



February

Minneapolis, Minnesota U.S.A.

2018

The TCRC Auction Is Right Here And Now!!!

Saturday, February 3rd at 6:45 AM at CrossPoint Church in Bloomington, Minnesota, the 42nd annual TCRC Auction will begin.

This is the biggest R/C airplane auction in the upper Midwest, with buyers and sellers coming from the five surrounding states to be a part of this great tradition.

Buyer and seller check-in and registration begin at 6:45 AM. At 8:30 AM, the impound area is open to the prospective buyers to get an up-close view of items for sale, and precisely at 9:00 AM the first item will go on the auction block. From that point on, the auction will be continuous until around 5:00 PM when the last item will go up for sale. During the auction, there is a minimum bid of \$20, and minimum increment bid of \$5. A seller can protect his item by being the top bidder if he feels he is not getting a sufficient amount of money. In that case, he must pay 10% of his bid up to a maximum of \$20 if he does do a 'buyback'.

In addition to the bidding action, there will also be about 8 silent auctions of large aircraft, and a bargain table for items under the minimum \$20 open.

Plan on being a part of the 42nd Annual TCRC Auction. **J**




TCRC 42nd ANNUAL AUCTION

Twin City Radio Controllers - Minneapolis, MN

Saturday, Feb 3rd, 2018

www.tcrconline.com



Concessions

- Hot Coffee, Donuts and Other Goodies
- Soda/Pop/Water
- Sub Sandwiches
- Hot Dogs and Chips

No food or drink in the bidding area

BARGAIN Table Returns in 2018!

- Items sold at fixed price \$15 - \$30, predetermined by Seller
- All Day Exposure
- All Items sold at the table
- \$5 flat fee commission (sale or no sale)

What's for Sale?

- R/C Airplanes, Kits, Engines & Radio Systems
- R/C Aircraft related stuff & support equipment
- NO Cars/Boats
- NO Unrelated Stuff

When:

Registration Begins	@ 6:45 am
Viewing	@ 8:15 am
Auction Begins	@ 9:00 am

Details:

- 5:00 Admission: includes Bidder's Card
- \$20.00 Minimum Opening Bid. Nothing will be sold for less than \$20
- Commission of \$5 or 10% , whichever is greater, **on ALL ITEMS**
- **SELLER MUST** attach a brief description to **EACH ITEM** being sold.
- Pre-Registration Available for Sellers
- **BUYBACKS @10%** up to a maximum fee of \$20
- **CREDIT CARDS will be accepted for auction and concession purchases**

Questions?

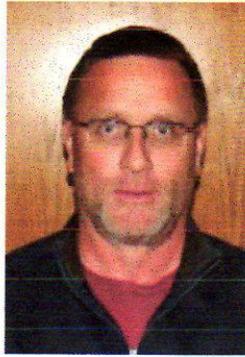
- Email Auction@TCRCOnline.com
- Call Bob 612-964-8877 or Scott 952-934-1471
- More Info at:
<http://www.tcrconline.com/pages.auction/htm>

Silent Auction Returns in 2018!

- For Items \$125 and up
- One Hour Exposure for all items in Silent Auction
- 5 Items sold each HOUR for 6 hours
- Set your minimum (\$125 or higher), Bidders bid for one hour. Item sold to highest bidder
- Limited to 1st 30 sellers who choose this option

A Note from The Head Wing Nut

By Bob Briesemeister



TCRC Members

The big event is almost here. The 42nd Annual TCRC Auction. It's only 3 days away and it looks like it will be cold but hopefully that should not scare anyone away. I know that there is another big event in town but we need your help Friday night for set up after 5 and the entire day on Saturday. We will need help Saturday when we open at 6 am until everything is sold and the church is cleaned up and put back the way we found it.

With that said, everything seems to be coming together. Tim and Shawn have a handle on the concessions but will need help unloading Friday night. We will need help setting up the camera and sound system on Friday as Pat Dziuk will not be able to attend. All the forms have been printed and signage is ready. Larry Couture has been working with the hobby shops for door prizes. If we can count on everyone showing up to work, we will be in good shape.

Scott Anderson has been a little under the weather but hopefully his voice will be ready on Saturday. Jim Cook is flying back from much warmer weather to be our auctioneer and rounding out the sales crew is Brian Johnson.

Remember as members you can bring your items that you are selling Friday night for check in after the setup work is finished. By checking your items in the night before it helps reduce congestion on Saturday morning.

Everyone who volunteers to work the auction whether you are a member, spouse, child of a member or member of a different club, needs to remember to sign in to win one of the many gift certificates that will be given away at the February 13th membership meeting. If your spouse works we will have gift certificates other than from the hobby shops for them to win. TCRC will supply pizza and soda at that meeting in appreciation for volunteering your time working the auction. So please come and join your fellow club members and other flying enthusiasts at the auction.

