Flare-out

TWIN CITY RADIO CONTROLLERS, INC. Newsletter

AMA Charter Club Number 383

August | Minneapolis, Minnesota U.S.A. | 2025

Show & Tell Always Has Some Great New Airplanes

The Minnesota River may be sitting on our Jordan Field keeping us from our July Meeting-At-The-Field, but it can't stop our members from bringing their newest creations to Show & Tell at CrossPoint Church.



Sherwood Heggen goes through the construction details of the two new airplanes he built and brought to Show & Tell on July 8th. (Photo by Scott Anderson)

The heavy rains of June caused the Minnesota River to rise very quickly and exceed the 18-foot level at which the Jordan field will start to become flooded. At the end of July, the level was still at 23 feet and promised to keep the field covered through the early part of August.

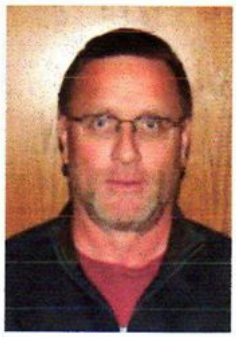
So, the July meeting was held at our usual location of CrossPoint Church in Bloomington. The meeting was well attended, not only by members, but also with five new great looking airplanes for Show & Tell. Larry Couture, Scott Anderson, Ken Weddell and Sherwood Heggen displayed their latest projects. See page 3 of this newsletter for all of the photos and information on those aircraft. ☺

Calendar

July 5 - Aug. 19	**AMA NATS Muncie, Indiana**
Aug. 6	**3rd Qtr. Board Meeting 7 PM Pres. Bob's Home**
Aug. 7-9	**Northern Alliance Military Fly-In SMMAC Field Owatonna, Minnesota**
Aug. 7-10	**Paul Bunyan R/C Flyers Water & Wheels Bemidji, Minnesota**
Aug. 12	**Meeting At The Field Fairgrounds Flying Site Dinner at 5:30 Meeting at 7:00**
Aug. 14-17	**Warbirds & Classics Over the Midwest Fond du Lac, WI**
Aug. 23	**Model Aviation Day CANCELLED**
Sept. 6	**Scale Fly Jordan Field Scott Anderson**
Sept. 9	**Meeting At The Field Jordan Field 5:30 PM Dinner 7:00 PM Meeting**
Sept. 13	**Fall Float Fly Bush Lake Park Bloomington, MN Steve Meyer**

A Note from The Head Wing Nut

By Bob Briesemeister



Welcome to the Lazy Hazy Days of Summer and that's an understatement. I like a good campfire, but this smoke doesn't even smell good, and you can't even make smores over the flame. I wonder if there is a tariff on it?

As you are all aware the field is still under water and still wondering about building an ark. With the Scott County Fair in the rearview mirror we are able to resume flying at the Fairgrounds. We will be moving the Porta Potty over there this week. The way the flood forecast looks the River will be rising this week before hopefully receding by the middle of August. Cross your fingers.

When it starts to dry out the clean-up will begin with clearing the silt off the driveway, parking lot, pit lane and runways with the skid steer. The runways and pit lane will have to be swept and most likely power-washing the shelter and cleaning up the debris on the field. We will send out an email when the work can start.

TCRC has lost a couple of long-time members of the club in July. Bob Swenson and Morgan Larson were members for around 50 years and their contributions over the years helped build the foundation of TCRC.

With the field still flooded for a couple of weeks the board made the decision to cancel Model Aviation Day at the end of the month. We didn't think that field would be ready in time.

The only good thing about all of the rain is Bush Lake has gone up a couple of feet which will be good for the Fall Float Fly in September.

The August membership meeting on the 12th will be held at the fairgrounds with dinner at 5:30 and the meeting at 7. Bring some sunscreen as there is very little shade. If bad weather, we will move the meeting back to Crosspoint Church at 7.



THE TCRC FLARE OUT
Monthly Newsletter

****TWIN CITY RADIO CONTROLLERS INC.****

Purpose: To preserve, encourage, and further develop the hobby of building and flying radio controlled model airplanes.

2025 Officers

President	**Bob Breisemeister 612-964-8877**
Vice President	**Brian Johnson 763-744-6379**
Secretary	**Ken Weddell 952-500-3446**
Treasurer	**Tim Wirtz 952-941-5357**

TCRC Flare Out

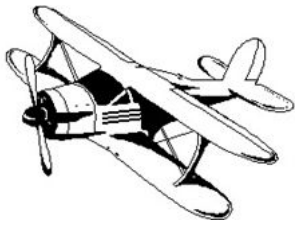
Editor James R. Cook 952-200-2030
Publishers: Tom Hall 515-664-7674

Website: http://www.tcrconline.com

TCRC meets every month on the 2nd Tuesday at 7:00 PM in Fellowship Hall of CrossPoint Church located on the southeastern corner of the intersection of 98th Street and France Avenue in Bloomington. Guests are welcome to attend these meetings.

Model Aviation Day Cancelled!

Show & Tell



Five new aircraft were added to TCRC's fleet at the July 8th membership meeting.



Sherwood Heggen had an old-time design to show. It was a Brooklyn Dodger, designed by Sal Taibi in 1941. Sherwood obtained the partially constructed plane from a friend who purchased a glider at our auction and found the Dodger among the parts for the glider. Sherwood completed the plane which had a 53-inch wingspan and weighed in at 3-pounds and 7-ounces. It was powered by an OS Max 19 2-stroke engine and done white with black trim Ultrakote. As of the meeting the maiden flight had not occurred.



Ken Weddell had a great looking Hanger 9 Ultra Stick 40 ARF at the meeting. See the photo at bottom left. The wingspan was 57-1/2-inches and it weighed in at 5-pounds and 1-ounce. It was done with Monokote with a red fuse and wings trimmed in white and blue. The underside was done in blue with red and white stripes which would be very helpful in orientation. He had powered the Stick with an OS AX 55 2-stroke engine. Ken said the maiden flight would be "soon".



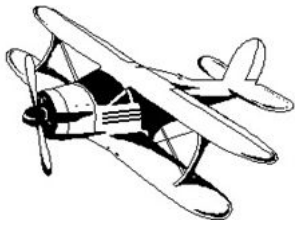
Larry Couture had an R/C Trainer from Bridi Enterprises at the meeting. This plane had a wingspan of 52-inches and weighed in at 4-1/2-pounds. It was done with light blue Monokote on the fuse and yellow wing and tailfeathers. I was powered by an OS 40 2-stroke engine. As of the meeting it was awaiting its maiden flight.



Sherwood Heggen had a second plane at Show & Tell. This was a deBolt Super Cub, which has been kitted for more than 60 years. That long ago, Sherwood

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Show & Tell



Continued From Page 3

built a deBolt Super Cub when he was just starting out in the hobby. He said that due to his inexperience at that time, the plane only lasted a couple of minutes in the air. So, now 60 years later, he located another deBolt kit and decided to try again. As he was building this Super Cub he remembered and corrected all of the issues that made that first Cub to be unsuccessful. The new deBolt had a wingspan of 56-inches and weighed in at 4-ounds 2-ounces. He covered it with Stits light-weight fabric, and the colors were white with red trim. For power he had an Enya 19 2-stroke engine. The Cub has yet to be flown, but Sherwood is confident that the outcome of that maiden flight will be much more successful than the one from 60 years ago.

