Newsletter of the Jet Pilot's Organization

Contrails

Fall 2009

Volume 21, Issue 4

David Ribbe's F-16 on final at Illini Super Jets,

President's Report — Keith Sievers

Lessons Learned

While I have been in this hobby for a fair number of years, I'll admit I am still learning. The lessons sometime come from observing others, occasionally from being smart enough to anticipate a problem and all too frequently from mistakes. For some reason, a lot of "learnings" have come my way lately, and I'll share some of them in the hopes they help avert a serious problem for you.

I test fly a fair number of aircraft and my habit is always to leave the gear and flaps down on the first flight to get familiar with slow speed and approach handling. I had just launched a Tam's/BVM F18F for its maiden flight when the first pass of the pilot's stations revealed aileron flutter. I slowed the plane further and landed without incident. Had I tucked up the gear and poured the power to the plane, it is likely the flutter would have been catastrophic. A search of the internet revealed that flutter was a known issue with this aircraft and thus a second lesson ... be sure to check the boards for practical guidance before blasting into the blue.

At Super Jet South, I had an opportunity to learn a couple of lessons from Boli Muentes, a friend and flying compatriot. Boli has a very disciplined approach to flying that starts in the pits and this probably saved his *BobCat* at SJS. As a bit of set up, we had just installed a new engine in the plane and were anxious to get the plane in the air, which can sometimes lead to a departure from routines ... fortunately, this time, it didn't. One of his habits is to check control throws prior to start up, and this check revealed that there was no down elevator throw. Turns out that the live hinged control surface was not clearing the lower gap cover cleanly. A little sandpaper quickly fixed the problem and we were back in the start-up area. Another habit of his is to use the time during engine spool-up to closely inspect the internals of his aircraft, and this time, a glint of fuel in the bottom of the fuselage caught his eye. After a shrug and a disappointing shutdown, we traced the leak to a failed glue joint.

Recent Flight Impressions

For those of you thinking about a new project, I have had the opportunity to fly a few aircraft recently that might be worthy of consideration. Here are some quick "mini reviews."

Der Jet F9F-8 *Cougar*: I finally had a chance to fly the prototype, Der Jet F9F-8 *Cougar,* that I have been working on for the company. The DJ folks had sent me one of the first kits for a build, determination of CG and throws, and test flights. My plane weighed in at 34 pounds, so an engine in the 30 pound range should be more than adequate for scale flight, since Der Jet is not recommending higher thrust engines at this point.

Hits: the basic construction and finish details of the shell are very good for a plane of this price class. Operating scale components abound, including tailhook, belly flaps, speed brakes and a sliding canopy. Early test flights revealed well-mannered flight characteristics, particularly at very low speeds. Power through approach and landing is important, however.

Misses: I did find problems with much of the hardware provided, and Der Jet has slowly been upgrading many of the components in response. The aircraft is immature at this point and time will reveal how the aircraft holds up from a maintenance perspective. I would not recommend this aircraft for grass fields.

Conclusion: This plane will be a hit with people who look for scale aircraft at reasonable prices and have the patience to work with a newer kit.

President's Report (cont'd) Keith Sievers

Skymaster L39: While on the topic of scale aircraft, I also completed the installs and test flew a friend's Skymaster L39 recently.

Hits: L39s, with their straight wings and trailing link gear, are extremely easy to fly and land. With a high engine outlet, large wheels and gear doors that close with the gear extended, it also is a great choice for those that fly regularly from grass fields. The Skymaster kit was generally well-engineered, easy-to-build, and the materials were of adequate quality to hold up over time. With the additional parts' upgrades available from BVM and their supplemental instruction manual, this would also be a good choice for low-time turbine pilots.

Misses: Not many ... the main gear doors are a bit flimsy but are easy to reinforce, also get the BVM spring upgrades for the gear to avoid nose low incidence and wallowing on the main gear.

Conclusion: Great choice for a low-time pilot looking for an easy scale plane to build, maintain and fly.

Composite ARF *Tucano:* I just completed a magazine article for *JetPower* on this turboprop. I will admit that my plan was to buy the kit, do the build and write-up, and then sell the plane. After I flew it a few times, that plan changed and the plane has a permanent home in the trailer.

Hits: The plane is a joy to fly and land. The kit is relatively easy to build and the Comp ARF component quality is generally excellent. The *Tucano* is grass and short field compatible, and may even be allowed at fields that are otherwise turbine unfriendly. It is large, graceful, easy-to-see and relaxing to fly.

Misses: A scale cockpit is not available as of this writing ... you will need to "kit bash" a cockpit from another 1/4 scale plane such as the *Hawk*. Also, some seams were rough. Be careful not to add a lot of extras during the build, in order to keep the weight under control. Turbo-prop engines are expensive, and with less flight time in the marketplace than conventional turbines, may need more trips to the factory.

Conclusion: A great change of pace to jet flying without leaving the turbine realm, especially for those pilots who like scale aerobatics. Not cheap though ... at retail, the plane will probably be in the $12,000 range RTF.

FAA Update

Nothing much new to report in this area. I have continued to stay in touch with Dave Mathewson on the subject and speak to Rich Hansen occasionally. Rich is the primary representative of the modeling community with the FAA subcommittee.

Sometime in the first quarter, the AMA will submit their formal recommendations to the FAA and I have been assured that the JPO will be given a chance to review and comment on the proposed submission before it is sent in. We will post our official response to the website for member comment as soon as we are contacted by the AMA with their proposal.

Elections

Elsewhere in this issue, is your ballot for the election of officers. This year, the election is for the President, and odd-numbered districts. All current officers have agreed to continue with another two-year term, though write-in ballots for alternate candidates are always encouraged.

Finally, please remember to renew your membership. There is a "physical" form in this issue, or it can be done electronically via the website at: www.jetpilots.org.

Keith

Vice President's Report

Al Watson

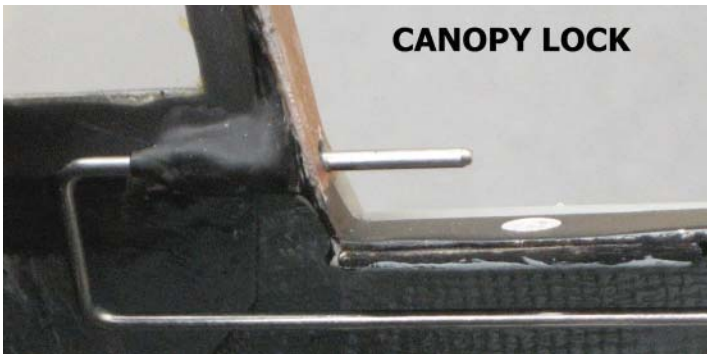
The weather here in the Pacific Northwest, has begun to change, with shorter days that are a little colder and more unpredictable. Normally, we can fly until the end of October and that is about it. I am hoping for a few more trips to my home field on Whidbey Island and then it will be time to retire to my shop for a couple of months.