Remember at the February 13th membership meeting we will have Show & Tell so everyone can see the items you purchased at the auction or those you have been working on over the winter.

See you on Friday, Saturday or both days. You know where I will be!
J

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.

2018 Officers

President	Bob Briesemeister 612-964-8877
Vice President	Chris O'Connor 612-619-5471
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& Mike Timmerman 952-496-1631

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.

AWN

(Assistant Wing Nut)

by VP Chris O'Connor



AUCTION!!!!!!!!!!!!!!!!!!!!

We need all hands on deck. If you can come please do, if you don't know what to do we will help you. I hope to see as many of our members as possible. Thank you in advance.

Here we are into the winter season with both feet now, so now's a good time to do some repairs and/or start a new project. With all the ARF's available and foam planes which are getting nicer all the time, why not have a model not everyone has. Have you ever said I wish I had one of those planes whatever it might be. I would bet that there's a kit or plans available for that dream plane. So why not start on your dream plane. If there are plans you can cut your own parts or have a kit cutter do it for you. Building a model and seeing it fly is a very rewarding experience. If anyone is apprehensive to start a project for fear of failing, don't be. There are many people that can give you help along the way. If any of you are like me you're out of control. I have four models that need to be built. Two for myself and two for my son Nate. Mine are a Hawker Hurricane and a Hawker Sea Fury. See a pattern? Nate's are a Beechcraft Bonanza and a Hawker Typhoon. Definitely a pattern! The Sea Fury is started along with the Hurricane, but next up is the Beechcraft Bonanza. This plane is quarter-scale and is very similar to my T-34 Mentor. A member of our club, Dave Andersen, drew the plans for the Bonanza. As a plug to Dave all his plans are available at MNBigBirds.com, and his plans are absolutely incredible to build from. I hope some of you take the hint and build a model.

The February meeting will have info on the auction as well as a program on electric planes given by Mr. Electric, Gerry Dunne. I invite everyone to come and see what Gerry will be talking about. The March program will be on Jets. My friend Roy Maynard, an expert in this field, will bring one of his models to show and discuss what we need to know about jets. Roy is also an outstanding builder. So lots of fun things going on at the meetings. See you there!

TCRC Apparel For Sale

TCRC's new club apparel is available for sale at most membership meetings.

The new apparel is pretty nifty looking.

Club treasurer Tim Wirtz has been organizing the order of the club apparel and now has for sale:

- TCRC Hats \$12.00
- TCRC Hatbands \$5.00
- TCRC Gray Sweatshirts \$18.00
- TCRC Gray T-Shirts \$12.00

The dark blue hatbands are to be worn on broad brim straw hats and should look pretty neat.

Tim has plenty of the hats and shirts in an array of sizes. See him at a meeting to get your new TCRC shirt or hat. J



Pima Air And Space Museum Tucson, Arizona

by Jim Cook

While I am waiting out the winter raging back in Minnesota, I made it a promise to myself that I would get down to Tucson this winter to visit the Pima Air & Space Museum and the Aircraft Boneyard at the Davis Monthan AFB.



**The most beautiful plane at the Pima Air & Space Museum is the elegant B-36, and it is worth the visit all by itself.
(Photo by Jim Cook)**

We arrived at Pima around 9:00 AM and quickly got our tram tickets to tour the 60 plus acres of planes sitting outside. The tram was staffed by a volunteer and he gave us a one-hour tour and was a wealth of knowledge on the 300 airplanes sitting outside in the sun. He explained that the Tucson dry air and sunshine were great for preserving these planes.

He explained that Pima A & S Museum is one of the three great collections of airplanes in the United States – The Smithsonian A & S Museum in Washington, D.C.; the USAF Museum in Dayton, Ohio; and Pima. He was quick to point out that of the three, two are government funded whereas Pima was privately funded. He also pointed out that the 350 + airplanes at Pima made Pima now the second largest collection of planes, with the Smithsonian taking top honors. It was neat to me that I

have visited all three of these aircraft museums, and was very impressed at how nice the Pima facilities were.

In addition to the 60 acres of airplanes outside, Pima has 5 large hangers with planes on the floor, in the air, and great exhibits and photos everywhere.

I was especially attracted to the big bombers of yesteryear, the B-17, the B-29, the B-36, the B-47 and the B-52, and all of these aircraft outside were fantastic. According to our guide, there are only four surviving B-36's. I have seen the one in Dayton, and now the one in Tucson. When I visited the Smithsonian I don't remember seeing a B-36, so I am somewhat curious to know where the other two are.

