighter as you enter the bottom of the loop and do a long blip of smoke for the smile). The crowd loves it and you'll get lots of cheers.

• NEVER perform a maneuver at a public event which you haven't practiced many, many times before!

Vice President's Report (cont'd) — Jim McEwen

• Do not put your plane at risk. While experienced modelers can appreciate the skill level that it takes to do an inverted pass five feet off the ground, this will be completely lost on much of the crowd, and will be so low that many of them won't see it. A fireball cartwheeling down the runway is the last thing that anybody wants.

• It is a different feeling flying in front of a crowd of thousands. Don't let it go to your head. Don't take risks. Have a great flight and NAIL the landing. Taxi back and wave in appreciation to the crowd.

• You are there for the crowd's enjoyment, not the other way around. Be friendly, polite, energetic, and outgoing. Bring your plane over to the fence-line and show it to them. They'll appreciate it!

That's it for now. I hope to see you at a mall or at an airshow. Long live radio-control!

Jim

Treasurer's Report

Beginning Checking Account Balance 11/1/2017		$4,097.71
Income		
Member Dues for 2018	$1,689.64	
Total Income	$1,689.64	
Expenses		
Mailings-Stamps-Envelopes	$64.36	
Total Expenses	$64.36	
Ending Checking Account Balance		$5,722.99
Current Pay Pal Account Balance		$95.38
Total Cash On Hand 1/31/2018		$5,818.37
Outstanding Invoices Received 1/30/2018		
Top Gun Trophies for 2017.	$869.60	$869.60
Receipt for 3 of 8 trophies varified		
Total Assets		$4,948.77

Respectfully submitted: Sid Gates

District X Report (cont'd) — David Reynolds

District III Report — Mark McCracken

Ohio
Pennsylvania
West Virginia

Hello District III. It has been a while since I posted something a little different.

A few years ago I set into motion a rules change for turboprops. With the new rules in effect, I thought I would share something different I have started to build and the new turboprop is coming along quick.

For years I have been flying my *Raven* with a Wren 44 TP and it was just fine on grass fields. But when I flew on asphalt things could get dicey. As some of you know, stopping is not as easy, even more so when you are flying with other aircraft at the same time and need to make a quick stop after landing.

I then set out to search for a new plane to install my turboprop engine in. For the smaller class turboprops there really isn't much to choose from, but after a few months I found an ARF that would fill my needs - Hangar 9's *Cirrus SR22T*, 30CC ARF.

Knowing there might be a few issues trying to convert the *Cirrus* from either electric or gas to turboprop, I placed my order. It took a few months but when the *Cirrus* arrived I knew I had made a good choice.

I opened the box and everything was well packed with no scratches or dings, so I set out all the pieces and got to work.

First, I installed all the servos in the wings and elevators. The rudder would come later. What I like to do, just after installing all the servos, is to connect all the servos to the receiver while the surface is on the bench and set up all the throws, this making it easier for me to adjust throws before that surface is mounted to the aircraft.

Next would be rudder. The instruction book shows a pull-pull setup from the mid-section of the *Cirrus*. But that didn't work for me as I needed all the room I could get for fuel tanks. So, I decided to mount the rudder servo under the port side stab with a short, direct linkage to the rudder itself. I cut the opening then glued backers for the servo screws to catch on.

Next was the Wren 44 TP. I first cut the cowl in half, giving me a top and bottom and I mounted the bottom cowl in place so I would know where to mount the turbine. At this time I realized I would be a little short so I added a 1/4 inch plywood plate between the turbine and the firewall. When mounting the turbine I took my time, cutting a few small openings on top of the mounting box to allow for the glow plug and wires.

The fuselage looks to be very large on the inside, but it does get tight very quickly. I mounted my tank and hopper tank then proceeded to install turbine equipment.

Next up was mounting the tail. Two carbon rods were slid through the fuselage and everything was coated with epoxy, then the two stabs were slid into place.