During the winter months, I will do some minor maintenance on both my *BobCat* and *KingCat* and complete two other jets - a Yellow F-15 and a *Super Bandit*. The F-15 is mostly complete, except for some of the final installation and painting of the external drop tanks and missiles. The *Super Bandit* has been in the works for a long time, as I took delivery of that airplane from BV in 2003, and finally got it ready for paint in the middle of this year. I have painted a lot of models over the years and the *Super Bandit* is the first one that I had painted by someone else. That someone was my good friend, Jeremy Ferguson (LGM Graphix on RCU). The job he did was awesome and the *Bandit* looks great, with the base color being Lamborghini yellow with Ferrari red and black trim. I plan on completing the installation over the winter and am looking forward to flying the *Super Bandit* in the springtime.

As I mentioned earlier, I am in the process of completing an ARF version of the Yellow F-15. The airplane is well constructed and has a fantastic paint job. The one area where it is lacking is in the plans/instructions, with much of the installation left up to the buyer, and this can be a daunting task for those with limited experience installing the radio and turbine components into an aircraft where space is at a premium. The airplane comes with the canopy hinged at the aft end, but has no information on how the opening and closing might be accomplished. I looked at several ways of accomplishing this and finally decided to use a UP-3 valve, so I will describe this system with the aid of some pictures - hopefully some of you will find it useful for a future project.

First, I wanted a system where the canopy was "locked shut" with no chance of opening during flight. The UP-3 valve was originally designed to operate landing gear where the doors open, gear lowers and the doors stay open. Then the gear retracts and the doors close. For the canopy operation: the locks open then the canopy opens, then the canopy closes and the locks close. Two small actuators are used for the locks and a single actuator opens and closes the canopy.

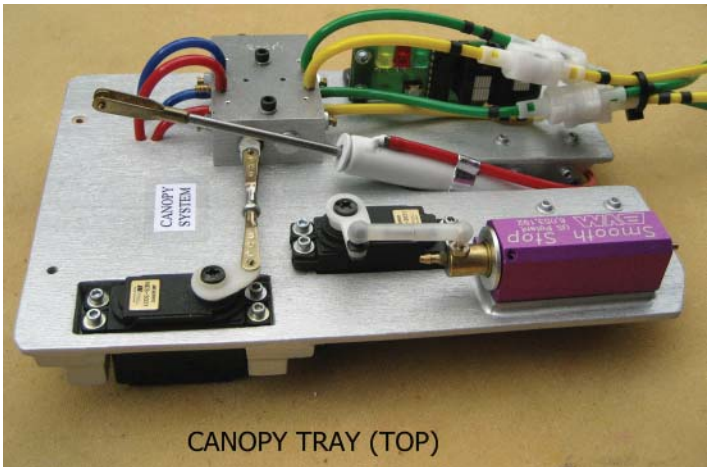
The locks are shown in the photo above, and are made from .063 inch diameter piano wire. A 2-56 threaded coupler is silver soldered to the piano wire, and the actuator stroke is controlled by a piece of brass tubing, located on the actuator shaft between the actuator body and the lock nut. The lock actuators are small UP cylinders, 5/16-inch in diameter. The hook end of the lock slides into a short piece of brass tubing, which is epoxied to the fixed portion of the canopy, which then passes into another brass tube installed in the forward end of the opening section of the canopy, as shown below.



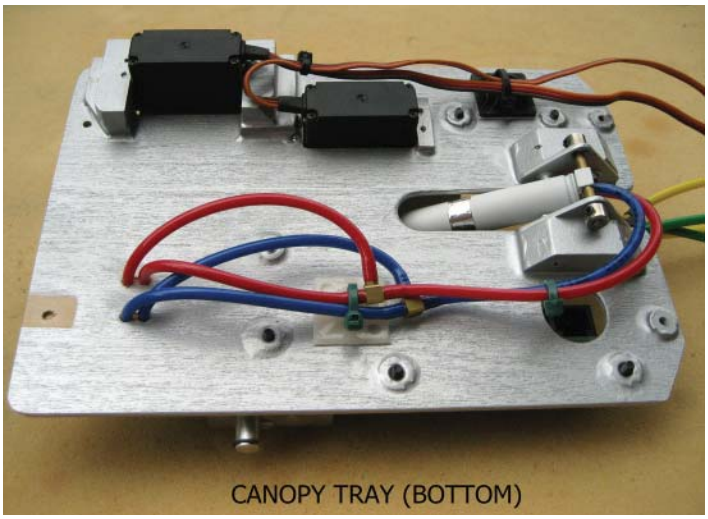
The brass tubes must be carefully aligned to assure a good fit and smooth operation of the canopy. Make the portion of the lock that goes into the opening part of the canopy long enough so that you can see it through the canopy - that is a visual indication that the locks are in place before flight. The locks lay along the fuselage sides below the canopy flange and the actuators are held in place in two hardwood blocks by a single 4-40 bolt which can be seen in the next photo.

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

I needed to design a new tray, which attached to the back of the cockpit tub to house the UP-3 valve and the canopy actuator. There is also space on this tray for the *Smooth Stop* brake valve and the I.O. board for a *JetCat* turbine. The canopy actuator is another UP cylinder of 7/16-inch diameter and the length was selected to provide for approximately a 40-degree canopy opening.



CANOPY TRAY (TOP)


CANOPY TRAY (BOTTOM)

The UP-3 valve has four needle valves, which allow you to control the speed of the locks and the canopy in both opening and closing. A single servo operates the valve, and it is not necessary to slow the servo speed, so I use one of the rotary knobs on the face of my 12X transmitter to control the canopy function. This assures that the canopy will not be accidently opened in flight which could easily be the case if a toggle switch was used for this function. To check out the UP hardware which I used, go to: www.UP-1.com.

As we approach the end of 2009, it is a good time to look back at the accomplishments of the JPO during the last year. Personally, I feel that we have had a very good year.

Our primary task as an AMA Special Interest Group is to represent the jet community. We currently have representation on the Insurance and Safety committees and we also assisted with the new rules for experimental aircraft as it pertains to turbine-powered models. We continue to monitor the FAA's position on small UAVs and will be ready to assist the AMA when the FAA releases its Notice of Proposed Rules Making. Another of our goals was to build up the Knowledge Bank and we have made good headway there with some great articles being submitted by our members. Membership growth has been good in 2009 and, hopefully, that will continue next year.