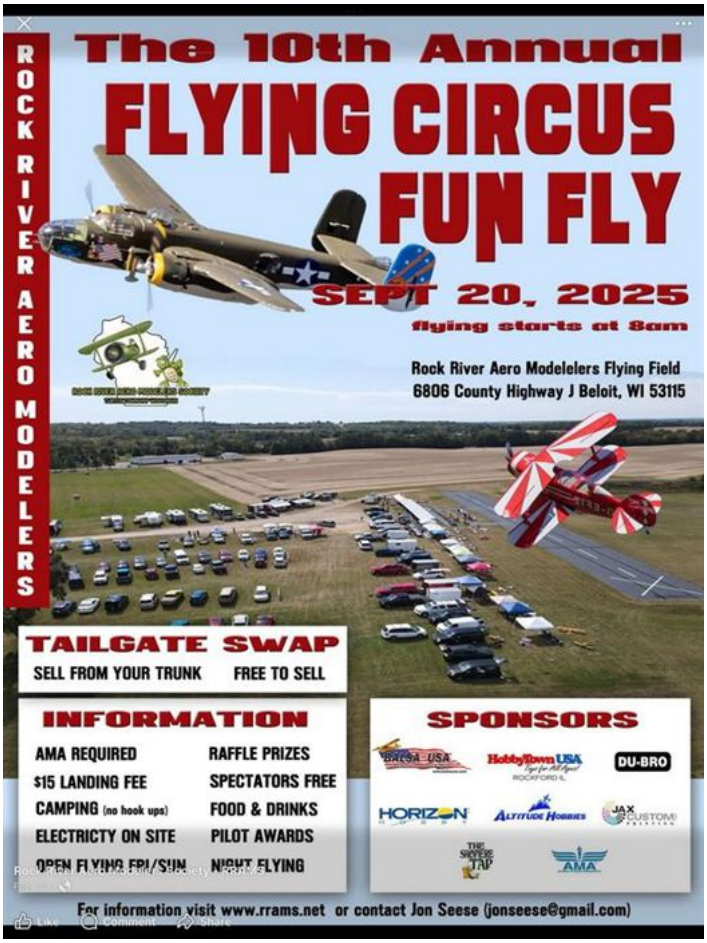


Scott Anderson had a fantastic giant-scale 1913 Erich Taube 90 at Show & Tell. This was built from a Balsa USA kit. Scott purchased the plane at the 2025 TCRC auction. The plane had been built in 2001 and never flown. The Taube had a wingspan of 83-1/2-inches and a weight of 9-pounds. It was down in traditional Taube colors with Coverite. He had powered the plane with a Big Foot 110 Tacon electric motor and had two 38-5,000 6s batteries in series. For control, it had a coordinated rudder. Scott said the plane flew great. He flies it without the dummy motor however, so that the motor/esc stays cool. ☺

A member can have his new or rebuilt airplane appear in the Show & Tell column just by sending a picture of the plane and a data sheet about the plane. (Data sheets can be obtained on the club website, TCRCOnline.com).

Send your pictures and info by texting to Jim Cook at 952-200-2030 or emailing them to him at jimcook888@q.com. Data arriving before the last day of the month should make the newsletter.

Now, you don't have to attend a meeting to show the membership what you have been building.



TCRCOnline.com

It's Better Than Ever!

Morgan Larson July 19, 2025

by Jim Ronhovde



Leonard Morgan Larson, known to TCRC'ers as Morgan, died July 19th, 2025, following a stroke on July 14th, with a good prognosis for recovery. However, sudden and severe complications developed that took his life.

For fifty-two years he was married to his wife Marion as they had three daughters and many grandchildren. Most of his life was lived in Edina Minnesota.

Morgan joined TCRC in 1971 for his start of membership. He loved visiting members and made a committed point to welcome and visit guests and explain all things about the RC airplane hobby. He tried to attend events, workdays and meetings also serving as Secretary.

One day at the flying field a tragic injury occurred, putting Jim Miller in jeopardy. Morgan and Albert (Clicker) Foster managed to get Jim in a station wagon and with Clicker driving, **sped** to St Francis Hospital in Shakopee. Morgan attended to Jim, ensuring the tourniquet was in place as the **dash** to the Hospital completed a lifesaving ordeal.

A more common memory would be a smiling Morgan enjoying a joke, or him commenting on his box of string that was labeled "Pieces of string too short to save". Another favorite was he knew a vacuum bottle could keep things hot or cold, but wondered "How Does it Know?".

Morgan was always willing to tell you about his car. One time it had a repainted fender that did not quite match the rest of the car, not off by much "had to be in sunshine to see the mismatch" but he got them to do it over. He also explained in detail about a daughter's new car that stranded her several times and Morgan helped negotiate what seemed like a favorable deal on a new replacement at a cost per mile used basis.

Morgan also had multiples of both finding and losing wallet stories with great results on them being returned promptly. Even before getting back from vacation. I believe once a wallet was still on the highway as he returned after discovery of the missing wallet.

Morgan was in the Army and had a review to become an officer, however, he chose to stay as an enlisted man. During those years he also had an interview to join the CIA.

In addition to his TCRC membership, Morgan was a long-standing member of the Bald Eagles, that group of mainly retired guys who meet every Wednesday morning at Perkin's in Bloomington. It was very rare for Morgan to miss a meeting.

Morgan was also the recipient of the prestigious Walt Billett Award in 2019, which TCRC presents to that person who best personifies the purpose of the club: To preserve, encourage, and further develop the hobby of building and flying radio controlled model airplanes.

An obituary is scheduled for the Star Tribune if not posted already.

At the July 30th morning meeting of the Bald Eagles, Morgan's daughter Cara and his two sons-in-law attended in honor of their missing father.



Mark and Cara Barthel and Rick Johnson join the Bald Eagles on July 30th. (Photo by Scott Anderson)

Service for Morgan will be August 12th 10AM. Location is St Stephens Episcopal Church at 4439 W50th St Edina MN. Handicap parking at The Chapel South side of Church. ✈



What's New with TCRC's Website?

by Tom Hall, Webmaster

Well, last month I got scammed! It was a scam that ran through our TCRC website. The scammers utilized the TCRC website "Contact Us" link from the first page of the website. From that contact list the scammer crafted and email that was sent by President Bob, asking if I could pay a bill for the club. It also stated that Tim (treasurer) could not help . . . . Fortunately, the scam was stopped, but at first it was quite believable because Bob and Tim's names were used in the email.

