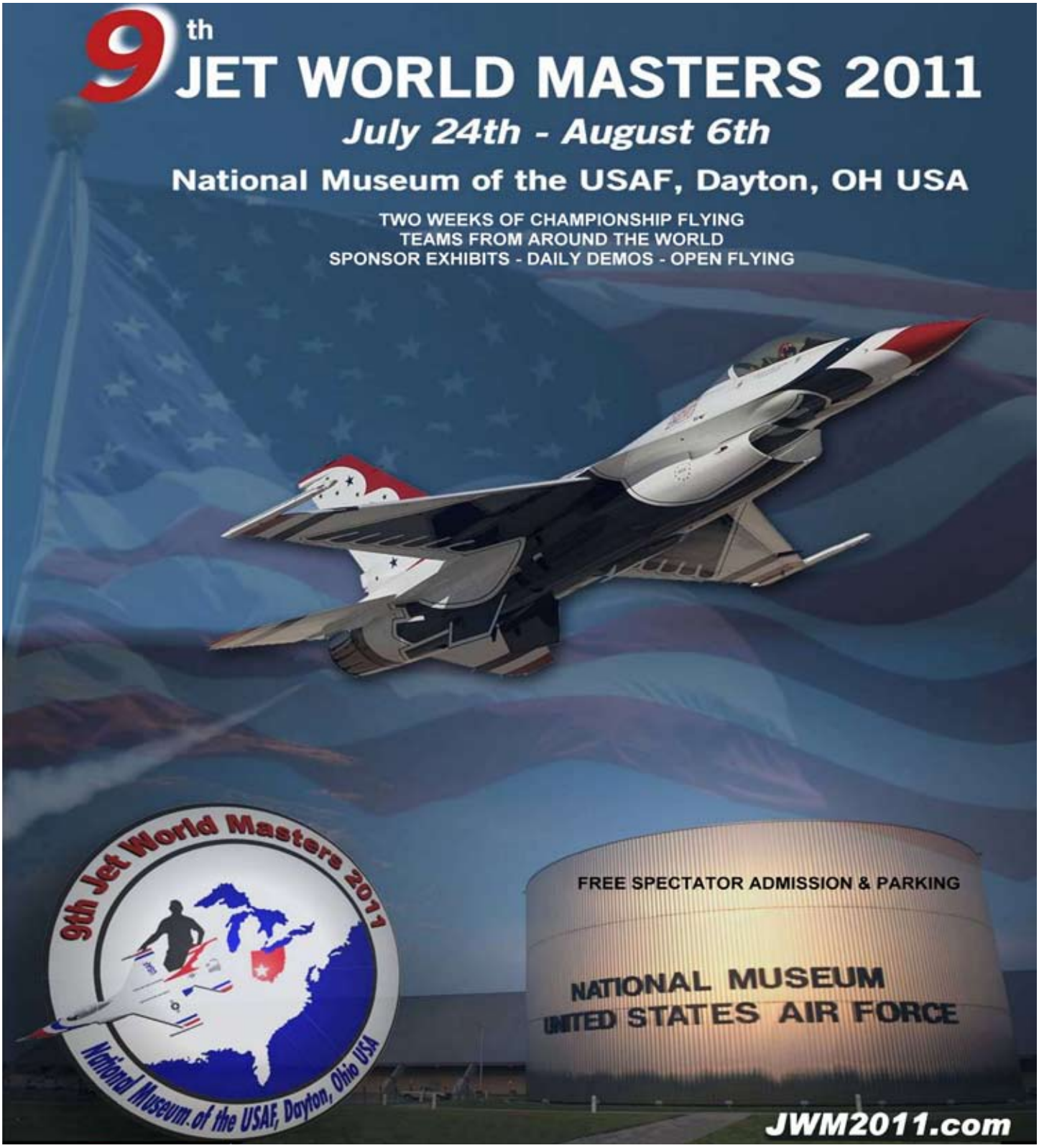
Newsletter of the Jet Pilot's Organization

Contrails

Spring 2011 Volume 23, Issue 2



President's Report — Keith Sievers

Update on AMA/FAA as of 5/3

After a two week spring break, Congress reconvenes this week and will take up the work of completing the FAA Re-Authorization Act. Both the Senate Bill (S. 223) and the House Bill (H.R. 658) have passed their respective houses and have been sent to Conference Committee for reconciliation. The House is expected to respond to the request this week while The Senate has officially called for a conference on the legislation and has named its conferees. The AMA remains hopeful that the model aviation exemption provided in the Senate version of the bill will be accepted and moved into the final bill.

The AMA Standards Workgroup will hold a special face-to-face meeting with representatives from FAA's Unmanned Aircraft Program Office next week during the Joe Nall Fly-In in Woodruff, SC. The workgroup will meet for two days and will continue its work on developing a set of model aviation standards to be used as an alternative means of complying with the proposed sUAS regulation. Again, what has been communicated to the JPO is that the initial submission will be in essence the existing regulations, with minor adjustments, rewritten to conform with the FAA regulatory formats. If I hear that this changes at any point, I will pass that along.

We had hoped to have another Webcast for JPO members about this time, but due to the legislative activities and what amounts to essentially no new news at this point, we have held off for the time being. If things begin to get newsworthy again, we will follow up with the AMA to schedule another Webinar.

JPO Merchandise

We have had many requests for JPO merchandise and will hopefully have finalized plans for a shirt/cap outlet for on-line ordering that will serve our membership at a reasonable cost. Details are being finalized as I write this, so stay tuned. There will likely be an email blast when the site is up and ready for business.

Jet World Masters

I would just like to take a minute to encourage the JPO membership to attend and support the JWM to be held in Dayton at the Air Force Museum July 24-August 6. Roger Shipley has worked hard to bring this event to the United States and if you can make it, it is an event worth attending. Much more information can be found on the web at: http://jwm2011.com/Welcome.html. Even though time is short, Roger is still looking for contributions or sponsorships if you are so inclined.

Keith.

Treasurer's Report

Beginning Balance as of January 31, 2011		$8,251.84
Income		
Dues - Cash/Check	$1,812.06	
Dues - PayPal	$1,248.20	
Logbook sales	$ 5.00	
Total Income		$3,065.26
Expenses		
Contrails	$1,259.02	
Postage	$ 90.01	
Conference Call	$ 155.28	
JPO Top Gun Trophies	$ 204.00	
Renewal Postcard Reminders	$ 125.50	
Office Supplies	$ 7.18	
Website Renewal	$ 89.55	
Total Expenses		$1,930.54
Ending Balance as of April 30, 2011		$9,386.56

Respectfully submitted, Carol Brusa

Vice President's Report — Al Watson

In this issue I am including an article which was written by Chris Rankin, one of our Oregon turbine-flyers. Chris visited Bruce Tharpe, who most of you know of as the designer and manufacturer of the highly popular *Reaction-54* turbine-powered model. Bruce is well known among turbine pilots in the Pacific northwest, and visits Jets Over Whidbey each year where his noontime performance with one of his pulse jets is always a big hit with spectators and participants alike. The article provides a lot of interesting background information about Bruce and his company "Bruce Tharpe Engineering."

Until next time - Happy Landings,

Al

A visit with Bruce Tharpe Engineering (BTE)
By: Christopher Rankin

Nestled in the hills of southern Oregon is a small company that for the last seventeen years has been turning out some of the best "kit" built aircraft available in the world; a builder's dream of the finest quality woods, attention to detail in drawings, assembly manuals and builder support.

Recently I had the pleasure of spending time with Bruce Tharpe of BTE at his Rogue River dream land, and I must say spending the week with Bruce, is somewhat akin to spending time with Enzo Ferrari in his original small Italian shop building the finest race cars. Many builders across the country, and the world for that matter, are familiar with his all wood kits and those of us that fly the turbine variants are most familiar with his *Reaction-54* which is intended as an entry-level turbine-powered airplane with attention to not only keeping it simple, but keeping costs down as well.