Happy Holidays to everyone.

Al

District I Report

Bob Radford

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

The New England Jet Rally was another superb event put on by Jeff Lynds and his super crew. We had three days of great flying, and in spite of downpours just 10 minutes east of the field, the rain stayed away and only interrupted flying for just over an hour on Saturday; then, the Saturday night pilots' dinner at the field was just superb. We did receive some disappointing news at the event: that the fantastic Maine Jet Rally had to be cancelled for this year due to construction at the airport. We are all looking forward to returning to Maine in September 2010.

New England Jets held a small jet get-together at Westover ARB from August 15-16. The event went off very well thanks to the hospitality of the Westover personnel and discipline of the pilots who attended. We are working with officials to have a couple events per year there, as well as at other venues.

This month, I will continue the series on aircraft repair with the second part of a *KingCat* wing repair. As you may recall, this wing struck a landing light a few years back and damaged the leading edge, spar and the top and bottom composite skins. Subsequently, my repair plan was to:

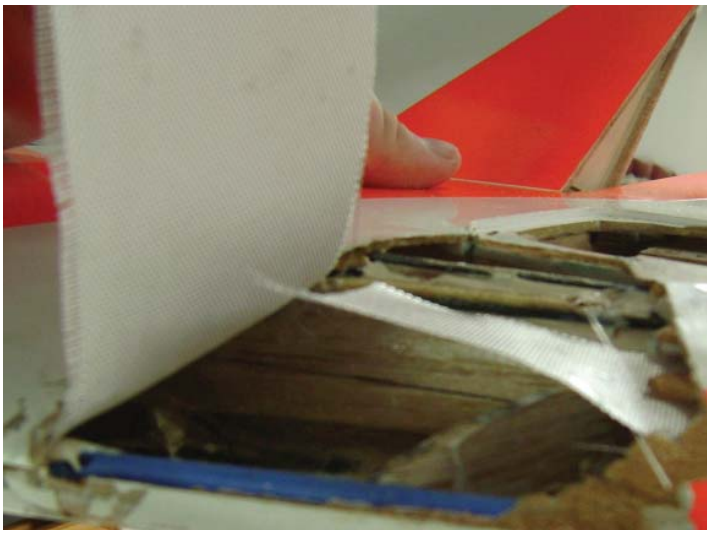
1) Stabilize the composite skin in the top of the wing and then reinforce and fill holes in the top wing skin.
2) Repair the wing spar and wing rib.
3) Repair and reinforce the bottom wing skin and leading edge.
4) Complete finish preparation of the repaired area.

Items 1 and 2 were covered in the Summer 2009 issue of *Contrails,* and this segment covers Item 3.

I will do this by repairing any tears, reinforcing the bottom wing skin in the bays with fiberglass, filling the void with Styrofoam, extending fiberglass across the Styrofoam, filling where necessary, and then applying the topskin.So let's begin:

Use thin CA to repair any tears in the bottom wing skin. The CA and kicker combination will get very hot so be careful you don't burn your fingers.

Next, lay cloth underneath the remaining wing skin in the breached bay, leaving some "dry cloth" overhanging the edge. The dry cloth will be used later to tie in the foam and span the breach.



Once the glass is laid down and thoroughly wetted with epoxy (remember, *only* under the remaining wing

District I Report (cont'd) Bob Radford

skin), remove any excess resin so the repair is not too heavy. Toilet tissue works great for this, just roll it around on the wet epoxy and the tissue soaks up the extra resin. Now, let the fiberglass dry overnight.

Next, cut some Styrofoam to shape to fill in the breached bays, just below the bottom of the wing skin. Ensure that you have foam extending underneath the wing's composite skin to add support. Glue the Styrofoam filler underneath the wing skin and in the bays.

Next, span the foam with the overhanging dry cloth you left when you reinforced the wing skin and apply resin.

Soak up any excess resin with toilet tissue. Build the repair area up with fiberglass until just below the surface of the wing, and let things dry overnight.

In this case, I have a smooth outer skin from a donor wing that I will use to create a smooth surface patch. If you don't have this, you will need to apply a fiberglass filler to get a smooth surface. I also used composite foam to rebuild some of the laminate under the wing skin.

Because the composite foam had torn away from the surface skin, I reinforced the wing skin with half-ounce cloth and resin.

District I Report (cont'd) — Bob Radford

While the skin laminate is still wet, apply Aeropoxy to the composite foam, filling any gaps and using enough for good adhesion.

Press the skin laminate repair patch into place and check around the edges and leading edge for "oozing Aeropoxy," wipe off the excess and fill any gaps. Finally, wrap the surface patch tightly with packing tape until dry.

Next time, we will cover item 4, which is to complete the finish preparation of the repaired area.

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.

Best Regards,

Bob

Remember To Renew Your Membership!

District II Report

Art Arro

New Jersey
New York
Europe

The 2009 jet flying season is winding down here in District II, though we might be able to capture a few more suitable flying opportunities before the days shorten and winter weather prevails. Now begins the off-season maintenance and the construction of new jets for 2010 and beyond. For many of us, the wide availability of jet ARFs, is freeing us from building tasks and, hopefully, we will choose wisely on the selection of any ARF.

Looking back over the year, we had two District II jet events, the Big Apple Jet Rally, and Capitol Jets V, held in June and July, respectively. There were additional events held in neighboring districts which were attended by many District Deuces. Several of these were affected by inclement weather but those folks that attended had a great time. There are many social aspects of these jet events and the camaraderie of fellow jet enthusiasts is a major factor in participating in them.

After two decades of serving as a JPO Officer in various capacities, I have decided to resign my current District II Rep position. During this period, I witnessed and participated in many of the changes in technology, and the strides forward in reliability with R/C jets. From early glow-powered ducted fans to turbine power and; most recently, high performance edfs, the changes have been dramatic. The efforts by a handful of die-hard pioneers struggling to get in a single flight with a screaming glow-df jet, to reliable turbine- and electric-powered scale jets, by a wide number of jet enthusiasts has been truly outstanding.

Jet events have grown from the original Byron Fan Fly and the South West Fan Fly, to include major meetings held throughout the country including Florida Jets, Kentucky Jets and the Arizona Jet Rally, to name just a few. The future looks equally bright with the growth of edfs and nano-turbine jets.

My District II Rep position will be taken over by Len McIntosh, who served as an Associate VP for the District this year. Len will be officially appointed by the JPO Board at the start of 2010 to serve my remaining year, and any subsequent terms that he is elected to.