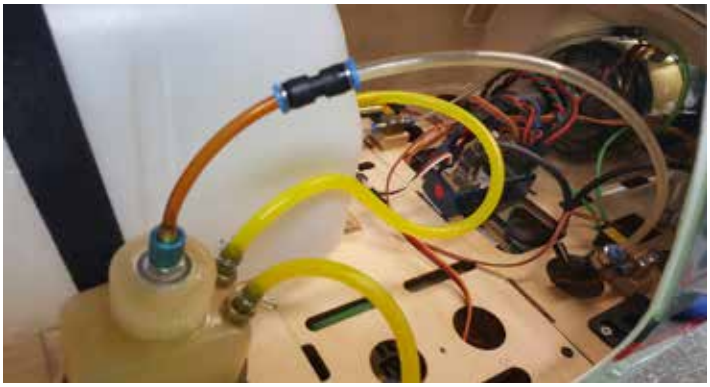
I knew one of the issues was going to be a prop. The prop I always used touched the table when I mounted it, so after many searches, I found a 3 blade from Graupner that I am hoping has enough pitch.

The last few items I still have to finish is to install the nose wheel servo, brakes and air tank, and then balance.

As for the kit and the build? I really didn't have any issues making for an easy build.

Hopefully this coming spring weather will be dryer then last year's spring weather so we can all get some flying in.

Mark



District V Report

Rex Briant

Alabama
Florida
Georgia
Mississippi
Puerto Rico
South Carolina
Tennessee

Greetings! Cold Winters are not so good for flying but great for building and doing maintenance, also known as: SHOP TIME in a warm place surrounded by airframes and equipment from the hobby we all love, it's all good even when it's cold! After building our home on our new farm in North Georgia, I finally have the shop of my dreams! I'll share about my Winter build, the Fei Bao F-100D along with some "Jet Event Talk" in the next Issue of *Contrails*.

I want to challenge all of our District V members to make JPO's name known among our peers in the jet family, encouraging ALL jet pilots to be a part of this Special Interest Group (SIG). We must be strong in numbers as we navigate the ever-changing landscape of this great hobby. There is no reason we should not have 100% of Turbine Waiver Holders as members of this great organization. The JPO will be well represented at jet events this year!

Since most of us need some "encouragement" to get some shop work done, I thought it would be good to ask some of our District V folks to share about some of their projects. Gary Jones and former District V Rep Craig Gottschang will be sharing their builds and processes with us in this issue of *Contrails*. Gary will share about his scratch-built Sport Jet and Craig will give us a close up look at one of the most popular ARF giants, the Elite AeroSports *Havoc*. These articles are always great because you can pick up on some install tips and even see some new product available. Enjoy!

Rex

EA Havoc

Kit Review and Assembly – by Craig Gottschang

The EA *Havoc* debuted last year as another offering in the ARF, fat-fuselage, light wing loading, class of sport jets. The *Havoc* pushed the size boundary upward with its 110 inch wingspan, 134 inch fuselage length and super-sized canopy. The EA guys showed up at jet events across the country and wowed onlookers with their flight displays. The highly maneuverable *Havoc* is also remarkably stable inverted and in knife edge and lots of guys came to the same conclusion as me, "I gotta have one!"

I have not seen any online assembly threads on the *Havoc*, probably because it comes mostly completed. Nevertheless, there is some work to be done and like most other ARFs, there are no instructions whatsoever. The following are some of my observations and suggestions from recently completing mine.

The *Havoc* ships directly from Thailand in two boxes; one large and one huge. The 18-wheeler delivering mine couldn't handle the narrow streets in my neighborhood, so I had to meet him in a local parking lot for pick up. I brought my trailer to transport the 95" long by 26" square box holding the fuselage and 58" by 31" box holding the wings. Everything was nicely packaged and protected by the familiar silver/metallic bags everyone seems to be using now.

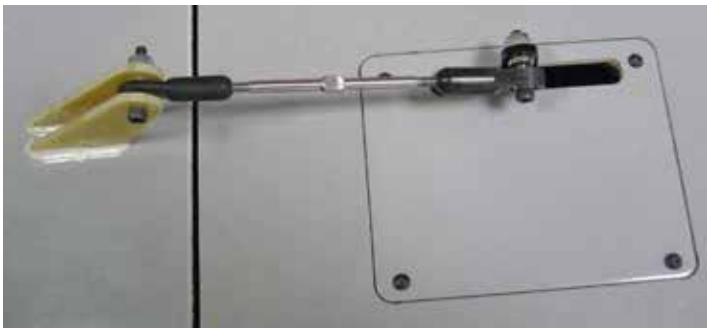
Inside I found that the wing tube and all formers had been neatly installed. Every single former, landing gear and engine mounting piece are made from carbon fiber laminate. The sandwiched material inbetween appears to be plywood for the gear and engine mounting plates and some of the formers. The rest were sandwiched with some sort of hard foam. Thankfully, the 6-foot long canopy/hatch is also pre-installed with 4 latch/guides on each side, one on the aft end and held in place up front with a single 4mm bolt. A blind nut for each wing is installed in the fuselage to capture a 5mm bolt inserted through a hole in the wing root, accessed via the main wheel openings. 4mm bolts hold the removable fin and stabilizers in place.

