

Newsletter of the Jet Pilot's Organization

Contrails

Summer 2019

Volume 31, Issue 3



Larry Ingram captured this colorful J-10 reaching for the stars at the Wingham Jet Rally in Ontario, Canada.

President's Report

Bob Klenke



Just a short note, it's been a busy summer as usual and I'm sure everyone is out flying as much as they can.

In May, we made the usual trip down to First in Flight Jet Rally in Wilson, NC. As always, it was a fantastic event at a fantastic facility. July was time for the annual trip out to Kentucky Jets. Again, it was a great event and we had a great time. There are some pictures from Kentucky in this issue that Jennie Alderman is allowing us to use, and I'll see if I can round up some from FIF for the fall issue. I'll also be attending Super Jet South in September and the Tiger Meet in October and I'll make a concerted effort to get the camera (phone) out and get some shots from those events to include.

On the administration/advocacy side, we've been conducting another Safety Survey at several jet events, similar to that which the JPO did back in 2004. The goal is to provide actual data and statistics to back up the assertion that our events are safe. We all know it's true, and we all should (and most are) be working on maintaining that fact, but to really be able to show that to people outside our community, we have to have the actual data to back it up. We will have a more complete set of data at the end of the flying season and hopefully we can present some analysis in the winter issue.

On a related topic, we all are responsible for insuring that our activities are safe and that the AMA Safety Code is followed. This is ESPECIALLY true at events, and even more so when the general public is in attendance. At an event, the Contest Director is the on-site AMA representative and he, or she, has the ethical, and legal responsibility to ensure that the rules are followed. Any issues that we might note with regards to safety and rules should be brought to their attention and they should deal with them. If they do not do so, and an incident occurs, they most certainly will be amongst those held responsible for any damages that are incurred.

Under no circumstances should a participant, or any attendee, be disparaged for pointing out a safety or rules issue – either by the CD, or anyone else in attendance. It is all of our responsibility to maintain a safe environment in compliance with the rules. To not do so is the easiest way for us to lose our ability to fly our jets with the freedom that we have done in the past.

That's all for now. Fly safe, follow the rules (especially at events!), enjoy the photos and have fun!

Bob



President's Report (cont'd)

Bob Klenke



District V Report

Chris Lavin



Alabama
Florida
Georgia
Mississippi
Puerto Rico
South Carolina
Tennessee
US Virgin Islands

Hello everyone, my name is Chris Lavin, and I'm your new District V rep!

I started out in RC in 1999 and I was immediately hooked. I was taught to fly by Bill Graves of Graves RC in Orlando, FL. Shortly after I soloed, about a month or so later, I saw my first turbine jet being flown by none other than Bob Violett. I WAS HOOKED. I told Bill I wanted to "DO THAT". He told me that it takes years to get to that level. I had my turbine waiver five months later. I received my turbine waiver with the help of BV on the number three production *BobCat!*

After that, I flew every moment I could. Unfortunately three years later, due to life circumstances and health issues, I had to stop flying. Fast forward to 2014 and while living in West Palm Beach I stumbled across a local hobby shop called Remote Control Revolution and a great owner named Jason Rose. Well let's just say, I was bit again by the R/C bug. Since that time, I have been flying as much as possible, I regained my turbine waiver and currently have eleven turbine jets. I am considered by many an expert on most radio systems and turbines. I can be seen at MOST jet events in the area including Florida Jets, Georgia Jets and Jets over Kentucky to name a few....

I have had held numerous offices in local clubs and I am currently a director and chief flight instructor at Palm Beach RC in Delray Beach, FL, which has a great jet community and a great runway for jets.

See you at the field!

Chris

Treasurers Report

Marty Gurewitz

Beginning Checking Account Balance		\$5,403.13
Beginning PayPal Account Balance		\$167.12
Income		
Member Dues	\$168.52	
JPO Banner payment @\$50 each from J. McEwen	\$50.00	
Total Income	\$218.52	
Expenses		
Trophies-Tiger Meet 2018	\$106.20	
Contrails Printing	\$457.26	
Total Expenses Paid	\$563.46	
Ending Checking Account Balance		\$5,225.31
Current Pay Pal Account Balance	\$0.00	
Total Cash On Hand		\$5,225.31

Respectfully submitted, Marty Gurewitz

District VII Report

Tim Toutant



Kentucky
Illinois
Indiana
Missouri

Well, here we are in the middle of summer and it is hot. There has been a lot of action for jet flying here in the Midwest and a lot of awards going to quite a few here in Michigan.

Larry and Jordan Peterson took the Top Gun Critic's Choice Award for their magnificent F-86 *Sabre* built by Jordan and flown flawlessly by Larry. They are a great couple to just be around, also. They also took 1st Place at the Toledo Expo back in April.



