Tri City Radio Control Modelers

AMA FRIA

AMA Charter #652
5001 Beardsley Rd.
Richland Wa

TCRCM Leading Edge

January 2026

2025 Officers

President:
Gary Grosso
president@tcrcm.com

VP/Web Admin:
Dave Holland

Secretary/Newsletter:
Camille Page
secretary@tcrcm.com

Treasurer: John Patton

Safety Officer:
Jacob Pulsipher

Comm. Liaison:
Scott Page

Lead Instructor:
Lyle Laughery
instruction@tcrcm.com

Calendar of Events

- January 1, 10:00 Polar Bear Fun Fly Pot-luck
- January 21, 7:00 Club meeting at the Richland Public Library
- February 13, 1:00, BOD mtg– library
- Tuesday, February 17, 6:35 Our winter banquet will be at Isla Bonita in Richland (same as last year) .
- March 18, 5:30 BOD meeting, 6:30 club meeting, Richland Public Library
- April 11, 2026, Easter Egg Drop and Fun Fly
- Beginning Wednesday, April 15, Night Flying will be held after each club meeting at the field, through September
- April 23, Float flying will begin and be held each Thursday at Wye Park
- May 2, 2026, Takeoff And Grow (Learn to Fly)
- May 16-17, 2026, NSRCA Pattern Contest
- June 20, Parachute Drop and Fun Fly
- July 18, Touch and Go and Fun Fly
- August 22, National RC Model Aviation Day Fun Fly
- September 26, Climb and Glide and Fun Fly

From the Editor

With many new members, this bears repeating.

We send the *Leading Edge* to all the members of our club, however, it is not an exclusive club. In fact, **anyone can receive the newsletter**. All we need is an email request to tri.city.rc.modelers@gmail.com.

The newsletters are sent to other pilots and clubs nationwide and to dealers/vendors worldwide.

My hope is to give others a glimpse of our club. **Here is a link for everyone to the past newsletters.**

https://www.dropbox.com/.../AADRHSEYA0ud8ZcucJSNx-cuua...

Message from the President

Dear TCRCM Members,

As January approaches and winter settles in, I hope this message finds you warm and in good spirits. The colder weather may slow our flying, but it also gives us the perfect opportunity to get back into the shop and take on a new project.

At our November meeting, we held our annual club elections, and I'm pleased to share that our leadership remains unchanged for the coming year. Thank you to everyone who participated and continues to support the direction of our club. I'd also like to extend our appreciation to OJ Brooks, who has stepped up to take on the role of Field Marshal, helping keep our field green, mowed, and watered throughout the heat of the summer.

As we move deeper into winter and look ahead to a new year, please remember to keep your club dues and AMA membership current. This ensures you can continue flying without interruption and remain fully involved in all club activities as we head into 2026.

I remain committed to strengthening our club—its facilities, its sense of community, and its standing in the region. Real progress comes from each of us contributing where we can and working together toward shared goals.

Let's continue to lead with integrity, treat one another with respect, and keep TCRCM moving forward.

With appreciation,
Gary Grosso

Polar Bear Fun Fly

Please join us on January 1 for the traditional Polar Bear Potluck and Fly In, from about 10:00-12:00. Barring a blizzard, we will get together at the field, **pay our dues**, get the new gate combo, and fly.

Be prepared for all types of flying conditions. We have had sun and warm, wind and cold, foggy, and even a runway covered in snow. Wheels, floats and skis may be the order of the day for take-off and landings.

The highlight is everyone brings a warm dish/snack to share. **Make sure your 2026 AMA dues are paid before you fly and come on out.** John will be present to accept your dues, or prepay online.

Our hobby has many aspects and each member should contribute to the others in some way or another, but especially building friendships. 2026 will be a good year to be a member of TCRCM!

A Critical Investment in Our Field

Our club field is facing a time-sensitive infrastructure issue. The irrigation system that maintains nearly four acres of grass is nearing failure. While this is easy to overlook in winter, loss of irrigation during the summer would quickly destroy the turf that makes our flying site usable.

This club has faced challenges like this before. In 2023, members stepped up to fund the geotextile runway, contributing approximately $10,000 through generous donations and volunteer labor. That effort secured the field's future—and we must act again.

The irrigation system consists of three critical components, all long overdue for major repair or replacement. Each represents several thousand dollars in cost, and the total project is expected to exceed $20,000. Failure of any one component will result in failure of the entire system.

The Board of Directors is actively pursuing grants, but grant timelines preclude our ability to address the immediate risk. To fund urgent repairs, the club is offering a limited long-term membership option.

The first 15 members who contribute $1,100 will receive a 12-year membership paid through December 31, 2037. Members who have already paid 2026 dues may participate for $1,000. Payment to TCRCM must be made by check to John Patton or Camille Page. This offer is available until February 12, 2026, or until all 15 spots are filled.

Thank you for helping protect the future of Tri-City Radio Control Modelers.

This initiative allows the club to raise $10,000–$15,000 immediately so repairs can begin without delay. While participants will be protected from future dues increases, this is not about a discount—it is an investment in the field itself.

Members who wish to contribute without participating in the long-term membership may donate by check or at tcrcm.com/donations in $20 increments.

Thank you for helping protect the future of Tri-City Radio Control Modelers.

TCRCM WINTER Banquet

February 17, 2026
6:35 PM
Isla Bonita Mexican Restaurant
1524 Jadwin Ave, Richland

RSVP to tri.city.rc.modelers@gmail.com
Dinner is "pay-your-own"
Video Slideshow by Jennifer Pulsipher
Clyde Crashcup Awarded

RC Airplane Club Banquet Announcement

Dear TCRCM Club Members,

We're thrilled to invite you to our annual club banquet – a great opportunity to celebrate our passion for RC flying, share stories, and enjoy some delicious food!