Bruce isn't a newcomer to aviation, having started in model airplanes with his dad as a youth, and inspired by the likes of Burt Rutan, Bruce then pursued a career in aircraft design, graduating from San Jose State with a degree in Aeronautical Engineering with ideas of designing and building experimental aircraft for the EAA movement. With a taste for the elegant and the unusual, home-built aircraft of the day were state-of-the-art using new space age composites, new design techniques and performance to match. Shortly after leaving school, Bruce went to work for Morrisey Aircraft which produced a full-scale home built kit called the *Bravo*. One of the customers for the *Bravo* was none other than Maxey Hester and Hazel Sigafoose, then owners of what we know as Sig Manufacturing. The full-scale *Bravo* was a stylish two place aircraft, that while making the rounds at the EAA's annual gathering at Oshkosh, caught the eye of Sig's master builder - Claude McCullough who ultimately created a quarter-scale kit of the airplane. During his time with Morrisey, Bruce built a model of the Sig *Bravo* kit which he reviewed and was featured in *Model Builder* magazine.

Shortly after that, Morrisey was hit by financial hard times and Bruce thought it might be in his best interest to move on. He had met with Hazel and Maxey over lunch on several of their trips west and the thought had crossed his mind to make a call to them in hopes he could turn his career towards the model world with a position at Sig. Much to his surprise that's just what happened, and a brief phone call to Maxey Hester was greeted several days later by the official invite to take up residency in Iowa. Not only was Bruce a full-scale private pilot, but had his airframe and power-plant "A&P" rating as well. Since Hazel and Maxey were full-scale people too, so it is thought that Bruce was being employed for both his full-scale abilities as well as being a designer. Who knows, since Bruce went wild while at Sig creating the *SpaceWalker, Four-Star 40, Four-Star 120, Mid-star 40* and *Sig Wonder* kits. Bruce also built a scale *SpaceWalker* (modeled after Maxey's full-scale homebuilt) which was used to compete at Scale Masters events while representing Sig, which earned him an invitation to Top Gun.

Today that same *SpaceWalker* hangs quietly in the corner keeping watch over the shop. Bruce had a good run with Sig but the desire to have his own business and create his own kits eventually won out. It was a difficult choice, leaving his Sig family, but it was the right thing to do, following the American Dream of creating his own business by starting BTE in 1994. Working out of his dad's garage, his first design took a year from design development to an out-the-door kit. This airplane was known as the *Venture 60*, a stylish upgrade of the *Four-Star 40*, with the two airframes actually having a great deal in common.

Since those early years, Bruce has created several main line kits such as the *Flyin' King, Super Flyin' King, Delta Vortex* and of course the *Reaction-54*. In the early days of modeling, Bruce and his father were heavily into pulse jets and many of these early pulse jet designs hang in his shop serving as inspiration for the unusual. I always thought the *Reaction-54* had a great deal in common with the BTE twin pulse jet - *Double Whammy*, which has been featured in Great Planes: Real Flight Simulator, but I was quickly corrected that in fact the *Reaction* has most of its heritage from a little known airplane called the *Old Flame*.

Vice President's Report (cont'd) — Al Watson

Bruce Tharpe with his "*Old Flame"* Pulse Jet.

The *Old Flame* is one of Bruce Sr's designs, so not much more than a napkin drawing exists, but what fantastic lines this airplane has. This airplane has a foam core wing and I've been told that out of all the R/C pulse jets in the shop, it's the quickest.

Bruce used many of the design features from the *Old Flame* in creating today's all wood *Reaction-54*, and so much thought has been put into this airframe that it just boggles the mind. The airplane is practically engineered around the box it's shipped in and no, there aren't any elves employed at Bruce's shop to help pack boxes. Bruce says with a smile, "That's what the engineering in Bruce Tharpe Engineering is for." There are many reviews that will tell you how wonderful BTE airplanes fly and the *Reaction* is no exception. Bruce admits that coming up with the name for his new jet was a challenge but "*Reaction"* was stumbled upon during a trip to Toledo. The "*54"* in the name is actually what turbine size the airplane was designed around. The Wren 54 or 54mm compressor wheel is the standard size that will fit, or in other words, yes, the airplane was designed so that nothing bigger than a JetCat P-70 will fit. Why? Well, as Bruce and I talked hour after hour about designing new stuff, the same old question kept coming up: how far and how fast can you push a wood wing? The wood wing of the *Reaction* is a work of art but simply was never intended for the likes of a big engine.

Bruce is a perfectionist and his attention to detail, in my opinion, shows. He is very realistic when it comes to the safety of the modeler and keeping his airframes alive, so the *Reaction* was never intended to be a barn burner, and speed was never a design goal - that is, speeds of 150mph or less, keeping it simple and keeping it cost effective to build. Someone is always pushing the limit and even I feel a little guilty having put a JetCat P-70 in my *Reaction,* but I must tell you, this engine combination really wakes this airplane up.

Chris Rankin with his R54.

It's a great design and I remember wondering what this airplane could have been like if it were made from composite materials, then some folks at PST did just that. PST Jets designed a composite *Reaction* with Bruce's blessing that could be powered with much bigger engines, and while it has essentially the same wing, it is a bigger and much different airplane. Bruce has very little to do with the PST version of the *Reaction* but does endorse the airplane and he does sell it through BTE. The aircraft are drop shipped from the factory which is the cheapest way to get one. Recently PST did an upgrade to the *Reaction* wanting to create a real go fast machine, naming it the *Revision*.

The *Revision* does have nice long lines but the wings and tail have squared off tips. One has to remember this isn't a BTE design but a PST Jet's design and where this goes - popularity wise in the jet community, has yet to be determined.

As for Bruce and BTE, design ideas are always flowing as evident by the many drawings and sketches that Bruce keeps around for inspiration, so I had to ask the burning question: "When is the next design coming out and will it be a jet?" Bruce says that there are always new design ideas coming up and yes there are a few new design possibilities for a jet in the future, but a jet will probably not be the next BTE project to be released. Bruce is also quick to mention that while a composite jet may be years away from getting released, "Don't count us out." It's a natural progression for BTE to move in a direction that may involve more composite construction, and I can tell you that there are several jet ideas looming, and both could make a big splash with the jet community.

As with all BTE designs, the aircraft are first put in kit form, built just as a builder would, test flown, tweaked to see if they are viable, then if all is good the airplane is made into

Vice President's Report (cont'd) — Al Watson

a kit. So even fast tracked from design to production, it has always been a minimum of one year. Bruce will make all the parts himself with quality woods purchased from Sig, as he's done with all his kits. The parts are created on spindle sanders, band saws and other tools that give a consistent parts fit. No stamping here, no laser, just a lot of hard work and countless hours in the shop. Each run of a hundred kits can take a month to create, but the biggest problem right now for BTE is time. Bruce's phone rings off the wall with UAV orders for heavy lift airframes and that even extends to customers outside of the US. With all the UAV orders, time is pretty thin for creating new kits.

I asked Bruce what he thought the future held for jet modelers and what we might expect in the future from other companies as well as BTE. We both came to the conclusion that what happens with the FAA regulatory issues will, to a great degree, determine what happens to turbine jet models in this country. I think that Europe will continue to outpace the USA on jet model design, and scale modeling just from what we've seen with rules and regulations that are already in place in this country. It is so sad that we have to tread so lightly to hang on to the privileges we currently enjoy. Bruce believes the future of jet modeling is bright and somewhat un-tapped with the huge leaps made with battery and fan technologies which will open up a whole new world for high speed jet designs that aren't currently held back by rules, and while that may change we can still expect to see some new and exciting designs coming to EDFs in the near future. One thing is for certain, BTE will be along for the ride, with a bright future for this Oregon Company. The hard part will be waiting for that next turbine kit or sleek little electric ducted-fan. I've had my sneak peek, and all I can say is it will be worth the wait.

District I Report (cont'd) — Bob Radford

Mitch Buckley and the *DV8R.*

Domenic, Bob and Erik Preparing their Jets and trying to stay warm.

Mike Fiorito's pilot checking the instruments before going to mil-power.

District I Report

Bob Radford

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

District I attempted to get off to an early start in 2011 with New England Jets having scheduled two events in April. However, this may have been too aggressive as we were only able to get in one day of flying in due to poor weather conditions. The first event was on April 16th with a good turnout and despite the cold and biting crosswind, most folks managed at least two flights. We cancelled the 17th and only got in a couple of electric flights a week later due to the low ceiling after the rain stopped.

Coming events are:
The 2nd Annual Plum Island Jet Rally is June 17-19.
The Big Apple Jet Rally follows a week later as well as the New England Scale Masters Qualifier (that same weekend).
Capitol Jets is July 15-17.
New England Jets will have another event July 30-31.
New England Jets is August 19-21.
Maine Jet Rally is September 9-11.