The control surfaces are live-hinged except for the rudder which is center-hinged with a removable wire rod. There are servo cutouts and predrilled screw holes for the flaps and all control surfaces, sized for 40mm X 20mm servos. I installed MKS-777 servos for everything but the nose wheel steering (JR 8411HV), and they fit nicely. The ailerons, elevators and rudder require 1.5 inch servo arms and the flaps use 1 inch arms. Aluminum arms are definitely recommended.

I opted for the Hangar 9, 4-40 titanium linkage and monster ball links package available from EA. The links were all sized and marked for the appropriate control surface and along with the included dual, epoxy control horns for each surface, it makes for a very solid setup.

Slots for control horns are pre-cut on all control surfaces but need to be enlarged and deepened to fit the horns.

District V Report (cont'd) — Rex Briant



Typical finished linkage.

The landing gear are German-made, trailing link type and look to be of very high quality. Electric gears are not an option, so I purchased the "gear completion package" which includes Jet Tronics retract and brake valves, two huge air tanks for the gear, one small tank for the brakes and a JMP high-flow valve/gauge combo. The supplied air lines are 4mm for the gear and 3mm for brakes and are plumbed entirely with Festo fittings. As complete as the kit is, for some reason there is no cutout, or even an outline drawn on the fuselage for the nose gear. I suppose this is to give the option of installing the nose gear door, which is supplied with the kit, and making the cutout as appropriate. I didn't want to fool with a gear door, so after bolting the nose gear unit on the installed mounts, I located the position of the nose strut in the extended position and made a hole for it to fit through. Using a carbide cutting bit in my Dremel tool, I carefully worked forward removing material. It's a little tedious but I ended up with an opening that allows the nose gear to extend and retract without interference.

Nose gear opening starting with the strut hole (above) and the finished result (below).

The main gear requires a little trimming of the supporting formers, mounting plates and wheel openings to allow the units to slide into place and operate without obstruction. The gear are attached with wood screws and I elected to beef up the mounts with a strip of 1/8" ply epoxied underneath. Additional ply or hardwood gussets were recommended between the main gear mounting plates and supporting formers to keep them from separating during landing loads.

Red arrows indicate where material needs to be removed from main gear mounting plates. A cross member (blue) is cut away completely. Yellow arrows show location of reinforcing gussets. Installed main gear shown below.

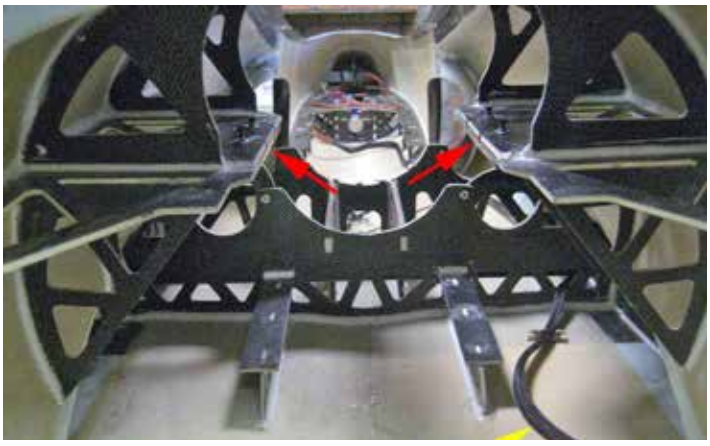
The only part of the *Havoc* that needs some "assembly" is the battery tray. Two pieces are epoxied together for the tray itself and two others glued together to form the top half of a sleeve for the tray to slide into. A final piece forms the bottom portion of the "slot" that holds the tray. I tacked the lower piece in place with 5-minute epoxy, then located the tray over it and tacked the top piece in place. Wax paper between the parts keeps them from being glued together. Afterwards, the fixed pieces can be permanently glued with Hysol and any gaps filled.