Event Details:
• **Date:** Tuesday, February 17, 2026
• **Time:** 6:35 PM
• **Location:** Banquet room at Isla Bonita Mexican Restaurant, 1524 Jadwin Ave, Richland.

Isla Bonita offers a wide selection of Mexican favorites, along with hamburgers, chicken strips, and vegetarian options. Meals are pay-your-own-way with a typical cost around $20 — and **they offer a senior citizen discount**, which many of our members may appreciate- but you have to ask. Prices listed are for cash payments. There is a small surcharge for using cards.

We anticipate a fun evening, including a stellar video slide show by Jennifer Pulsipher and the awarding of the Clyde Crash Cup – our traveling trophy currently held by Bill Bowen.

To help the restaurant prepare, **please confirm your attendance and the number of people in your party by February 10, 2026.** RSVP to **tri.city.rc.modelers@gmail.com**.

Door Prize Eligibility

To be entered into the door prize drawing, **two requirements must be met**:

1. You must pre-register by February 10.

2. You must arrive on time (before 6:35 PM).
Everyone who meets *both* requirements will be entered into our aviation-themed prize drawing.
If you miss the deadline or arrive late, you're still warmly welcome to attend — you just won't be eligible for the drawing.

Send any questions to Camille at **tri.city.rc.modelers@gmail.com** or to Scott at **pagesflyingcircus@gmail.com**.

We look forward to seeing you there!

Best regards,
TCRCM Board of Directors

Understanding Your Two TCRCM-Related Memberships by Scott Page

Each year we have at least one (and often more than one) member run into trouble because of confusion over **TCRCM's two separate but related memberships**. To help everyone avoid frustration—and to keep the club in compliance with our lease and bylaws—we'd like to clarify how these memberships work and what is required.

1. AMA Membership (Academy of Model Aeronautics)

The first membership is **your AMA membership**. This is **not optional**.

AMA membership provides **liability insurance coverage** of up to **$2,500,000 per occurrence** for bodily injury and/or property damage caused by a member during model activities (aircraft, rockets, cars, boats, etc.). **Our field lease requires that every TCRCM member and all visiting pilots carry this coverage**, and TCRCM bylaws require current AMA membership as a condition of club membership.

Historically, most AMA memberships renewed on **January 1**. However, beginning around 2015, AMA shifted to a **rolling renewal system**, where memberships expire **12 months after the date you first joined**. While this approach spreads out renewals for AMA (and avoids a massive winter renewal surge), it has unintentionally created challenges for TCRCM record keepers trying to ensure that all members' AMA memberships remain current throughout the year.

If your AMA membership expires—even unintentionally—you are left **without the required insurance**, which creates a serious issue for both you and the club.

2. TCRCM Club Membership

The second membership is your **TCRCM club membership**.

Unlike AMA memberships, **all TCRCM memberships expire on December 31**, regardless of when you joined. Renewing early is a tremendous help to the club's volunteer record keepers and helps ensure a smooth transition into the new year.

Each year, some members wait for warm, calm flying weather before renewing. Others submit the online renewal form and assume that means they can immediately head out to the field. Unfortunately, that's not how the process works.

The Fastest Way to Renew: Polar Bear Fun Fly

One of the **quickest and easiest ways** to renew your TCRCM membership is to attend the **Polar Bear Fun Fly on New Year's Day**. Members who pay **in person by check** to **John Patton or the club Treasurer** can **immediately receive the updated gate combination for the new year**. This option eliminates processing delays and lets you start the year fully current and ready to fly.

Please Allow Processing Time for Online Renewals

TCRCM record keepers are **volunteers**, and while they work

hard to keep things moving, renewals are not always processed instantly. Members renewing online should allow **several days** for their renewal to be completed and for the **welcome letter** to be emailed.

Please also remember that **TCRCM renewal has two required steps**:

1. **Submit the online renewal form**

Submit payment
Only **after payment is received and recorded in the club membership ledger** will the welcome letter be sent. That welcome letter includes the **current gate combination**, which is required for field access.

Gate Combination: Official Distribution Only

While on the subject of gate access, it's important to emphasize that the **gate combination must only be distributed through official channels**, specifically by the **TCRCM Board of Directors or designated officers**.

In past years, well-meaning members have shared the gate combination with former members they assumed had renewed. This has occasionally led to confusion and awkward situations. While most of these cases were honest misunderstandings, there have also been instances where **deception was involved**.

For the protection of the club, our lease, and all members:

- **Do not share the gate combination**

Direct anyone needing access to the **BOD or club officers**
A Helpful Reminder in Your Welcome Letter

As an added service, we generally include your **AMA membership renewal date** in the TCRCM welcome letter. This is intended as a helpful reminder, since **current AMA membership is a continuing requirement for TCRCM membership**, as stipulated in the club bylaws.

In Summary

- You must maintain **both** a current AMA membership **and** a current TCRCM membership to fly at the club field.
- AMA memberships renew on **individual rolling dates**
- TCRCM memberships **expire December 31**
- Renew **early**, especially before flying season begins
- The **Polar Bear Fun Fly** offers the fastest in-person renewal
- Complete **both** the renewal form **and** payment for online renewals
- Allow **several days** for volunteer processing

Never share the gate combination
Thank you for your cooperation and for helping keep TCRCM compliant, insured, and running smoothly for everyone.

