Newsletter of the Jet Pilot's Organization

Contrails

Summer 2009

Volume 21, Issue 3

Dan St. John caught
Ryan Haldenwanger "smokin"
at the Love-Air Jet Rally.

President's Report

Keith Sievers

I started making my own extensions a number of years ago. It began as an effort on my part to be neater in my installations, but with the cost of good pre-made extensions topping $10, there is also a cost savings associated with doing the work yourself, since the parts cost less than $5. Whatever your motivation might be, here are the things I have learned, by trial and error, along the way that might help you out if you are going to make the leap.

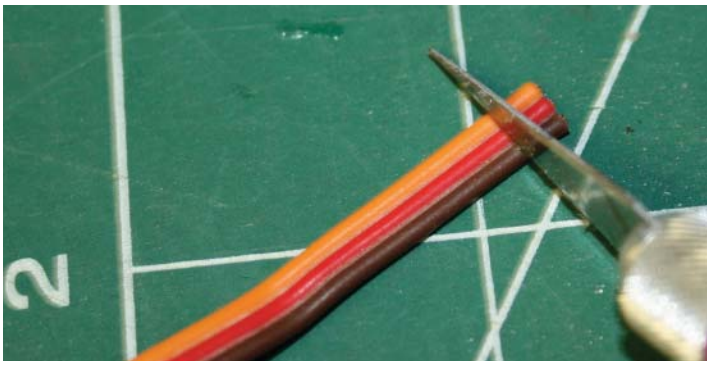
Tools are the first item. You will only need two...a crimper and very small flat-head screwdriver to help push the pins inside the connectors. Don't skimp on the crimper! A good tool is adjustable, so that when it is fully compressed it doesn't put so much force on the pin that it causes distortion. I cannot emphasize this enough...the key to making a connector that will not fail is a consistent crimp. A crimper like the one pictured here is about $40, and is available from a number of sources...mine came from Hansen Hobbies.

As with the crimper, you do not want to skimp on the parts, and there are a large variety of grades of connectors. The metal on the good connectors will appear to be heavier and more substantial than cheaper ones. The gold plating will also be complete ...no areas of silver will peek through. Another item to look for is the length of the outside sheath on the female connectors...cheap parts will have a shorter sheath than a good quality commercial extension.

Searching for suppliers of good connectors is a lot like looking for the Holy Grail. I tried many without success until I stumbled upon Peak Electronics, and the Custom Electronics brand of connectors that they sell. The Peak folks are easy to deal with and may offer discounts if you order in bulk, rather than buying the small packages. The last connector order I placed cost just over $3.50 for a set of male/female pieces for a single extension. However, I did buy a quantity of 150 pairs to get the better price. While this seems like a lot, a typical plane will have 12-15 extensions on average, and connectors seem to disappear in a hurry if you are a prolific builder. Another thought is to pool needs for several friends and simply share a large order.

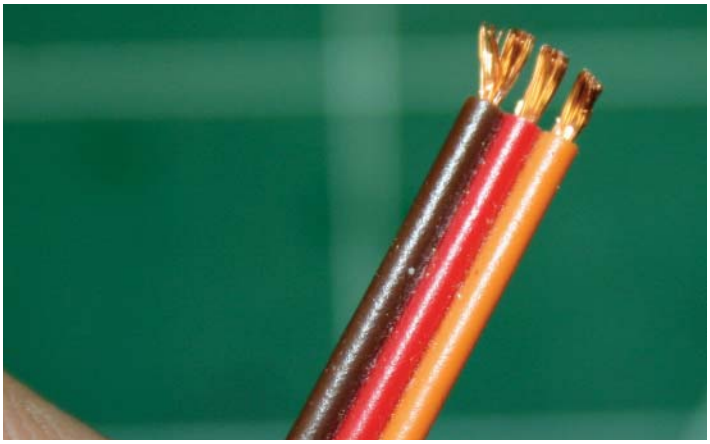
Wire is available in 100-foot bulk lots from various sources for 40 to 50 cents a foot. My supplier for heavy-duty 22 gauge JR-style wire has been Maxx Products for a number of years, though their price is toward the high end of the range. I recently made a switch from standard flat servo wire to twisted wire for better noise attenuation, and this wire is also available from Peak in bulk lots, and the price is about 20% less than what I was previously paying. I just have to get used to the way it looks.

Construction of the extensions is fairly easy once you get the hang of it, and it only takes me about 5 minutes to produce a complete extension. I start by running a razor knife lightly across the wire about 1/8-inch from the end, then flip the wire over and score the other side. Don't cut too deeply, as you don't want to cut into the wire itself.

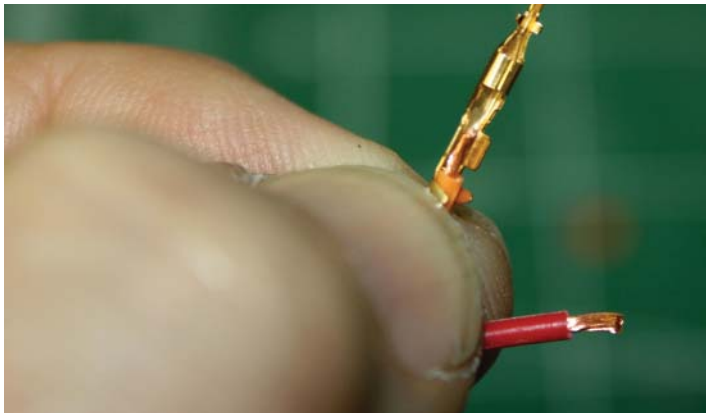


Using your thumbnail, peel away the insulation, then using the knife, carefully separate the three wires for about 1/2-inch. You should now have three wires with an identical length of bare wire exposed.

President's Report (cont'd) Keith Sievers



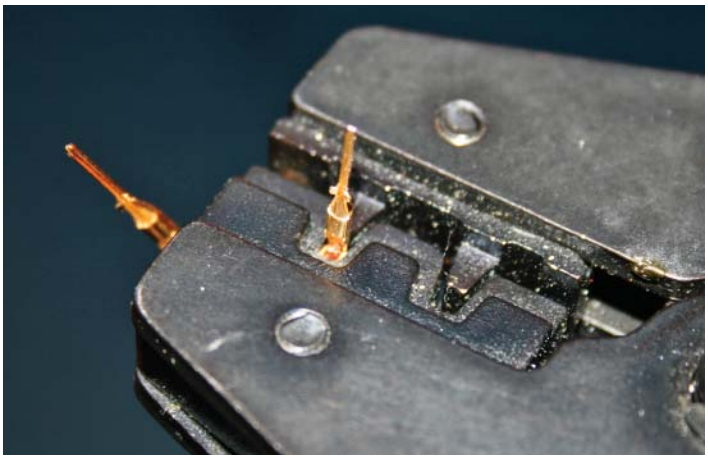
Next, some folks will insert the connector into the crimper, and then insert the wire into the connector. I prefer not to do this, as I find it difficult to get the connectors identically positioned on each of the three wires. Instead, I position the connector on the wire and just barely crimp one of the insulation tabs at the very bottom of the connector with my thumbnail as shown.



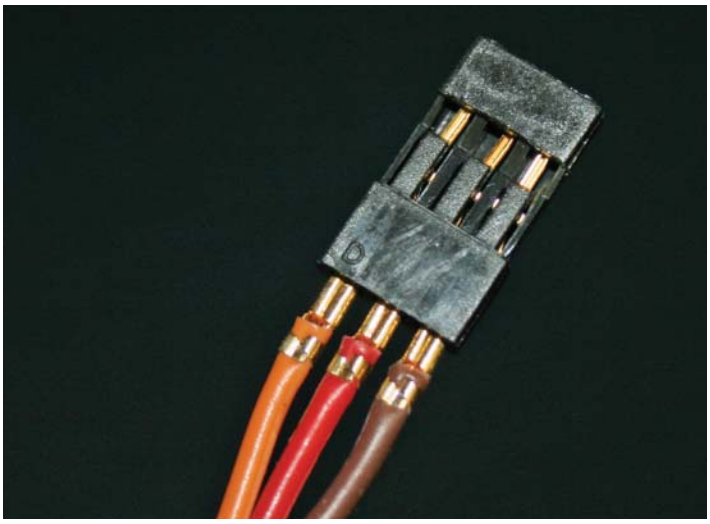
This will hold the connector on the wire as you insert it into the crimper, and allow you to precisely position each of the three connectors in identical spots... important if you don't want a bulge in the wiring as you insert the connectors into their plastic ends.