Big Lesson learned! **This was not a "hack" of our website. We are quite secure in terms of the website operations!**

The following are some good reminders of security and when you are confronted with a scam:

TCRC Member Security Tips

- **Be Aware of Email Scams (Phishing) Scammers may impersonate TCRC officers or other trusted members and send emails requesting:**
  - Payment of fake invoices.
  - Donations or "emergency" funds.
  - Login information or personal details.
- Recent example: A scammer pretended to be our club president and emailed another officer asking for payment, falsely claiming our treasurer was unavailable.
- **Signs of a Suspicious Email:**
  - Unusual sender address (e.g., bob.tcrc@gmail.com instead of an official club email).
  - Spelling or Grammar Mistakes.
  - Urgent or secretive tone.
  - Requests for gift cards, wire transfers, or login info.
- **If you receive a suspicious message:**
  - Do not reply or click any links.
  - Do not download attachments.
  - Verify the request by phone or in person.
  - Report the message to the Webmaster.
- **TCRC Communication Policy:**
  - Officers will never request payment or sensitive information by email without prior discussion.
  - If in doubt, always call or talk to the person directly before acting.
  - Use the official contact list on this site (see Member Directory) to verify any requests.
- **Website and Email Security:**
  - Contact information is now kept securely behind our Members-only section.
  - Public pages avoid listing personal emails or phone numbers to reduce spam and phishing risk.
- **TCRC Member Security Tips:**
  - Our domain (tcrconline.com) is protected by modern email authentication standards (SPF, DKIM, DMARC) to reduce spoofing.
- **Tips for Your Own Online Safety:**
  - Use strong passwords (and don't reuse them across accounts).
  - Watch for suspicious attachments or links.
  - Even if they appear to be from someone you know.
  - Keep your device's software and antivirus up to date.

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Bob Swenson
1933 – 2025

by Sherwood Heggen



Bob Swenson in his home with his 3rd Dormoy Bathtub.

On July 3, 2025, TCRC lost long-time member Bob Swenson at age 91. Bob is survived by his wife Joan and three daughters Sharon, Karen, and Angie.

Bob was a quiet and gentle man with a strong Christian faith who was naturally skilled in many areas. He was an artist, a designer, a woodworker/cabinet maker, and full-scale ultralight flyer. But most of all, he was a model airplane builder/flyer. His imagination and hands could convert balsa sheets into beautiful R/C flying machines.

His modeling started as a young man who experienced the typical number of trial and error efforts in getting models to fly. The first model he was known to build as a TCRC member in the early 1970's was a magnificent scale Fleet biplane with a wingspan of about five feet. Most airplanes Bob built could be considered magnificent. This was his "trainer" for getting into R/C. It flew well with the help of experienced TCRC members. Bob went on to be a proficient R/C pilot. The models he flew ranged from scale models to advanced pattern models.

As a designer, Bob had a knack for making something no one else had. Some of the many models he built that displayed this were his self-designed Viking, and the Bulldog Drummond, and a scale 1924 Dormoy Bathtub. The Viking was a Piper Cherokee-ish low-wing. It had a unique looking wide, flat fuselage and V-tail. To make the V-tail surfaces work correctly before programable radios were available, he designed a mixer to cause up/down and left/right from two servos. Creating items to make things work was one of his high talents. It flew very well. The Bulldog Drummond was another design from Bob's imagination. It was a shoulder wing model of about 7-foot wingspan with a Super Tigre 3000 for power. It had a robust appearance that gave it character and design features that made it his. The Dormoy Bathtub was a favorite of Bob's. He drew the plans for the Bathtub using a small three-view as a reference. He built three Bathtubs, two of which he flew extensively. One of them was fitted with floats.

Bob wasn't able to enjoy any airtime with the third Bathtub nor was he able to finish it. Parkinson's Disease came upon him making delicate modeling work difficult. To see his work completed, he asked another model builder to complete what he started. Being able to see the finished product gave him great satisfaction.

A great builder/modeler is gone. Bob Swenson will be missed by those who knew him well. If you didn't know him, he was a modeler you would have wanted as a close friend.

Rest in peace, Bob. ✈

What's New With TCRC's Website?

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- Consider using two-factor authentication (2FA) for your main email account.

- **Questions or Concerns?**
  - If you receive a suspicious message or notice unusual activity, please contact the Webmaster immediately at:
  - Email: webmaster@tcrconline.com
  - Let's work together to keep our members and club information safe! ☺

The deBolt Super Cub – Again

by Sherwood Heggen

You can't change the past, but in the present, you can revisit and correct where you previously failed.

As a young modeler with no guidance, my building efforts didn't always go well. Initially, my building station was a card table in the dining room of our farmhouse where I built stick models that never flew well. In my early teens, I discovered R/C airplanes. As time went on, the projects got bigger than stick models and required greater room. That lead me to building in the musty basement where there was a "work bench" made of 2x4's for legs and warped 1x6's for the top. Using the most level area of the "work bench", I built my first Midwest Esquire from donated plans. The radio was Kraft channel with rubber powered escapements to operate the rudder and engine speed. I was getting better at building and the Esquire actually flew. After graduating high school, I took a job that allowed me money to buy a used 27MHz Kraft 10 channel triple simultaneous reed system radio. It was top of the line at that time, but proportional radios had just become available. Already, my radio was on the verge of being obsolete, but it worked.

The time had come to install this radio in a worthy airplane to allow me flight training and experience. In a hobby shop in a nearby town, I came across a deBolt Super Cub kit. It could be built to fly with single or multi-channel radio, and I had a multi-channel radio! It was perfect for me. A lot of time was spent studying the plans. It was the first R/C kit I had ever built, and I was in the big time stuff here! A lot of care was exercised to follow the long list of building instructions printed on the plans. Over time, the Super Cub resembled the pictures on the plans. With construction done, the radio was installed the best I knew how. Engine and servos were installed with hardware store screws. Pushrods were made with 1/4" balsa sticks with music wire ends. How they were connected to the control arms for the servo and control surfaces is out of my memory. It all looked correct for the rudder, elevator, and motor set up. Rudder set up was easy. Right is right and left is left. I knew from my years of driving farm tractors that pushing the throttle lever forward should cause the engine to go faster. The elevator was a bit confusing, but it made sense if you wanted the airplane to go up, the elevator toggle switch should be pushed up toward the top of the transmitter. With all that thoroughly figured out, I moved on to doping and covering. A few coats of dope, purchased at a local airport, and then silk covering followed with more dope brought the project to a close. What a monster of a plane this was! It had a 4-½ foot wingspan – no 56", which is 2" bigger than a 4-½ footer! It seemed to weigh a lot. This was no stick model. I had purchased an OS Max 29 R/C from somewhere to power this beast, but the plans stated a 15 to 19 engine was recommended. Had I made a mistake overpowering the Super Cub? I considered that the heavy weight of the reed radio would offset the greater engine size.

It was fall of 1964 and I wanted to fly the Cub before winter set in. The engine was tested and adjusted the best I knew how and it was time to fly even though I had no ideal place to fly. The soybean field when green, was a great cushion for a bad landing, but it had been harvested, and only rough dirt remained. The corn fields were tall, dry and ready to be harvested and certainly no place to fly. The only remaining place to fly was an alfalfa field which too was at the end of its season and was rutted up by the pigs that were allowed to roam there. It was the best I had.