What It Means to Be Part of TCRCM — And Why Your Involvement Matters

by Scott Page

Every time you take off from our field, you're benefiting from countless hours of volunteer work and thousands of dollars in donations made by members who care deeply about this club. TCRCM isn't just a place to fly model airplanes — it's a community. And like any community worth having, it thrives because people choose to be part of, and contribute to, something larger than themselves.

A Club Is a Fraternal Organization — Not a Business

A model aircraft club is a **fraternal organization**, built around shared interests, values, and traditions. Membership is far more than paying for access to a flying field. It means belonging to a group of people who support one another, learn from one another, and work together to maintain and improve what we all enjoy.

Unlike a business, a fraternal organization exists to build friendships, create camaraderie, and provide opportunities for learning, mentoring, and service. In a club like TCRCM, this means sharing knowledge, helping each other improve building and flying skills, enjoying time at the field together, and contributing to the events and work that keep the hobby strong.

Why Your Participation Really Matters

If TCRCM operated like a business, dues would need to be **five to ten times higher** just to cover expenses like electricity, water, bookkeeping, fertilizer, advertising, and mowing. The only reason our dues remain low is because **members voluntarily give their time, skills, and resources**.

And every member has something they can contribute. Some offer time. Some offer skills. Others donate financially. Every contribution counts — and every contribution strengthens the club.

When the workload or financial burden falls on only a few people, burnout happens fast. A club that depends on a handful of individuals is a club at risk. That's why it is essential for **all members**, including those who have helped in the past, to stay engaged. Past service is appreciated — but **ongoing involvement** is what allows an organization to thrive.

Don't wait until you're asked. **Step forward. Volunteer. Attend meetings. Participate in events.** The strength of this club depends on members who choose to be active without needing an invitation.

Past Successes Show What We Can Achieve Together

The geotextile runway project is a perfect example. It required hundreds of hours of volunteer labor and more than **ten thousand dollars** in donated funds. Many members gave all they could; some gave more than they probably should have; and several donated **a thousand dollars or more** to bring this major upgrade to life.

This amazing improvement happened because the membership

united behind a shared goal.

And now, we face an even greater challenge.

The Existential Challenge Before Us: Irrigation Failure

Our field's ancient irrigation system is on the verge of failing. Without irrigation, the relentless Tri-Cities summer will destroy the grass in a matter of weeks. **Losing the grass means losing the field.**

Saving the irrigation system will cost **twice as much** as the geotextile runway, but — if addressed before it collapses — it will require far less member labor. What we lack is not manpower, but funding.

That means we must find resources from philanthropic sources, creative solutions, and yes — direct member donations. This is a moment where the future of TCRCM truly depends on its members.

A Call to Every Member

You don't have to have special skills. You don't have to be able to donate large amounts of money. You just need to be willing to contribute in whatever way you can — time, effort, attendance, ideas, or financial help.

This is your club. Your field. Your community.

TCRCM remains strong only because its members care enough to keep it strong. If we all step forward — not just a few — there is nothing we cannot accomplish.

The Choice Before Us

Without member involvement, TCRCM becomes nothing more than a facility — expensive, impersonal, and unsustainable.

But with member involvement, TCRCM remains what it was meant to be:

A true fraternal organization.
A vibrant community.
A place worth belonging to.
A club that will thrive for generations — because we built it together.

Do you still have "it"?

Part of the process of becoming an RC pilot includes the required "test" to achieve status as a "solo" pilot. This test is administered by club flight instructors to ascertain if, and verify that a pilot has the necessary skills to SAFELY fly at the club field with other members. As with all things; continual purposeful practice will keep pilot skills sharp. **As the new season of flying unfolds it's a wise practice to self administer the test for a solo pilot to determine if you still have the skills necessary to fly safely.** If you find you are a bit rusty on one maneuver or another, consider spending some dedicated flight time to iron out the wrinkles. Landings, for example, are not just the end of a flight—but are a precise series of maneuvers to terminate flight in an organized and controlled manner. This is important not only for the safety of the aircraft, but also for the safety and peace of mind of others present.

You can find the maneuvers for the solo test at the club website https://tcrcm.com/flight-instruction/

Tips & Tricks, From the AMA Insider, November 2011

Get Clean! If you forget to use a barrier cream or latex gloves to prevent your hands from getting sticky when using epoxy, don't use alcohol, acetone, or other solvents to clean them. Besides being harsh on your skin, those chemicals always leave a sticky residue no matter how many times you wipe your hands.

Instead use hand lotion to remove the epoxy residue. Just wash your hands with the lotion, rinse it off and the wash again with regular hand soap. It works like a charm, and your hands will smell great!
—from Allen Rice, Boca Raton, Florida

Gloves for CA If you're allergic to latex, one thing that works really well as an alternative—and is really inexpensive—is to use cheap plastic sandwich bags to cover your hands. They work well and are thin enough that you can feel that heat of the glue as it sets.

This works really well when you are applying glass cloth with CA, because you can hold the cloth to the balsa and feel when the glue sets. It lets you use very little CA to put down the cloth and saves quite a bit of weight. *—from Bob Furr, the Eugene Prop Spinners, Eugene, Oregon*

Need a bench? Need an extra workbench, yet don't have the space for a permanent one? How about an ironing board? If has a padded top (if you choose), is adjustable for height, and you can even sit down while covering or doing close-up work. Best of all, you can fold it up and put it away. *—From The* Tail Spinner

It's that time of year to renew your TCRCM membership. You can do it online via PayPal, send via snail mail, or in person. John Patton will be on hand January 1, 2026 at our Polar Bear Fly to accept cash or check. You will receive the gate code after payment.

Pilots need to have current membership and AMA each and every time you fly at the field. Guests must be able to prove their AMA membership unless on a buddy box.