In April of this year I experienced several failed starts due to slow acceleration on my P120. I started it the next day and it ramped up perfectly - so what was the difference? It was the temperature, which was about 20 degrees warmer the second day. I spoke with other folks who have switched from Powermax to Coleman propane fuel which provides more consistent starts in colder temperatures so I will be using up my supplies of Powermax in the warmer weather and switching to propane for colder days.

Many pilots have been bringing Electric Ducted - Fans as back up jets to some of the events for the Mig Fly and just relaxing if the ceiling is low, so I picked up an F-18 with retracts at the WRAM show. I'll let you know how that turns out.

Over the past couple of years I've heard a few horror stories of folks sending their jets to be completed by various builders and finishers around the country only to have them be frustrated over timely completion and return of the airplane. Be cautious when doing this, as more often than not there are folks within a reasonable driving distance who can accomplish what you need done. Just ask around.

JPO Shirts and Hats will soon be available from the JPO Website but for now, enjoy the photos of the New England Jets, April 16 event courtesy of Susan Gjeltema - Thank you Sue!

Bob

Mike Turocy's *Reaction* taxiing out.

A BobCat returns from another successful sortie.

Bob Sgroi's *Reaction 54*.

Jack Buckley's *Cougar.*

Brian Lloyd's *Ultra Flash.*

District II Report

Len McIntosh

New Jersey
New York
Europe

Greetings from District II. It's been a long cold winter and today, May 1st, is the first decent flying day that we have had since last November, so a dozen pilots and aircraft showed up to enjoy the 60 degree temperatures and 8 to 12 mph winds from the south. There was the predicable confusion and discussion about new flight procedures and safety rules, but that aside - the flying was great and everyone seemed to have a good time. Recent updates and changes can be found on the PARCS web page, and the latest version of the Spotter's Responsibilities is offered here.

Spotter's Responsibilities

All jet pilots must have a spotter. The responsibility of the spotter is to keep the pilot informed of other models in the air or on the ground, to get clearance to land from the Flight Line Authority, and to keep the pilot on his flight plan.

The spotter's role starts in the pits at start-up and pre flight. All systems: air, fuel, electric, radio and control surfaces should be checked and verified with the pilot.

Appraise the pilot of all air traffic near his flight path.

Communicate the pilot's intentions to other pilots/spotters/ Flight Line Authority.

Alert the pilot of approaching full-scale aircraft.

Alert the pilot of changing weather, wind and visibility conditions.

Know what the prescribed shut down emergency procedures are for the pilot's aircraft.

Pilot should communicate with spotter what he intends to do, so spotter can make sure that the air space is clear.

Time left on the clock.

During the approach for landing the spotter should advise the pilot of his glide path & slope relative to the runway touch down point and the traffic conditions on the runway.

Protect the pilot from other aircraft.

Insulate the pilot from other people and distractions on the flight line.

These are the barest essentials of the roles, responsibilities and communications that should occur between a pilot, spotter and flight line controller. The pilot and spotter should discuss, before the flight, current conditions and what information needs to be communicated during the flight. The relationship is a complex one, not a complicated one, with safety as the focus.

With that said; you are all invited to the 19th Big Apple Jet Rally at Floyd Bennett Field, June 25-26, 2011. Please enjoy the photos from our May 1 flying.

Len

Phil and Andrew communicating on the flight line.

A PST *Revision* on final with full crow selected.

Chris' *Dragon* in a knife-edge fly-by.

District II Report (cont'd) — Len McIntosh

A few of the planes at FBF on May 1.

Note the mixed bag of traffic - A-380 on final into JFK International Airport 5 miles away.

Paul's *Panther.*

FBF not that many weeks ago....

Alex, Joe and Sal at start up.

District III Report

Mark McCracken

Ohio
Pennsylvania
West Virginia

When you have a group of jet pilots willing to put together a world class event, add in the perfect location for a jet meet and invite 65 pilots from 21 countries, you have the 9th Jet World Masters 2011; which is being hosted by the National Museum of the United States Air Force, located on Wright-Patterson Air Force Base in Dayton, OH.

From July 24 through August 6, 2011, the National Museum of the United States Air Force will be host to these pilots, families, manufacturers and supporters during this international competition and bringing the best in scale turbine-powered model aircraft together in hopes of bringing home the title of: "Jet World Masters Champion."

The first few days of the event will consist of registration and practice with the opening ceremony on Wednesday, July 27.

There will be plenty to see and do for all that attend, from vendors with their static displays to demo flights during competition lunch breaks. During these breaks, spectators, fans and fellow pilots will have that chance to see new and exciting aircraft from heli's, aerobatic demonstrations, pylon racing and even a trainer for the interested future R/C'er.

The National Museum of the United States Air Force occupies 244 acres of Wright-Patterson Air Force Base. The event will be held adjacent to the museum with a runway for the pilots of 7,000 x 150 feet. It might be a little small, but we can make it work. The museum is open to all with free admission and is full of educational information.

This museum is the oldest, and largest, military aviation museum in the world, with over 400 aircraft to explore and learn about as you walk through, in sequence, from the beginning of flight to today's aircraft.

On Saturday evening, the last day of the event, the banquet dinner for the participants will be held in the museum in the “modern day” hangar.

Open flying will be be held at the end of each day, when all competition flying is over. As of now, it is scheduled to begin at 5 pm, but there is a good chance of open flying starting earlier depending on how the day proceeds.

Many of you know “the General”: Lewis Patton, who will be the Open Flying CD. Open flying dates, as of now, are July 28-31 and August 4-6 with the option of adding a few more days.

All open flying will be from the end of competition around 5 pm till dark, so please visit the JWM's web site and look for the registration page, since all open flyers have to register, and please forward your form to “the General.” All info needed can be found on web site.

Many of you do not know her, but Lisa Willis has become part of JWM's 2011 team. Lisa represents the Greene County Convention & Visitors Bureau and has been lining up things for everyone to do while visiting the Jet World Masters. If golfing is your thing, an evening at the Funnybone comedy club, or if you are up for a little bowling, Lisa can get you pointed in the right direction.

How about taking in a baseball game? Lisa is trying to put together a JWM night at the Dayton *Dragons* minor league baseball home game.

If you should need help with hotels, e-mail Lisa, but please do so soon, as they are filling up quickly. How about RV's? Yes they are welcome, however there are NO hookups - but there is a possibility of a "*Honey Wagon*" service.

Most importantly, bring your cameras, either digital or film, as there shall be plenty for all to see and admire.

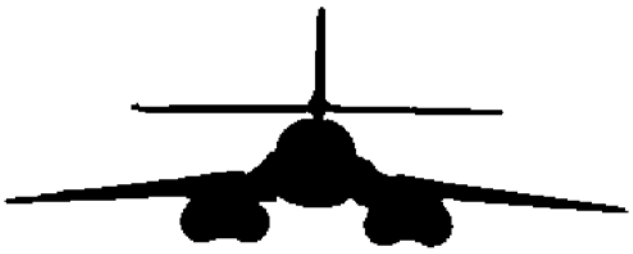
Here are a few important web sites and e-mail addresses:

Jet World Masters: jwm2011.com
NMUSA:. www.nationalmuseum.af.mil
The Green County Convention and Visitors Bureau:
lwillis@greenecountyohio.org

Finally, for day to day updates please visit RCUniverse. www.rcuniverse.com/forum/m_9470237/tm.htm.

I hope to see you there!

Mark



District IV Report

Lee Reightler

Delaware
District of Columbia
Maryland
North Carolina
Virginia

Have you ever arrived at the flight line and needed to top off your air system, only to remember that your air pump is back at the set-up area? This is when you say, “I Wish I had a portable air pump!”