The wing was attached with some household type rubber bands, and the tank was filled from a quart can of K&B fuel using a red rubber squeeze bulb. The 1-½ volt glow plug battery was one purchased from the hardware store. It was huge being about the size of and heavier than a pound of butter. The wire connecting the glow plug clip to the battery was a length of old extension cord I cut to size. It appeared all was ready for the first flight.

The radio was turned on and the engine was started, with some difficulty with a lot of prop flipping. Finally, with everything running, it was that time! This labor intensive project was about to be tossed into the air as I had learned to do with my Esquire. With transmitter in my left hand and airplane in my right, I took the pose of countless others ready to launch their model into the blue. Wind was light out of the southeast

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deBolt Super Cub -- Again

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and I knew it was best to launch into it. I trotted forward briskly and heaved the massive Super Cub forward like a dart. To my surprise, it stayed airborne and was climbing with the scream of the unmuffled OS Max fading as it flew forward. Afraid of it getting away, I knew I had to make it turn. A couple of taps on the rudder switch actually caused it to turn and make its way back toward me. With just the light use of rudder, a couple of wide circles were made. All former escapement models didn't allow a conventional loop but with this high end radio allowing independent elevator control, I decided it was time to do my first loop. With that I pushed the elevator switch forward and the Super Cub violently raised its nose and entered the start of the loop. At that point, the wing snapped in two sending the fuselage straight into the dirt from about 50 feet of altitude. Flight complete. It's apparent now what caused the problem. The radio equipment was heavy compared to rubber powered escapements for that design period. That created greater strain on a lightly designed wing. Also, with no experience in setting up the control surfaces throws, I thought probably 45 degrees up elevator would be about right. Hmmmm. Not so.

The wreckage was retrieved and returned to the musty basement workshop where the equipment was pulled and the airplane thrown away. It was a sad time. But I was not discouraged, having learned from this experience. Over the decades, many airplanes and many crashes have happened, but I have endured the hard times.

Over 60 years have passed since that day, and I have wished many times I could make that event right. A couple of years ago a deBolt Super Cub kit was being sold by someone in California for $100 through classifieds on a website. I spoke to the person, and he said he would throw in some wheels for free. We made the deal and I received the kit. It had waited for my attention until recently when I got the urge to build the kit and do it right.

The build began. I have spent decades building airplanes mostly from plans. This was different building a kit with specific instructions for the order of the build. Thankfully, it is a fairly simple build. I think back to building the first Super Cub. I wonder how I was able to successfully build a flyable airplane with a crooked workbench, a single-edge razor blade for cutting parts and model airplane glue in a tube. The tube had to be opened by puncturing the opening with a common pin.

The first item of building the new Super Cub that got my attention was the wing. The kit spars on the new Super Cub were replaced with spruce cut to size on my table saw. Shear webs were installed to create a rigid, strong wing. For additional strength, the wing's center section was fiberglassed. The entire build was done according to the plan and soon the new and correctly built and set-up deBolt Super Cub was finished. A modern Hitec radio was installed, an excellent 40+ year old Enya 19R/C engine was screwed onto the motor bearers, and a pair of vintage Fox wheels received with the kit were installed on the landing gear axles along with a steerable tailwheel. About 4 ounces of lead was used to balance right on the CG noted on the plans. Everything was straight, radio was set up correctly, engine had been tested beforehand, and it was ready to fly. Final flying weight was 4-pounds, 2-ounces which is 4 ounces under the suggested max weight on the plans. Finally, an evening came with calm winds and a slowly setting sun. The field was forsaken by other earlier flyers making it perfect for a less stressful maiden flight. The wing was rubber banded to the fuselage just like 60 years ago. The tank was filled with fuel with a conventional hand-held crank pump. The radio was turned on and the controls were checked for right/left and up/down. The glow plug ignitor was connected and the electric starter was pressed to the spinner. Almost immediately the little Enya started to putter at a fast idle. Advancing the throttle successfully and repeatedly confirmed she was ready to carry the load. The only thing left to do now was to revisit the past but only in a corrected way.

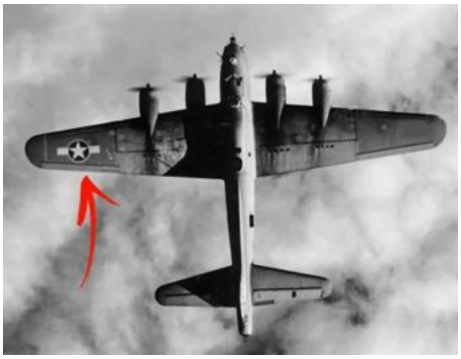
To keep on this nostalgic path, I decided to hand-launch the Super Cub as I had done way back then. Throttle up. Model held high. I trotted forward and launched this work of art forward and away it flew. It lost a bit of altitude at first but then began to climb at a pleasant rate and straight out. At about a hundred yards out a bit of rudder and elevator was applied and the

Continued On Page 10, Col. 2

In WWII Why Did American Planes Only Have One Roundel?

(Reprinted From Facebook, originally published on September 5, 2024 by Rej)





Have you ever wondered why there is only one roundel on the left wing of US planes? While many would think that this is just a random quirk, the answer is a lot more complicated than you think.

The reason is that this is one of the earliest examples of psychological warfare. During the interwar years up until 1942, the US invented paint roundels on both sides of their wings. However, they were soon replaced with only one roundel on the top and underside of one wing. (top of the left and bottom of the right).

Imagine this – you're a Luftwaffe pilot and as you dive down you see the big white roundel only on the left side of an Allied plane. Your eyes are naturally drawn to the bright marking on the left making the aircraft look asymmetrical. Momentarily, you get confused as the way to aim.

You then open fire, damaging the wing instead of the cockpit and engine. The Allied plane then dives away. Now, what if that plane had symmetrical roundels? Naturally, your eyes would center in the middle of the plane.

In those vital seconds, psychological warfare of this nature proved to be extremely effective in the survival of American pilots during the war. ☺

deBolt Super Cub -- Again

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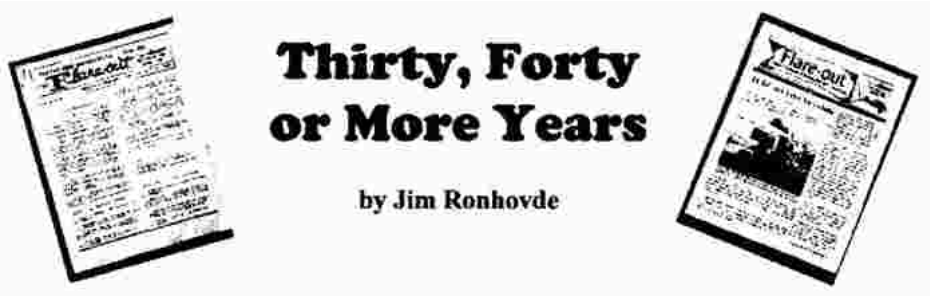
Super Cub responded with a gentle turn. The anxiety of a maiden flight quickly faded and the thrill of flying a model airplane took over. Many turns, low fly-bys, and slow flight in a light breeze at altitude was confidently done. Then it occurred to me that my great ambition with the first Super Cub was to do a loop. Over the past decades, I have done countless loops, but this one was going to be special. At about 50 feet of altitude, I gently pulled back on the elevator stick and guided her through the beginning of her first loop. It was of pleasant size and at the top I throttled back, let her float down the back side, and leveled out where it started. That was almost an emotional moment. Nothing broke and it was a beautiful loop! More casual flying was done and then for some reason the engine quit in an awkward position downwind and too high to land on the field. Quick thinking brought to mind "S" turns to kill distance and lose altitude. Successfully done, the Super Cub landed smoothly halfway down the runway and rolled to a stop. I would have preferred to end the flight by taxiing back and pushing the throttle cut button, but this was far better than digging wreckage out of the dirt like it was 60 years ago.

