EVA Exhaust Systems

The Newsletter of the East Valley Aviators

CLUB OFFICERS

President:
Dave Byrne
(602) 403-7117

Vice President:
Alan Moulton
(602) 750-5445

Treasurer:
Verlin Boeder
(602) 803-6852

Secretary:
Mike Jeffries
(480) 250-4614

Safety Officer:
Lin Andresen
(480) 251-5594

Safety Officer:
Mike Wyman
(480) 227-5970

Training Coordinator:
John Mitchell
(360) 582-9980

Exhaust Systems Editor:
Mickey Ohland
(480) 516-7643

The *EVA Exhaust Systems* is a publication of
The East Valley Aviators R/C Club

An Arizona not-for-profit Corporation

P.O. Box _____
Phoenix, Arizona
ZIP CODE

www.eastvalleyaviators.org

In this issue……

- Board Officer Reports
- Tip of the Month
- Flying Tips
- Just for the fun of it…
- EVA Schedule of Events

OCTOBER 2014

Membership News

Membership News: Big Changes You Need to Know About. Read This!

As the beginning of the 2015 membership renewal season rapidly approaches, there are some big changes in how the renewal process will occur. Starting on October 1st, we strongly encourage everyone to renew their membership online and pay their dues via the club website. Here's how

What you do

1) Goto http://www.eastvalleyaviators.org and click the 'Membership' tab at the top of the page. This will take you to the 'Membership Application' page. Alternatively, click this link which will take you straight to the renewal application page http://www.eastvalleyaviators.org/?page_id=550

2) Fill in your information. Note there are required fields that must be filled in correctly

3) At the bottom of the page, click the 'Submit' button. This will take you to the payment page

4) On the payment page, follow the payment instructions. You can elect to pay your dues via Paypal by selecting the appropriate '***Buy Now'*** button or mail a personal check to the club membership officer

What happens next

1) Once you've successfully completed the above, the club membership officer receives an e-mail notifying him/her that you've renewed for 2015. If you've paid your dues via Paypal, your 2015 renewal sticker and new gate lock combination info will be sent out to you the same day. **This is the fastest and easiest way to complete the renewal process!**

2) If you filled out your renewal application online but choose to pay via personal check, your 2015 renewal sticker and new gate lock combination info will be sent out once your payment arrives in the mail to our membership officer

If you can't utilize the online renewal form, we'll still require you to fill out a paper copy of the renewal form so that we have your latest and correct information. This is necessary to correct a long standing problem of people's contact information going out of date without us knowing about it. The upside is you are guaranteed to receive the club newsletter, get notification of important events via e-mail (e.g. rain lock is on), and we can successfully send your renewal sticker and lock combo to you in the mail each and every year. Paper forms will be available at the field over the Tx impound starting on Oct. 1st, 2014 and made available at the October 2014, December 2014, January 2015 and February 2015 club meetings. Note that you will need to fill out the paper form (or go online) before your check will be accepted and your renewal sticker issued.

In summary, we strongly encourage the use of the website renewal page and paying via Paypal to complete your 2015 membership renewal versus the paper form and personal check methods. The online method is the fastest, most accurate method for you and the club to get your information accurately as well as saving your treasurer and membership officer a lot of work processing your payment.

Lastly, should you invite or have a prospective new member approach you about how to join, the process is the same as for renewals. Please encourage those prospective new members to use the online system outlined above. These instructions will also be posted at the field next to the Membership Application forms over the TX impound. Should you have any questions or problems, please feel free to call the membership officer, John Pomroy, at 623-255-996 or send him an e-mail message via the club website → http://www.eastvalleyaviators.org and hit the 'Contact Us' tab at the top or click this link which will take you straight to the renewal page http://www.eastvalleyaviators.org/?page_id=62

PRESIDENT'S PODIUM

Submitted By *Dave Byrne*

We're winding down the summer and starting to get ready for another year of activities at EVA. We'll have the usual popular events that we're used to seeing and have added a new event with two night-fly's in the fall and winter time frames. We had a night-fly early this summer and it was a tremendous success. The 2014/2015 EVA Event Schedule is attached to this newsletter and is also published on the web site. Check it out and mark your calendars for your favorites.