Len is located in the metro-NYC area, which is the hub of jet activity within the District, and I am confidant that Len will continue, and expand, his support to JPO members and all model jet enthusiasts in the region. I know that he'll be actively seeking your comments and ideas to improve and expand jet modeling throughout the community.

Len can be reached at:

Len McIntosh
51 Jesse Street
Freeport NY 11520

Home: (516) 623-1780
Mobil: (516) 551-1819
email: mcintoshl@verizon.net

Please lend your full support to Len during his upcoming term(s) of office. Thanks in advance.

I'll conclude my final District II report with a sincere farewell to all, and I truly enjoyed all of the experiences from my association with the organization and the folks that I have met and known.

Take care, be well and fly safe.

Art Arro

District III Report

Mark McCracken

Ohio
Pennsylvania
West Virginia

As I am sitting here looking at my calendar, the 2009 jet rallies have just about come to an end here in District III. First, I would like to apologize to the members of JPO in District III for my lack of support during the flying season, as I was unable to attend a majority of the events due to family matters.

Our season began with a jet rally in the Poconos, in northeast Pennsylvania. We started off with testing and maiden flights on Friday, since this was going to be a two-day event. Larry George and I finished setting up around noon, and trucks and campers started filling the pit area. With a go-ahead from the airport, many pilots took advantage of a beautiful afternoon of flying before the weather took a turn for the worst.

In 2006, I held a jet rally at the same location that weathered out on us, just as it did this past spring. Friday had perfect weather for flying, and, at both events, Saturday had dense fog followed by heavy winds on Sunday. As of now, there will not be any events at the airport in the Poconos. When there is a new venue and date, it will be posted on my website, www.jpnepa.com.

If you regularly fly from a grass field, then Hamburg, PA in the early fall is the place to be. The Farview R/C Flyers have one of the best grass fields that R/C flying has to offer: a 400 x 1800 foot grass runway with a wide-open flyover area. The weather had an effect on this event, like every event this year in the northeastern part of our area, with Saturday being more of a day to catch up with friends, talk to other modelers about our new projects or just sit back and watch the few jets that braved the heavy crosswinds.

Bob Violett and the Malchione gang, as always, impressed the spectators; as did the Fly Eagle Jets reps with a line-up of their products like their new F-100 and swing-wing F-14. Plans for next year's Jet Jamboree in Hamburg, PA is already underway with one major change for 2010. ALL transmitters will have to be Spread Spektrum 2.4gHz for the 2010 event. Rumor has it, with the Farview R/C Flyers going to strictly 2.4, there might be two jet rallies next year. Check their website (www.farviewflyers.net) for more details on any and all upcoming events.

Larry Wright, a long time friend of mine, has started a project that he has had sitting around for a while. Now retired, he has decided to get going and finish his MB339. It is a Italian kit, C&C MB339, and C&C no longer offers it as a kit, only as an ARF. It has an 80-inch wingspan and is 75 inches long. The kit came with a two-piece fiberglass fuselage that has to be glued together; the wings, stabilizers and elevators were foam cores that needed to be sheeted with Obichi skins, and the formers had to be cut from printed wood. None of the aileron lead openings were cut in the foam, they had to be done by the builder. Flaps were an option and they also had to be cut out by the builder. Right now, Larry has all the flight surfaces glassed and ready to sand. Larry hopes to have it flying by spring, and he plans on using a P-80 to power it with, with hopes of keeping it under 20 pounds. Larry will be using a Futaba FASST 10CAP/2.4 with Robart landing gear, and all servos will come from Hitech. The plan is to paint it orange and white, like the Peruvian Air Force.

In the upcoming jet rally season, you can stop by one of our tents where you will see our new JPO banners hanging. There you can join or renew your JPO membership, offer any suggestions or just hang out and talk shop.

The following photos are from various jet rallies and from Larry.

Mark

District III Report (cont'd) Mark McCracken

District V Report

Craig Gottschang

Alabama
Florida
Georgia
Mississippi
Puerto Rico
South Carolina
Tennessee

With the cancellation of the Florida International Jet Rally and Pensacola Jets, the organized jet season is pretty much over in District V. Now is the time to work on those "winter" projects and getting your fleet into top shape for next year. If you don't have a current project, it is a great time to find a "deal" on a new one, since I don't remember a time in the turbine era when engines and jets were being discounted so deeply. On the other hand, it's a tough market if you are trying to sell and raise money to fund that next project!

For this edition I have written an article on a technique to balance your jet after you have made changes that affect the cg. Keith Sievers is encouraging the district reps to write articles like this that provide practical knowledge and advice to the jet community. I occasionally get feedback on articles I have written, and it is encouraging to hear when someone actually benefits from the information. A member recently wrote to say he had solved a loss-of-signal problem he was having after reading my article on 2.4 transmitter antenna orientation. My contact information is in the back of each *Contrails* and I welcome any comments and/or corrections you may have regarding my articles.

CG Changes Made Easy

Many of our jets today are too big and heavy for traditional balancers, and we have had to become creative in ways to weigh and balance them. The JPO website Knowledge Bank contains an excellent article explaining an alternative method to determine weight and center of gravity using scales and measurements. Weights and dimensions are recorded and then entered into a customized Excel spreadsheet, which then automatically calculates the cg. This methodology eliminates complicated balancing devices and a shop full of people to help you lift and precariously balance your jet.

However you choose to do your weight and balance calculations, there is a considerable amount of time and effort involved and thankfully, it's something we usually only have to do once. But what if we make changes to our jet that affects the cg? In my experience, it has been fairly common to replace, add, remove and/or rearrange components from time to time for a variety of reasons. Bigger batteries, more batteries, different technology batteries, an additional fuel tank, adding a smoke system, light system or even changing to a bigger turbine have all been things I have done to my jets that have changed the cg. How much did it change? Is it worth weighing and balancing again? How much weight do I need and where should I put it to get the plane back in balance? What if I want to intentionally move the cg?

Fortunately, there is a relatively simple way to calculate the answers to these questions without having to completely re-weigh and balance your jet. The calculations are based on long-standing principles of aircraft weight and balance, but shortcut the process slightly since we are starting from a known weight and center of gravity. To be sure you understand the process, let's review some fundamental weight and balance concepts.