Massachusetts company has been making model airplanes, balsa wood gliders the same way for 100 years

By Chris Tanaka

https://www.cbsnews.com/boston/news/guillows-wakefield-model-airplanes-gliders/

Updated on: December 11, 2025 / 8:23 AM EST / CBS Boston

It could be the perfect holiday gift: Affordable, gets kids away from screens, oozes nostalgia and is made in Massachusetts.

Welcome to Guillow's. The model airplane and balsa wood glider company has been headquartered in Wakefield for 99 years.

The company was founded by Paul Guillow in 1926. He made the gliders in his barn at first, then moved to the current location a few years later.

"This is an iconic business that we have here. Our gliders and toys have been sold all over the world," company president Tom Barker said.

Barker knows better than anyone. He's been with the company for 50 years.

"Straight out of Wakefield High School. I came here, I started in 1975 and never left," he says with a chuckle.

Barker has seen it all, stewarding advances in manufacturing like laser cutting, while shepherding a tradition built on generations of customers.

"It's a great activity for a father/son or mother/daughter to put something together, go out and fly it, get away from the screen time," he said.

The balsa wood gliders sell for as little as $3, come together in seconds and are just as entertaining as when you were a kid.

Guillow's model airplanes and gliders.CBS Boston

American made, American played for 100 years.

"There's not too many toys out there that are actually made in the U.S., and that any kid could play with from 3 years old to 90," Barker said.

You can check out Guillow's lineup of airplanes and gliders here.


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TRI#20%HK
Enter the coupon code at the checkout to get your 20% OFF!
Terms & Conditions: Must be logged into your HobbyKing account to redeem. Not valid with any other offer. Not redeemable for cash. Valid till 31st Jan 2026

Clay Caps

There is an easy and inexpensive way to prevent ALL of your glue devices from doing what glue is supposed to do before it's supposed to do it.

Ask your kids for a clump of their modeling clay. Pinch off a piece of clay and pinch it over the end of your

glue gun, CA pipette or CA bottle. I've been told you can leave glue devices capped this way for as long as six months and when you pull off the clay they're ready to use.

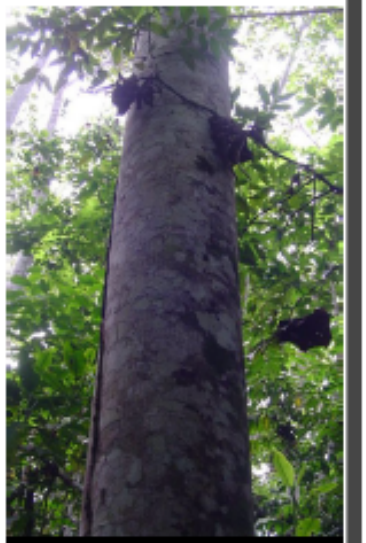
Finally, don't make the mistake of using playdough, it's a different animal altogether and will only make a mess of things.

Work Table Design

This table design has been passed down from generation to generation. It is a fast and simple way to create a sturdy work table. It is made from a hollow core door, table legs and plywood. The plywood squares were glued to the door with Liquid Nails. The folding table legs were then screwed to the plywood. It went from the local DIY store to completion in less than an hour. Yes, mom let us work on it in the living room.

Balsa

In selecting balsa sheets for use in your model, it is important to consider the way the grain runs through the sheet as well as the weight of the sheet. The grain direction actually controls the rigidity or flexibility of a balsa sheet more than the density does. For example, if the sheet is cut from the log so that the tree's annular rings run across the thickness of the sheet (A-grain, tangent cut), then the sheet will be fairly flexible edge to edge. In fact, after soaking in water some tangent cut sheets can be completely rolled into a tube shape without splitting. If on the other hand the sheet is cut with the annular rings running through the thickness of the sheet (C-grain, quarter grain), the sheet will be very rigid edge to edge and cannot be bent without splitting. When the grain direction is less clearly defined (B-grain, random cut), the sheet will have intermediate properties between A and C grain. Naturally, B-grain is the most common and is suitable for most jobs. The point to bear in mind is that whenever you come across pure A-grain or C-grain sheets, learn where to use them to take best advantage of their special characteristics. The following chart illustrates the 3 basic grain types for sheet balsa and lists the most appropriate uses for each.



Balsa Tree in Ecuador

More about Balsa

WHAT IS 'A-GRAIN' SHEET BALSA?

A-GRAIN sheet balsa has long fibers that show up as long grain lines. It is very flexible across the sheet and bends around curves easily. Also warps easily. Sometimes called "tangent cut".

DO: Use for sheet covering rounded fuselages and wing leading edges, planking fuselages, forming tubes, strong flexible spars, HL glider fuselages.

DON'T: Use for sheet balsa wings or tail surfaces, flat fuselage sides, ribs, or formers.

WHAT IS "'B-GRAIN' SHEET BALSA?"

B-GRAIN sheet balsa has some of the qualities of both type A and type C. Grain lines are shorter than type A, and it feels stiffer across the sheet. It is a general purpose sheet and can be used for many jobs. Sometimes called "random cut".

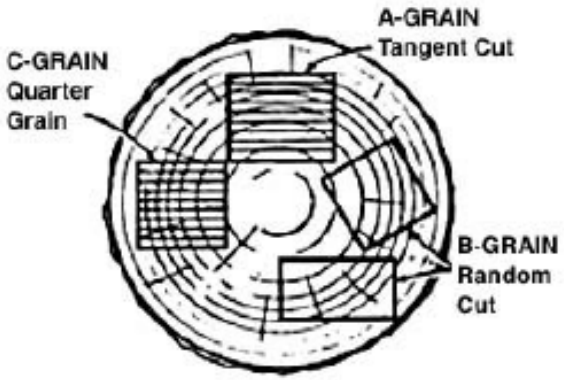
DO: Use for flat fuselage sides, trailing edges, wing ribs, formers, planking gradual curves, wing leading edge sheeting.