Always start with the signal wire, and the open tabs in the connector that will be crimped over should be facing you. This procedure is the same for both male and female connectors.

Crimp each connector as you go, making sure that the connectors are straight...if not, gently remove any bends. This is important for proper fit in the plastic ends. When working with 22-gauge wire, you may also find a small bulge of insulation between the insulation tabs and the wire tabs. Simply slice this bulge away with a sharp razor knife and you will find the connectors slide more easily into the plastic end. The connector is inserted with the wire tabs level with the top of the crimper as shown below.



Once all three wires are crimped, insert them into the plastic ends, keeping the signal wire on the left, the positive (red) wire in the middle and the ground wire on the right. The hold down tabs in the plastic end should be facing you as shown. The picture shows the connectors partially inserted.



President's Report (cont'd) — Keith Sievers

Next, flip the plastic end over, and using your small screwdriver, push each of the connectors into place until the hold down tabs click. *Warning*: don't squeeze these tabs too hard or you will break them off, and for some reason, this is easier to do with the female ends, so be extra careful with these. It takes a little practice, but this part becomes easier with each extension.

If you are making a female end, the last step is to put the sheath in place. If you look inside the sheath, you should see a small tab, and this hooks over the hold down tab side of the plastic end. Another trick is that it should be positioned with the rounded off corners on the inside of the sheath at the top with the signal wire on the left. If there is doubt, look at one of your commercial extensions for orientation until you become more proficient. Insert the two ends into each other when complete to make sure the pins are straight and everything works properly.

One other tip...when laying out extensions for a new aircraft, I use waxed string tied together with wire ties to lay out all the lengths, and then use this as a template for making the extensions.

Sometimes, I will run the extensions through plastic sheathing. It keeps the servo wires together and offers rigidity, protects the wires from chafing at bulkheads, and also provides some degree of additional heat protection. The sheath is like the old chinese finger handcuffs...when you push on it, it expands to handle bundles of various sizes. Use a lighter to cauterize the ends of the sheathing where you cut it to keep it from unraveling and you can use electrical tape or heat shrink to neaten up the ends where the wire emerges.

Thats how I do it...I would welcome any tips on other suppliers or techniques and I will share them in future updates. This article is now a part of the JPO Knowledge Bank on our website, so you can access it at any time.

Keith

Treasurer's Report

Beginning Balance - 5/4/09		***$11,598.80***
Income		
Membership Dues - Cash/Checks		$880.00
Membership Dues - Paypal		533.12
Bank Interest		11.16
Expenses		
Trophies	819.05	
Spring Contrails	1279.99	
Logbooks	932.11	
Postage & Supplies	542.65	
Shirts	608.55	
Conference Call	148.62	
Ending Balance - 8/31/09		***$8,692.11***
Savings Account		$8,051.89
Checking Account		640.22
Paypal Account		0
Ending Balance - 8/31/09		***$ 8,692.11***

Respectfully Submitted, *Susan M. Moore*

Vice President's Report

Al Watson

The flying season is in high gear right now, and most of us are enjoying attending some of the many jet events around the country. I have been able to spend a lot of time at my home field: OLF, Whidbey, flying my turbine models. When the weather is good I want to be out flying! I will do whatever maintenance is required during the flying season, but building or assembling new models is reserved for the non-flying months.

I made my usual trip in May to the Princeton, British Columbia spring warm-up event. However, this trip was very different from the many previous trips I have made there. I was scheduled to leave early on a Thursday morning, it's a little over 250 miles from home and a comfortable 4-1/2 hour drive, crossing the Canadian border at Sumas, and then across the Cascade Mountains to Princeton.

I had been very busy earlier in the week, with no time to think about Princeton, so I got the van half packed on Wednesday night and finished early Thursday morning. Driving along, I had that strange feeling that I had forgotten something, but a mental check assured me that all critical components were in the van. I thought that if I had left something on the bench it could not be too important, and with plenty of other jet-flyers around, things would be okay. I had decided to bring the *BobCat* this trip and was I disappointed when I went to install the wings and discovered that I had packed the wings from my *KingCat!* Both wing sets are stored in those silver wing bags and that is my only excuse; so I spent several days with my friends, talking jets and spotting before heading home a day earlier than planned. A couple of my friends have suggested that I allow them to help me with my packing list for future trips!

I mentioned airplane maintenance earlier, so here is an account of a maintenance item that I just completed on my *KingCat*. When your airplane talks to you, it is a good idea to listen and fix the ailment. Over the past few weeks, I noticed that I was getting some "jittering" in the elevator-halves and decided that I needed to take the time and figure out just what was going on. The *KingCat* has a split elevator, and each half is driven by an 8611A servo. There is a long extension from the servo through each boom to the side of body. From the side of body there is another short extension, which hooks into a "Y" harness that goes to the receiver.

I never really cared for this setup - too many connectors, and I have never liked to use "Y" harnesses. When I built the airplane in early 2004, I was short of channels, and after much care and fiddling with the mechanical linkage for the elevator halves, I was able to get both halves synchronized quite well, so I opted for the "Y" harness. All extensions and "Y" harness are JR heavy-duty with gold-plated connectors - no after-market stuff.

Playing with the system, one thing became very obvious. If I moved the transmitter stick slowly, both elevator halves tracked each other perfectly and no jittering occurred. If I moved the stick quickly, jittering was always present - I could see the elevator halves separate by as much as ½-inch at various points in the travel. Also, it was difficult to tell which half was jittering, although I thought that maybe it was the left-hand side. I didn't understand all of this, but I decided to replace the left-hand-side servo with a brand new 8611A with this result...the same problem existed.

I had a brand new JR heavy-duty 48" extension still in the package, so my next move was to route that extension directly from the receiver across the outside of the airplane to each of the elevator servos one at a time. Problem solved - each servo was rock solid with no jittering. I then re-connected both servos to the extension that ran down the booms to the side of body and hooked the 48" extension to each side. Again, both elevator servos were rock solid at all speeds, both fast and slow. So the problem had to be in the "Y" harness or the short extensions that go to the side of the body.

Of course, the "Y" harness/extensions were under the main tray...so a couple of hours later, the booms, stab, tanks and trays were finally out of the airplane. I checked both short extensions and the elevators were solid as a rock, so all that was left was the "Y" harness. I carefully cut away the shrink wrap, which exposed the three solder connections, which had individual

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

shrink-wrap fitted. The shrink-wrap was very loose and was removed by a light pull - no cutting was necessary. These pieces could easily move around depending on how tight the outer shrink-wrap was installed, and then shorting would be a definite possibility.

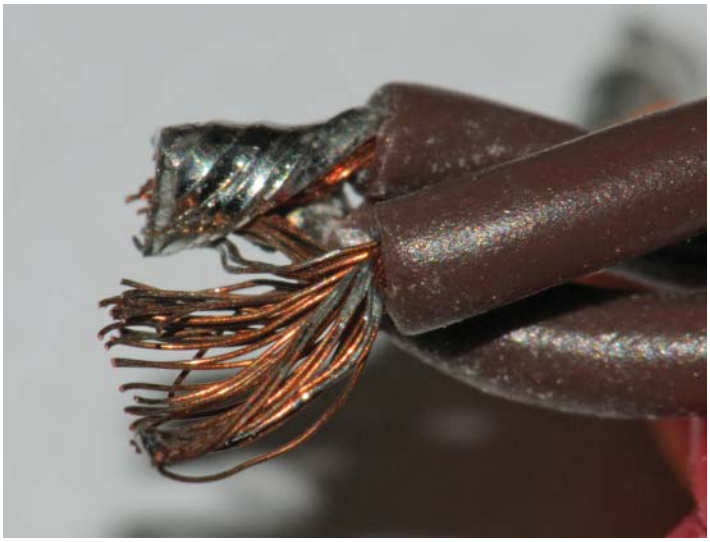
The harness was constructed by taking the red wires, twisting them together, and then soldering them. Do the same for the brown and yellow wires. The excess solder/wire was then cut off and shrink-wrap installed. I was really surprised how close to the insulation the wires had been cut. Looking at the brown negative wire, the problem was easily identified, the negative wire from the receiver only had a few strands that were actually soldered and the rest of the wire saw no solder at all. The tech did a poor soldering job and then compounded the problem by cutting off most of the wire that was actually soldered.