The 2014 IMAC World Championship was held in early September at the AMA home field in Muncie, Indiana. I'm very proud to report that we had three pilots who qualified in three categories to represent our country as well as EVA. Spencer Nordquist qualified in Unlimited & Freestyle; Bill Adams qualified in Unlimited; and John Pomroy qualified in Intermediate. There were 89 competitors representing 13 countries that made the trek to the AMA Aerodrome. They competed over four days and made as many as 14 flights. This was a competition of the best of the best, and from all reports was quite intense. Spencer ended up with sixth place in Unlimited and third place in Freestyle. Bill placed 15th in Unlimited and John placed sixth in Intermediate. Congratulations to all three for this tremendous accomplishment! Making the 3,600 mile round-trip with our pilots, two trailers and six airplanes, were their callers Kevin Nordquist, Jason Neves and Mike Jeffries. For additional information, please visit the website imacworlds.com.

As you all know, we've been saving funds to replace the carpet under the ramada at the flying field. After seven years of use, it's now time to replace it. This is going to be a big job and we'll need many of our members to assist in the renovation. Verlin Boeder will lead this effort and has informed me that the carpet is on order and will take approximately four to five weeks for delivery. We're scheduling the work for the weekend of October 11th & 12th. We will have a sign-up sheet available and will need approximately 40 members on Saturday & 20 members on Sunday to help. Are there any experienced carpet installers in the club that can help? More on this later…

Our first club meeting will be on Saturday, October 4th. As usual, it will be held at the field and will start at 8AM. We've also combined the meeting with a field clean-up. The field for the most part is in fairly decent shape. We had a huge, record-breaking rain in the Phoenix valley this month and had

limited erosion on the entrance drive and runway. The work we did on the runway last year seems to be holding up. We've had a "good" crop of weeds this year, however. These need to be removed before we put down our weed killer pre-emergent. Given the usual attendance at the club field meeting, it should take about an hour to complete so we can still get some flying in that morning.

In my last report I mentioned the request from our governing body AMA to make comments to the FAA release of an interpretation of the Special Rule for Model Aircraft. Please, please, please if you have not already done so, jump on the AMA website and follow the instruction and links to make your comments known to the FAA. Please review the following links for quick access: FAA's interpretation and the AMA's response. Also provided was information and the following link online for making a response to the FAA. Emailing your comment is the fastest and most convenient method. All comments must include the docket number FAA-2014-0396. For help in making your submission, please click on the following link for tips on submitting your comments, http://www.regulations.gov/docs/Tips_For_Submitting_Effective_Comments.pdf. They need to hear loud and clear about our feelings of the FAA's interpretation of this rule. The extended deadline is September 23rd of the Special Rule for Model Aircraft.

Have a great summer and remember to keep the shiny side up.

See you on the flight…
Dave

TREASURER'S REPORT

Submitted by *Verlin Boeder*

Please, wear your EVA club badge at the field!!!

We made it through another hot Arizona summer and fall is in the air - and - another flying season ahead of us. We anticipate seeing all our snow-birds friends arriving. With that in mind, parties and fun-fly are being planned and fun will be had by all.

We are also planning field improvements in October. We will need lots of help with this. Carpet for the ramada and pit area has be ordered and will delivered in mid October. Lots of preparation needs to be done before the new carpet is rolled out and then nailing down the new carpet. As always, lots of hands makes the job easy. We will let all know when this project will be started.

The weed problem that is so obvious will only be worse if not handled properly this fall. We have hired a professional company to apply herbicide at the right time and with a warranty. This operation will also be done in October or early November. We will need some help to clean up last year's dead weeds before the herbicide is applied.

Our great financial status allows us to do the carpet and weed control and have funds for a party or two. The carpet cost is $11,800.00 and the weed control project cost is $575.00. With these major expenses paid, EVA cash on hand is $11,547.00 and the reserve fund is at $24,000.00. If anyone has a project they would like to see started please bring it to the Board of Directors.