Battery tray with receiver A123 batteries (left). Battery slides into slots and secured with two 4/40 bolts and blind nuts (right). I located the ECU battery underneath.

District V Report (cont'd) Rex Briant

The fuselage comes in two parts, separated just in front of the tail section. They are aligned with 4 pre-installed, composite rods and secured with four 5mm bolts. The bolt holes on the front section and receiving blind nuts on the aft one are pre-installed. It's a snug fit and I had some difficulty getting the bolts to engage the blind nuts while trying to hold the tail section in place. After some wallowing out of the holes and trial and error, I finally got all four bolts secured. It's not something I would want to do frequently, and I recommend having the tail section completed, servo leads installed and tail pipe in place before finally attaching.

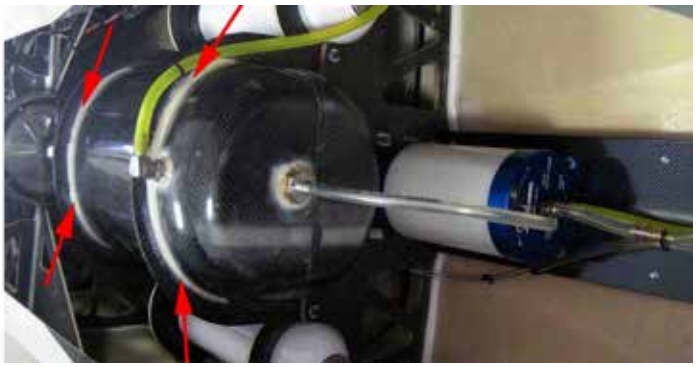
Engine and tail pipe installation are straight forward. Again, I chose to add some plywood underneath the mounting rails for strength and to accommodate 4/40 blind nuts. This is another task you want to complete before attaching the tail section, so as to have better access to the engine mounts.



Rear view of engine support structure. Red arrows show location of reinforcing ply and 4/40 blind nuts.

The inside of the fuselage is ridiculously large and allows for unlimited options for component placement. Here are a few photos of my install.

View of nose gear mount structure and battery tray installed forward. Main component tray is 12" X 10.5." I fabricated a second tray, (bottom left) so I could locate the UAT and ECU closer to the fuel tank and turbine. JMP hi-flow fittings throughout.



6.5L fuel tank and large air tanks are secured with laminated brackets. Fuel tank brackets need to be trimmed to fit and glued securely to the tank (red arrows). Brackets are held in place with 4/40 bolts and blind nuts.

Fully assembled Havoc barely fits in my workshop!

Overall, the quality and finish of the *Havoc* are above average for an ARF. Glue seams were neat and there is an obvious effort to make the jet strong while minimizing weight. Mine came in right at 55 pounds, dry. The recommended starting CG is ½" behind the main wing tube and I added 7oz of lead in the nose to balance. An AMA, Large Model Turbine Airplane (LTMA) permit is required to fly the *Havoc* but the process is not difficult. The paperwork has recently been simplified and best of all, the permit is now good for three years. Now I'm anxiously waiting for warmer weather for the maiden flight!

Craig

District V Report (cont'd) Rex Briant

Sabre XLT, A Scratch Built Flying Wing Sport Jet

By Gary Jones, District V JPO Member

Rex Briant ask me if I would share information about my Sabre XLT project in *Contrails*. The *Sabre XLT* sport jet is currently an ongoing project and is still in the test flight stage after I damaged it on the first two test flights. The third test flight is planned for early February, 2018. There is an up-to-date photo thread titled "Sabre XLT" in the RCU Jet Forum if anyone is interested in the build process and current status.

After flying my *AcroJet* for several years, a scratch-built wood and foam sport jet, I became interested in building another large wood sport jet. I wanted it to fly and land as well as the new crop of aerobatic sport jets, but at a fraction of the airframe cost. I was not interested in high speed but I wanted smooth and graceful aerobatics with good low speed landing performance. Large wheels for grass runways was a priority since most of the nearby runways here in South Carolina are grass.