The fast/slow thing is easily understood. When exercised slowly, the power required is reduced and when speeded up, more power is needed. With two 8611As, a few strands just can't deliver the power required, and failure of another strand or two would *definitely* have meant the end of the *KingCat*, and the cause would probably never have been known. I guess the moral of the story is: "If your airplane is talking to you, then it is a good idea to listen and take the time to fix the ailment."

The attached pictures clearly show the problem. I am now in the process of switching from the 10x to the 12x transmitter and I will be using two channels for the elevator. If I ever do use another "Y" harness, it will be opened up and carefully examined before use.

I was relieved when I found the problem and I feel lucky to still have my *KingCat*.

Al



District I Report

Bob Radford

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Congratulations to Pete Ileka who received his turbine waiver at Gardner this Spring!

We have just started *New England Jets*. A new AMA club devoted to jet flying, and we are currently looking for a couple of sites for regular operations. We are working with one of the central New England Air Force Reserve bases to get permission to use an area of their base for flight operations two to three weekends a year. Currently, *New England Jets* is 18 members strong and I expect we will probably double that by Spring 2010. Contact me if you are interested in joining us.

The New England Jet Rally and Maine Jet Rally are coming up mid-August and early September. Both events are run by superb people at great flying locations. I hope to see you at both.

This month I will continue the series on aircraft repair with the first part of a *KingCat* wing repair. This wing struck a landing light a few years back and damaged the leading edge, spar and the top and bottom wing composite skins. The Spring *Contrails* showed the damaged wing and asked you to think about how you would repair it. Let's see if you came up with the same thing I did.

This repair is different from the fuselage repair, due to the wooden structural damage and the need to enclose the top and bottom wing skins upon repair completion.

The wooden structure must be carefully inspected for damage beyond the skin tear areas, and any cracks repaired while they are accessible. A small bore scope would be great for this purpose; I have been looking around for one, but have not purchased one yet. If the wing wood structure is too far damaged, a suitable repair may not be possible. In this case, the spar is accessible and the broken wing leading edge rib is easily replaced. See the photos in the next column.

My repair plan is to: 1) Stabilize the composite skin in the top of the wing and then reinforce and fill holes in the top wing skin. 2) Repair the wing spar and wing rib. 3) Repair and reinforce the bottom wing skin and leading edge. 4)Complete finish preparation of the repaired area.

This segment will cover items 1 and 2 of the repair plan with items 3 and 4 being covered in the next issue.

Repair item 1: Stabilize the composite skin in the top of the wing and then reinforce and fill holes in the top wing skin

Use thin CA to repair any tears in the wing skin that have composite pieces that you can rejoin. I used a heat gun to warm, and soften, the composite skin so that the pieces would be easier to work with. The CA

District I Report (cont'd) Bob Radford

and kicker combination will get very hot so be careful that you don't burn your fingers.

Next, you need to put tape over the top wing skin to

span any missing areas. I prefer clear packing tape, but this time I used magic tape as the span wasn't too wide. Remember, the tape is to smooth the epoxy and glass on the outside of the repair so the wing skin will be smooth as you fabricate the filler pieces with epoxy and fiberglass.

I will fill the hole in the top skin first. West Systems

epoxy is brushed into the gap followed by pieces of ½ ounce and 5-ounce fiberglass cloth. I had a broken, unrepairable wing that I used as a pattern to cut out the larger fiberglass pieces that will fill the bays in front and behind the spar, as shown in the next two photos.

Once the glass is laid down and thoroughly wetted with epoxy, you will want to remove excess resin so that the repair is not too heavy. Toilet tissue works great. As shown below, you just roll it around on the wet epoxy and the tissue soaks up the extra resin.

District I Report (cont'd) Bob Radford

Let the fiberglass dry overnight and remove the tape the next day. Depending how much epoxy you put in the hole, you may need to do additional filling.

Repair item 2: Repair the wing spar and wing rib.

The Wing spar was missing a piece but fortunately I have a donor wing that was not repairable, so I carefully cut out the wing spar section and leading edge rib from the donor wing.

Next, dry-fit the pieces to ensure they fit properly. The spar repair will be made by gluing the new spar to the back of the old spar and will then be reinforced with another piece in the front. The entire structure will be glued in place with Aeropoxy.

Be very careful when sliding the replacement pieces into place, as the composite material's foam core can be torn very easily when standing up wooden components underneath the composite skins. If you tear the foam, you will have to repair and reinforce that tear, too.

This is what the wing looks like at the completion of step 2.

Note the spar and rib repairs. I used Aeropoxy to fill the gap between the front and back spar reinforcing pieces. If weight is critical, you may want to use a lighter material, such as balsa, if you encounter a similar repair.

Next time we will work on repairing the bottom wing skin and leading edge, and completing finish preparation.

Good luck in your repairs. Please feel free to contact me to discuss ideas you may have or assistance you might need in this exciting world of jets. Contributions of pictures, ideas or material for *Contrails* would also be appreciated.

See you around the circuit

Bob

District II Report

Art Arro

New Jersey
New York
Europe

We're in the midst of the jet flying season here in the northeast, and two local jet rallies in the district have come and gone, along with jet flying opportunities in neighboring Districts I, III and in Ontario, Canada. Scale military jets are encouraged to participate in scale and warbird events, with some CDs stretching the scale requirement to include *Eurosports* and other sport jets with a military scheme.

Frank Alvarez competed in the New England Scale Championships in June with his JAS-39 *Draken* and won 1st Place in the Expert class. This netted him an invite to the 2009 Scale Masters event to be held later in the year. Kudos are extended to Frank and his *Draken.*

There are several remaining jet rallies in neighboring Districts I and III to close the 2009 flying season, so be sure to check the JPO Jet Event calendar and the Contest Listing in *Model Aviation* magazine for any additional events. Many of these local events are social in nature which adds to your flying pleasure.

The JPO board has convened via conference calls, and many agenda items have been discussed. Keith and Al will expound upon these but I'd like to add a plug for our EDF sub-committee. This sub-committee consists of: Dave Reynolds - District X for EDF basics, and Kirk Sonnier for large EDFs and myself for the smaller jets. We're soliciting input from the general membership for any information requirements which can be fulfilled and posted in the JPO Knowledge Bank. Our sub-committee would like to hear from you on any EDF topic, either in general or specifics. Our contact information is listed elsewhere in this newsletter.

Capitol Jets V

The 5th edition of the Capitol Jets event was held July 10-12 at the South Albany Airport near Selkirk, NY. We had 46 registered pilots from 7 states and 2 Canadian provinces with approximately 70 jets (60+ turbines, 6+ EDFs and 1 glow-powered DF). Frank Alvarez was the CD and I assisted as the Co-CD. The Thundervolts R/C Club and the Flying Knights R/C Club helped with site set-up, PA announcing, parking and tear down. The local chapter of the Civil Air Patrol provided site security and spectator control during the entire event, and local TV and newspaper coverage documented Capitol Jets V to the general public.

The S. Albany Airport consists of a single hard-surfaced 65-foot x 3700-foot long runway, oriented approximately north-south. A full-length taxiway parallels the runway, and was used for model setup and pilot tents/canopies. Additionally, a crossover taxiway was utilized for fueling and turbine start-up...a very convenient site layout. Five flight stations, governed by an air boss, were in constant use during the event.