If you are the last person to leave our flying field in the evening, ***be sure to lock the gate!!!!***

Happy flying and smooth landings, lets all enjoy a great hobby.

Verlin

COMMENTS ON LIFE

- A clear conscience is usually a sign of a bad memory.
- Change is inevitable, except from vending machines.
- Plan to be spontaneous tomorrow.
- If you think nobody cares, try missing a couple of payments.
- How do you tell when you're out of invisible ink?
- If everything seems to be going well, you have obviously overlooked something.
- When everything is coming your way, you're in the wrong lane.
- Everyone has a photographic memory; some just don't have film.
- What happens if you get scared half to death twice?
- I used to have an open mind but my brain kept falling out.
- I couldn't repair your brakes so I made your horn louder.
- Why do psychics have to ask you for your name?
- Inside every older person is a younger person wondering what happened.

SAFETY REPORT

Submitted by *Lin Andresen*

Greetings fellow EVA modelers, I hope you have been having a great summer. In this issue of the EVA newsletter I am going to be writing about propeller safety and safety tips for new and returning members.

It has been said that the most common modeling injury that is written about and talked about is the propeller strike. It seems today that prop strikes are pretty much evenly divided between gas/glow power and electric power. Here is the difference between the two: Gas-powered models "bite" the pilot when the engine is running and a hand gets thrust into the propeller arc. Electric-powered models catch you when they unexpectedly start at an inconvenient moment and "zoom" across the workbench into a hand or arm. A gas engine often needs to be adjusted while it is operating, with hands close to the spinning propeller. One small lapse of concentration, and the damage is done. Painting the propeller tips a bright color can help avoid reaching into the prop arc.

Electric aircraft come in many types and sizes, and there are several ways to avoid unexpected start-ups. Larger aircraft might have a manual cutoff switch that allows testing of the rest of the airplane with the motor isolated. Some smaller electrics have no on/off switch and they use the battery disconnect as a master switch. With any electric plane, you can also remove the prop when checking movement of the controls. Please remember that powering up an electric plane in the pit/workbench area is forbidden.

Flying model airplanes for new pilots can be a very scary, exhilarating, overwhelming, and satisfying experience. The first thing a prospective new pilot needs to do in order to have a chance at a successful first flight is to go to a flying club, such as East Valley Aviators, and talk to club members. Find out about membership, training, AMA membership requirements and club membership requirements. The new pilot then needs to buy a reliable trainer and receive training from a club flight instructor. After the pilot has soloed and flown many flights with a trainer, he/she soon begins to think about their next plane. Many have dreams of a P-51 Mustang or some other war-bird but are better off with something easier to fly such as a mid or top-wing ARF sport-plane. Talk to the folks at EVA. We love flying, have experience, and like to help new pilots.

One last thing. We at EVA have a great flying facility that is equipped with a small electric flying field, a helicopter flying area, an oval racetrack for model cars and trucks, and a large main runway for the enjoyment of all. In order to keep using this great facility we need to remember that safety is important. One safety issue that is getting a lot of news lately is that of "near misses" between model aircraft and full scale aircraft. Anytime a full scale aircraft flies over our field, all model aircraft that are airborne must immediately drop to a lower altitude until the full scale aircraft is safely away from our flight pattern. All it takes is one complaint, from one full scale pilot, to end our fun.

Well, that's all folks, remember-Safety is no accident.

Lin

EVA Exhaust Systems

NEWSLETTER EDITOR REPORT

Submitted by *Mickey Ohland*

Annual BOD Elections

EVA's Board members are elected in December of each year and hold their position for two years.