Speaking of the Toledo Expo, yours truly took 2nd Place with my Freewing A-10 all lit up with formation lights, strobes, nav lights and landing light. The color scheme is that of the Michigan Red Devils, 107th FS, at Selfridge Air National Guard Base.



Well, I finally became part of the turbine crowd and got signed off flying the Boomerang *Sprint* V2 at Baldwin Airport, MI with the help of Len Todd. Thanks for the encouragement Len! Peter Doupnik put the first flight on it for me up in good ole Canada several weeks before. What a great guy. Unfortunately the *Sprint* didn't survive it's fifth flight and the aircraft was totaled. The turbine survived with a few scratches, and fortunately, there was not a fire, but we were ready for anything with fire extinguishers at the ready. We just had some diesel smoke and a lot of unsalvageable pieces. We've been unable to determine the cause, as the receiver was in a million pieces.



I haven't heard anything from any of the other folks in the district, but I am sure there is plenty happening.

The West Michigan Jet rally was a resounding success held at Baldwin Airport, MI. Many pilots and their aircraft were on hand and the weather was great.



A surprise appearance was made by two full size L-39s. They landed and everyone got to see these jets up close and personal. Mike Terfehr was one of the pilots and not only that, an R/C turbine pilot flying a beautiful F-16. His ground crew showed up with truck, trailer and all.



I had a great time at the EDF Jet Jam held in Rosewood, IN. What a magnificent facility. If you ever get a chance to go, by all means stop on by. There were 103 registered pilots for the occasion breaking all records and a lot of great flying. I've gotten a new job and will have to work the majority of the weekends the rest of the year, so my flight reporting will be a bit slim. So, if you have anything you want covered please pass the information along.

Safe Flying!

Tim



District VIII Report

Ron Schwarzkopf

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

Hello from District VIII. 'Tis the season for flying (and building if you like), so I hope you are getting plenty of either in! Sorry I missed the Texas Jets event in Mt. Pleasant back in May – I was wrapped up with building, and weather was looking questionable. Now, this district is in that season where scheduled jet events taper off a bit due to the hotter temps. This will give us a chance to get our models ready (if needed) for the next upcoming round of events!

Upcoming events in District VIII

Oct 18-19: 5th Annual Louisiana Jet Rally. SHARKS Club; Minden, LA - John Judice CD

Oct 18-19: Hi Desert Jet Fly-In. Albuquerque Radio Control Club; Albuquerque, NM - Phil Nuckles CD

Nov 7-10: Afterburner Jet Rally. El Paso Radio Controllers Club; El Paso, TX - Guy Alon CD

Some notes regarding the above listed events.... Regarding the SHARKS club event, John Judice and Terry Monroe have found a new location for the event at the Minden Airport (in Minden, LA) which is about a half hour east of Shreveport. I googled it, and it looks like a nice site. And, a new event just north of El Paso is being advertised - looks like there is plenty of flying area at the site!

My Current Build Project – Sukhoi Su-17 *Fitter*

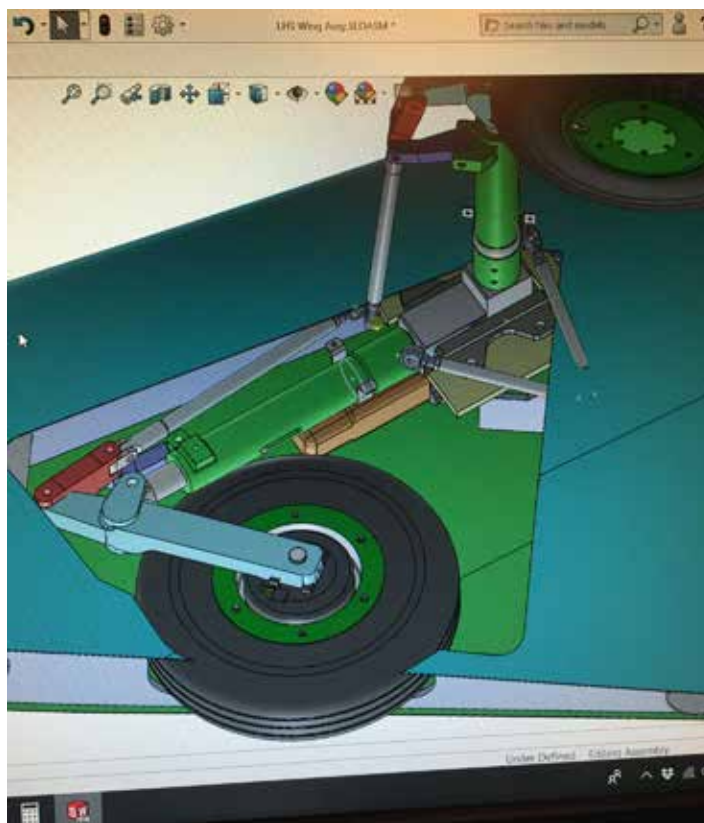
I am working on a 1/6 scale Su-17 *Fitter*, and in my last column I highlighted the process used in making molds for the model. This brings us to the start of 2019. Since my shop is “moderately” temperature-controlled made me think fiberglass work might not be timely, due to low January temps slowing the epoxy cure process. Instead, I decided to get going on the aluminum landing gear hardware.