A Prior Permission Required (PPR) NOTAM was issued for the airport, for a 10 minute warning of any full-scale operations and the stand-down of model jet activities. This was coordinated by the air boss and worked out very well with model-jet flying scheduled from 9AM to 5PM on Saturday and Sunday. Friday was designated as a practice day with no public spectators and flying from noon until 5PM. Many pilots took advantage of this day for fam. hops and a general shakedown of their jets before the weekend activities in front of the media and public. The weather was superb on Friday, Saturday morning and most of Sunday with sunny skies, 75-degree temps and light breezes down the runway. A cold front moved in on Saturday afternoon, preceded by 30-knot winds, resulting a flying stand-down, but allowed an early commencement of appetizers and beverages. Many pilots convened afterwards at the local Casa Mia restaurant for dinner and entertainment well into the night. With about 150 sorties logged during the 3 official days of Capitol Jets V, we experienced 4 total model losses including two in a mid-air, a jet/tree collision and one radio-system failure. These losses were greater than the last three events combined, and bad "Mojo" was to blame.

The following five awards were given:

JPO TOP GUN

Jim (Ed) Baker, Comp ARF *Lightning* & *Eurosport*

BEST SCALE JET

Martin Lefebve, Scratch-built A-10 *Thunderbolt II*

District II Report (cont'd) Art Arro

BEST SPORT JET
Mark Giummule, X-treme *Dragon* & BVM *Bandit*
PILOT'S CHOICeE
Dominick Mirabello, BVM *KingCat*
PEOPLE'S CHOICE
Ray Labonte, Comp ARF *Eurosport* (thrust-vectored)

Sponsor donations were distributed to the pilots at the conclusion of their first flights, and we'd like to thank Altecare of Canada, Bob Smith Industries, Bob Violett Models, Frank Tiano Enterprises, Jersey Modeler, Micro Fasteners, RJL Fasteners, Tam Jets and several local hobby shops. These vendors donated many hobby goods to help support Capitol Jets V. Plans are underway to host Capitol Jets VI and the removal of the tree line. We hope to see you there, and enjoy the photos.

That's about all for this report and I wish everyone great flights and safe landings.

Art

Bob Levine flew his Airworld, English Electric *Lightning*. This twin over-and-under turbine configuration flew well during the event.

Walt Larsen, from Long Island, NY flew his Mibo A-10 *Thunderbolt II* (aka *Warthog)*. Bob Levine's Skygate *Hawk* is parked to the right of this A-10.

This Avonds F-15 *Eagle,* powered by a Simjet 2300, belongs to Chris Trump, from Quebec, Canada.

Pete 737, from East Providence, RI flew this Skymaster F-16 *Falcon.* He has a rendition of himself in the cockpit and this *Falcon* is apprpriately powered by a Jet Central *Falcon* turbine.

The heavy metal jet lineup is shown on the taxiway of S. Albany Airport. Pilots utilized this taxiway for model display and setup during Capitol Jets V.

Ray Labonte from Portland, ME flew his CompARF *Eurosport* with thrust vectoring and wowed the crowd, to win the People's Choice award. He performed amazing 3D maneuvers including hovers with this jet.

District II Report (cont'd) Art Arro

Mike Turocy from MA fuels his JetCat-powered PST *Reaction*. This is Mike's "everyday jet" and he has it equipped with a smoke system for vivid flight effects.

Don Desandre's travel rig which he hauls to all local jet events. Multiple jets are rack mounted within, and the trailer contains all the conveniences of home.

This shot depicts the jet rack used by Don Desandre and crew to transport their jets.

Jorge Escalona, from FL and NJ, flew this Jet Central *Rhino*-powered Skymaster *Phantom*. A *Rhino*-powered *Rhino*, as the *Phantom* is named.

Jim Baker's Comp ARF *Lightning* won the JPO TOP GUN award at Capital Jets V. He flew this jet in formation with Ray Labonte's *Lightning* in addition to several *Eurosport* flights. Both pilots traveled from Maine to attend this event.

Martin Lefebve, from Quebec, Canada, scratch-built this A-10 *Thunderbolt II* from his own plans and molds. He flew this twin-turbine jet very realistically and won the Best Scale Jet award.

Russ Levy, Long Island, NY entered this *Scorpion,* finished in the very colorful Swiss Aerobatic Team color scheme.

District II Report (cont'd) — Art Arro

Spotting for R/C Jets

Although spotters are not mandatory, they can be very helpful in many instances. I'll describe their use and have included a short list of responsibilities as developed by the Long Island, NY jet community.

The role of the spotter in R/C jet flying is that of a co-pilot, or wingman, to convey meaningful information to the pilot-in-command during the entire flight. While the pilot is focused on his or her jet, the spotter mentally absorbs the "big picture" or "God's eye-view" of the entire scene, to include location and direction of other airborne models, taxiing jets and, most importantly, any full-scale traffic. The spotter can also provide valuable assistance with pre and post-flight checklists, control verification, trim inputs, flight timing, and turbine shutdown in the case of a major emergency. If the jet crashes, the spotter can provide estimated bearing and range to the crash site and assist in recovery. The spotter should protect the pilot and be ready to take over the controls if the pilot becomes incapacitated or is distracted by insects, watery eyes, etc.

I personally find that a trained spotter can really assist the landing phase by confirming retract/flap extension, wind direction, runway alignment, airspeed, touchdown point, ground steering, brake application and the back taxi. Note that some pilots prefer to concentrate on the landing segment themselves without any distraction. These preferences should be established in advance of the flight along with the type and manner of information communicated to the pilot. Spotters are usually required at jet events with multiple jets in the air and on the ground, but may not be necessary for local field operations.

While the preceding paragraph discussed the advantages of a spotter, I have also noted some practices which are not so helpful. These include arguing with the pilot, or with other pilots, talking on a cell phone, and even taking videos of the flight. These activities detract from the situational awareness of the flight and can lead to a model mishap or personal injury. Finally, I'd like to state that any information from the air boss, flight marshal or flight line authority be given to the spotter, who in turn presents it to the pilot. This way, the pilot is receiving information from a single trusted source.

As a result of real-life jet events, the Long Island jet community has developed the following guidelines for spotter responsibilities. These are just guidelines which can be modified, added to or deleted, according to your personal preferences in flying R/C jets. I look forward to feedback on this. Thanks in advance.

Spotter's Responsibilities

All 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 with pre-flight and start up..
- All systems (air, fuel, electric, radio and control surfaces) should be 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 flight clock.
- During 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 flightline.

These are the barest essentials of the roles, responsibilities, and communication 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, if safety is the focus.

Art

District V Report

Craig Gottschang

Alabama
Florida
Georgia
Mississippi
Puerto Rico
South Carolina
Tennessee

The jet flying scene in District V this year is a mixture of good news and some unfortunate news. The good news is that gasoline prices are down and attendance is up at most events. Even the weather has been cooperating and virtually every event in the district, including Florida Jets, has enjoyed excellent flying conditions.

The unfortunate news is that two long-running and very popular jet events in the southeast have come to an end, and will not be held this year. The first to cancel was Jets Over the Swamp which was held annually in May in south Georgia. A long runway, wide open spaces and the courtesy of the hosting club made this a favorite flying event for ten years. Apparently there was a complaint from a full-scale pilot over R/C use of the airport, and the county decided to prohibit model-flying.

The other event, abruptly cancelled after fifteen consecutive years, is the Florida International Jet Rally in central Florida. Held in November and one of the last events of the season, this popular rally attracted pilots from throughout the south and east, as well as from a number of foreign countries. Once again, a disagreement with the local airport authority apparently led to the cancellation of the event. It is unclear if an arrangement can be reached or an alternate site found to continue this event in the future.

Both of these cancellations highlight the fragile relationship R/C jet flying has at many of the full-scale airports we use for events. It is also clear that when problems arise, and no matter who may be at fault, we are lower on the totem pole and almost always lose to full-scale interests.

So what can be learned and what can we do in the future to protect our event sites? The first and most obvious answer is to be good and courteous tenants. We are, in fact, visitors to these airports and we need to do everything we can to minimize the impact on their facility and operations. This starts with the relationship and arrangements established by event organizers and extend to pilot participants. Organizers who partnership with local visitor's bureaus, chambers of commerce, the media, charities, community colleges, and other businesses and organizations tend to get "buy in," and therefore local support.