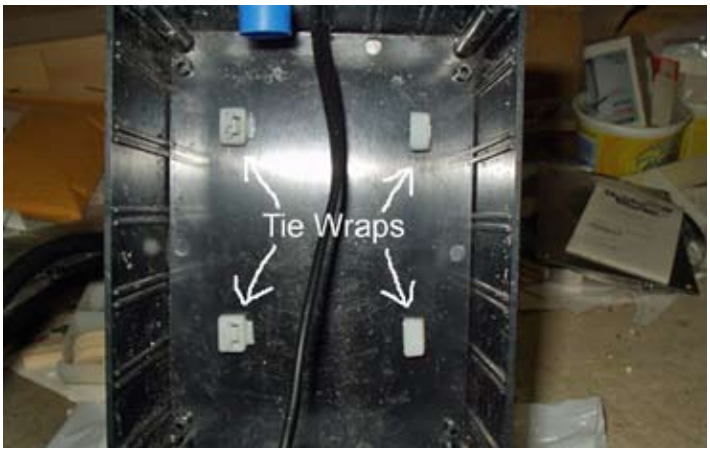
No problem, build one for yourself like the one below:

Here is what you will need:

-A Slime Tire Inflator (sold at Walmart in the automotive section) for $52.
-A 7”x5”x3” Project Enclosure from Radio Shack.
-Two sets: E-flight EFLA 249 Gold BL Connector Set, 4 mm.
-One pkg Dynamite DYN8840, 14awg silicone wire, red.
-One pkg Dynamite DYN8841, 14 awg silicone wire, black.
-One pkg heavy duty tie-wraps.
-Two 4000mAh batteries.

You will also need a means to recharge the batteries.

First, prepare the box for mounting the pump by drilling four 1/8 inch holes in the bottom to accommodate the tie wraps [do not mount the pump on the lid of the box]. These holes are located 1-3/8 inches off the center-line of the box. Drill the first set 1-5/8 inches from one end of the box, and the second set 3-1/8 inches from the first set. Elongate these holes to match your tie wrap's width. Cut the locking end off of two tie wraps. Take two other straps and fish them through the bottom of the box, around the pump, and through the other holes. Use the locking ends to tighten the straps in place as shown below.



Cut the pump power wire about 7 inches from the pump and drill a 1/4 inch hole in the end of the box to feed the power wire to the inside of the box. The “ribbed” wire is the positive lead. Use the BL connectors to make a “Y” harness to connect the two batteries in parallel and in turn, connect to the pump power lead. Now add foam to each side of the batteries to keep them from moving around.

Finish making your connections and close the bottom, though you may have to be a little creative with the foam to get everything in. For that little extra touch, you can add rubber feet to the bottom.

Give it a try and save yourself some aggravation.

Lee

District V Report

Craig Gottschang

Alabama
Florida
Georgia
Mississippi
Puerto Rico
South Carolina
Tennessee

Jet greetings from District V! In sports it's called Opening Day, in nature it's the First Day of Spring, but in the eastern half of the U.S. the start of the "season" is officially Florida Jets! With that event behind us, flying time is here and jet rallies are being held regularly. Next up in District V is The Mississippi Afterburner, celebrating their 20th year and one of the longest running jet events in the country. Look for a full report in the next issue of *Contrails*.

The 2011 JPO membership drive is going well. Thanks to all of you who have renewed or joined so far. Look for me or other JPO reps at most jet events and take the opportunity to sign up and encourage your jet buddies to do likewise. We need your support now more than ever!

My report this issue is entirely about Florida Jets. More than just a "fly-in," Florida Jets is a "happening" in the jet world and I thought it appropriate to share some of my impressions and photographs. A number of the pictures show jets in what appear to be less-than-perfect landings, but don't judge the pilots too harshly. The winds were pretty strong and gusty most of the weekend and in fact, most of the landings turned out fine.

Florida Jets 2011

Florida Jets kicked off the 2011 jet flying season in the usual grand style of a Frank Tiano event. 141 registered pilots experienced first-hand the all new, all grass runway that now serves as the venue for what has become both an international jet-fly and a showcase for both jet product manufacturers, and vendors. As usual, several new jets were introduced as well as at least one new turbine. It was also an opportunity to see and meet many of the "big" names in our hobby, including some of the top jet pilots in the world. Rather than duplicate the Florida Jets coverage that has been reported on-line and in numerous other publications, this report is mostly my account as a participant and some of the jets I found most interesting.

Much of the conversation before, during and after the event concerned the grass runway and its suitability for an all-jet event. My personal observation was that the runway surface was relatively smooth, but the grass was a little thicker and softer than I expected and required extra power to taxi. Some of the jets with trailing link nose gears, such as my *Eurosport*, needed a little extra taxi speed and some help from the rudder to make turns. Takeoffs were not a problem because the runway was plenty long and the traditional Florida winds were mostly right down the runway. Whatever shortcomings the grass had were more than offset by the cushioning effect for the occasional hot approach or gear-up landing. It's fair to say that opinions on the runway differed, but in the end, the flight line was full and multiple jets of all types were in the air at all times.

As would be expected, ARFs of all types dominated the event with the usual *Hawks, Boomers, Bandits, Eurosports*, F-15s and 16s, and various "*Cats*" in the air. It seemed there was almost always an *Ultra Bandit* flying and in fact, nearly a dozen were in attendance. The electric jets I saw were mostly BVM products and one or more of them seemed to be in the air at all times as well. There were a limited number of foamies flying and this may have been a by product of the grass runway - I only saw a few flying and there were no mass *HABU* launches as in previous years. As is usual for Florida Jets, there were also a number of new, unusual or otherwise unique jets in attendance.

One of the unique jets that attracted my attention was an ME-262 built and flown by Ryan Haldenwanger. The 103 inch span German WWII fighter replica was built from a Grumania kit which Ryan powered with a single Jet Central *Rhino.* The engine was located in the fuselage and simulated the rocket engine that augmented the wing-mounted jets on the full-scale C1a version. The result was a very convincing and very scale flight performance, nicely flown by Ryan.

Gun ports and disguised fuselage vents cleverly used as air intakes for the internally mounted turbine. Best Military Jet runner up award.

District V Report (cont'd) Craig Gottschang

All the way from Denver, CO, Ryan's traveling companion Brian O'Meara also impressed everyone with his 1/5th scale F-84. Built from a kit by a little known Netherlands company called PHantsy in Blue, Brian's F-84 is finished in an authentic Dutch air show scheme and is one of only two such model jets in the US powered by a Jet Cat P-200, it too, flew exceptionally well and drew a lot of attention.

F-84 *Thunderjet* (sans canopy) on approach. 105" wingspan jet weighed 48lbs and is controlled with a Futaba 14z.

Flight Metal finish and superb artwork on his F-84 earned Brian the Best Military Jet award.

An unusual sport design called the *Futura* made its debut in the US at Florida Jets. Manufactured by the German model company, Tomahawk Designs, the *Futura* comes in 1.9 meter and 2.5 meter wingspan versions. Both flew very well and the larger model has a satisfying and distinctive "big jet" sound in flight. They displayed very colorful and stylistic paint schemes, however one observer commented that in his opinion, this only made them "less ugly!"

Jet Central *Mammoth*-powered 2.5m *Futura* even looks big next to the less-than-diminutive Andy Kayne! He won Best Sport Jet runner-up award for the "futuristic" looking jet.

Two older turbine designs that were successfully converted to twin electric power and flown at the event were a BVM F-4 by Tommy Wood and a Yellow F-14 flown by Bob Fiorenze. Both flew extremely well and with authority, and Bob's F-14 was particularly impressive as it swept its wings back and forward several times during the flight. Both jets were powered with twin BVM EVF 12S electric fan setups. Unfortunately, the F-14 is a "one off" custom install and is not planned to be offered as a conversion kit.

Tommy Wood's BVM F-4. Electric powered jet competed in 2010 Top Gun and won the Best Electric Jet Performance award at Florida Jets.

District V Report (cont'd) — Craig Gottschang

F-14 with wings swept. Flawless mechanical performance helped Bob Fiorenze win the Engineering Excellence award.

Although they are a very successful line of jets, I have personally never been much of a *Boomerang* guy. That opinion changed somewhat when I had to opportunity to call for Mike Salleby as he put the new Boomerang *Torus* through its paces. The *Torus* is a "sportier," as well as strengthened, design that flew much more like a sport jet and less like a trainer. Mike flew his *Torus* with a Jet Central kero-start *Rhino* and it had plenty of speed and power for a complete aerobatic routine to rival most sport jets. I expect the *Torus* will appeal to a wide range of pilots looking for a capable and reliable sport jet. Unfortunately I didn't get a good picture of Mike's *Torus* to publish here.