When I started this project, there were design details that hadn't been fully addressed – like the landing gear. The *Fitter* has a complex main gear arrangement, as the strut swings forward while it retracts into the wing - due to the orientation of the pivoting axis. I did not think I could design the main gear per the full-scale due to needing intricate linkages, and the difficult strut pivoting axis. Installing a standard retract mechanism in the usual manner would grossly stick out of the wing mold-line, unless one either changes the shape of the main gear bay, or if one can come up with additional links to simulate the proper motion. Fortunately, I was able to model up an additional rotating link mounted to the strut, which would allow for the correct main gear bay shape, and also allow for the correct strut movement.

Both the nose and main gear have trailing link arrangements. Starting on the nose gear hardware, I was able to find an available tire through Ultimate Jets. No such luck on the main gear tires though – they will likely have to be cast.



Shamelessly pulled from www.airliners.net, the best shot I have found of the Su-17 Landing Gear arrangement.



Main Gear Bay Design

For the aluminum struts, I have a small 7x16 mini-lathe I've used for years, so I decided to attempt machining the nose gear hardware. My mini lathe is a bit undersized for this task, but in the end, I was able to make the necessary turned parts. The trailing link hardware that are not bodies of revolution, I decided to source out to machine shops. The plan was to get them to manufacture the basic shapes I need, then I can do the finish work with my tools (hole drilling, radiusing, etc.) This worked well for the nose gear trail arms and the strut link. Before cutting any aluminum, I grew some ABS strut parts with my printer so I can check the design (and play with them, of course).

District VIII Report (cont'd)

Ron Schwarzkopf



NLG prototype in ABS - above, and a machined set (with extras) - below.



The main landing gear hardware took more effort, since, well, there's two of them, and the parts are larger and a bit more complex. But I followed the same process as per the nose gear. I made a plug for the main gear wheel shape, with intentions of casting it when I have a time window for it. I did not want to start that task while I'm working the aluminum machining issues.



MLG prototype, again in ABS.



One set (for now) of Machined MLG.

Since I wasn't familiar with any local shops that could do the machining I needed, I decided to try online companies. I mostly used Emachineshop and Xometry for the parts I could not make without a mill. When using these services, one must realize your part costs will go down only if you are ordering several parts of the same shape. I did - so now, if something breaks in the future, there's a chance I might have the needed part already partially machined.



Line up of final Landing Gear Parts ... for now.

So all of this got me to May of 2019. What I have are two sets of landing gear, plus several extra partially machined parts. The gear sets have gone through their initial assembly, and the main gear still needs to have tires cast. The main struts also need to have slots added to control the extents of the spring-loaded lower strut. I had spent more time than I had hoped this would take (I did not think it would be quick), but it was quite a learning process, and I'm glad I did it. I also learned I want/need a CNC mill! Maybe another day. 'Til then, summer is approaching, so I thought it would be best to get started on laying up actual fiberglass parts, so I'll discuss that next time.

That's it for now. Hopefully next column I'll cover another event... Until then, go build or fly a model jet!

Ron

Canada District Report

Jeff Daly



Hi folks. It's been quiet for me on the R/C front as I have been busy preparing to retire from the RCAF and join the public service. That required me to take full-time French classes ... only in Canada, eh! I did attend the Wingham Jet event in July and it was a solid time for everyone to get some flying in. I plan to attend New England Jets at Plum Island, MA in August and the Thunderthrust event in Chatham, Ontario. In this edition, I have coverage of the Wingham Jet Rally and thought I'd include my experience with doing an ECU conversion on an older Simjet turbine. Hope to see you around!

Xicoy ECU Conversion on a Simjet 2300

I have a 20 year old Simjet 2300 that I use in my BVM *Super Bandit*. It has worked flawlessly over the years, but the ECU system has been acting up lately. The idle rpm would randomly increase by 10,000 rpm and the system on/off switch stopped working. So for \$250US, I bought the Xicoy FADEC Autostart Gas Kit - direct from Xicoy by Gaspar in Spain. And ... I received it in less than a week! It comes with the new V10 ECU main unit, the new smart data terminal, a magnetic rpm sensor, an NT150mm thermocouple, and cables. My engine has a propane start, but they also sell a Kerostart kit. Simjet is a three-cell LiPo system, but the conversion is to a two-cell LiPo system. The instructions were difficult to find on their website, so here it is: <http://www.xicoy.com/upgrade.htm>

Xicoy ECU conversion Gas Kit.