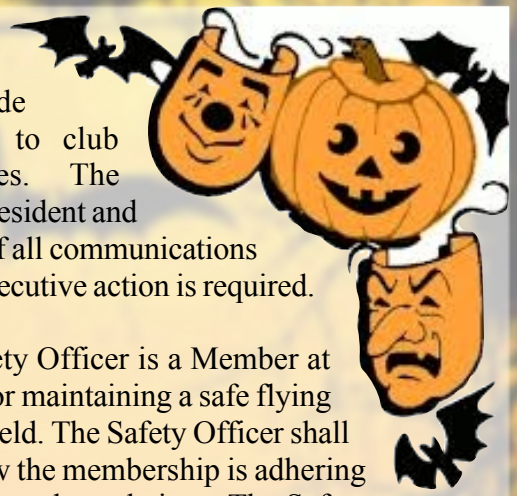
This year the offices of **Vice President, Secretary** and one **Safety Officer** will be elected at the December meeting. Heading up this year's Election Nominating Committee is Alan Moulton. The club will vote at the December 3rd general membership meeting. ALL nominations MUST be current EVA members and approved by the person being nominated. To submit your nomination, contact or send an e-mail to Alan (alan.moulton@cox.net).

The following are descriptions of the BOD positions we will be filling. Please take a moment to read these profiles and consider contacting Alan with your interest in running for office as soon as possible. I would like to get all candidates identified by early November so we can provide information about them to the general membership in the December newsletter.

This is your opportunity to get involved and make a difference for our club.

Vice President. The Vice President shall act for the President in the President's absence and shall be the successor to the President should he/she become incapacitated or otherwise unable or unwilling to continue to serve in the office. The Vice President shall also preside at meetings of the Board of Directors and EVA general membership.

Secretary. The Secretary shall record and maintain records of all club business in the form of minutes and present such to the Board or membership at each meeting. The Secretary shall be responsible for club communications with the AMA as well as all official outside communication relating to club business and activities. The Secretary shall keep the President and Vice President informed of all communications received whether or not executive action is required.



Safety Officer - The Safety Officer is a Member at Large and is responsible for maintaining a safe flying atmosphere at our flying field. The Safety Officer shall report at each meeting how the membership is adhering to the adopted safety rules and regulations. The Safety Officer has the responsibility and the right to request any individual using any of the Club's facilities to cease such use due to violations of either the AMA Safety Code or the one adopted by the club.

Vought F4-U CORSAIR

Why are the wings bent?
Designed by Rex Beisel and the Vought design team, the Corsair was accepted by the U.S. Navy and the first flight of the XF-4U-1 was made on May 29, 1940.

At the time, it was equipped with the largest aircraft engine available, the 2,000hp 18 cylinder Pratt & Whitney R-2800 Double Wasp radial and it had a very large (13'-4") Hamilton Standard 3-blade prop. To accommodate a folding wing design, the main landing gear rotated 90° as it retracted rearward but it was difficult to make the landing gear struts long enough to provide sufficient clearance for the large propeller. The designer's solution was an inverted gull wing, which considerably shortened the length of the gear struts. The design also permitted the wing and fuselage to meet at an optimum angle to minimize drag, without the use of wing-root fairings. Although, offsetting these benefits, the bent wing was heavier and more difficult to build.

SPECIFICATIONS:

Type: Single-seat carrier-based fighter/bomber

Power plant: (F4U-4) One 2,450hp w/water injection, Pratt & Whitney R2800-18 Double Wasp radial piston engine.

Performance: Maximum speed 446 mph @ 26,200 ft. Service ceiling 41,500 ft. Normal range 1,005 miles.

Weights: Empty 9,205 lb. Maximum take-off 14,670 lb.

Dimensions: Wingspan 40'-11" Length 33'-8" Height 14'-9" Wing area 314 sq ft

Armament: (6) .50cal. machine guns, plus (2) 1,000-lb bombs or (8) 5-inch rocket projectiles.

The Versatile Metal AMMO Can

Since its inception as a weapon, ammunition has always been stored by the militaries of the world in some sort of container. From the middle ages, even as late as early World War I, ammunition was frequently placed in wood containers for transport. Although the first mass produced experiments with metal ammunition cans came about during World War II, the metal ammo can as we know it is pretty much a result of development during the 50s and 60s. The cans are waterproof, resistant to fire damage, and almost impervious to damage from outside sources, unless run over by something like a battle tank.

Like many people, I've used ammo cans for a variety of purposes. They make great tool carriers especially when traveling. And since they are waterproof and resistant to fire, I'm even using a couple for storing important documents.