Sundown was approaching and I typically do one flight on a new model and then take it to the shop to check it out for loose nuts, screws, etc. Safe in the shop, inspection showed everything intact and ready for more flights. The only follow-up would be tuning the engine idle better to keep it running through the whole flight.



Subsequent to that day, there have been many successful flights with the Super Cub. Take-offs are straight down the runway. In the air it is smooth flying and mildly aerobatic with loops, wing-overs, lazy eights, etc. Landing consists of a slow, graceful approach, a flared three-point touchdown and taxi back to a full stop.

As is said, it is a keeper. It will allow me to revisit the past many times in a corrected way. ☺



The August 2001 edition of the Flare-out was a six sheet 12 page with editor James R. Cook. Bulk postage rate.


Flare-out
TWIN CITY RADIO CONTROLLERS, INC. Newsletter
August Minneapolis, Minnesota U.S.A. 2001

TCRC Returns To The Jordan Field

by Scott Anderson

A group of dedicated members gathered at the Jordan flying site Saturday July 14th to help clear the runways and get the site prepared for the Scale Master's Regional Qualifiers to be held August 4th & 5th.

The runways were shoveled and then swept clean of the dried mud from the recent floodwaters. The shelter and the windsock did not look any worse for being beneath 12 to 18 feet of water. The grass is coming up nicely and the pit areas are looking good.

that had been dislodged by debris. Doug Basch, Dave Andersen, Mark Folkerts, Walid Maaloufi, and Scott, Kent, and Erik Anderson got plenty of blisters shoveling and sweeping the runways and taxiways. Stan Erickson, and Conrad Naegele drove the tractors and mowed the out fields.

Dan Stensby and the Anderson Boys removed the Biffy from the Fairgrounds site and relocated it on the Jordan site. Jim Miller was able to lend support and to go see how our eagle's nest had faired. Unfortunately, the tree and the nest were gone, presumably due to the high floodwaters.

Scott Anderson cooked up lunch for all and provided ice water and sodas.

Dan Stensby gave a demonstration of imprecise bombing from an RC aircraft. He has rigged this carrier plane to carry bombs made from 1 and 1-1/2 liter water bottles. The object was to learn how to do precision bombing prior to the next sortie over the northern waters of Lake Minnetonka.

Thanks to all the participants for taking their time to come down and get the site in order. It is amazing how fast our beautiful field bounces back from the harshness that Mother Nature can throw at it.

Mark Folkerts taxi's out on the runways on July 21st to enjoy a flight at the recently cleaned Jordan field. (Photo by Jim Cook)

Bruce Anthony arrived early with tools and support. Dan Stensby and Merv Knolls worked to reset two posts from the spectator fencing

The front page features the report of "A group of dedicated members gathered at the Jordan flying site Saturday July 14th to help clear the runways and get the site prepared for the Scale Master's Regional Qualifiers to be held August 4th & 5th." This is a similar summer flood as the one we are experiencing now, 24 years later. Another extended flood year was 1984.

Augusts of forty years ago were focused on TCRC contests of Scale and Pattern Open done as a two-day event. The 1985, 29th Annual Open, introduced Turnaround Pattern.



Turnaround Pattern was the most popular event of the contest. Turnaround Pattern was flying in a "*box"* with all maneuvers within a short distance and each maneuver a direct entry into the next maneuver. This essentially eliminated *free time,* and the flying was judged full time. This changed the preferred capabilities of the airplane to be agile with power that did not have entry inertia to carry through maneuvers. The challenge of the defined box was angles outward providing longer boundaries further out so balance of close-in yet still wide enough for maneuver sequences. Model characteristics were more 3D like than long, sleek and graceful pattern models that flew a wider longer length and had non-judged *free time*. Turnaround is more informal with F3A the upper advanced class. ☺

Clean the Field
Have Fun Flying Pattern

TCRC Scale Fly-In Coming September 6th

by Scott Anderson



Join us at the TCRC Jordan Model Air Park Saturday September 6th for a day of non-competitive scale flying! All models of full-size manned aircraft are welcome no matter what size they are! We have (2) paved asphalt runways that will provide you with a smooth surface for your aircraft!

A Pilot's Safety Briefing will be held at 9:30 am followed by open flying until 4:00 pm. Maximum of 4 aircraft flying at any time (with exceptions for gaggle flights (WW1, WW2, T-28's, etc.). Pilots will be required to have a spotter (you can grab a volunteer at the event) for flying.

The event is open to everyone in the Twin Cities area! Current AMA membership is required. Aircraft may be electric, EDF, nitro or gas powered. Unfortunately, no gas turbines will be allowed to fly.

The TCRC Jordan Field is an authorized FRIA (FAA-Recognized Identification Area) by the FAA and AMA, and no remote identification equipment is required to fly.

Come join us for a relaxing and enjoyable day of scale flying on September 6th. ☺

The Workshop



Brian Johnson
Vice President

Hello again and welcome to the workbench! It seems like this summer has, for lack of a better term, flown by! July is behind us and very soon it will be building season! Of course, the entire year is building season for me. Winter simply tends to accelerate the process. 😊

Before we jump into the current build, I thought it would be a good time to reveal my first winter build! I was leafing through my email when I came across the latest newsletter from Old School Model Works. They were featuring their latest release; the Sport Air 40, and I thought this would be perfect! It is a simple design that looks sort of like a real airplane while retaining simple and straightforward construction. It can easily be built for nitro or electric.



I have built OSMW kits in the past and have found their kits to have good quality materials, good parts fit, and very thorough instructions. My hope is there will be few folks who would like to follow along and build their own version. I would love to see a handful of Sport Air 40s in the builder contest this spring! If you are interested, check out oldschoolmodelworks.com for more information.

On to the current project! For all those who are not very familiar with the process of building model aircraft, I have a little confession to make. The process is not linear as I have laid out in the article. Typically, I am working on more than one assembly at a time simply because it does not always make sense to start and complete something without working on something else while glue dries or to ensure two assemblies will fit together properly. I chose not to write the article exactly as I build because I feel that sticking to one assembly at a time would make the most sense to someone who is not familiar with the building process. That way we can focus on technique as opposed to overall project management. I call this out in this article because when we last finished, we had the fuse roughed up but still looking very much like a lot of blocks of wood glued and screwed together. It this article we will focus on the rudders, which began construction very near the beginning of the build and have had steady progress throughout. For this reason, you will see in some of the pictures the fuselage looking far more complete than you have seen in previous sections. Don't worry -- we will come back to the missing steps! Hopefully, everything will be tied together in a way that makes sense.