DON'T: Use where type A or type C will do a significantly better job.

WHAT IS "C-GRAIN' SHEET" BALSA? C-GRAIN sheet balsa has a beautiful mottled appearance. It is very stiff across the sheet and splits easily. But when used properly, it helps to build the lightest strongest models. Most warp resistant type. Sometimes called "quarter grain".

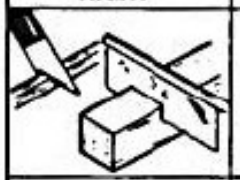
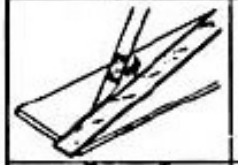
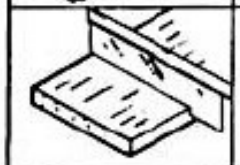
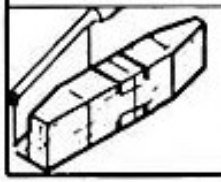
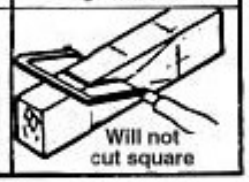
DO: Use for sheet balsa wings and tails, flat fuselage sides, wing ribs, formers, trailing edges. Best type for HL glider wings and tails.

DON'T: Use for curved planking, rounded fuselages, round tubes, HL glider fuselage, or wing spars.



CROSS SECTION OF BALSA LOG

GENERAL CUTTING GUIDELINES

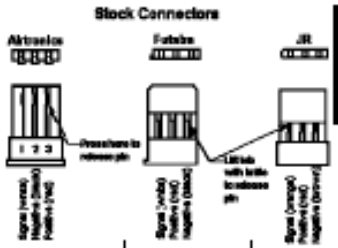
RIGHT	TYPE OF CUTTING	WRONG
	**CUTTING STICKS** USE SHARP KNIFE OR RAZOR BLADE TO CHOP OFF SMALL SIZES · USE RAZOR SAW FOR LARGER SIZES.	 Knife will crush
	**STRAIGHT CUTS WITH THE GRAIN** USE METAL RULER AS A GUIDE — CUT IN DIRECTION THAT GRAIN PULLS BLADE AGAINST STRAIGHTEDGE	 Blade will run off line
	**STRAIGHT CUTS IN THICK SHEETS** USE A RAZOR SAW — ALWAYS MAKE EDGE TO EDGE CUTS ACROSS THE FLAT SHEET	 Will tear or split
	**CUTTING FREEHAND CURVES** CUT IN DIRECTION WHERE GRAIN WILL PULL BLADE AWAY FROM SHAPE — CLEAN UP LATER AS NECESSARY WITH KNIFE AND SANDPAPER BLOCK	 Blade runs inside outline
	**CROSS GRAIN KNIFE CUTS** ALWAYS CUT FROM EDGE TOWARDS CENTER — NEVER OUTWARDS TO AN EDGE	 Edge will tear
	**FOR CUTTING BLOCKS** USE A STIFF BACK SAW AS FAR AS POSSIBLE — CUT IN FROM BOTH SIDES	 Will not cut square

Repairing balsa dings and dents

Have you ever had a dent in a balsa leading edge? Try fixing it with water! Get a small diabetic syringe and put water in it. Inject a little water into the balsa into and around the dent in the leading edge. Heat the area with your covering iron. When the water starts boiling, it will build pressure and push the balsa out to its original shape.

Balsa Logs Ready to Mill

Sharpen the end of wing bolts with a pencil sharpener to aid finding and centering on the hole.



Interchanging Servos? It can be done.

The Futaba and JR servos are interchangeable, and so are most others like Hobbico, Hitec, etc. All it needs is the connector modified a bit and the wires matched on the correct connector pin (i.e.. signal/positive/negative) to fit the jack on the receiver.

Radio	Positive	Signal	Negative
Futaba	Red	White	Black
JR	Red	Orange	Brown
Hitec	Red	Yellow	Black
Airtronics	Red	Orange	Black
Fleet	Red	White	Black

Epoxy Tips and Hints...

1. Wax Paper: Take a sheet of wax paper, and mix your epoxy on half of the sheet. Then when done, fold the wax paper in half, trapping the epoxy residue inside. This way you can fold in up with no mess and throw it away, and it won't stick to the inside of the trash can.

2. Same idea only different—rather than throwing those model catalogs away, use them for an epoxy mixing pallet. Then tear away one page at a time and you'll always have a clean mixing palette — with interesting pictures too!

3. When epoxying to Styrofoam, such as attaching leading or trailing edges to a foam -core wing, once the parts are coated well with epoxy and put together, wiggle them around some to work the epoxy into the pores of the foam. Then let it dry normally. This results in a stronger bond.

The Green Hornet, Superman, and Batman all started out in print before they hit the box office. You can, too!

HEY YOU ! — DON'T READ THIS

Unless you want to be famous

I'm pretty sure you have a few tips and hints you could share. Don't bogart those great ideas, share them with us. Just think of it — you could get your name in lights, **you will be famous**!! Commissioner Gordon would give you your own signal light. Besides, you don't want me to keep plagiarizing from the Internet. Plagiarize some yourself.

Seriously, if we are going to have a decent newsletter for more than a few months, everybody needs to step up from time to time and contribute.