The "jet" that may have most surprised me was a small turbine-powered glider flown by Ali Machinchy. When I first saw the Opus *Colt* and its tiny Kolibri turbine, I assumed the engine was designed to fly the 74-inch dynamic glider to altitude and then shut down. I could not have been more wrong. Ali flew the 3 pound thrust turbine wide open and the *Colt* flew like a 150mph bumblebee on steroids! Never much outside a 100 square-foot "box" in front of the flight line, the glider was almost impossible to follow (much less photograph) through inside and outside square loops, instant pitch reversals and vertical snaps. Probably not a jet I would ever care to own but it was impressive to see its capabilities as well as the skill necessary to fly it.

Ali Machinchy cranks the little T-32 turbine for another flight. Ali won a Special Recognition award for his glider as well as the Most Outstanding Jet Flight with a BAE *Hawk.*

Ali was just one of several top notch pilots. Others flying impressive routines were David Shulman, Dustin Buescher, Pablo Fernandez and Raul Lozano, just to name a few. My personal favorite at the event was Rob Lynch flying his EVO-160-powered *Ultra Bandit.* Robby has complete command of and confidence in this jet and amazed me every time he rolled inverted on takeoff, slow speed snapped on the low/slow down line of a Cuban 8 and otherwise flew the *UB* at the absolute limits of control. I'm still not sure how it does it but he is a remarkably talented jet pilot and always a pleasure to watch.

Pablo Fernandez readies his *Rhino*-powered Skymaster A-4. Pablo won the Critics Choice Runner-Up award with his A-4 as well as a Special Recognition award for flights on his BVM *E-Bandit.*

District V Report (cont'd) Craig Gottschang

David Shulman's Jet Cat P-160SX powered *Tuano* on a high speed pass. David won the Best Sport Jet Performance for his signature on-the-deck rolls and knife edge passes.

Raul Lozano low and slow with this BVM *Ultra Bandit*. The young man from Spain won Best Sport Jet for his precise flying routines.

Rob Lynch received the Best Electric Jet award for his BVM *Electra.*

There were a total of 24 awards presented at the banquet on Saturday night and I have tried to recognize as many as possible in the previous photographs and captions. A complete list can be found on Frank Tiano's website at http://www.franktiano.com/FljetsFrameset.htm . The rest of the photos are just a sampling of the action I was able to capture in between my own flights and other activities. If you want to see more, you will just have to attend next year!

Crowd favorite *Tucano* flown expertly by Boli Muentes. Special Recognition award for the Jet Central powered turboprop.

Tam Jets A-4 equipped with the new Jet Cat P-100, making its U.S. debut. The 22.5 pound thrust turbine had no problem powering the 48 inch span jet off the grass runway.

Ali Machinchy (center) and Tam Nguyen (right) are all smiles after a successful flight on the P-100 powered A-4.

District V Report (cont'd) — Craig Gottschang

Dustin Buescher brings in the bright orange, 98 inch Skymaster F-80 *Shooting Star f*or landing.

Announcer Sam Wright and event organizer Frank Tiano kept the participants and spectators informed and entertained throughout the event.

Jim Hiller's de Havilland *Vampire* completing one of many flights. The 1/5 scale, 30 pound Der Jet model flew nicely with a Jet Central *Rhino*.

Brian O'Meara's 100 inch Skymaster F-86 in German livery. This AMT Netherlands *Olympus* powered jet featured smoke and was another event favorite.

***Rhino* powered Comp-ARF *Eurosport*, expertly flown by Larry Lewis. Larry is from Raleigh, North Carolina and is one of the First In Flight event organizers.**

Jack Diaz's venerable BVM F-100. Jack and son Gerardo flew the P-120 powered jet repeatedly and received a Special Recognition award.

Comp-Arf *Tutor* in Canadian CT-114 livery.

I hope that these photos have brought you a little bit of the feel of this years edition of Florida Jets, and you are now ready to get this year's "season" in gear!

Craig

District VI Report

Lance Campbell

Illinois
Indiana
Kentucky
Missouri

Sanding….Yuck!

I don't know about you, but sanding is my least favorite part of modeling. It feels endless, and the changes you see from your results, occur slower than grass growing. Now that I'm done complaining (well mostly), I thought I'd pass on some tips, tools and techniques for you to ponder the next time you need to modify some parts.

Before I go further, I need to pass on a concept I learned when I was getting up to speed about metal working on my mill and lathe. I was learning about different cutting bits and tools, and I learned it also applied to cut-off wheels. Inscribe this into your brain. *Use hard to cut soft, soft to cut hard*. I'll refer back to this concept several times in this issue's ramblings.

There is a wider variety of sanding tools out there than you might think that work well for our hobby use with the obvious elephant in the room being Permagrit. This is great stuff, and I use it all the time - I've got 5 different sanding blocks, and most of the smaller hand tools as well. Permagrit works great for working over wood by hand, which is a good chunk of kit building. One surprise I had after nearly burning up a Dremel when using a Permagrit drum, was that as the 1/4 inch, 5-ply plywood was getting warm, a part of its glue was getting gummed up in the grit. I've soaked these in acetone over the years to clean them and that works pretty well, but rather than that path, I use sandpaper drums on the rubber spindle instead. I don't know about you, but ever since Permagrit came along, these have collected at the bottom of my Dremel drawer.

Experiment based on your needs. Note the sanding drum made from a heavy cardboard tube, sanding screen and various straight and curved Permagrit sanding bars.

I was really surprised how well these worked to grind a large amount of heavy ply away and about the only thing I can think is, that the paper and rubber did not build up heat as much as the metal Permagrit, and heat is one thing that can soften the glue in the ply and then start gumming up your cutting surface. On the other hand, Permagrit will eat balsa a ton faster than the sanding drums. As said above, *Use hard to cut soft, soft to cut hard.*

Another good example are cut-off wheels, and there are two main types to think about. The first is the abrasive, fiber type, that as they cut, get smaller. The second one is the metal, diamond-coated type. Once again, you'd think - metal disk, diamond coated - this must be the best choice for everything. But that is not so. After attempting to cut several axles with the diamond-coated disk, I learned that the abrasive fiber disk would cut the steel music wire significantly faster. Conversely, when cutting fiberglass, the abrasive fiber disk, would simply heat up, muck up the fiberglass (remember resins and heat don't like each other), and cut very slowly, but the diamond-coated metal disk, would cut through the fiberglass-like butter. Once again: *Use hard to cut soft, soft to cut hard.*

(Left set) Paper sanding drum and a Permagrit drum. (Right set) To the left is a fiber cut-off wheel and to the right are two version of diamond-coated cut off wheels.

As I've done some fiberglass mold work, these points really get driven home when you start talking about lay-ups of fiberglass 10-14 layers thick, some being up to a quarter of an inch in thickness. An abrasive coated jigsaw blade, similar in concept to the diamond-coated cutoff wheel, will power through fiberglass very quickly, but a fiber type abrasive won't even touch it.

Don't be afraid to try different tools for your sanding needs. One example is a set of small metal needle files which work great for putting finishing touches on fiberglass edges. The file surface is nice and consistent and makes for a nice controlled cut on the fiberglass.

Another great idea is something you'll find at your hardware store for working with drywall called sanding

District VI Report (cont'd) — Lance Campbell

screens. They are pretty coarse, and you can get them in grits such as 120 or 150. The great thing about these is that they have a ton of space in-between the screens, so they can accumulate a lot of sanded material, and then you just take your shop vac and suck it out and keep rolling. These work great for sanding down large amounts of filler, or thick layers of primer allowing you to plow through these tasks quickly. You can also get pads with handles that hold them, making them quite handy, or you can make your own based on your needs. If you really need to take a lot down, you can put them in a palm sander and really go to town!

Metal files (left) and Permagrit files (right) are both great for lots of different materials.

Sanding screens and a handle with rubber pad.

The last topic is about wet sanding. This is often the last sanding step you'll do, just before putting the final paint on your bird, and is most often done in the primer, but could be done in a coat of gloss clear, if it's thick enough. Often you'll use 220, 400, 600, or finer grits, but those 3 mentioned cover most people's needs for working in primer. If you read the prep instructions for most parts, they state that they will conceal 400 grit, and for sure 600 grit scratches.

I'll admit, that when I started doing this, I was under the opinion that "more is better," and would try to do this under running water. This works okay, and it does produce great results being much faster and smoother than dry sanding, but recently, I learned that you could approach this much more simply. Just get a bowl of water, and a piece of wet/dry sand paper, get the paper wet, and start sanding. It takes a very small amount of water to produce really good results, and I think it might even be faster than the running water method.