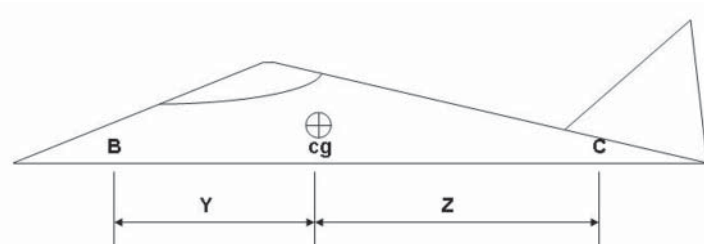
The center of gravity of any object can be determined if we know the *Total Moment* of the object and divide it by the *Total Weight.*

Moment is "the rotational force caused by gravity acting on a weight located at a distance from a pivot point," an example being a simple see-saw with weights on each end. Each weight generates a "moment" which will change as the weight changes and as it is positioned in different locations along the see-saw. We can calculate these moments by multiplying each weight times the distance (arm) from a reference point, know as the datum. Using this information, we can calculate how a weight change in our jet can be offset or positioned to maintain the existing cg.

Example Number One

We added a component to our jet that changes the weight and potentially the cg. Let’s say we have installed a larger battery, that weighs 10 oz more than the one we removed, in the same location. We know the cg location prior to changing the battery from our original balance measurements.

District V Report (cont'd) Craig Gottschang



Using the above figure, the battery is shown as "B." Measure the distance (arm) from the cg to the battery and record this as dimension "Y." For our example, this distance is 20 inches. Use the following formula to determine the moment arm of the additional weight of the new battery:

Weight x Arm = Moment
10 ounces x 20 inches = 200 ounce-inches

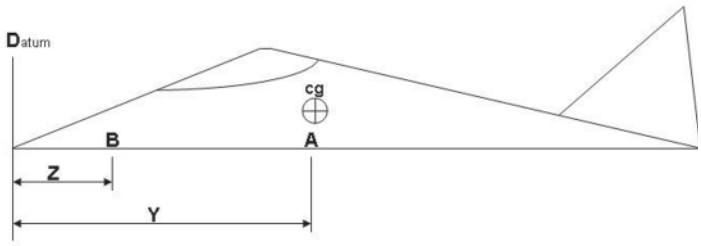
To maintain the original balance point, we need to offset 200 ounce-inches on the other side of the cg. Find a location as far back on your jet as possible and measure this distance (arm). In our example, this location is "C" and the distance "Z" is 40 inches. Use the same formula to determine how much weight is needed:

Weight x Arm = Moment
C x 40 inches = 200 ounce-inches
C = 200 ounce-inches ÷ 40 inches
C = 5 ounces

If we add 5 ounces at location C, our jet will maintain its original balance point. You could also start with a given weight and use the same formula to determine the arm/distance needed aft of the cg to achieve the same results. For example, an 8-ounce battery would need to be placed 25 inches behind the cg to offset the extra 10 ounces up front. You can also use the formula if you reduce weight. Calculate the negative moment and then offset it by removing weight on the opposite side of the cg, or adding weight on the same side. Bear in mind that any units of weight and measurement may be used, but they must be consistent in all calculations!

Example Number Two

In this scenario we have added 10 ounces of weight at same location ("B"), but rather than offsetting the change we simply want to know how much the center of gravity has moved. A different formula is needed that considers the total moment and total weight of the aircraft, and how it has shifted with the added weight. The datum is now assigned to the tip of the nose, and moments are calculated by measuring the distance from the nose to the location of weight points along the fuselage, and multiplying them by those weights. The total of all moment arms (total moment) divided by all weights (total weight) will equal the location of the cg as measured from the datum



Using the above figure, we measure dimensions (arms) "Z" and "Y" and find they are 10 inches and 30 inches, respectively. Use the original dry weight of the jet (30 pounds in this example) and multiply it by 16 to convert it to 480 ounces. This keeps all units of weight consistent in the calculations. Two moments and two weights (the original weight/cg location and the added weight/location) will be used to calculate total moment and total weight using the following formula:

Total Moment ÷ Total Weight = Distance to cg

(Y x A) + (Z x B) ÷ (original weight + added weight) = cg
(30 in x 480 oz) + (10 in x 10 oz) ÷ (480oz + 10oz) = cg
(14400 oz-in) + (100 oz-in) ÷ 490 ounces = cg
14500 ounce-inches ÷ 490 ounces = cg
29.59 inches = cg

Subtract 29.59 inches from the original location of 30 inches and we find the cg has shifted forward approximately 4/10ths of an inch. This formula can be used for adding or subtracting weights anywhere along the fuselage and for multiple changes in a single calculation. It can also be used to determine the location and amount of weight to move the cg a specific distance, by inputting the desired cg location and weight or weight location and solving for the missing value.

This methodology may seem a little complicated, but if you take the measurements for your jet and insert them in these formulas you will find it is not that difficult. It surely beats a complete re-balance and is

District V Report (cont'd) Craig Gottschang

definitely better than guessing or doing nothing at all. My only disclaimer is that these techniques are reasonable approximations for calculating cg changes, but are not necessarily 100% precise. If you have made major changes or repairs and/or your jet is particularly sensitive to cg location, I would recommend a full-up re-balance. Otherwise, this is a relatively simple and effective method that will save you time and give you peace of mind as well.

Super Jets South

The fourth Super Jet South Jet Event was held from September 24-27 at the Georgia Jets flying field near Atlanta. Originally conceived as a one-time substitute for the cancelled Superman Jet Fly in 2005, Super South has grown in its own right as an annual event, anticipated by jet flyers throughout the southeast and beyond. Seventy pilots, from at least 10 states and Canada, enjoyed a warm, but mostly rain-free, four days of flying at the fabulous Georgia Jets' airfield.

The event almost didn't happen. Seven straight days of record rainfall in the southeast just days before the jet fly left bridges washed out, roads closed and flooding throughout the area. Georgia Jets Club President Mike Pascoe and a dedicated group of club members worked tirelessly during the breaks in the rain and the two days before the event to get the grass cut, fencing up and everything ready to go. Other club members posted notices on the status of the field and driving directions to avoid closed roads and flooded areas. By Thursday morning, the field was dry, tents were up and flying commenced on schedule!

Flying is what Super Jet South is all about. With virtually no flight restrictions on the privately-owned 200+ acre site, pilots flew from dawn to dusk (and beyond), with no breaks for demos, full-scale aircraft or anything else! Pilots were unanimously complimentary of the airfield's 1000 foot runway, smooth grass runoffs, parallel grass runway and the many amenities, including the trimmed bush "barrier fence" and hidden music speakers at the pilot stations!

The event was documented this year as never before due to the efforts of jet pilot and filmmaker Marvin Alverez. Known as the "Steven Spielberg of R/C," Marvin will go to any lengths to capture the best video shots. He has even invented a roving electric R/C "*car cam*" that he uses to follow jets during taxi, take-off and landing from a ground-level perspective. Amazing pictures from the car cam and other unusual angles can be seen on the Super Jet South video he created and posted in the "video gallery" on his club website at www.makosrcjetclub.com. Thanks Marvin!