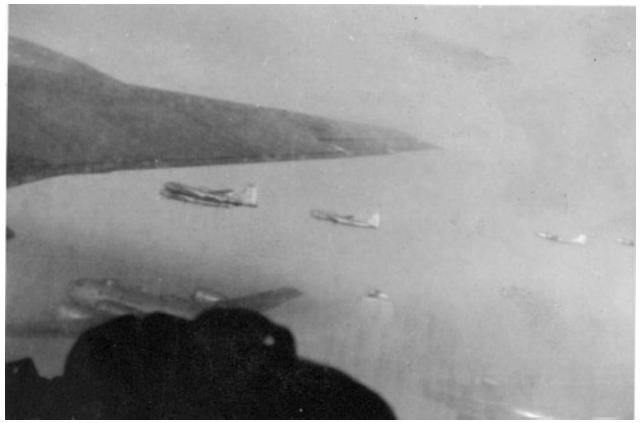
It doesn't have to be spelled correctly, or grammar checked — that's what the newsletter editor is for, to make you look good in print. Ok now... it's up to you. Be a hero.

WWII Through the Eyes of John Hanson-

John Hanson took these photos of B29s over Europe in January 1948.

John Hanson was a beloved member of our club. He generously shared both his experiences from World War II and his deep knowledge of radio control with all of us. He has been gone 10 years, but we remember him with great fondness. **This is a piece he wrote in 2012.**

John said: "I took them with a Baby Brownie from the right waist gunners seat.



The planes are from the 97 the Bornb Wing. We were deployed to England as a deterrent to Mr. StaIin - the implication being that we were capable of a nuclear strike."

Below is an excellent summary of the effort required in WWII. It focuses on the American side of things, but the British, Germans and Japanese expended comparable energy and experienced similar costs.

Just one example for the Luftwaffe; about 1/3 of the Bf109s built were lost in non-combat crashes. After Midway, the Japanese experience level declined markedly, with the loss of so many higher-time naval pilots. This piece is worth saving in hard copy.

Most Americans who were not adults during WWII have no understanding of the magnitude of it. This listing of some of the aircraft facts gives a bit of insight into it.

276,000 aircraft manufactured in the US. 43,000 planes lost overseas, including 23,000 in combat.

14,000 lost in the continental U.S.

The US civilian population maintained a dedicated effort for four years, many working long hours seven days per week and often also volunteering for other work.

WWII was the largest human effort in history. Statistics from Flight Journal magazine.

THE PRICE OF VICTORY (cost of an aircraft in WWII dollars)

B-17	$204,370.	P-40	$44,892.
B-24	$215,516.	P-47	$85,578.
B-25	$142,194.	P-51	$51,572.
B-26	$192,426.	C-47	$88,574.
B-29	$605,360.	PT-17	$15,052.
P-38	$97,147.	AT-6	$22,952.

PLANES A DAY WORLDWIDE

From Germany's invasion of Poland Sept. 1, 1939, and ending with Japan's surrender Sept. 2, 1945 ---2,433 days

From 1942 onward, America averaged 170 planes lost a day.

How many is 1,000 planes? B-17 production (12,731) wingtip to wingtip would extend 250 miles. 1,000 B-17s carried 2.5 million gallons of high-octane fuel and required 10,000 airmen to fly and fight them.

THE NUMBERS' GAME

9.7 billion gallons of gasoline consumed, 1942-1945.

107.8 million hours flown, 1943-1945.

459.7 billion rounds of aircraft ammo fired overseas, 1942-1945.

7.9 million bombs dropped overseas, 1943-1945.

2.3 million combat sorties, 1941-1945 (one sortie = one takeoff).

299,230 aircraft accepted, 1940-1945.

808,471 aircraft engines accepted, 1940-1945.

799,972 propellers accepted, 1940-1945.

WWII MOST-PRODUCED COMBAT AIRCRAFT

Ilyushin IL-2 Sturmovik- 36,183

Yakolev Yak-1,-3,-7, -90 31,000+

Messerschmitt Bf-109- 30,480

Focke-Wulf Fw-190- 29,001

Supermarine Spitfire/Seafire- 20,351

Convair B-24/PB4Y Liberator/Privateer- 18,482

Republic P-47 Thunderbolt- 15,686

North American P-51 Mustang- 15,875

Junkers Ju-88- 15,000

Hawker Hurricane- 14,533

Curtiss P-40 Warhawk- 13,738

Boeing B-17 Flying Fortress- 12,731

Vought F4U Corsair- 12,571

Grumman F6F Hellcat- 12,275

Petlyakov Pe-2- 11,400

Lockheed P-38 Lightning- 10,037

Mitsubishi A6M Zero- 10,449

North American B-25 Mitchell- 9,984

Lavochkin LaGG-5- 9,920

Note: The LaGG-5 was produced with both water-cooled (top) and air-cooled (bottom) engines.

Grumman TBM Avenger- 9,837

Bell P-39 Airacobra- 9,584

Nakajima Ki-43 Oscar- 5,919

DeHavilland Mosquito- 7,780

Avro Lancaster- 7,377

Heinkel He-111- 6,508

Handley-Page Halifax- 6,176

Messerschmitt Bf-110- 6,150

Lavochkin LaGG-7- 5,753

Boeing B-29 Superfortress- 3,970

Short Stirling- 2,383

Sources: Rene Francillon, Japanese Aircraft of the Pacific war; Cajus Bekker, The Luftwaffe Diaries; Ray Wagner, American Combat Planes; Wikipedia.

According to the AAF Statistical Digest, in less than four years (December 1941- August 1945), the US Army Air Forces lost 14,903 pilots, aircrew and as-sorted personnel plus 13,873 airplanes --- inside the continental United States. They were the result of 52,651 aircraft accidents (6,039 involving fatalities) in 45 months.