The *Sabre XLT* project was conceived after seeing a photo of Mike Osers *Dagger* in the April, 2012 issue of *Model Aviation* magazine. Mike's flying-wing design allowed the *Dagger* to fly trimmed hands-off with no reflex angle on the elevons. The design looked unique and different from most cookie cutter sport jets and I started thinking about making a larger turbine-powered version. I made contact with Mike and began an ongoing collaboration that resulted in the *Sabre XLT* design. Mike suggested the name *Sabre* and I added *XLT* for "e**X**tra **L**arge **T**urbine".

Mike sent me his CAD drawings scaled up to give a 110" wing span. This was based on cutting the wings from a 4 x 8 foot foam block, a fuselage width of eight inches and wing tips. The fuselage length came out over eight-feet long. The root chord is 41 inches, the tip chord is 25 inches, and the root airfoil is 4 inches thick. The construction technique was old school balsa, foam, and lite ply. I used two wing tubes when Mike recommended a design for 20Gs and a tail-mounted turbine with a thrust vector nozzle to avoid the thrust tube. I acquired some used retracts with trailing link struts and big wheels and then started laying out the *Sabre XLT* design.

Mike sent me full size CAD drawings for the wing airfoils, vertical fin airfoils, and fuselage formers. I drew the rest with a pencil and ruler. Since I don't know computer drawing I used what I call "Come Along Design" or CAD. This is when you get a pencil and draw the next step as the project "comes along." My plan for the fuselage was lite ply sides with balsa-covered top hatches, and a servo-operated speed brake under the rudder. The wings were conventional balsa-covered foam cores.

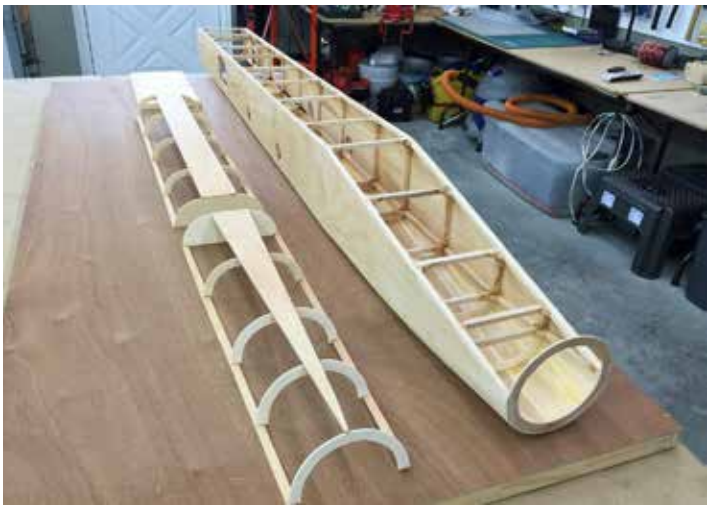
Materials were ordered and wing construction began in November 2013. The wings were finished in January 2015 after a long delay due to deaths in the family in 2014. Vertical fin and fuselage construction were completed in 2015. Painting, equipment install, and ground testing were completed by February 2016. The final weight was much heavier that I expected and required LTMA1 certification. The extra weight was also a concern for the landing gear that was made for a lighter airframe.

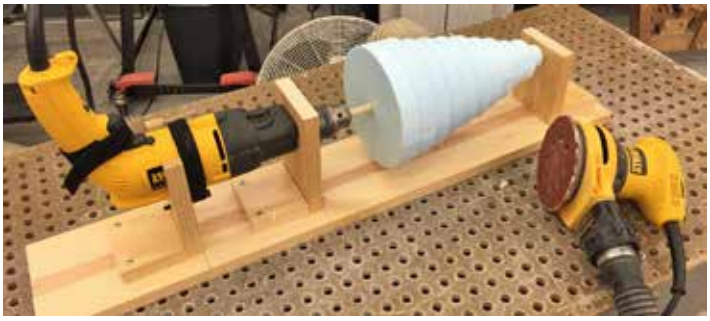
The first test flight was in February 2016. To my surprise the *Sabre XLT* took off and flew quite well. It was slightly nose heavy but felt light and was very easy to fly. Aerobatics were good and it flew like a jet trainer. The landing approaches were pitch-sensitive because of excess elevon throw with canards set trailing-edge down. As a result, I over-controlled pitch, ballooned the flare, and dropped it in flat. The main gear collapsed and it slid to a stop with only gear mount damage. The video is on the RCU build thread.