Another great use for ammo cans is the storage and transport of lithium batteries to and from the flying field. Lithium power sources are part of our everyday lives, they're used in everything from cell phones to computers. Every company that manufactures power tools now offers a lithium battery package.

When first introduced into the modeling world lithium wasn't completely understood. The batteries were not being charged properly, they were definitely being stored incorrectly, and the results weren't always very favorable. As popular as the lithium battery is today, even when coupled to a quality charger, there are times when a swollen pack is the result. We've all experienced swollen packs, whether it's from improper charging, or exceeding the discharge rating of the battery, swollen packs seem to be part of electric aviation.

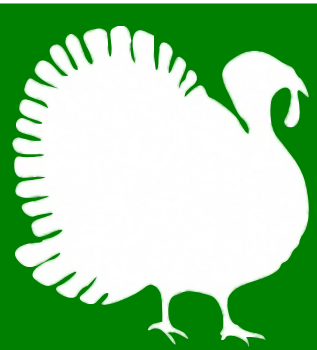
This is where the use of a metal ammo plays a role in our hobby. They are a perfect way to charge, store and transport lithium battery packs. They come in a variety of sizes, and there is a whole lot more room inside one of these cans than most people realize, so they can handle almost any size battery pack with ease. If needed, it doesn't take much to engineer a couple of dividers. Constructed to military specifications doesn't hurt one bit as the can will absorb any punishment modelers would dish out with normal use, leaving the contents intact. Avoid the popular plastic versions commonly available at hunting supply stores. They do not offer the sort of protection the metal can offers.

2014 FRY and FLY

Mark your calendar for **November 29** for the EVA annual Turkey Fry and Fly!

This annual event has become very popular where we welcome our winter visitors back with some fun, food and fellowship along with the day of flying. Please bring a dish to pass and our top chefs will fry the turkeys.

More information will follow over the coming months.

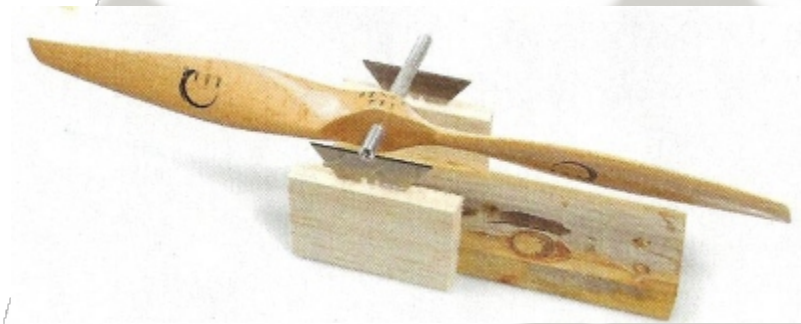


LEARN TO FRY HERE!

TIPS and TRICKS

Quickie Prop-Balancer

There's no need to run that unbalanced prop even if you don't have a prop balancing tool in your shop. Grab some blocks of wood, a pair of straight-edge razor blades, and a handy (and straight) metal rod that fits your prop's attachment hole. A "drill blank" or even an aluminum hobby-knife handle will do nicely.



Slice a groove on the top edge of the two side blocks and tap the blades gently down into them with their cutting edge upward and make sure they are straight and level. Run a small bead of CA glue along the outer edge of the blades to lock them to the wooden blocks. Slide the rod into the prop and set it on the blades. Sand the front of the heavier blade until you're in perfect balance.

Vinegar

To remove epoxy from yourself safely, use white vinegar. It's smelly, safe, and very cheap!

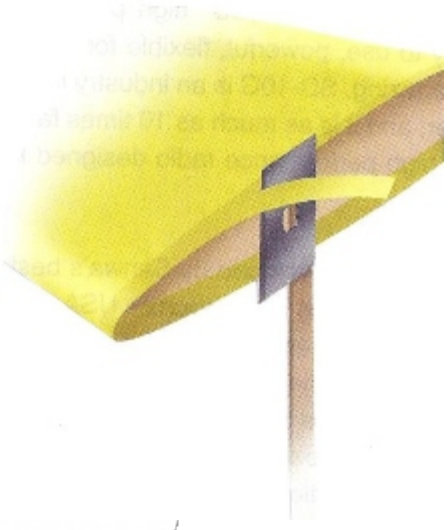
Flexible sanding block

A flexible sanding block can be made by contact cementing sandpaper to one side of a urethane sponge. Your sanding block can conform to any curve.