Think about those numbers. They average 1,170 air-craft accidents per month,----------nearly 40 a day. (Less than one accident in four resulted in totaled aircraft, however.)

It gets worse....

Almost 1,000 Army planes disappeared enroute from the US to foreign climes. But an eye-watering 43,581 aircraft were lost overseas including 22,948 on combat missions (18,418 against the Western Axis) and 20,633 attributed to non-combat causes over-seas.

In a single 376 plane raid in August 1943, 60 B-17s were shot down. That was a 16 percent loss rate and meant 600 empty bunks in England. In 1942-43 it was statistically impossible for bomber crews to complete a 25-mission tour in Europe.

Pacific theatre losses were far fewer (4,530 in combat) owing to smaller forces committed. The worst B-29 mission, against Tokyo on May 25, 1945, cost 26 Superfortresses, 5.6 percent of the 464 dispatched from the Marianas.

On average, 6,600 American servicemen died per month during WWII, about 220 a day. By the end of the war, over 40,000 airmen were killed in combat theatres and another 18,000 wounded. Some 12,000 missing men were declared dead, including a number "liberated" by the Soviets but never returned. More than 41,000 were captured, half of the 5,400 held by the Japanese died in captivity, compared with one-tenth in German hands. Total combat casualties were pegged at 121,867.

US manpower made up the deficit. The AAF's peak strength was reached in 1944 with 2,372,000 personnel, nearly twice the previous year's figure.

The losses were huge b u t so were production totals. From 1941 through 1945, American industry delivered more than 276,000 military aircraft. That number was enough not only for US Army, Navy and Marine Corps, but for allies as diverse as Britain, Australia, China and Russia. In fact, from 1943 onward, America produced more planes than Britain and Russia combined. And more than Germany and Japan together 1941-45.

However, our enemies took massive losses. Through much of 1944, the Luftwaffe sustained uncontrolled hemorrhaging, reaching 25 percent of aircrews and 40 planes a month. And in late 1944 into 1945, nearly half the pilots in Japanese squadrons had flown fewer than 200 hours. The disparity of two years before had been completely reversed.

Experience Level:

Uncle Sam sent many of his sons to war with absolute minimums of training. Some fighter pilots entered combat in 1942 with less than one hour in their assigned aircraft.

The 357th Fighter Group (often known as The Yox-ford Boys) went to England in late 1943 having trained on P-39s. The group never saw a Mustang until shortly before its first combat mission.

A high-time P-51 pilot had 30 hours in type. Many had fewer than five hours. Some had one hour.

With arrival of new aircraft, many combat units transitioned in combat. The attitude was, "They all have a stick and a throttle. Go fly `em." When the famed 4th Fighter Group converted from P-47s to P-51s in February 1944, there was no time to stand down for an orderly transition. The Group commander, Col. Donald Blakeslee, said, "You can learn to fly `51s on the way to the target.

A future P-47 ace said, "I was sent to England to die." He was not alone. Some fighter pilots tucked their wheels in the well on their first combat mission with one previous flight in the aircraft. Meanwhile, many bomber crews were still learning their trade: of Jimmy Doolittle's 15 pilots on the April 1942 Tokyo raid, only five had won their wings before 1941. All but one of the 16 copilots were less than a year out of flight school.

In WWII flying safety took a back seat to combat. The AAF's worst accident rate was recorded by the A-36 Invader version of the P-51: a staggering 274 accidents per 100,000 flying hours. Next worst were the P-39 at 245, the P-40 at 188, and the P-38 at 139. All were Allison powered.

Bomber wrecks were fewer but more expensive. The B-17 and B-24 averaged 30 and 35 accidents per 100,000 flight hours, respectively-- a horrific figure considering that from 1980 to 2000 the Air Force's major mishap rate was less than 2.

The B-29 was even worse at 40; the world's most sophisticated, most capable and most expensive bomber was too urgently needed to stand down for mere safety reasons. The AAF set a reasonably high standard for B-29 pilots, but the desired figures were seldom attained.

The original cadre of the 58th Bomb Wing was to have 400 hours of multi-engine time, but there were not enough experienced pilots to meet the criteria. Only ten percent had overseas experience. Conversely, when a $2.1 billion B-2 crashed in 2008, the Air Force initiated a two-month "safety pause" rather than declared a "stand down", let alone grounding.

The B-29 was no better for maintenance. Though the R3350 was known as a complicated, troublesome power-plant, no more than half the mechanics had previous experience with the Duplex Cyclone. But they made it work.

Navigators:

Perhaps the greatest unsung success story of AAF training was Navigators. The Army graduated some 50,000 during the War. And many had never flown out of sight of land before leaving "Uncle Sugar" for a war zone. Yet the huge majority found their way across oceans and continents without getting lost or running out of fuel --- a stirring tribute to the AAF's educational establishments.

Cadet To Colonel:

It was possible for a flying cadet at the time of Pearl Harbor to finish the war with eagles on his shoulders. That was the record of John D. Landers, a 21-year-old Texan, who was commissioned a second lieutenant on December 12, 1941. He joined his combat squadron with 209 hours total flight time, including 20 in P-40s. He finished the war as a full colonel, commanding an 8th Air Force Group --- at age 24.

As the training pipeline filled up, however those low figures became exceptions.

By early 1944, the average AAF fighter pilot enter-ing combat had logged at least 450 hours, usually including 250 hours in training. At the same time, many captains and first lieutenants claimed over 600 hours.