Pilot participants need to adhere to the arrangements and whatever "rules" may be necessary, including access routes to pit areas, over-flight restrictions, use of airport facilities and common courtesy on controlling fuel spills and trash pickup. If R/C flying needs to be interrupted for full-scale operations, we should comply with instructions to land or not take off without complaint. It's usually a small price to pay in exchange for use of the airport. We can also bolster events by showing courtesy to spectators whose entrance and parking fees help defray costs and by supporting manufacturers who provide sponsorship.

Finally, support the organizer. It may be one individual or a group of individuals, usually in cooperation with a local club, who do the bulk of the work and take most of the responsibility. Most events are run on a not-for-profit basis and organizers are simply trying to provide a service to the jet community. Encourage them, help them, thank them and comply with requests and event "rules." Suggestions are usually welcome, but try not to complain or do things that make their task more difficult. The objective is for everyone to have a good time and leave the facility the way it was before the event. Doing so will provide the best chance for the event to be held the next year and beyond.

Super Jet South Jet Event

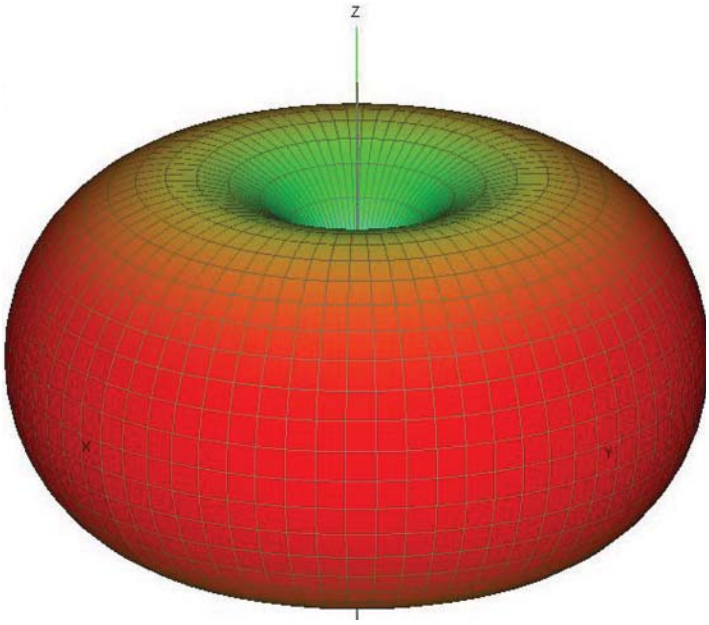
Gaining popularity in recent years, the 2009 Super Jet South Jet event is shaping up to be the largest ever. Hosted by the Georgia Jets Flying Club, the fly-in will be held September 24-27 at their outstanding, privately-owned and purpose-built R/C jet airport near Atlanta, Georgia. The site has a 1000-foot, smooth runway with generous grass runoffs on both ends and sides, and no runway lights or full-scale traffic! Check out their field and other club information at http://www.georgiajets.org/. For registration and other details on the fly-in, click on "Super Jet South Event Brochure" on the home page.

District V Report (cont'd) Craig Gottschang

2.4 Transmitter Antenna Orientation

There still seems to be confusion on how to best orient the transmitter antenna on 2.4Ghz radios. Even pictures of "correct" and "not correct" antenna positions shown on the Team Horizon website, differ from verbal recommendations from various experts. The stubby 2.4 antennas rotate at the base from horizontal to vertical as well as 360 degrees on their axis, resulting in an almost infinite number of ways to point. Our local JR rep made a presentation at a recent club meeting that seems to clear up the issue. In this short article I will attempt to put in layman's language what the rep explained in fairly technical terms.

For starters, both 72Mhz and 2.4Ghz antennas operate in a similar manner. Both are "common," one-quarter wavelength, dipole antennas with omni-directional radiation in the plane, perpendicular to their axis. In lay terms, that means they consist of a straight rod and radiate in all directions outward from the axis of the "rod." The area directly off each end (axis) of the antenna is a "null" where the radiation pattern is weakest. Think of the radiation pattern as a very fat donut, with the antenna pointing through the hole of the donut. The following photo shows a technical drawing of a dipole antenna radiation pattern.



Radiation pattern for both 72 and 2.4 transmitters. The "z" axis represents the antenna with nulls on both ends.

The objective is to orient your antenna to keep your jet in the "fat" part of the radiation pattern and away from the "hole" or null off the end. To achieve this, always have your antenna perpendicular to the anticipated flight path. For a 2.4 transmitter this can best be accomplished with the antenna positioned to near perpendicular (bent) and pointing at your head. One null is directly behind you and the other points into the ground immediately in front of you, two areas where hopefully you won't be flying! If you naturally hold your transmitter pointing downward, the same effect can be achieved by positioning the antenna straight out and pointing at the ground.

Best antenna orientation for a 2.4 transmitter

A logical question at this point is "if my 72Mhz antenna radiates the same as a 2.4Ghz, why aren't we concerned about it's orientation?" The answer lies in the wavelength difference between 72 and 2.4. With a wave length more than 10 times longer, the 72Mhz signal has more area to be "seen" by the equally long receiver antenna and, in effect, "bends" around objects such as turbines and other solid items in your jet. Because of this characteristic, 72Mhz radios are less susceptible to signal loss in the null portion of the antenna radiation pattern.

Another byproduct of the short 2.4Ghz wavelength is the necessity for multiple receiver antennas. Both JR and Futaba systems use multiple, short antennas and both recommend they be oriented 90 degrees to each other. With Futaba's two antennas coming out of the receiver, this means they should "point" more or less perpendicular to each other. JR uses up to four remote antennas and they should be placed in different areas

District V Report (cont'd) Craig Gottschang

in the fuselage and in different orientations as well. The objective with both systems is to have a least one antenna with a clear path to the transmitter signal radiation pattern.

My personal opinion is that for most of our installations, and the relatively close distance we fly our jets, the orientation of the transmitter antenna is probably not that critical. I see lots of pilots flying with their 2.4 antennas pointed in all sorts of directions and for the most part, no one is having problems. Nevertheless, why not operate your radio in the most efficient and effective manner possible? We never know when that perfect combination of negative factors will coincide and we end up with a loss of signal. Now that I have at least a rudimentary understanding of how my antenna works, I make sure to keep the strongest signal pointed at my jet.

2009 Mississippi Afterburner Jet Rally

The 18th Annual Mississippi Afterburner Jet Rally was held April 30 to May 2 at the John Bell Williams airport near Jackson, Mississippi. Hosted by the "Mississippi Gang" of Vernon Montgomery, Dennis Lott and David Reid, this is now one of the longest running jet meets in the country. It's easy to see why; a 6000-foot long by 100-foot wide runway with lots of open space and generous concrete taxiways for staging and startup. Add to that the hospitality and support from the organizers and the airport manager and this is the perfect jet event.

70 registered pilots enjoyed three days of nearly perfect flying weather and when they weren't flying they were eating. A trademark of the Afterburner event is the legendary Saturday night banquet and this year was no exception. Pilots were treated to 150 pounds of barbequed pig, 100 pounds of catfish, 200 pounds of Cajun "bugs" (crawfish), 40 gallons of homemade ice cream and 30 pounds of cobbler! A delicious Friday night BBQ was also provided free to pilots through the courtesy of fellow pilot Randy Brown, and a hot, cooked breakfast was also available to any pilot who showed up at Vernon's tent in the morning.

One of the secrets to the success of this event is the wholehearted and enthusiastic support by the local airport manager, Michelle Jackson. Michelle could almost always be seen on or near the flight line, ready to coordinate the infrequent full-scale traffic, offering assistance as needed, or just enjoying the jets. The Mississippi Gang also fosters the relationship by donating all after-cost proceeds to the local airport-affiliated community college, in the form of aviation scholarships. It's a great arrangement and one that should provide a reliable event site for years to come.

Finally, the event was also a big success for JPO, which was promoted daily at the pilot's briefing. Sixteen pilots joined or renewed their memberships during the event!

Please enjoy the following photos that Gordon Dickens and I shot.