In this photo from Xicoy website, you can see all of the parts provided. It turns out, that installation was easy and

intuitive. After removing the engine cover, the rpm board mounted to the same location as the existing board, and the thermocouple was mounted the same as well. The instructions indicated that 6V shut-off valves are needed, instead of the Simjet 12V valves, and that the starter motor should be a 6V Speed 400. I had a spare Festo brand 6V fuel valve, so I used that, but I used the original Simjet gas valve and kept the original starter motor, which worked just fine. The fuel pump was compatible as is.

Results were excellent. I found on RC Universe some recommended parameters for the ECU, which worked for the first start. I found that the pump limit set near 1000 was very aggressive in the upper rpm band, and that caused some compressor stall. To replicate the stock throttle response, I set the throttle curve to linear. After some tests, I significantly dropped the Pump limit to 400, which eliminated the compressor stall problem. The turbine now runs fantastic and has given new life to the engine. Here are the final parameters (for a Simjet 2300) that give excellent performance, reliability and throttle response:

Start parameters:

pump start point: Auto+3	- pump start ramp: 006
glow plug power: 1.8V	- start gas adjust: 100%
low batt volts: 7.2V	- starter power at ignition: 070
ignition max rpm: 5,000 rpm	- ignition min rpm: 2,000 rpm
preheat time: 0.5 sec	- rpm gas off: 13,000 rpm
starter power at fuel ramp: 065	-Radio - Thrust curve: linear
rpm 100% starter power: 23,000 rpm	
rpm OFF starter: 21,000 rpm	
rpm to reconnect starter: 19,000 rpm	

Run:

full power speed: 120,000 rpm	- idle speed: 35,000 rpm
stop speed: 20,000 rpm	- start/min temp: 100C
max temp: 800C	- acceleration delay: 008
deceleration delay: 011	- stability delay: 112
pump limit: 40	



Rpm board is at the lower left.

Canada District Report (cont'd)

Jeff Daly



Thermocouple installation.



Best Sport Jet---scratch Stinger by Marcel Lahaie.



Best Civilian ---Rick Bruce with his Diamond.



Best Electric---Owen with his L-39.



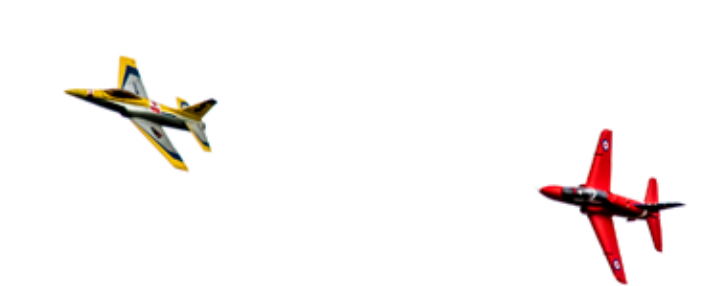
Best Military and Pilot's Choice Winner — Sandro Novelli with his Trond built F-104.



JPO Top Gun – Jeff Daly was nominated by his peers.

The Wingham Jet Rally (WJR) was another awesome event! The event organizer, Blair Howkins, managed to arrange an incredible improvement in the weather, providing a high-quality event to all the pilots. Volunteers from the Sky Harbor model club, and the Air Cadets were most appreciated. 48 registered pilots and a 100 or so jets were on the ramp. We had pilots come up from the US and from Quebec. One exciting moment was when Sandro Novelli (F-14) and I with my F-4 launched our jets together for an attempt at formation flying ... it was obvious that we needed to practice, but was fast-paced and fun for the crowd. To top it off, one of my favorite pilot raffles was a plaque for your kitchen that said "If you want me to listen to you, talk about airplanes!" Photos are from Larry Ingram.

The deserving award winners for WJR were:



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IT'S TIME TO RENEW YOUR MEMBERSHIP!

Membership/Renewal Application

Please add/renew my JPO membership!

Name: _____ AMA Number*: _____

Address: _____

City: _____ State: _____ Zip: _____

Email Address: _____

Home Phone: _____ Cell Phone: _____

*AMA membership is required for U.S. Residents. JPO Annual Membership Fee is \$25.

Renewal can be online at: www.jetpilots.org via PayPal or credit card; or you can fill out and send with check or money order made out to: "The Jet Pilot's Organization" to: Marty Gurewitz, JPO Secretary/Treasurer, 40 Oval Place, New City, NY, 10956



Tim Toutant's Freewing A-10 ready for another flight and loaded for bear.