As I have alluded to, today we will focus on the vertical stabilizers and the rudders. This is a great example of how the simplest things can present the greatest challenges. This plane was designed with twin vertical fins, but no rudders. I really love the look this provides, but I could not get past the idea of having a plane like this with no yaw control from rudders. Don't get me wrong, I can get behind some good old-fashioned yank and bank full throttle flying using only ailerons and elevator, but this plane is not that type of machine. It needs to be able to fly on the wing and throttle back for relaxing maneuvers and smooth landings. For this reason, I decided early on this plane really needs to have rudders if it were to be something I planned to keep around.

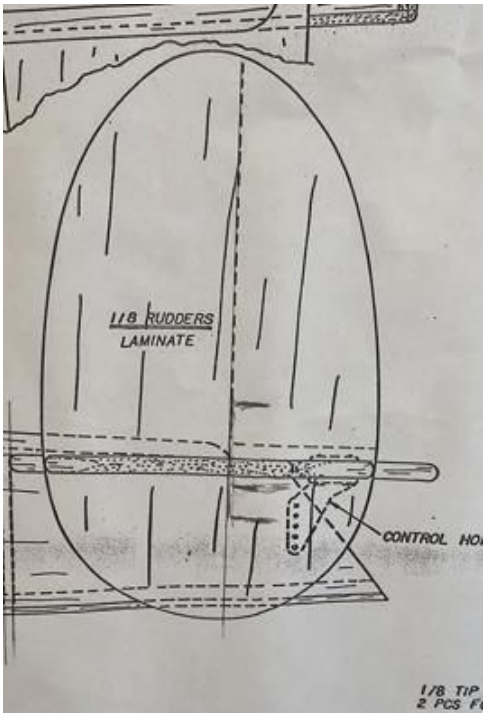
When it comes to addressing challenges associated with general building or, more specifically, deviating from established plans and instructions it is important to remember there are as many ways to approach these challenges as there are challenges themselves. If many of you took this same project on with the same goal you would all likely do it slightly differently. Heck - If I did it

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The Workshop

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again myself, I would do some things differently. I am happy with the results, but this is a learning process, and I would be remiss to think I found the perfect set up on my first try.



I will go through how I built rudders into my plane, and I would love any comments or suggestions anyone has. To begin, here is a picture of the fin with the approximate location of the rudders sketched in.

The fins are designed to be built out of two pieces of very soft laser cut 1/16 inch balsa laminated together with the grains going the same direction. I was not confident in this arrangement because it would end up being very thin for a control surface on a plane of this size and I do not like the idea of laminating pieces together with the grain going the same direction which is prone to warping with the grain.



My solution was to cut out an additional piece and add pieces of 1/16 inch balsa to add thickness and then add carbon fiber strips on either side of the middle sheet to counter warping. The orientation of the grain from the manufacturer made sense to optimize the available space on a sheet of balsa so I went with the same set up.

I used Titebond and a lot of weight to press the fins flat for several days to ensure the glue had plenty of time to cure before removing the fins from the building board. The results were perfect!



By perfect, I mean perfectly awful! Not only did the fins come out looking like a banana, if you look closely at the above picture, you will see some fuzzy looking spots in front of the ruler. That, folks, is mold. Apparently, the glue did not set properly as I expected but rather transferred enough moisture to the wood to allow fungus to take root and begin to flourish.

Obviously, this was not only not going to work and was beyond rework, so I had to start over with my fins. This time I cut three pieces and ran the grain in different directions for each piece. I also chose to use 30 minute epoxy to glue the layers together rather than a water-based glue and the results were much better.



Because I had not worked out all of the details of how I was going to integrate rudders into this craft, I chose to attach the fins to the stabilizer as per the instructions and then worry about cutting and reattaching control surfaces later. Sometimes tomorrow Brian bears the brunt of today Brian's lack of planning but hey, that is his problem, right?

The stab is a three piece assembly consisting of the tips and the center piece. Holes are drilled through the fins and into the ends of the stab tips and center section in such a way that pegs can be inserted through the fins and into the horizontal pieces. When it is assembled, it should give the impression that the stab is all one piece along with the fins. It is tricky to get the alignment perfect so take your time dry fit everything before using any glue. As long as there is no glue, it is very easy to make adjustments. With the fins in place, the shape of this lovely plane beings to become apparent.

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Now comes the fun part! I had two major concerns when it came to these rudders. First, it had to have working rudders on both sides. Choosing one or the other likely would have resolved the concerns with the flight characteristics I mentioned but just would not have been right. Second, whatever setup I chose needed to have a clean integration. It could not look like an afterthought. Since I have already used the stab that came with the kit, internal control routing was going to be more complex than I wanted to take on so I decided that any external control s would follow the current lines of the aircraft. This means that the rudder hinge should be located very close to the hinge line of the elevator so it will all blend in on the completed aircraft. I also decided that I wanted rudders both above and below the stab. In addition to giving a little more surface area for the control surface, it allows a single pushrod to be routed on the bottom of the elevator for a cleaner look.

First, I removed the filler where the rudder would be cut in and then drew the line that will become the hinge line on each fin.

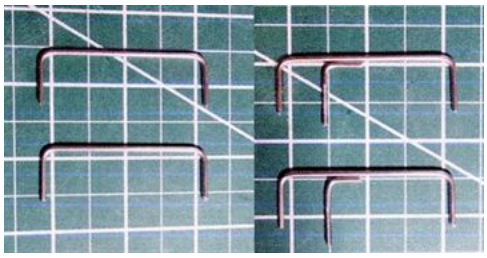




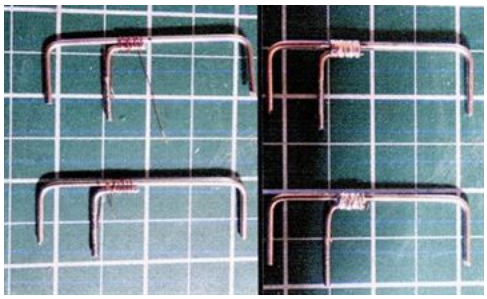
I then carefully cut out the rudders using a straight edge, micro saw, and an X-acto knife. I marked each piece so it would go back in the on the correct side.

I sanded a bevel into the front of each rudder to make a smooth edge for the hinge line and cleaned up all the other cuts. I planned to use something akin to an elevator joiner with an extra control arm built in to actuate and synchronize the rudders. I began by cutting a couple pieces of 2mm wire and bending them to a square U shape.





I then made one more square U and more or less cut it in half to make the control horns which would be soldered on to create a single structure. I mocked all of this up using the rudders and a spacer to get the wires in the correct position. I then tied everything together with single strand copper and used a couple of 123 blocks to hold everything straight for soldering.