Craig

Buck Garza's impressive Skymaster F-4. AMT-450 powered fighter took Best Military Post 1960 and the JPO Top Gun award.

District V Report (cont'd) Craig Gottschang

Rick Broussard's big MIBO A-10 won the People's Choice award.

Phil Nuza's BVM, Skyblazer's F-100D. Precision knife edge and rolling passes on every flight.

Sam Snyder's 120" wingspan, twin P-120 powered *Vulcan*. Scratch built from original full-scale plans, won Best Military Pre-1960

Craig Gottschang's MIBO A-10. Twin P-120's power this 65-pound, experimental class jet. Won Pilot's Choice award.

BVM *Electra* Jet with 5212 EVF fan and 12S Thunder Power batteries. Impressive speed and performance earned Bob Belloumini the Best Electric award.

Impressive 1/6th scale Skymaster F-16 flown often by Rex Briant. Jet Central *Rhino* provides plenty of power.

District V Report (cont'd) Craig Gottschang

Dist VIII JPO rep Ron Schwarzkopf with his semi-scratch built F-106. Flies well with P-60 turbine and Futaba radio.

Joe Dirr from Cincinnati proudly displays his Fai Bao *Panther*.

BVM *Bobcat* flown by Kevin Whitlow earned Best Sport Jet Performance award

Sharp looking L-39 flown by Pedro Sanchez. Pedro was one of 7 Georgia Jets members in attendance.

Barry Mattingly came all the way from San Diego to fly his P-70 powered *Bandit* ARF.

Giant BAE *Hawk* expertly flown by Mike Pascoe.

District V Report (cont'd) Craig Gottschang

Jim Little's big Skymaster *Viper* Jet on landing approach. Powered by a Jet Central *Rhino*.

Comp ARF Mig-15 in unusual paint scheme, piloted by Rick Broussard.

The head man, Vernon Montgomery, poses with his BVM F-100. Vernon spent most of the time making sure everyone was happy!

Scott Harris from Nashville logged numerous flights on this PCM L-1011. Single AMT-180 for power.

Comp ARF *Eurosport* flown by Gordon Dickens.

BVM *Rafale* touching down. Piloted by Craig Gottschang.

District VI Report

Lance Campbell

Illinois
Indiana
Kentucky
Missouri

Here in the Midwest, jet season is in full swing. If you are willing to drive two states away, you can just about hit one every month.

First up in this edition, is the Gateway Jet Rally, hosted by the St. Louis Radio Control Flying Association (SLR/CFA). This is the 3rd year for this event. Attendance was down a bit this year, with around 20 or so pilots, but that was balanced with as much flight time as you'd like, often to yourself, or with just one other in the air. Safety was a bit tighter this year over last, and losses were minimal. The noon time line-up on Saturday was well received by the spectators, and on Friday afternoon there was a reporter milling about with a video camera, after which many pilots found themselves making the local news. Photos from the Gateway Jet Rally are credited to Jerry Crow.

Ben Burden Jr. snags a Special Recognition at the Gateway awards ceremony.

Paul Blanchard's sharp looking F-5, just prior to its ill-fated next flight at Gateway Jets.

Words are exchanged, then bragging follows. Next thing you know, a race for pink slips is forming on the runway after the day's flying at the St. Louis R/C field.

I think about now, Fast Bro is thinking he may just lose his scooter to Stan King (STRC Pres)....

District VI Report (cont'd) Lance Campbell

Noontime line-up at Gateway Jets.

Also in this edition, we've got coverage of Lewis Patton's great show - Kentucky Jets in Lebanon, KY. This is turning into a big one with 109 pilots this year. Lewis was everywhere at once, taking care of everyone's needs so all had a great time. People attended from far and wide, Florida and Hawaii as two examples I heard of. It's easy to let things slip out of hand, but Lewis stayed on top of it, and it was a very well-run, safe event. Extras included fireworks and a nighttime "Parade of Lights" with guys showing off their lighting, while taxiing around the runway. Fun stuff, and should be on your list of events to attend. Kentucky photos are credited to Calvin Mitchell, who hurried home from his wedding just to get them to me in time. The one exception to that is the one photo snapped by Patty of a great shot of 2 BVM F-100s in close formation.

Also, although I could not make it, I hear a great time was had at Jets Over the Heartland put on by the Winamac Aero Modelers and Tim Redelman. I'll see if I can arm-twist Tim out some information for the next edition as well.

Lance

Most of the birds and pilots having a good time at the Lebanon airport in Kentucky.

Martin's F-16 in the air at KJ.

Lewis Patton's F-15.

Lewis Patton, your CD of Kentucky Jets, ran a tight ship, with a smooth, well-run event.

District VI Report (cont'd) Lance Campbell

Tim Chrismer and family all the way from Hawaii, prepping thier F-22 Raptor at KJ.

Patty Kneip catches Rod Snyder and Joe Rafalowski's F-100's in a great formation shot at Kentucky Jets.

The Big Top with just a few of the birds at KJ.

F-16 by Marvin Alvarez from Florida also at KJ.

Upcoming Events

Greater Southwest Jet Rally: September 10-13, 2009
HOTMAC club field; Waco, TX.
www.hotmacrc.org

Route 66 Jets: September 10-13, 2009
Litchfield, IL Municipal Airport
CDs: Roger Shipley and Jim Allen

Maine Jet Rally: September 11-13, 2009
Sanford Municipal Airport
Sanford, ME

Fresno Jets: Sept: 17-20, 2009
www.salinasareamodelers.org

Super Jets South at Georgia Jets:
September 24-27, 2009
www.georgiajets.org

OC-Turbo Fest-Fall Edition: October 10-11, 2009
Titusville Airport; Titusville, PA

First Annual Jets over Sun Valley:
October 16-18, 2009
Sun Valley Field; Scottsdale, AZ

Sin City Jets: November 6-8, 2009
Las Vegas, NV.
www.sincityjets.com

21st Arizona Jet Rally: November 21-23, 2009
Superstition Airpark; Mesa AZ.
www.azmodelaviators.com

District VIII Report

Ron Schwarzkopf

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

Howdy, from District VIII…

'Tis the season for R/C flying, and flying model jets is exactly what we've been doing in District VIII! Since our last issue, I was able to attend two jet events in this district. The events were well attended, which shows R/C jet modeling is alive and well here.

To start off, I attended the Austin Jet Rally, held from May 22-24. It was a well attended event, with a great club hosting it, the Austin R/C Association, and CD'd by Ken White. At this event, I managed to knock the mains off of my beloved TGA *Topcat* - so, it will eventually be making its way back to the building table. Why? Because it is a collector's item, and must continue to fly! But back to the event - late on Saturday, a ferocious storm moved through the area, drenching the model field and more than a few tents were laid to waste. Others gave their tents a "mercy draining" before they would certainly collapse from the weight of the rainfall. Many modelers fled to the hills, including myself. (Run away! Run away!) Later, I was informed that the weather cleared to allow for more jet flying. So, a lesson learned here, for next year at the Austin event, I need to make sure I stay no matter what happens!

Gus Hudson then stepped in and CD'd the Mt. Pleasant Jet Rally, from June 12-13. Gus had not been feeling well right before the event, so Doug Mercier and the rest of the club pitched in and ran a very nice event. At the end of the event, Gus stepped back in and handed out the awards. The event drew approximately 35 jet modelers, which makes for a nice sized event at a club field. Most models were turbine-powered, but many EDFs also showed up, including a B-52, and a couple of blue sharks! Photos are scattered somewhere within this *Contrails* issue.

On the weekend of July 11-12, Kevin East and the SHARKS club hosted their Shreveport Jets 2009 in Louisiana. Unfortunately, work got in the way for me, so I could not attend, though I had been hoping to, since I had not been to this event in quite some time. I hear it was well attended, many shrimp were consumed, and it was hot. Then again, this is District VIII, so hot should be a given! I will try harder to make this event next year.

A Super Quick Model Review -
The PST Jets' *Reaction* ARF

In early 2008, I was contemplating getting a lower wing-loading model, to be used for fun, low stress flying. At Top Gun 2008, the folks from PST Jets happened to pit right next to us, and they had brought along a couple of their latest model kits, of which one was the *Reaction*. Their after-hours demo flights with the *Reaction*, along with a rather large turbine, looked to be a capable flier. I eventually put one on order.