The other highlight of the event was the Saturday night barbeque, awards ceremony and auction. Supported by Jet Central and other major sponsors, the dinner was free to all pilots and everyone received at least one donated prize. The real action started with the auction for the "big" prizes, including several RTF electric jets and the grand prize, a BVM Bandit ARF. Overall the event was a huge success and enjoyed by all. Club President Mike Pascoe summed it up well when he said, "This event gets better every year and the Georgia Gang is looking forward to Super Jets 2010 already!"

Pictures from the event are by Gordon Dickens and Craig Gottschang.

Georgia Jets flight line looking east. One of three start-up areas in the foreground.

Mike Lesher's big Skymaster F-4. An impressive performer.

District V Report (cont'd) Craig Gottschang

BVM F100 flown by Phil Nuza. Great looks, precision flight and expert calling by daughter, Samatha, won him the Best Military award.

BIG 1/5th scale "Scale Jets" F-16C by flown by Jorge Escalona. Unique paint scheme reflects different era markings on the 90th anniversary 111th "Ace in the Hole" Fighter Squadron jet.

Best Scale award winner Adrian Valencia (on right) and builder Lukey Martinez pose with huge Fei Bao F-15. This 52 pound, 114 inch-long jet is powered by two Jet Central *Rhinos*.

Pablo Fernandez's electric-powered Hawk. One of many jets Pablo flew during the event that helped him win the JPO-sponsored Top Gun trophy.

Vernon Montgomery's BVM F-100 on final.

Ready to relax after recently hosting Kentucky Jets, Lewis Patton is all smiles!

One of many stunning low passes with his custom painted Ultra Bandit, Joey Tamez was the hands down Pilot's Choice award winner.

District V Report (cont'd) Craig Gottschang

Bob Bush from Dayton, Ohio logged numerous flights on his great looking BVM F-100D.

Andy Benitez, Stew Kifness and Andy Jr. (L to R) each took turns with Andy Sr's Mibo A-10. Great flying earned Andy Jr. the Best of Show award.

Bob Violett's 80", P-120 powered F-86 on landing.

Camo scheme Comp ARF *Flash.*

Film maker Marvin Alverez with his *Eurosport* and "Car Cam".

Separate transmitter controls the Car Cam as it captures unique and up-close footage!

Great prizes made for an exciting and well supported raffle following the awards banquet.

Award winners not pictured: Jed Jacobsen for Best Sport and Dean Eberly for Best Electric.

District VI Report

Lance Campbell

Illinois
Indiana
Kentucky
Missouri

Jet season is winding down for those of us here in the Midwest. At times I envy those in the southern climates that can fly all the time…but….Then again, you guys down south miss out on what is about to hit us here…building season!

But before building season picks up here, I've got a couple jet meets to pass on to you. One I got to go to, and one I couldn't.

The one I could attend was Roger Shipley's Rte. 66 Jets. Roger goes out of his way to make this a jet meet for the pilots to fly as much as possible, and also a good show for the locals. If you're not sure how much Roger does to try to get the word out about Rte. 66 Jets, just hit him up for a can cozy, and you're libel to get handed 20.

On the morning of 9/11/09, Roger had arranged for an opening ceremony that involved several people, including a veteran, that was quite stirring. Thank you, Roger, for the thoughtfulness that you brought to our gathering.

Ron Ballard's cooking was also appreciated by all there, and I don't think anyone left hungry, that's for sure.

In addition to the normal jet activities, was the early news about the Jet World Masters being on its way to the U.S., with the U.S. Team qualifier taking place during the week before next year's event. All weekend, Roger flew the IJMC's flag that he was personally handed at the conclusion of the last competition in Israel. The next competition, in Dayton, OH, will be quite the show. Stay tuned for further details.

The second jet meet was one that I could not make it to, but do have some pictures to show you. I'm afraid my brownie points had run dry, not allowing me to making it, but from what I hear, the Illini Super Jets, at Eli Field in Monticello, IL, was well attended and a lot of fun.

Photos this month are credited to Jerry Crow and Patty Kneip. Patty has also signed on to be a primary photographer for District 6, so you can look forward to more of her talents with the camera in issues to come. Thanks Patty!

Lastly is a reminder, that as the year comes to a close, remember to renew your JPO membership. Go to the web site: www.jetpilots.org, and follow the links. In just a few minutes you'll be set.

Lance

Route 66 Jets Photos

Jerry Crow's *KingCat* just at touchdown.

Great looking MIG at Rte. 66 Jets.

Robert's aggressive takeoffs were the norm.

District VI Report (cont'd) — Lance Campbell

Patrick Frost's great looking and flying monster-sized F-86.

At the closing ceremonies in Israel, Roger was handed the flag, to be its guardian, until it's unfurled in Dayton, two years from now.

2011 Jet World Masters - Dayton OH, WTG Roger!

Illini Super Jets

Dennis Michael's Shark slicing through the cornfields

Buck's bird on departure.

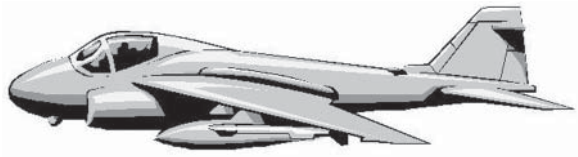
Look out, here comes the Mystery Machine...err, or perhaps it's John Redmen's *KingCat* done up Scooby Doo style.

District VI Report (cont'd) — Lance Campbell

Ben Burden's truck was vandalized in a hotel parking lot while at a jet meet...a good reminder to all of us to watch what we leave in our vehicles, radios, GPS, etc.

Andy Lowe using R/C to move his R/C at Cincinnati Jets.

After being blown about for days at the MN Jet Rally, Mike (the airport manager) took most of us for a short ride in this immaculate 1943 Fairchild. Thanks, Mike!



Membership/Renewal Application

Please add/renew my JPO membership!