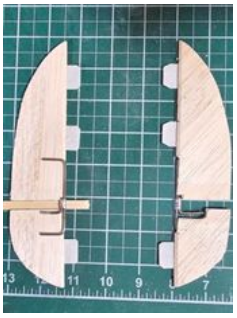
There are lots of ways people like to solder, and it can be tricky. There are lots of Tou Tube videos out there showing techniques and products to use and I encourage you to watch a handful of these if you are not confident with this practice already. My only advice is that whenever possible, set your work in a jig or some other fixture that will keep it aligned as you work so you are not trying to hold everything in place while also trying to manipulate the material.

Once I had the control surface actuators complete, I used the same set up as I previously described with the rudders to cut out excess material from the rudders and determine the hinge and hole locations.

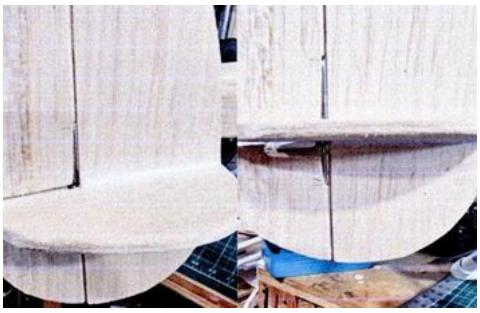
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Once I had the rudders ready for installation, I drilled holes in the stab to allow the control wires to pass through and transferred the hinge locations to the vertical fins. I was now able to assemble the rudders to the vertical fins,



For the control actuator, I used a single piece of pushrod to run between the two rudders with a Z bend added in the middle to be coupled with a bell crank that will allow the same servo that steers the nosewheel actuate the rudders. I used one solder clevis and one threaded clevis on between the rudders to allow for alignment of the two sets of control surfaces. Any manual trim adjustments will be accomplished at the servo connection so there was no need to have threads on both sides.





For the bell crank, I added a piece of 1/64 in ply to both the top and bottom of the horizontal stab to add some support for the mounting bolt. I trimmed the nylon on the bell crank so that it could be mounted inside the fuselage for a cleaner appearance. I then cut a small piece of wire and added a Z bend, along with a small bend for clearance and fastened it to the main rod with copper wire. I did not get a good picture of this, but I used clamps and pieces of scrap wood to hold the rudders straight for the next phase so that I could ensure that the bell crank would be in the neutral position as I soldered up the last connection. This is to avoid getting more throw in one direction than the other due to a misplaced connection. I used a soldering iron rather than my usual small torch for this joint due to me using the plane as the fixture to keep everything straight while I applied heat.

The wire is placed low enough so that it will not contact the elevator, even with full deflection, but it is tucked up enough to be nice and tidy.



That kind of tied everything together and I am pretty happy with the results. It looks pretty cool to have all 4 rudder pieces moving in sync and the surfaces move very freely so that a standard servo will having no trouble managing both rudder and nose wheel control.

The throw will be somewhat limited by the elevator, but I expect it will be plenty for what I am looking for, particularly with two of them. After all, how much rudder throw can you need on a plane that was designed with any rudders at all?

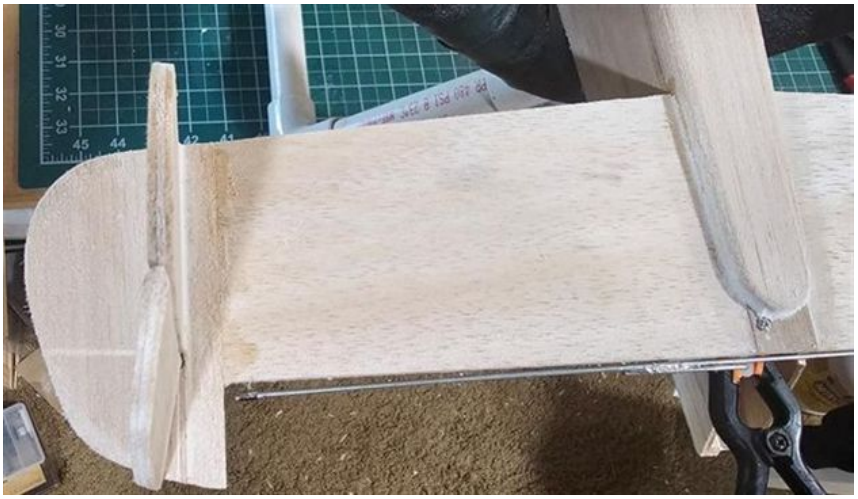


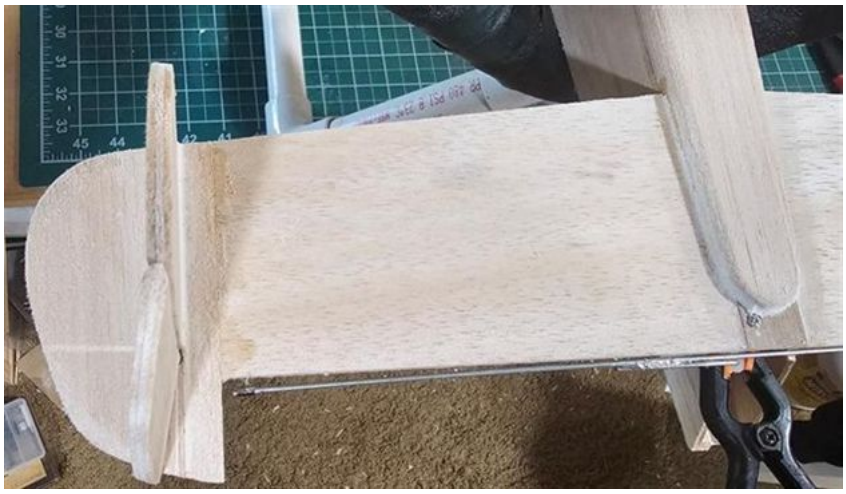
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The Workshop

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Next time we will work on some of the final sanding, shaping, and maybe get into some covering!

Until then-happy flying! ☺



The TCRC Membership meeting on August 12th will be back at the ***Fairgrounds Flying Site***. The River is still at flood stage for us, causing the move to the Scott County Fairgrounds.

The grill will be on and dinner will be served at 5:30 PM. The meeting will start at 7:00 PM. Bring a plane and get some flying in before enjoying a dinner on the club and then attending the membership meeting.

The membership meeting for September 9th is scheduled for the TCRC Jordan field, weather and water permitting.