The model is a fiberglass ARF, somewhat designed along the lines of Bruce Tharpe's successful *Reaction 54*. The thick, 78" span wing lends itself to nice, low-speed handling, perhaps at the expense of blistering speed. The fuselage boasts a large internal volume to carry plenty of fuel, and whatever else you might want to carry. With a 20 pound-thrust turbine, you can have a docile trainer jet, and moving to 28 pounds of thrust turns the Reaction into a very nice flying machine, as long as one monitors the throttle position.

The model goes together very quickly, and the parts fit very well. The model tends to build a bit on the tail-heavy side, so it is recommended all batteries and heavy items be located in the nose - more important with the larger turbines. The turbine, as installed per

District VIII Report (cont'd) Ron Schwarzkopf

the instructions, has quite an unusual thrust line angle relative to the wing reference plane, and works quite well.

I now have about 50 flights on the model, and am happy to report it flies great. I've added a smoke system to it, and will eventually add some BVM bomb release mechanisms when I find the time. It currently weighs in at 27 pounds, and I get over 9 minutes of flying time on it with a turned down JetCat *Titan*. I would not hesitate to recommend it as a trainer, or as a nice aerobatic jet model with the larger turbines.

Enjoy the following photos, and Happy Flying!

Ron

Buck Garza's Skymaster F-4 awaits its maiden flight at Waco.

EDF Foam B-52 cleverly crafted, and flew nice at the Mt. Pleasant Jet Fly. Unfortunately I did not get the pilot's name.

Buck is all smiles following the succesful maiden of his *Phantom.*

Andy Andrew's *Tiger F-16* at Mt. Pleasant, with the Louisiana gang, behind, preparing for another flight.

Bob Covish caught Tom Perry in a happy moment, following the successful maiden of his *Fei Bao MiG-21.*

District IX Report

With a large geographic area (700-miles, minimum to any event), and only two that close, to boot, it is hard to get a handle on the jet scene.

Fortunately, the Love Air R/C club has stepped up and become the host of a growing jet rally. Dan St. John, who has been the driving force behind the event, submitted the following write-up:

3rd Annual Love-Air Jet Rally

The 3rd Annual Love-Air Jet Rally was held May 29-31 at Drake Field. If you recall last year, we had rain right before and during the rally. This year the rains came the weekend before and actually stayed away for almost the entire event. It was a great event and everyone got in plenty of flying.

Thursday was spent getting the field ready (meaning mowed). The rains of the previous weekend really did the grass good; it was the same color as our fake grass. Thursday afternoon, Larry Laughlin rolled in with his RV and trailer. Larry flies more than anyone I know; he is always in the pilot's station! He also brings a supply of planes; he had jets, prop planes, & helis with him. I didn't ask Larry how much kerosene he burned, but I saw six 5-gallon containers outside his trailer. On Friday, the pilots really started coming in. and there was a ton of flying going on all day. By Friday night we had 12 pilots registered and probably 30 jets at the field. I shot 2200 photos on Friday alone. We also had some excitement; a couple of pilots had flame outs, forcing them to shoot deadstick landings.

On Saturday, we had nine more pilots show up, for a total of 21 registered pilots. I didn't get a count on planes, but we had to be up around 45 or 50 planes at the field. At noon, we shut down the field, so that Jim Wallen (AMA Dist IX VP) and Bruce Ream (AMA CO AVP) could present the club with our 5-year Gold Leader award. (Thanks to Don Simon for supplying the photos of the awards ceremony.) After the awards ceremony, we allowed the spectators to come out onto the field and check out the jets up close and talk with the pilots. At 12:30PM, we cleared the pits and opened up the runway again. The flying continued until 6:00PM when dinner from BBQ Bob's was served. There was plenty of food and everyone left with a full belly. Even with their full bellies, the flying continued, with the Colorado Springs contingent flying until dark.

From the Editor

Sunday morning dawned clear & warm. I went out to the field at 7:30AM and there was no movement at all. I actually had time to break out the Jetcopter and fire it up. As I was working getting the chopper ready, Larry Laughlin and Tom Toledo (who was staying in Larry's RV) came out and brought out their models. Larry broke out his *Powercat* (a German version of my *Jetcopter*), and when he was done, I fired up the *Jetcopter*. I flew it a little bit, then turned over the transmitter to Tom Toledo. Tom is an old friend of mine, and an extremely good pilot of jets and helis. He had just returned from Afghanistan three weeks ago and while he was in Afghanistan we had traded e-mails. In those e-mails, Tom said he could not wait to fly the *Jetcopter* again, so I made sure he got his wish and let him fly for 10 minutes. By the time Tom & I landed, the other pilots were rolling in.

The flying continued from where they had left off on Saturday. Brian O'Meara & Ryan Haldenwanger put on a great show all weekend with their F9F variants. Ryan was flying the straight wing *Panther* and Brian had the swept wing *Cougar*. Brian also had his F4 *Phantom II* flying throughout the weekend. By the way, a few weeks ago, Ryan had won the Pro/Am at Top Gun with the F9F-5 "Blue-Tailed Fly" that he flew superbly all weekend. After watching Ryan fly, you can understand why he won, he is a super pilot. Congratulations, Ryan!!

About 12:30PM, the skies to the west started getting really dark and the pilots started packing up and heading home. By 1:45PM, the thunderstorm was right over us and only a few pilots remained packing up. About that time, a lightning bolt hit the trees east of the field and we all kicked into high gear helping each other close up and get out of there! By 2:00PM, I was locking the gate on an empty field.

The 3rd Annual Love-Air Jet Rally was a huge success, everyone having a super time and plenty of great flying. The number of club members flying jets is growing as is the support for the event. We will be holding the 4th annual event in the spring of 2010, be sure to mark your calendars!

Dan

District IX Report (cont'd)

From the Editor

District X Report

David Reynolds

Arizona
California
Guam
Hawaii
Nevada
Utah

How hot are you? I happened to notice the temperature this morning a little after 8:00AM and it was already above 90 here in sunny Tucson, soon it will be hot enough to stick to the asphalt if you don't move fast enough ... by 8:00AM in the morning.

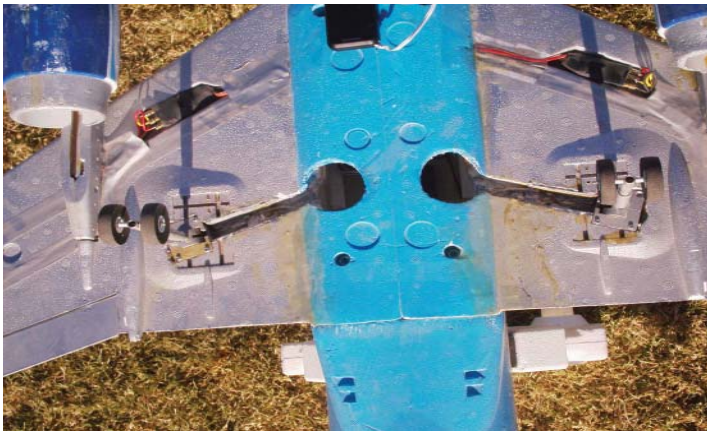
Just what does this weather report have to do with model jets you ask? Everything, from making sure your pride and joy returns home to terra firma, to making sure you make it home to your pride and joy. As you go flying, make sure you are drinking enough water. Nothing worse than ending your day flat on your back not knowing how you got there.

Everything that we fly, from the smallest foamy to 200 mph barnburner turbines, generates heat that must be managed somehow. One thing we can do to manage heat is to live someplace cold, but even that has limitations and not all of us want do deal with that white stuff on the ground.

The best thing you can do to manage heat is make sure your components are up to the task. If your edf pulls 40-amps, make sure you have a 40-amp speed control. (We'll talk more about how to find out amps later.) Better yet, get a 50-amp controller.