What you end up doing is sanding in a pool of watery film, and the water keeps the material from collecting in the grit of the sand paper, and almost acts as a lubricant to the process. After 30 seconds to a minute of sanding, swish the paper in the water, take a paper towel, and wipe down your area to remove the sanding crud and excess water, and then go at it again. All-in-all, you end up with very little mess, and you can control where the water goes and doesn't go, such as adjacent wood areas. I'll use a single small piece of sandpaper like this and it keeps going for more than 20 minutes of sanding.

One last remark is that when I'm done with my sanding on an area of primer, and prior to painting - I'll wipe the area down really well with some rubbing alcohol to make sure that all of the sanding residue and oils from my hands are cleaned off, prior to putting down paint.

Jet World Masters, Dayton OH,
Last week of July / first week of August

Don't forget, that right in the middle of this summer is going to be quite a unique opportunity for you to get out and see the best jet pilots in the world, here in our own backyard. In the nearly 20 years that the Jet World Masters has been taking place, it has never been held in the United States, and also, it has never been to the same country twice. If you've ever been curious about this, now is the time, and this is the place, since at this time at least 20 countries are slated to be here, and between pilots, helpers and family, we're at better than 175 international guests. Also, there is going to be evening jet flying available to everyone with no registration cost, so bring your bird to unwind with at the end of a day of watching the competition. I've been honored to be asked to CD the competition element of the event, and after that part winds down, Lewis Patton will be your CD for the after-hours flying.

Main web site of the event:
http://jwm2011.com/Welcome.html

For the latest info: www.rcuniverse.com/forum/m_9470237/tm.htm

I hope your winter building season has been productive, and I'm looking forward to seeing you at the jet shows this season.

Lance

District VIII Report

Ron Scwarzkopf

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

It seems our weather in District VIII is starting to settle out now - we've had a decent dose of rain, tornadoes, and wind, but it's all moving out of our district, and in comes the good flying weather. So go fly your jet model!

F-105 *Thunderchief* Update

In our last episode, a couple scratch-build projects were reviewed, including "B-1" Bob Moore's F-105 *Thunderchief* model. The F-105 has since flown successfully several times, and I had the opportunity to see it fly while attending the recent Mississippi Afterburner event. Bob did really well with flying the model and it looks really great in the air. Next in the works with the model is ironing out some minor retraction issues with the main landing gear, and installation of a braking chute. This is gonna be a great model!

2011 Jet World Masters Scale Contest

By now, you've probably heard that the 2011 Jet World Masters scale contest will be held at the US Air Force Museum, in Dayton, OH - from July 24 thru August 6. This contest occurs every other year, and in different locations around the world. Event organizers Roger Shipley, Dewey Davenport, CD Lance Campbell (JPO Dist VI Rep), and a host of others are working hard to make this a great event. I'm not sure if this site could possibly be outdone either - being located at what has got to be the best aircraft museum in the United States. This will be an excellent opportunity to witness some great flying with really nice scale models from all over the world - then afterward, take a stroll through the museum to visit the full-scale exhibits.

Andy Andrews, a flier in our own District VIII, will be one of several pilots representing the US. Andy is currently First Alternate, and will be ready to compete, depending on the status of the team at the time of the event. We wish Andy and the rest of the team good luck at the event! I hope to be at the event for a few days to check out the models and the museum.

MiG Alley

I've done a bit more work on my Fei Bao MiG-21, which is in the process of getting covered with sheet aluminum. My previously hoped for schedule was blown out of the water, so now I'm pretty much just working on it in my spare time, and with no set schedule for it - it's a lot more fun that way! The model is mostly covered with Ed Clayman's Flitemetal (www.flitemetal.com), which seems the popular choice of material to use.

I did come across another supplier of stickyback foil, called Aerofoil, which is distributed by Dino DiGiorgio at www.aero-accessories.com. The material measures closely in thickness to Flitemetal, but has a different adhesive. I have not been able to discern any major differences between the two, so anyway, here is another option on where to get this type of covering.

With either material, it is best to stick the material down from the center of the panel you are working on. This allows

District VIII Report (cont'd) — Ron Schwarzkopf

you to then (slightly) stretch to the outer periphery of the panel - a necessity if the panel includes compound curvature. Most of the difficult double-curvature areas have been covered already and the more gently curved wings should be easier to cover. I suspect the hard part of the finish will involve some experimentation, in that I would like the final finish to be a bit weathered - not a fresh rollout from the factory. I will cross that bridge when I get to it. If you have any suggestions, please let me know!

Upcoming District VIII Events

By the time you are reading this, we will have finished the Central Jet Rally in Austin, TX, so we will have a rundown of that event in the next issue. Try to make it to the Mt. Pleasant, TX Jet Rally on June 3-5, if you can. Also, Shreveport Jets has moved to October this year instead of the heat of the Summer. That is great news, as there is less of a chance we will melt in the heat and humidity of Louisiana. I hope to attend! As usual, lotsa jet flies in District VIII, I hope that I'll see you there!

I'll leave you with some photos from my trip to the Mississippi Afterburner, so until next time: Happy Landings!

Ron

Jack Holland's *Jacknife* taxiing out for another flight.

A scratchbuilt P-60 powered Thunderstreak - original builder is from Belgium.

Craig Gottschang's award winning A-10.

Some of the detailed stores on Craig's A-10.

Bill Kinney's as of yet unflown 40% BD-5 jet and it's stable mate to the left.

Roger Kirshner's new Jacknife making a smooth, low pass.

District X Report

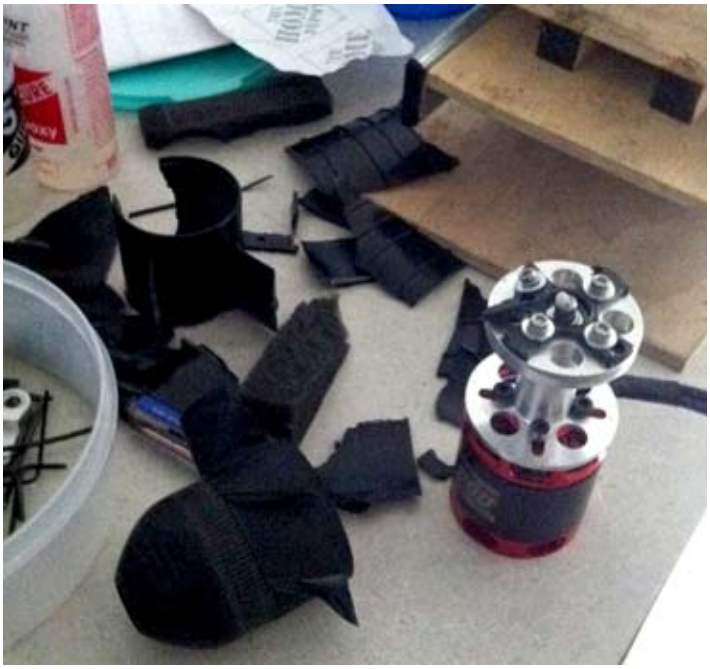
David Reynolds

Arizona
California
Guam
hawaii
Nevada
Utah

Things that make you go "ouch" (and other colorful metaphors) show up in large quantities this time of year. In the space of about a week, two members of the Ezone web site have had some fairly serious injuries due to running up EDFs in order to test them. Both events involved injuries to the face, one being rather serious - requiring surgery and stitches in the eye.

While running up a fan to test it, Dale had the misfortune of the rotor coming off his fan due to the collet not being tight enough. As the picture shows, Dale got off very lucky and wanted to share his story in order to help others.

Lavelle Sheppard did not get off quite as lucky. While testing his fan on the bench Lavelle suffered injuries to his face and eye when the fan he was testing came apart. As you can see, not much is left from the fan in question.



Both of these events illustrate the need to respect our fans and take some time to think about the damage they can cause.

Some Safety Guidelines

1) Inspect and maintain your equipment. Some have suggested that failures are caused by cheap Chinese parts. While this is possible, I have found cracks in the shroud of a name brand fan out of Germany. EDF fliers need to be as conscientious about maintenance as turbine pilots, and think about all the props that have come apart at the field....