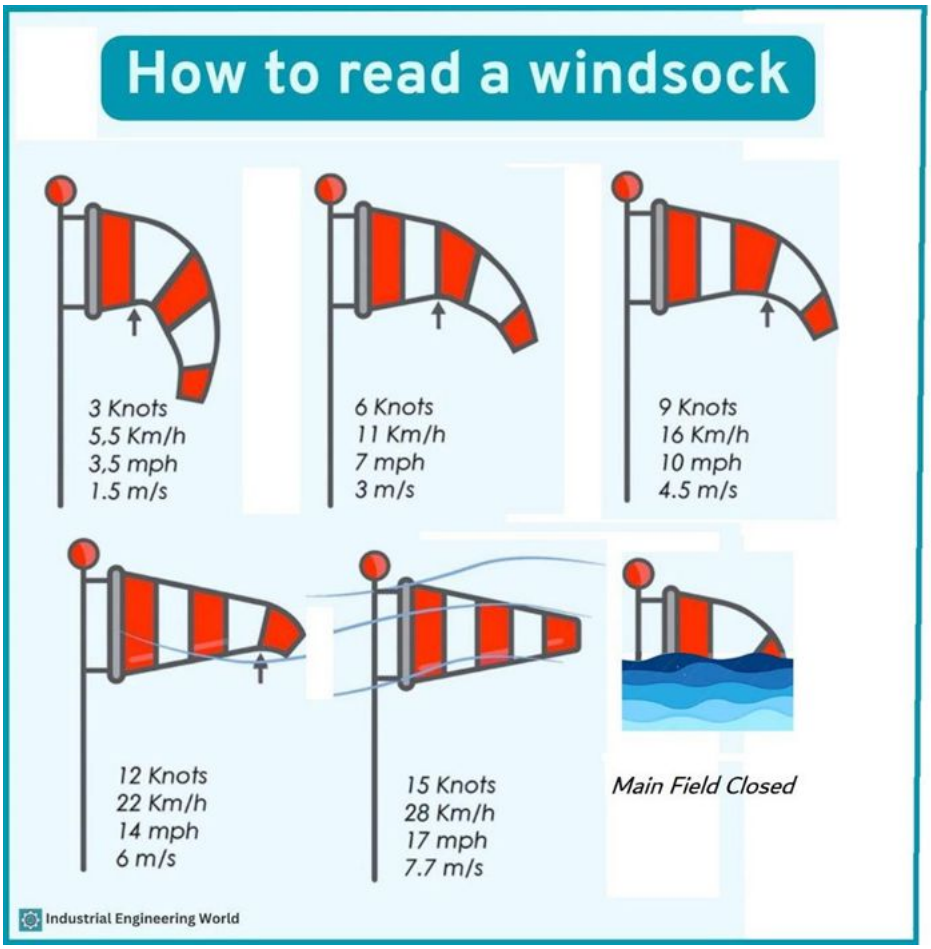
In case of bad weather the meeting will be at its normal time of 7:00 PM at CrossPoint Church in Bloomington. ☺

Always Wear An Orange Vest To Retrieve A Plane

Hunting Season is over in Minnesota, but even so, anytime you even think about going out into the woods at the TCRC field, you put on an orange vest! This is a club requirement!

If your airplane does go down in the woods, the orange vests are quite close. The orange vests are stored in the rafters of the shelter and easy to reach.

Be safe! Wear an orange vest anytime you have to retrieve an airplane. ☺





TCRC Apparel For Sale

by Ken Weddell

Members and friends can now purchase grey sweatshirts, grey T-shirts and hats. The costs are:

- T-Shirts $12
- Sweatshirts $20
- Hats $13

If you are interested in purchasing any TCRC apparel, please let me know what item and size you would like, and it will be available at the next regular membership meeting. ☺

Show & Tell Data Form

Bringing a plane to the TCRC meeting for Show & Tell?

If you are, be sure to go to the club website TCRCOnline.com and print out a blank Show & Tell Data Form. Fill this out and make sure it gets to the newsletter editor, Jim Cook so that the correct information shows up about your new airplane in the newsletter.

Also, if Jim is not at the meeting, make sure someone takes a picture of your new masterpiece and emails the picture to Jim also. If he is not at the meeting, you can have someone take a picture of the completed form and email that picture to him also. ☺

Looking For A Great R/C Club?

If you are into the hobby of flying R/C airplanes, or thinking about getting into the hobby, Twin City Radio Controllers is the club for you.



TCRC ***owns*** 40 acres of land in Jordan, Minnesota and has paved runways, taxiways and pits on that land for flying model aircraft. There is also a shelter and a dedicated parking lot on the property. The club also owns all of the equipment necessary to keep the land well maintained.

The Jordan site is an FAA Recognized Identification Area (FRIA) and TCRC members do not have to have a broadcast module on their aircraft while flying at the site.

To be a member of TCRC, a pilot must be a member of the Academy of Model Aeronautics (AMA) and be registered with the FAA. The club helps new members with these registrations.

The club also has an auxiliary flying site just two miles away from the Jordan Field if the Jordan Field is not available.

To be a member of TCRC there is a one-time initiation fee for new members in the amount of $75.00. The annual dues are:

Adult	$105.00	
Family	$105.00	
Junior	$ 47.50	(Under 16 years of age)
Social	4 0.00	

TCRC has monthly meetings October thru May at Crosspoint Church located at 98th Street and France Avenue at 7:00 PM. The meetings for the months June, July, August, and September are held at the Jordan Field at 5:00 PM, weather permitting. At the indoor meeting, there is usually a program about building or flying R/C aircraft.

Additional benefits of being a TCRC member are several members-only flying events, a spring and fall float fly on Bush Lake in Bloomington, the largest upper Midwest R/C annual auction, and being able to have access to members with vast experience in the hobby.

To become a member of TCRC you can contact Tim Wirtz at 952-941-5357, or visit TCRCOnline.com, or come to a monthly meeting, or stop by the Jordan Field located at 18304 Sioux Vista Trail in Jordan. ☺

TCRC Membership Report

by Tim Wirtz

As of the July 8th TCRC regular meeting, the club had 91 members. TCRC did not take any new members into the club in the previous month. ☺

Pix From The July Meeting





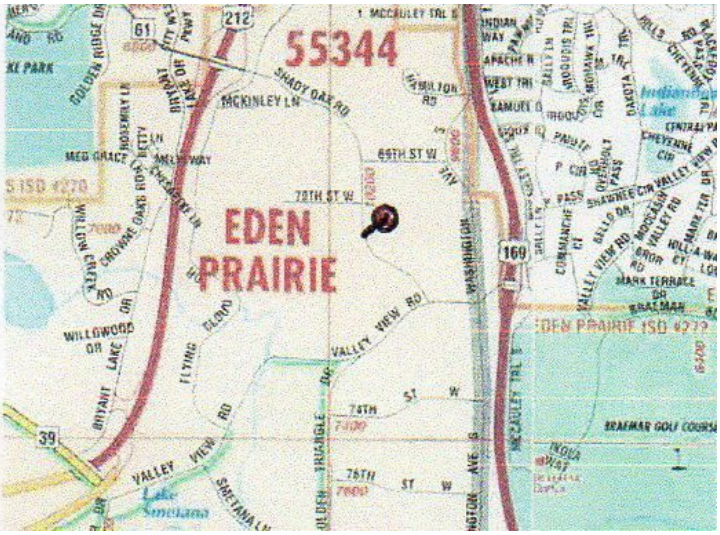


Photos by Scott Anderson

Twin City Radio Controllers



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