FACT:

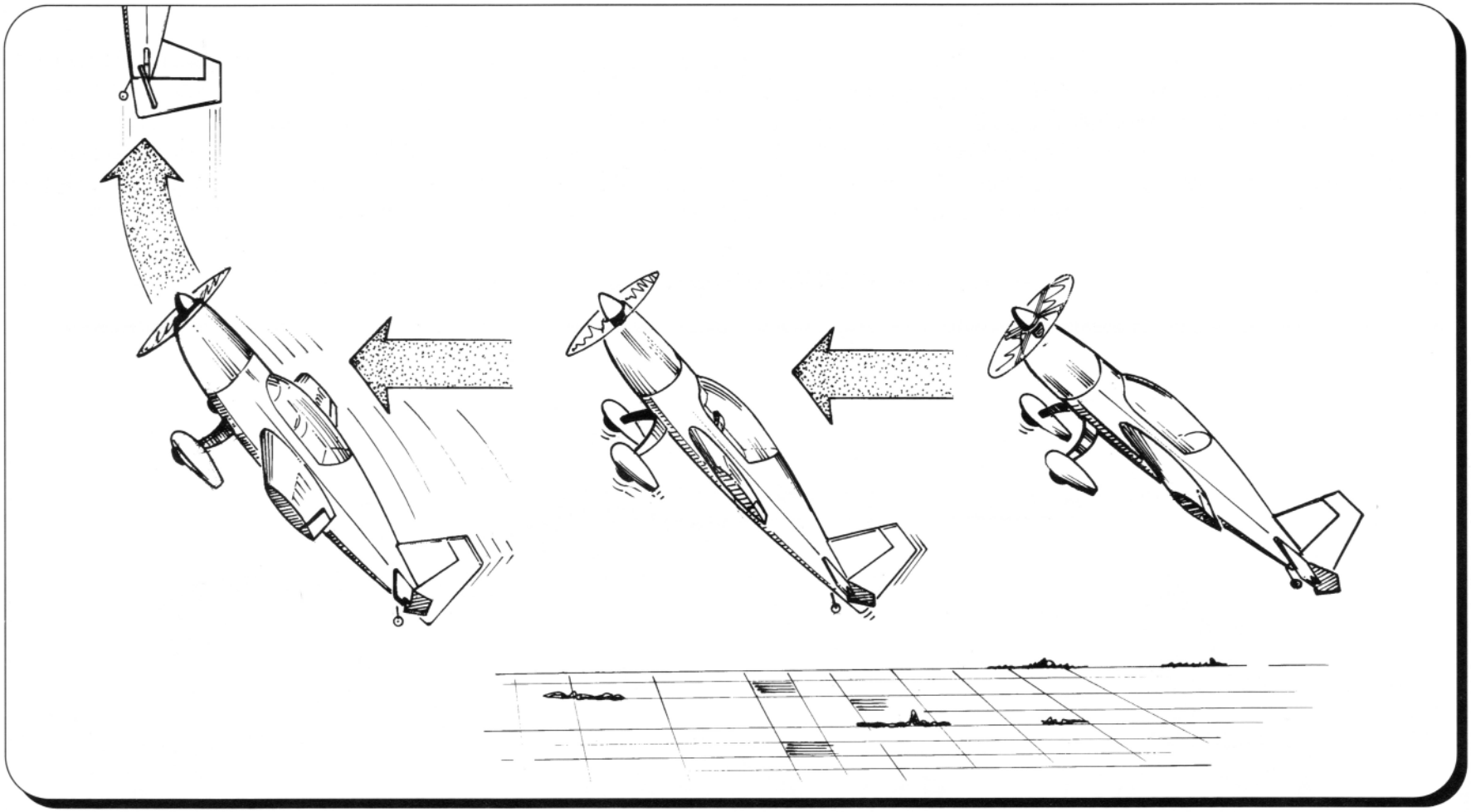
At its height in mid-1944, the Army Air Forces had 2.6 million people and nearly 80,000 aircraft of all types.

Today the US Air Force employs 327,000 active personnel (plus 170,000 civilians) with 5,500+ manned and perhaps 200 unmanned aircraft.

The 2009 figures represent about 12 percent of the manpower and 7 percent of the airplanes of the WWII peak.

IN SUMMATION:

Whether there will ever be another war like that experienced in 1940-45 is doubtful, as fighters and bombers have given way to helicopters and remotely controlled drones over Afghanistan and Iraq . But within living memory, men left the earth in 1,000-plane formations and fought major battles five miles high, leaving a legacy that remains timeless.



HARRIER

The Harrier is a really exciting slow speed 3D aerobatic maneuver. The model is performing well below its minimum flying airspeed and is entirely stalled. Because of this, we recommend you practice this maneuver at high altitudes and have a spotter to help you keep oriented on what the aircraft is doing at all times. Some aerobats are better at this maneuver than others. For example, the Extra 330L is very honest in a Harrier, but it will "walk" the wings back and forth slightly during this maneuver. This is normal and should not concern you. Fly the aircraft at a low throttle setting straight and level, gradually feeding in full elevator. When the nose drops, apply throttle gently while still holding full elevator until the tail tucks under and the aircraft is in a high angle of attack. Adjust throttle until the model is flying forward very slowly in a straight, horizontal line with the nose at or near the 45 degree angle of attack! DO NOT attempt to use aileron in this maneuver, as aileron response will vary dramatically by throttle setting, etc, and is even REVERSED at times. Adding throttle will roll the aircraft left slightly, decreasing throttle allows the model to roll right, so use this and rudder to adjust the model's roll orientation rather than aileron. The safest exit from this maneuver is to apply power, pitch the model to vertical and fly straight out vertically.