2) Stay behind spinning fans and take a moment to think about where parts will go if the worst happens. Fortunately, Lavelle was wearing safety glasses at the time of his accident, but they were not enough. There has been some discussion of running up fans in Lexan chambers but the best way to not get hurt is to not be in the way. This includes at the field while prepping to fly. Do not expect your airframe to contain exploding fan or engine parts.

3) Keep it Clean. High power EDFs are marvelous vacuum cleaners. They will suck up rags, tools, small parts, and any other trash from amazing distances. Take a moment to think about what might happen if a washer hits a rotor at full tilt no matter where it was made.

4) Keep a clear head. Are you angry about work? Did you just have an argument with your significant other or your teenager? Put the jet away and go play with your park flyer.

District X Report (cont'd) — David Reynolds

5) Keep a clear head-part 2: Adult beverages (or any other mind-altering chemical, legal or otherwise) and high power anything do not mix.

6) Respect all fans. Plastic in your eye from a 40mm fan hurts just as much as plastic from a five inch fan. Thanks to brushless motors and lipo batteries with higher and higher "C" ratings, we are putting in more power and spinning higher RPMs than any of these fans were originally designed to handle.

7) **THINK!**

Special thanks need to go out to both Dale and Lavelle for taking a bad situation and turning it around to educate others. Follow the threads on ezone for more information - The first: *Don't be stupid!...like me*: www.rcgroups.com/forums/showthread.php?t=1420844 and *Please Pray for sheppard559!!! Jet motor accident:* www.rcgroups.com/forums/showthread.php?t=1422236

On a lighter note, California Jets got some TV coverage http://news.yahoo.com/video/bakersfield-kero--24115453/miniature-jets-take-over-sky-in-buttonwillow-24943853, and the skies over Arizona have been busy in the last few months so I will leave you with some pictures from both Tucson Ejets and the Tucson Jet Rally.

Till next time, keep the low passes where they belong, and stay safe!

Dave

Clay Sherrow contemplates "all the things electrical" and instructs them to play nicely with each other.

Bob Reynolds' 44% *rE-action* in back and my converted 1,397 year old Parkinson's *Regal Eagle* soak up the sun.

Tucson Ejets

A Hobby Lobby X-43 awaits another launch.

District X Report (cont'd) — Dave Reynolds

Tucson Jet Rally

"Roger Navy 12345, you are clear for departure, watch for the mountains".

Ron Schwarzkopf's scratch built F-107A on the active, only a few miles from the one it is modeled from resides.

Ron Schwarzkopf's PST *Reaction* blasts past.

Bob Reynolds' own design F-35C gets some sun to help the glue dry on the 196 laser cut parts.

District XI Report

Bob Brusa

Alaska
Idaho
Montana
Oregon
Washington

In the last issue of *Contrails* I wrote about the 75th AMA Anniversary celebration in Muncie this July from the 14th to the 17th. I stated that the JPO would hold a fly-in there and I would be the CD. However, due to circumstances over which we have no control, the AMA moved us from site 3 to site 6. Site 6 is a grass runway rather than a hard surface like site 3. In addition, we would have to share the site with modelers from other venues. We have decided not to have a JPO fly-in under these conditions, however, we do encourage jet modelers to attend and fly if they so desire. I am still planning on attending and will make a decision about flying when I am there. There is no landing fee, and a free 75th anniversary tee shirt will be given to all who register.

Kentucky Jets will be holding a week-long fly-in the week prior to the AMA event, and the Jet World Masters will be in Dayton, Ohio, starting the week after. My plan is to attend all three, and I hope there are other modelers out there who have the time to do so also.

In our district there will be a jet fly-in in Parma, ID (close to Boise) from June 17-19. They have a 600-foot paved and unobstructed runway, so you can come and fly all you want for 3 days. This is an annual event that has been in June for quite a few years.

Our Canadian representative, Paul Dries, will probably mention it in his article, but I will also do so here. Princeton, B.C., will be hosting a jet fly-in June 2-5, which is the first weekend in June. This is a 4-day event, from Thursday through Sunday and they will also have another event in September for 4 days (the 22nd through 25th).

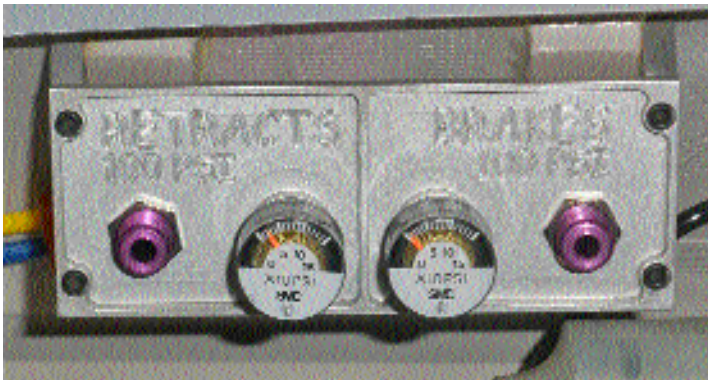
Jets Over Whidbey will be the last weekend in August, (the 26th through 28th). We are planning on having our Saturday night banquet at the CPO Club on the base, same as last year, and this is a great dinner at a very reasonable price.

The only other event in our district is the one in Whitefish, MT. This event was cancelled last year, and I do not know if they are having it this year, but it has usually been in July.

The JPO would like to thank all the District XI members who have renewed for 2011. There are only a few who have not renewed yet, so as a reminder, this will be your last issue of *Contrails* if you do not renew. We would also like to thank all the new members who have joined. JPO's membership is up over 20% from a year ago.

JPO is soon going to be offering some wearable items that can be purchased on the JPO website. We are starting out with hats, polo-style shirts and sweatshirts.

Some of you have asked about a couple of the items on my *KingCat*, so I am posting some photos of them for you to see. They are made locally, here in the Seattle area, by a Boeing engineer, and are sold through Todd at Dreamworks. One item is a mount used to hold your air gauges and fill valves, and the second item is a gorgeous motor mount. The motormounts are made in different sizes to fit the various JetCat turbines. If you are interested you can call Todd. Just find Dreamworks on the internet.



I am always interested in pictures of your planes, articles you would like published, or anything else you would like to see in *Contrails*. Just contact me: my phone number and e-mail address are on the inside of the back cover of this magazine.

Bob

Canada District Report

Paul Dries

This has been a tough spring! The left coast has seen a colder and rainier spring than I can remember in a long time, so there is not much flying going on - which is unfortunate since there is not a lot of flying to write about. Even the Whidbey field, which usually offers some winter flying opportunities, was a no go this year. I did manage to make a trip to Detroit right around the same time as Toledo, so I managed to get a visit in to the show. However, it was clear that the focus was on "Bind and Fly" foamy and 3D ARFs with very little attention to jets.

A couple of updates on the events in Ontario:
-Wingham Jets is June 10-12. Hosted by Angus McDonald
-Jets over Chatham is June 24-26. Hosted by Paul Soussa.

My CG Rant

I have not been in the turbine jet side of the hobby for many years but have already noticed a disturbing trend. Every jet I have built, and several others I have helped friends with, have needed significant amounts of nose weight to balance. Some personal examples are: BTE *Reaction-54*, Comp-Arf *Flash*, Skymaster *Viperje*t and Boomerang *Torus*. I have also observed people adding nose weight in build articles on the forums as well, somehow justified in statements like: “Well, I stuck a bigger battery(s) in the nose as it needed noseweight anyways and might as well make it useful weight”. You would think that by now manufacturers would have this figured out - especially with aircraft such as the Boomerang *Torus* which must now be close to it's 10th generation, and it still needed 1 pound of lead to balance! Maybe this is a consequence of out-sourcing designs to ARF manufacturers who then do a poor job manufacturing the tail surfaces and they end up heavier than originally intended. I like airframes that fly light on the wing and am not particularly fond of adding seemingly un-necessary weight, so this whole idea of putting lead in a new build to get it to balance goes against my engineering brain.

For most Canadians with a remote interest in aviation, the Canadian Forces *Snowbirds* team are well known. Also well known is that the *Snowbirds* have for many years been flying the aging Canadair *Tutor* CT-114 side-by-side jet trainer which has very unique looks that usually elicits a love/hate reaction. For such a unique aircraft that has been made internationally famous, it has surprised me that it took this long for someone to produce a decent scale model of it. Last year I happened to be in Germany and was able to attend Comp-Arf's annual event and saw two of the new CT-114s flying in formation and I knew this model was going to be popular.