Name:_____ AMA Number*: _____

Address: _____

City: _____ State: _____ Zip: _____

Email Address: _____

Home Phone: _____ Cell Phone: _____

*AMA membership is required for U.S. Residents. JPO Annual Membership Fee is $25.
Send with check or money order made out to: "The Jet Pilot's Organization" to:
Carol Brusa, JPO Secretary/Treasurer, 7433 McCormick Woods Dr, SW; Port Orchard, WA 98367

Or renew online at: www.jetpilots.org

District VIII Report

Ron Schwarzkopf

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

Howdy, from District VIII…

I hope everyone in District VIII has had a chance to get some flying in this summer. It has been an unusually wet season for us in Texas, and the grass has been a strange color - green! Hopefully, if the weather has been cutting down on your flying, maybe it will have given you some extra time to spend in your building room on your next project. I know it has for some, seeing some of the projects people have been getting involved with - just paging through a couple current pages of the R/C Jets section of RCUniverse, one can find a handful of projects, several being scratch-builds. I see that as a good thing, because for many of us, this hobby includes *building* and *flying*.

27th Greater Southwest Jet Rally

I was able to attend this event, which was held at the HOTMAC club in Waco, TX, and scheduled for September 10 -13, although a few folks arrived much earlier. Flyers traveled from several states: Arizona, Colorado, Kansas, Mississippi and others. Like the others, I was prepared for 4 days of flying jets.... Thursday was great for flying, Friday was rained out for about half of the day, and Saturday was a day meant for no one but ducks.... By the time Saturday evening rolled around, a good portion of the 50 or so flyers had decided to leave, and understandably so.

However, in the time we did have available for flying, a lot of flying was done! Turbines were in the majority as usual, followed by EDFs, and a couple of glow-fueled ducted fans. As I mentioned earlier, this year's weather has been dominated by rain for us. A big thanks once again goes out to Larry Garrett for CDing the event, and a big thanks to the HOTMAC club for letting us land at their wonderful model field. Here are a few photos from the event, taken in between the raindrops:

The Greater Southwest Jet Rally has seen better weather than this... We're still having fun though, right? Photo by Buck Garza and his pink camera.

A smokin' low pass being made by Ryan Haldenwanger, all the way from Denver, CO, at the Greater Southwest Jet Rally.

Brian Gates ready to taxi his Wren-160 powered L-39 to the runway, at the Greater Southwest Jet Rally.

District VIII Report (cont'd) Ron Schwarzkopf

The Laser Design Services team of Bob Leserve and Ronnie Stine (pointing things out) prepare their newest iteration - *JetMach Super Sport*, at the Greater Southwest Jet Rally.

Barry Raborn's PST *Reaction* waiting for the rain to clear, at the Greater Southwest Jet Rally.

Breckenridge Jets

I was only able to attend this event for one day, but it was certainly fun and laid back. Held from October 22-25 at the Stephens County Airport, this was the first time for this event. The event was run by Randy Brown and Butch Sickels, and from what I could tell, it appears to have been a success. Flying was done off of the main runway, with plenty of pit areas, and the organizers were equipped with radios, in case full-scale traffic had to use the runway. This was not a bad thing, because the airport is home for several beautifully restored WW2 warbirds. I don't think anyone minded having to land, for the opportunity to watch a *Sea Fury* take to the skies! The airport also had several *Mustangs*, a *Tigercat*, a *Bearcat*, and several others in either flyable condition, or in the process of being restored. Randy, once again, made a wonderful dinner for all the attendees, and I'm sure no one left hungry. So a big thanks goes out to Randy, Butch, and the operators of Stephens County Airport, for allowing us to participate in this event. We hope for a repeat performance next year!

We also got to see a couple of neat model projects at the Breckenridge event. Notably, David Hudson's 1/6 scale F-8 *Crusader* - this project is progressing nicely. A lot of hard work has been put into this scratch-built model, especially with the configurable high lift wing.

Another notable scratch-built project in the works, was Bob Moore's large B-1 bomber model. Bob has been videoing the entire process of his build, and has posted 90+ video on YouTube, to date. The model has progressed to the point where he was able to truck the model down from Kansas, in the form of a "first pull" of a fuselage, sitting on its landing gear. At 1/8 scale, this yields a fuselage length of just over 18 feet. It will be really impressive to see once the wings are attached and swinging - watch out for your knees! Good luck to both modelers, and continued success on their projects. We may have some neat planes flying out there in 2010.

Hopefully the photos might motivate you a bit to get your current project ready for next year, with the onset of our building season. Until then, may all your landings be with your landing gear down!

Ron

David Elizondo preparing his Wren-powered *Spark* for another successful flight at Breckenridge Jets.

District VIII Report (cont'd) Ron Schwarzkopf

Some of the jets attending Breckenridge Jets, in the widely-spaced pit area.

A blast from the past - Paul Stelly's F-100 *Super Sabre* being prepared for flight at Breckenridge Jets. This model was designed/built by Lynn McCauley, and was a predecessor to the BVM kit.

Dave Hudson's F-8 *Crusader* progressing closer to test-flight time, being shown here at Breckenridge Jets.

David Hudson poses with his *Crusader.*

Bob Covish caught Bob Moore's B-1B *Lancer* Fuselage getting some sun at Breckenridge Jets.

To give a better sense of size, Bob Covish posed his "tiny" *Boomerang-XL* nose-to-nose with the *B-one.*

B-1B *Lancer* scale main landing gear - this had to be a project in itself.

District X Report

David Reynolds

Arizona
California
Guam
Hawaii
Nevada
Utah

WARNING! The following rant is my opinion only, and you know what they say about opinions…

There have been some stories floating about lately about children at jet rallies ... fully grown adults that have to be escorted off the flying field for some reason. Also, folks using "colorful" language to tell off officials that are simply trying to enforce basic rules, that are usually safety-related. I find this disturbing for several reasons: First, it's a hobby folks, we do this because it's fun and relaxing. Second, It does not take much searching to find somebody that knows of a flying site that was closed to jets because of only one person doing something foolish.

So, as we go to different events around the nation, remember what I tell my students: You are representatives of your home field, and jets in general, and it would be nice to be asked to return, not told to never come back. Remember also, the workers at your favorite jet rally are volunteers and the local pilots gave up a weekend of fun so that you can have yours. ***Act accordingly.***

Thank you, we now return you to our regularly-scheduled column....

Now that I have that out of my system, I have a few shots of the Woodland/Davis jet meet in Woodland, CA. Around 30 pilots enjoyed a relaxing weekend that included pizza and beer on Saturday night. By all accounts, this jet meet is a laid back, hang-out-and-fly event that is fun for all. Thanks to Bob Brusa for these pictures. More can be found at http://yolo.net/~jeaton/WDA/20091010jetfly/20091010jetfly.htm.

That is it for this go around, if you have some pictures and want to share information about a great event you go to drop me a line (HINT, HINT). I know that some great events have been hosted in CA that others would like to read about (SECOND HINT). You don't have to be a great writer or photographer, so don't be shy.