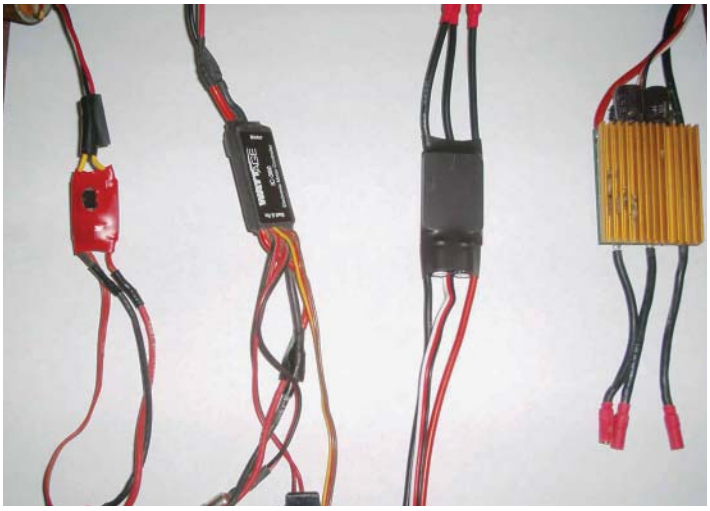
So, all your components are up to the task and your ESC still shuts off, what in the blue blazes is going on? One of the worst things you can do is bury your components deep in the airframe. More so if you are flying a foamy. After all, what is Styrofoam used for in the world beyond model airplanes? You guessed it, house insulation! Styrofoam is designed to prevent heat transfer and yet take a look at some of the arf jets out there and you will see the speed control buried under a pile of foam. Don't do this! It takes very little to put a speed control over the edge into thermal cut-off.

The answer is airflow. Everything we need to keep cool is air-cooled. For those of you that are saying "Oh ya, Reynolds, my car is liquid cooled. I'll even show you where the water goes in!" To which I reply, block the airflow to the radiator and get back to me on that. Just don't expect me to buy you a new engine. We need flowing air in order to keep things cool. For example, if you follow the instructions on E-Flight's *Super Airliner,* they tell you to tape over the speed controls. I deviated from this and left them out in the open.

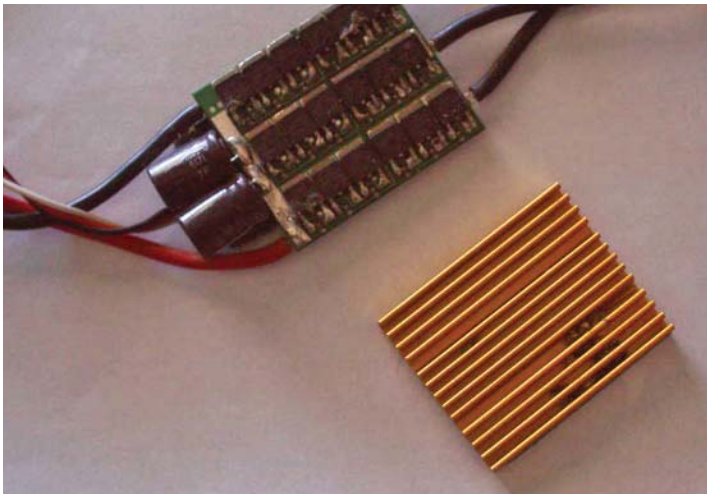


I have yet to have a motor cut out, yet I have seen others that followed the instructions crash because one of the ESCs shut off at the wrong time.

As we get into higher and higher power levels we have to deal with heat more aggressively. If you look at the next photo you will see four ESCs. From left to right we have a 10-amp, 30-amp, 40-amp and a 60-amp ESCs. Look closely at the 10-amp and you can see where the shrink wrap has a hole in it. This was caused by the heat generated by the ESC because I am using this one at its limits. It is surviving this abuse, because this ESC lives out in the wind on a slow flyer. On the right we see that this ESC has what is called a heat sink.



District X Report (cont'd) David Reynolds



The photo above, shows the heat sink removed, and we see the components that it sits on. All those little black squares are actually what generates the heat, the heat sink basically creates more surface area for these components allowing heat to transfer at a higher rate.

An ideal location for mounting an ESC is shown on Bob Reynolds' *rEaction*. Looking at the next two photos, we see that, other than the mounting stand-offs, nothing touches the ESC but air, and the mounting is actually external to the aircraft.

This is great for sport jets but on scale jets we don't want some big finned thing hanging out. Another option is shown in Brent Hecht's *Cougar,* below, or you can even put it behind the motor inside the ducting as

seen on this E-Flight fan, below. This arrangement is similar to the BVM VioFan.

The last thing to think about with keeping your ESC cool is to remember that if you don't provide some way for cooling air to get out, you might as well not let the cooling air in, because the air must be able to flow past in order to take the heat away. It is just like a pot on the stove. If you let the water sit, it will boil. But if you keep changing the water, you will keep the temperature down. Remember, heat makes things expand, so you want to be sure your air exit can handle the load.

So that's it, *ESC Happiness 101*. The two things to remember are: right part for the job, and airflow. If your ESC is not rated for the job it is doing, or sees no fresh air, do not be surprised when you have no power at exactly the wrong time. Until next time, keep yourself and your airplane cool and keep the low passes where they belong.

David

District XI Report

Bob Brusa

Alaska
Idaho
Montana
Oregon
Washington

I'm going to report on a few events that occurred in our district this quarter along with some photos. The first event was the Apple Blossom Festival in Wenatchee, WA, held on the first weekend of May. This is an annual event open to any type of aircraft. In 2007, the club asked if a couple of us from the Seattle area that fly turbine jets could attend, as they had not had any jets there before. Roy Holt and I went that year, and have been going ever since. Here is a photo of Roy with his Boomerang *XL*, which is a real crowd pleaser as he has a smoke system, and next to it is my Boomerang *Elan*.

They get some pretty good crowds as spectators for this event and they really enjoy seeing the jets.

The next event was the last weekend of May in Princeton, B.C. Although not really in District XI, many of us from the USA attend the Princeton Jet meets in May and in September We fly at a local airport and it is a great place to fly R/C turbines. We had a very funny thing happen this May - funny to all except the pilot - so I won't mention any names, but what do you think of a guy who brings a fuselage for one plane (a *Bobcat*) and the wings for another plane (a *Kingcat*)? You should have seen him struggling as he tried to attach the wings, and tried to figure out why they wouldn't fit! Needless to say, we all had a lot of laughs. We offered to call him at home before he leaves for the next event and go over his checklist with him!

Th following photo is during the noon time line up.

Next, we see Bart, with the latest method of using your suspenders to carry a beer can (he didn't fly)! What won't the Canadians think of next!

Here is the the US contingent. Standing from left to right is Kim Waterhouse from OR, Bill Broderick and Al Watson from WA, and yours truly. Seated is my wife Carol, and Chuck Bower from Whidbey Island - north of Seattle, WA.

District XI Report (cont'd) Bob

We had a great time and the weather was wonderful. Princeton really puts on a nice event. Low key, great weather, good flying site, and great fellowship. Give some thought to attending the event on September 17-20. The Princeton events are always 4 days - Thursday through Sunday. You will really enjoy this venue.

The next event was Idaho Jets in June. I did not attend this event, but have heard the weather wasn't the greatest for this event, so let's hope next year will be better.

The last event to report on is Montana Jets, held in the Whitefish/Kalispell area in July. This was a great event with very warm weather and a beautiful flying site. The picture below shows a panorama of the field and local area. The photo makes the runway look short, but it is actually 800 ft long by 70 ft wide.

The next photo is a nice shot of the pit area. The tower had an announcer in it explaining to the crowd who and what was flying in addition to answering many questions that the spectators had.

The next photo is one of Steve and Drew Morris' gorgeous F84. Many hours of labor and love went into this model. Thousands of rivet detail, each one done by hand.

Finally, I'll close with a photo of my relatively new ARF R54 with my relatively new wife Carol!

As an interest item, of all the registered turbine waiver pilots with the AMA, 34% of them that are members of JPO are from District XI. Way to go guys, and let's all work to get even more next year!

Until next time!

Bob

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Dewey Davenport's sharp looking MB-339 was shot at Kentucky Jets by Calvin Mitchell.

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