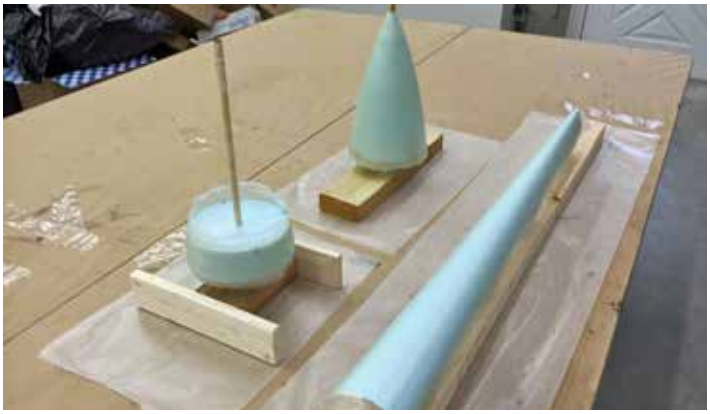
The *Sabre XLT* sat in the penalty box for most of 2016 while I concentrated on my Skymaster 1/5 F-16. After much research, I decided on the Electron ER-50 electric retracts. Repairs and gear installation were done and the *Sabre XLT* was ready for its second test flight by February 2017. As before, the jet took off and flew very well. CG was better, but still slightly nose heavy. It showed no signs of dropping a wing as it approached the stall and slowed down for approaches better than before. It was less pitch-sensitive due to flight control adjustments and approaches were uneventful. On the landing attempt I flew too far out and got too low and hit the trees on the approach end of the field. The video is on the build thread again.

Fortunately the damage was light. After the initial impact, the jet fell into a tree vine and never hit the ground. As before, the *Sabre XLT* sat in the penalty box again for most of 2017 while I concentrated on other jets. Late in 2017, I reassessed the design and abandoned the rear-turbine location and thrust-vector system. The turbine was moved forward as far as possible and a conventional thrust tube installed to aid in removing as much nose weight as possible. I also removed the smoke system to save weight. The crash damage was repaired and repainted, the internal components were reinstalled and the *Sabre XLT* is now ready for a third test flight. The target date is Feb 2018. A tradition I want to break is one flight and wreck per year. I am looking forward to the taxi back this year! I will post results on the RCU build thread and hopefully Rex will allow me to share the results in the next *Contrails.* Enjoy the photos!

District V Report (cont'd) Rex Briant







District VII Report

Tim Toutant

Iowa
Michigan
Minnesota
Wisconsin

Well it sure has been a cold one this winter, and now we get the usual up and down temps. On the warmer days we want to go fly and then back to freezing temps. This gets us back into building whatever it is you received for Christmas. For me, I finally received my first turbine-powered jet. It's a Skymaster 1/9.5 Scale VX-4 Bicentennial F-4 *Phantom*. I will be installing a KingTech 120 turbine to push this bird around. At this point I'm starting into the nitty gritty of putting it together. It's nice that most of the work is done, but it still requires a lot more work. I will be installing a smoke system, lights, AB rings, and a working tail hook. I wanted to install a drogue chute but there just isn't enough room.

For those of you in the district reading this, it would be great if you would drop me a line for inclusion into this fine jet information rag. I'm all in even if it's edfs. It helps when I have more to write about. The last article I submitted mentioned Miss Jordan Hall and the awesome T-33 that she built. The picture wasn't present so here it is. A great young lady and is very good at flying. She and Larry Peterson exemplify the best of our hobby by willing to help a fledgling like myself get introduced into turbines. Thanks guys!

I have included a picture of my F-4 pieced together before assembly so I can have an idea of what I need to do before I get started. My wife told me that the jet was massive and asked where is the hangar I'm going to put it in. She did love the color scheme though. My wife loves the color purple so I purchased a purple FMS *Futura* 80mm edf jet. She loved it as I put her name on it Well that's all I have for now. I can't wait to see some of the new jets at the field and hopefully my first attendance at the Kentucky Jets event.

Tim

District VIII Report

Ron Schwarzkopf

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

Hello jet modelers from District VIII. It's that time of year when we've wrapped up last year's flying, and we can now spend time to review our models for the upcoming flying season. Usually we get a few days of flying here and there – especially in December - but around my area the cold temps (for Texas) prevented me from getting any flights in. Plus, I have been in building mode, and will be for quite a while. So I hope you're able to get some building/fixing/prepping completed over the next month or so, until the flying season starts again.