Skip ahead one year and we now have a small fleet of the *Snowbirds* CT-114's being built in Western Canada. Al Blore in Calgary, Dean Wichmann in Kamloops and Kevin Forsyth in Surrey have all picked up kits, the first two of which will be maidened at the Spring warm-up event in Princeton, and I have heard that there are at least a couple more in Canada. The large shape of the fuselage due to the side by side cockpit arrangement and the larger airframe size of the kit gives this model a lot of presence.It’s probably not going to be the fastest jet around, but if you watch the full scale *Snowbirds* fly they seem to do everything at a nice constant pace and there is always something going on - none of it at supersonic speeds. They are one of the best in their class at energy management and have learned to do so with a somewhat underpowered aircraft.

Web sites of interest

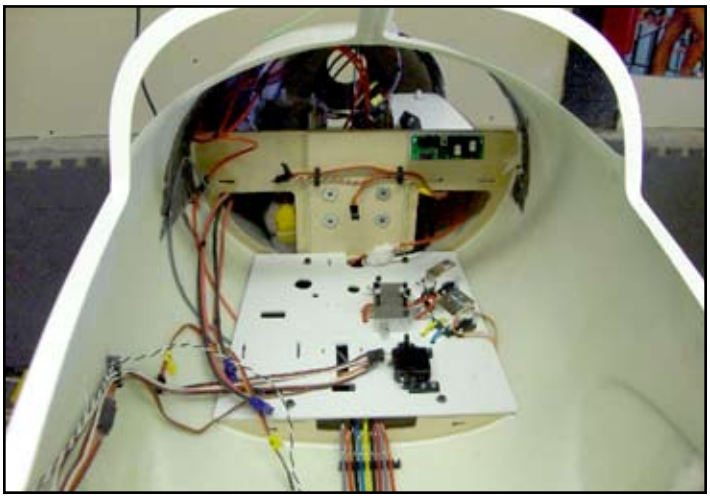
http://www.snowbirds.forces.gc.ca/v2/index-eng.asp
http://www.carf-models.com/public_carf/pages/shop/productModel.html?root=product&proId=2294&linkId=@4@2294&title=CT-114 Tutor

Attached are some photos of Dean's and Al's aircraft in the build process. Looking forward to seeing these take flight as this will be next winter's project for me!

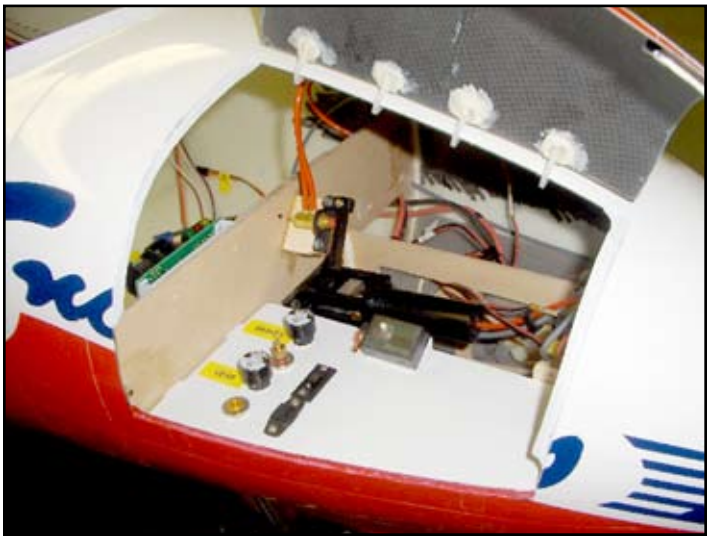
Paul

Side-by-side comparison: Comp-Arf vs. JetLegend.

Canada District Report (cont'd) — Paul Dries



Cavernous fuselage.



Front hatch opening.

Functional Speed Brake detail.

Cockpit detail.

The view from the instrument panel camera of "the driver".

Beginner's Corner

Bob Brusa

This is the fourth article in the continuing Beginner's Corner series, and probably the single most asked question by those wanting to get started in turbines is: which plane should I buy first? This question elicits many different answers, depending on which turbine pilot you talk to since everyone has their own opinion, and thus it is difficult to come up with "one" right answer. As controversial as this subject is, I think we would be remiss not to include some recommendations in our Beginner's Corner.

For those who may be unaware, there is an internet forum known as Radio Controlled Universe (abbreviated RCU) on the internet. In the subforum known as RC Jets, this topic has been asked many, many times. As with all internet sites, reading this forum can be quite educational. However, there is some poor information here, as well as good, so one needs to be careful. Here is the link: www.rcuniverse.com/forum/forumid_120/tt.htm.

The following recommendations for a first jet plane are going to come from RCUniverse, and from the many I see at jet events that I attend, and I'm sure the editor will add a few too. Keep in mind that everyone may not agree, but I think the majority of jet pilots would consider the following recommendations as good ones.

The first question you have to ask yourself is: a scale or sport aircraft? The second being, do I want a kit I have to build or an ARF? We're going to start with sport aircraft first, as that is the major recommendation I hear from most jet pilots.

So, we've decided on a sport aircraft, now do we want a kit or an ARF? Let's look at some of the more popular ARF models recommended as trainers. One of the most recommended ARFs come from Boomerang Jets (www.boomerangjets.com). They are available in 5 sizes, being from smallest to largest: the *Nano*, *Sprint*, *Elan*, *Torus*, and the *XL.* They use a wide variety of turbine sizes and you can browse their web site to see photos, info, and even videos. One of the most popular Boomerang jets was the *Baby Boomerang* (also known as the Boomerang *Intro*). This is no longer available, but I've seen many used models for sale. They all fly very well and can be landed quite slowly. There were usually several Boomerangs at the jet events I attended and without a doubt, probably one of the most recommended planes for a beginner.

One of the things that help the various *Boomers* to excel is their thicker, lift producing, straighter wings. Bob Violet Models (BVM Jets) (www.bvmjets.com) also have some great flying twin boom models that are recommended such as the *BobCat* and *KingCat*. These are both good flyers,and feature all composite/fiberglass construction. They are faster than the *Boomers* and *R54's*, and pricier also.

In a single-tailed airplane, the TBM *Shockjet* (ARF version of the *JetMach*) is a fantastically forgiving airplane that gives confidence rapidly (www.troybuiltmodels.com) and BVM's *Bandit-ARF* has a tremendously large flight envelope.

Probably the second most popular trainer recommended is the *Reaction-54* (www.btemodels.com), discussed earlier in this edition of *Contrails.* Available as an all wood kit for smaller engines, or an all composite ARF for larger engines, both versions fly great and land slow, just like the Boomerangs. Both the R54/*Reaction* and the Boomers make great first time models for a beginner.

In build-it-yourself kit versions, there are a few more that are designed for first time jet pilots. Bob LeServe's *JetMach* (www.laser-design-services.com) and Kerry Sterner's *Facet* (www.ussimjetllc.com) which comes in two sizes. unfortunately, there are not many other kits available.

There are so many ARFS on the market it is hard to choose. There are many that would work as a first time model, and there are also many that are more difficult to fly. Once again, visiting your local club field or attending jet meets would be helpful to learn about the many options available.

Finally, let's talk a little about scale models. Most are ARFs, but there a few kits out there too. In general, scale models are not usually recommended for the first time jet flyer with the possible exception of an F15. The sport models mentioned above fly so well that most current jet modelers recommend them to the new jet pilot. However, if you just have to have a scale model, then I would recommend you do your research on the model you want to determine if it's right for you - or not. Research the internet and talk to the jet modelers at your club or at an event ... which is a good excuse to go to a jet rally!

Three scale models that I think are very easy to fly are the PST F9 *Panther*, and the Skymaster *Viperjet* 2M. I'm sure there are others, but again, do your research. The *Panther* can also be built from plans (or a short kit) from Nick Ziroli plans (www.ziroliplans.com).

The editor is very fond of F15s, having flown five different sizes of them. With the huge wing and lifting ability of the design, the "Flying tennis court" excels as an introduction to scale jets. Available as a kit (licensed from Avond's) from Aeroloft (www.aeroloft.com), or as either a kit or an ARF from Yellow Aircraft (www.yellowaircraftplanes.com) or as an ARF from several manufacturers it is an excellent scale jet that won't bite you as you develop your skills.

Bob Brusa

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