Keep Connected

To prevent electrical connections (such as servo wires connected to a servo connection inside of a wing panel) from coming apart, place a short piece of heat shrink tubing around the connections and then apply heat to the shrink tubing. This will ensure a connection that will not come apart.

Cutting a Clean Edge

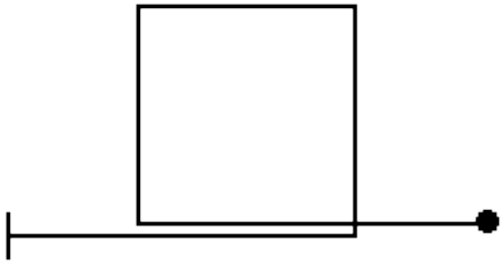


Cutting a nice even edge of covering around the wing or fuselage can sometimes be very hard to do, especially with a compound edge. An easy solution is to CA a razor blade to a popsicle stick. Just use medium or thick CA on the stick and spray accelerator on the blade. As soon as they touch, they'll be bonded. Use the popsicle stick to ride on the surface so that it creates about a 1/8-inch extra bit of covering to iron over the edge. Now you have a nice even seam all the way around your wing or edge of the fuselage. If you want more material to work with, stack two sticks to double the edge width.

Just for the FUN of it

Perfecting the Square Loop

Loops with straight lines can look very attractive if done well. This newsletter we will take on the case of a loop with four straight lines.



New square-loop attempters tend to just pull the elevator hard four times, but looks, as we all know, can be deceiving. You may have performed the perfect square loop; however, to be sure check out the following.

We will begin with a square loop because it is easier to ascertain your success. The square loop belongs to a family of loops with lines. Other loops are the three-sided, the six-sided and the eight-sided, all of which can be performed inverted or right side-up. Additionally, they can have a whole range of rolls on the lines.

Scared you off yet?

The square loop is much more obviously right or conversely wrong. Humans seem to be able to spot squareness more readily than roundness. This precise maneuver, if done perfectly, is very impressive to watch. It is comprised of four 90º corners and four straight lines of equal length.

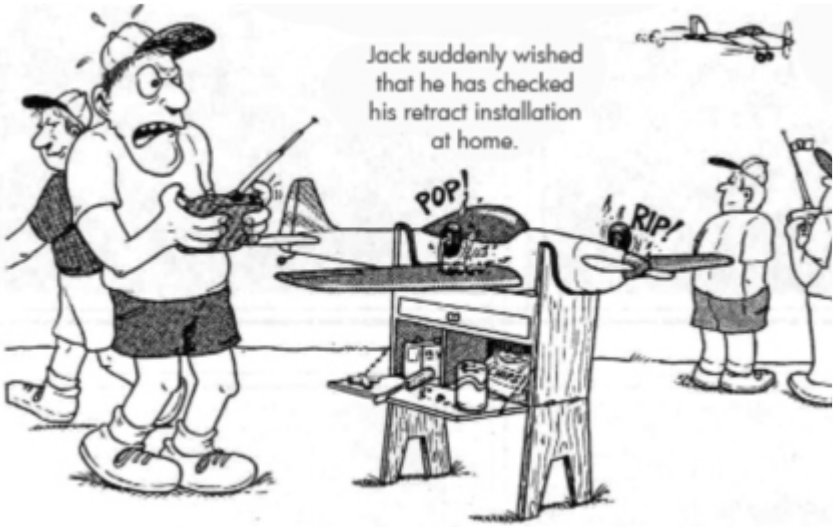
To start, pull the airplane into a quarter-loop from level flight and climb to a comfortable distance. If your plane starts to lose too much speed, start again and climb for a shorter height or time. The next element is another quarter-loop. With the airplane inverted, fly the distance as in the vertical climb. Then pull a third quarter-loop and let the plane head back toward the ground. Our old amigo, gravity, is helping out again. Lastly, the fourth quarter-loop is pulled and level flight is resumed again with a straight line to exactly where the square loop began.