Right after my last *Contrails* article submission, I received an email from Stephen Bird, president of the HOTMAC club which hosted the Southwest Jet Rally in September. He mentioned that the HOTMAC club forwarded $1057 in donations to the JJ Watt Foundation, which is supporting the Hurricane Relief fund that was put in place to support the most recent hurricane which affected the Houston area. Thanks to the HOTMAC club for supporting the Houston area!

Upcoming events in District VIII

Mar 24: 3rd Annual Jet Lag Fly-in, Austin TX, John Eshbaugh CD

Apr 5-7: Jets Over Houston, Bomber Field, Robert Bernal CD

Apr 19-21: Mississippi Afterburner, Raymond MS, Vern Montgomery CD

Apr 19-22: High Desert Jet Fly-in, Albuquerque NM, Rick Linden CD

May 10-12: Texas Jets, Mt Pleasant TX, Gus Hudson CD

Note: A new event will occur in New Mexico! Albuquerque Radio Control Club is hosting a jet fly-in for turbines, ducted fans, and edfs at the George Maloof Memorial Airpark. They are advertising a newly paved 800 ft runway – sounds like a nice event to try, and plus I've been wanting to visit Albuquerque. I know the club has been reviewing available dates, and as of this column being prepped, is scheduled the same weekend as Mississippi Afterburner. We all know sometimes things change, so we'll see what happens. At a minimum, I suspect this new event could have a good draw of pilots from Arizona, Colorado and West Texas.

Jetoberfest at Bomber Field (Houston), Oct 26-28, 2017

I'm sorry I could not report on this event covered in the last column, as I had just submitted my previous *Contrails* column before heading to this event. October tends to be a nice time of year in Texas, but this time the cold and windy weather decided to move in. Thursday was quite windy and Friday decided to become quite cold, since it was already windy! There were brave souls who did attempt to fly in the inclement weather (ahem, I flew my foamie MiG-21 and bounced several landings), but much time was also spent working on models, looking at other pilot's models, and eating Bomber Burgers. Who's gonna complain?

Luckily, if your models were still in one piece, Saturday was the day to fly, and fly we did. Turnout overall was a bit lower than usual – it seems some of the pilots perhaps checked the weather before heading to the event? We still had fun. And, we got to see one of the new Ultimate Jets F-8 *Crusader* in an early prototype assembly stage, along with parts from their SR-71 kit.

So thanks to Woody Lee for CD'ing the Bomber Field event – reversion to the mean indicates weather will be perfect for the event in 2018!

That's all for now. I need to get back to sanding, and you should too. Happy Building and Flying!

Ron

Ron's pair of Mig 21s avoiding the wind.

Woody Lee's *Scorpion.*

Woody Lee brought Ultimate Jets F-8 *Crusader* prototype.

District X Report

David Reynolds

Arizona
California
Guam
Hawaii
Nevada
Utah

This past November saw the 29th annual Arizona Jet Rally in Apache Junction. The mix this year was tilted towards foam edfs ranging from 70mm and smaller up to twin 90mm A-10s. On the turbine side, the trend towards larger and more complex jets seems to see no end.

One of the most interesting models this year however was comparatively small. Arizona pilot J.J. Mangino brought out a blast (in more ways than one) from the past: a *Regal Eagle,* complete with Byron fan. While I understand J.J. did get it in the air on Thursday, he had trouble getting it running the rest of the weekend. A reminder of “the way it wuz” and an illustration of how good it can be now!

On the opposite edge of the tech spectrum, more and more 3D printed parts are showing up at events and on aircraft. Some of you have been reading about Ron Schwarzkopf’s efforts. At AZ jets, Ron had some wheel chocks that have just the right look for your jet as it waits on the flightline.

Next November will mark 30 years of the Arizona Jet Rally making it one of the longest continuous running rallies I can think of. That is a lot of dedication for one club to have! Thanks to all the members of Arizona Model Aviators past and present that have kept this great event going.

That’s all for this go around, keep the low passes where they belong, and enjoy the photos!

Dave

District X Report (cont'd) David Reynolds

Continued on page 4

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Gary Jones poses with his ***Sabre XLT,*** A Scratch-Built Flying Wing Sport Jet.