I'll be traveling to the upcoming AMA Convention in January, and of course, the AZ jet rally near Phoenix the end of November. I hope to see some of you there. Until next time, keep the low passes where they belong.

David

District XI Report

Bob Brusa

Alaska
Idaho
Montana
Oregon
Washington

I have several events that took place during August and September to report on. The first event was Jets Over Whidbey, hosted by the Whidbey Island Radio Control Society, and held during the last week of August on Whidbey Island, near Seattle.

This year we had 27 registered pilots, which was up, compared with the last few years; the weather was good and everyone had a great time. In addition, this year we decided to hold a Saturday night banquet at the Oak Harbor Naval base CPO Club. With 45 guests in attendance and excellent food, the CPO Club did an excellent job.

Our first photo is one of the three trophies we awarded, and all of the trophies were very nice.

The next photo shows the CD, Al Watson, during the banquet awards presentation. Our third photo is of Bill Broderick's *Viper Jet*, which won best scale jet award. The *Viper Jet* is really a nice flying model. Chuck Bower won the Top Gun award, Jeremy Ferguson won the best sport jet, and Woody won the best flight award.

We want to thank all our Canadian neighbors for joining us and helping to make JOW a big success this year. Also, a big THANK YOU goes out to Bob Violet Models (BVM Jets) for helping to support our event with raffle prizes for the pilots.

The other event I want to report on is Princeton Jets, held in Princeton, British Columbia. Although not part of District XI, many of us from Washington and Oregon go up to support the event. We had good September weather, lots of great flying and gobs of good fellowship..

I need to clarify last quarter's *Contrails* report, concerning JPO membership in District XI. The AMA website currently shows 58 members in District XI that are turbine-waiver holders, though I have no idea how many of these are actually active turbine pilots. The JPO website shows 17 members in District XI, however I have signed up 14 more that are not yet listed, and at JOW this year I signed up 11 new members! All told, in District XI, more than 50% of its waiver holders are also JPO members.

Bob

Beginner's Corner

Bob Brusa

In our last discussion, I stated that we would discuss safety precautions and starting of your new turbine. However, I am going to digress a little and put that topic off until the next issue. Instead, we're going to cover the ground support and safety equipment you will need to bring to the flying field with you.

It is usually said that safety is first, so.... The most important safety item to have on hand is a fire extinguisher, and, it is required under the AMA safety regulations for turbines: 510-A item 16. "A 'B/C' rated fire extinguisher must be present as well as water-based fire fighting equipment." The latter is usually supplied by the host club at the field, but you need to provide either a CO_2 or Halon/Halotron fire extinguisher. Halon is usually no longer available, but Halotron is. Do not use a dry chemical (A/B/C rated) type as it **will** harm the turbine.

Additionally, if you are using LiPo batteries, and plan to charge them at the field, your battery installation should allow easy removal so that you can charge them outside of the airplane.

Next, you will need some type of container to store and dispense your fuel from. The "Jersey Modeler" 5 gallon (20 liters) plastic container is one of the most popular. It is equipped with an electric pump, fuel lines, filters, and a rechargeable battery. The price is in the $200 range, so some modelers assemble their own by purchasing the necessary parts locally.

While we are on fuel, you will also need some type of starting gas. Either propane, or a propane/butane mix, seem to be the most common. Consult your turbine manual for the recommendation for your turbine. These fuels are usually available from local sporting-goods-type stores. You'll also need a method of dispensing the propane into your on-board gas container (if you elect to use one). There is a trigger valve that is commonly used, but a simple piece of fuel line with a small adapter also works well. Some turbine manufacturers will supply this adapter, and, if not, you can make one very cheaply.

The next item to have is some kind of portable compressor for your pneumatic retracts and brakes. Some people use a manual pump (like Robart's), but I would highly recommend a battery-powered model. You will not enjoy doing it manually for very long!

The next two major pieces of equipment are a battery charger and a battery. At some fields, you cannot park your car close enough to the pit area to use the battery in your car. Of course, you could carry your plane over to your car if you wish, but having a power source in the pits is very convenient. Depending on how many flights you plan to do in a day, you may have to charge your ECU or receiver batteries. You will also have to be certain you have the proper cables and connectors for the type of batteries and chargers you are using. Another excellent piece of equipment is an ESV (expanded scale voltmeter). You can check the status of your receiver batteries between flights to determine if charging is needed, and the GSU of your turbine will show you the status of your ECU battery.

We've just talked about a battery-operated compressor and a battery for charging. There are many units available that contain an air compressor and a cigarette-lighter style outlet that can be used to charge your batteries all in one unit. Radio Shack sells an adapter for the cigarette lighter outlet that has banana plug sockets to attach your charger to, and they cost about $10. These all-in-one units are quite popular and usually come with 110v chargers you can use at home and with 12-volt charge adapters to use in your vehicle.

An optional item, is a battery-powered blower of some type. There are some pilots who prefer to manually cool their turbines after each flight, rather than let the turbine do it automatically. You will save wear and tear on your starter motor if you do it yourself.

There is additional optional equipment and/or spare parts you could bring along, such as a spare on-board fuel pump, solenoid valve, or glow plugs (highly recommended). A cradle or other device to hold your plane while mounting wings, or a work table of some sort, chairs, and tent canopies. Tools, epoxy, CA, and any other various and sundry items you never seem to have when you need them!

Next issue we'll talk about starting your turbine and the safety precautions to follow. I'll provide a sample pre-flight checklist to use before starting also.

Bob

Treasurer's Report

Beginning Balance - 8/31/09		***$8,692.11***
Income		
Membership Dues - Cash/Checks		$350.00
Membership Dues - Paypal		106.72
Bank Interest		11.16
Expenses		
Spring Contrails	1606.46	
Logbooks	(6.00)	
Shirts	(60.00)	
Ending Balance - 8/31/09		***$7,619.53***
Savings Account		$7,563.05
Checking Account		56.48
Paypal Account		0
Ending Balance - 8/31/09		***$7,619.53***

Respectfully Submitted,

Susan M. Moore

May your flights be many, your crashes few, it's been my pleasure serving you...

Official Ballot

President: **Keith Sievers** ___ **Other** ___

District I: **Bob Radford** ___ **Other** ___

District III: **Mark McCracken** ___ **Other** ___

District V: **Craig Gottschang** ___ **Other** ___

District VII: _____

District IX: _____

District XI: **Bob Brusa** ___ **Other** ___

Ballots to be sent to: JPO Secretary/Treasurer
790 Royal Crown Lane
Colorado Springs, CO 80906

All ballots must be received by December 31, 2009.

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CANADA
Vacant

Gordon Dickens caught Craig Gottschang “smokin” on by.

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