Now let's do that all again with some control input advice. Fly straight across in front of you about 100-yards away. This may be uncomfortable at first but it presents the maneuver in a much more viewable and possibly favorable light. Select about three-fourth throttle and fly past the imaginary center line in front of you. Pull the quarter-loop and apply full throttle as you begin to go vertical. This will allow you to pull a tighter corner without sliding too far horizontally. Concentrate on holding a vertical line. Do not be surprised if your airplane goes a little to the side. Hold in a little bit of corrective rudder or elevator or both. Before you run out of vertical speed pull the second corner. (It is a good idea to release any corrective inputs, before pulling the corner). Be careful not to pull as much elevator displacement because gravity will be helping and will cause a pinched corner if you let it. You will need to be ready with some down elevator to prevent the airplane from diving while inverted. As the line is being established and held, it is time to slowly come back on the throttle. Some pilots tend to throttle back too quickly causing the plane to slow down and sink. If the aircraft slows too much, you'll need too much down-elevator in a hurry. It is much better to throttle back slowly right up to the third corner. By now your throttle should be all of the way back. Pull the third corner like you did the second. You are looking for the same radius as the first and second corner. The airplane will gain speed on the down-line, and care should be taken to try and reproduce the curve of the

last corner, You must also avoid stalling the elevator as you pull out of the dive. The secret is to plan a square loop backwards. Find out what the airplane is capable of on the last corner and start the square loop with that radius.

A smart move is to try a few down lines and pullouts to see what both you and your airplane are comfortable with. Armed with this information, you can then plan a square loop that uses this down line radius as the standard for the first, second, and third radii. There is a common, but very wrong, myth that square loops have to have tight corners. Please ignore any guidance based on this misconception. Equal radii and equal straight lines are the rule. The short form of the above description is to remember that what you are trying to achieve is four equal corners, four equal lines, all in the same plane. You will definitely need a friend to tell you if you are doing this one right.

Time and distance awareness will play tricks on you as the airplane changes speed in the four lines. Some of the hard parts to get right in this maneuver are the different radii that your airplane will pull at different airspeeds. You will need a lot less up-elevator when pulling the top two corners than when you pull the bottom two.



EVA Exhaust Systems

EVA Calendar of Events

2014-15 EVA EVENT SCHEDULE

October 04	**8:00 am**	**Membership Meeting/Field Cleanup (EVA Field)**
October 11-12	7:00 am	Work Day (Re-Carpet Ramada Area)
November 1	TBD	EVA Fall Night Fly & BBQ
November 2	8:00 am	.25/T-28 Racing
November 8	O-Dark-30	EVA Swap Meet & Lunch
November 29	10:00 am	EVA Fry and Fly
December 3	**7:00 pm**	**Membership Meeting (VDO)**
December 14	8:00 am	.25/T-28 Racing
December 27	8:00 am	Ironwood Road Cleanup
January 1, 2015	O-Dark-30	First Day Fly-In & Breakfast
January 7	**7:00 pm**	**Membership Meeting (VDO)**
January 17 - 18	TBD	Superstition Challenge IMAC Contest
January 25	8:00 am	.25/T-28 Racing
January 31	TBD	EVA Winter Night Fly & BBQ
February 4	**7:00 pm**	**Membership Meeting (VDO)**
February 15	8:00 am	.25/T-28 Racing
February 28 - March 1	TBD	Desert Pattern Challenge Contest
March 11	**7:00 pm**	**Membership Meeting (VDO)**
March 14 - 15	TBD	Cactus Classic IMAC Contest
March 21	O-Dark-30	EVA Swap Meet & Lunch
March 22	8:00 am	.25/T-28 Racing
April 19	8:00 am	.25/T-28 Racing
May 2	**8:00 am**	**Membership Meeting (EVA Field)**

SHOTS FROM THE FIELD

haust Systems

THE
END