A really neat plane to see had the tail number N787EX. This was the newest addition to the museum and is the test aircraft of the most sophisticated commercial airliner now in existence – the Boeing 787. It was explained that after the testing was complete on the 787, it was painted and to be sold to a commercial operator. However, the FAA stepped in and explained to Boeing that during the testing, almost every part of the plane was over-stressed, and would have to be replaced for the plane to be entered into normal commercial flight. Boeing quickly realized that it was better for them to donate the plane to Pima and take a \$240 million dollar write-off, so Pima A & S now is the proud owner of the plane.

Pima has a hanger dedicated to mainly WWII aircraft, another to the jet age, another for general aircraft, and a NASA Space hanger. They

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Pima Air & Space Museum

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also have a hanger dedicated to the 390th Bomber Wing (B-17's) which I did a separate article on in this newsletter.

The condition of the planes at the museum was remarkable. They have a large hanger dedicated to the restoration, repair and painting of newly arriving aircraft. I believe we were told that there were more than 350 volunteers that worked at Pima in various capacities, and they did a phenomenal job making the planes, hangers and grounds almost immaculate.

My biggest disappointment on this trip was the fact that I did not get to go to the Aircraft Boneyard located at Davis-Monthan AFB just across the road. As of the start of the year, to visit the boneyard, you must submit your name to a security clearance, and it takes two weeks to get that clearance. I have plans on going to the boneyard in March. It is the largest aircraft boneyard in the world. Tours of the yard are done by the Pima Museum, aboard their trams. The tour lasts about an hour and one-half, and you are not permitted to leave the tram during the tour. This is in contrast to the Pima grounds where you can walk anywhere you want on the grounds.

Pima Air & Space Museum is a must for anyone who visits the Phoenix-Tucson area, even if you are not an aviation buff. It is a wonderful snapshot of aviation history. J

The Tram Tour Of The Pima Grounds Was Done In Comfort



Tram tours of the 60 acres of aircraft at the Pima A & S Museum went every hour on the hour, and the volunteer guides did a great job of not only identifying the planes but usually had a story about each particular airplane. (Photo by Jim Cook)

Six Turners And Four Burners



One wing of the beautiful B-36 showing half of the complement of engines on the craft – three pusher props and two jets. The B-36 at the USAF Museum in Dayton is crammed inside a hanger. This one is majestic out in the sun! (Photo by Jim Cook)

Pictures From the Pima Air & Space Museum



The vertical stabilizer of the B-36 is huge and can easily be seen by cars on I-10 next to Pima.



Just about the strangest aircraft at Pima is the B-377 Super Guppy.



The B-29 on the grounds was in spectacular condition. The Pima A & S volunteers are almost all retired persons who just have an interest in aviation history and they take great pride in making the museum a wonderful visit.



The B-52's at Pima were awesome. Pima has four and they were all in superb condition. The B-52 is still in service in the USAF, now flying in its 63rd year since entering the USAF fleet. It may fly until 2040 -- 85 years of service!



The tail of a 'Connie' is a sight to see.



The hanger of the 390th Bomber Wing.

28 Missions Over Germany During WWII In A B-17

by Jim Cook

The highlight of my trip to the Pima Air and Space Museum in Tucson, Arizona was the chance to meet and talk with Colonel Richard Bushong, USAF Retired.



Col. Bushong with a restored B-17 at Pima. (Photo by Jim Cook)

One building at the Pima Air & Space Museum is solely a museum remembering the 390th Bomb Group of B-17's in WWII. Col. Bushong is a spry 95 years of age and spends every Thursday at the 390th museum meeting visitors and discussing the war. He flew and survived 28 missions over Germany as a pilot in various B-17's during the war, and his recollection and narration of those events keeps his audiences spellbound.

In November 1943, a very much younger Richard, proudly wearing his newly earned wings, arrived in England with the crews he had trained with. He was stationed in a hut with the officer complements (2 pilots, navigator and bombardier) for three air crews, or a total of 12 in that barracks. He was taken very ill and ended up in the hospital for a few days. When he returned to his hut, he found 11 empty beds with the mattresses rolled up, and his bed. He went to see the CQ (charge of quarters) to find out where his crew was assigned, only to learn all three crews had been shot down, two on their first flight and one on their second flight.

Richard explained that when he was training in B-17's, the crews did not have experience at altitude, at full weight, and in tight formation. The heavy, high and tight experience had to come during combat, and the price being paid by new crews was staggering.

Richard quickly got his feet wet, and became a seasoned veteran in the B-17. He flew his 28 missions in various B-17's. He explained that the tight formation was critical for survival during the raids. In tight formation, the firepower of the planes' machine guns was quite good and kept the ME 109's and FW 190's from scoring many victories. But if a plane finished her bombing run and turned late and slipped out of formation, she was a sitting duck for the fighters. He also explained that almost all air attacks came from the front. This was because of the combined airspeeds of the planes. The B-17's were moving at about 200 mph, and the approaching fighters were moving about 400 mph, for a combined closing speed of 600 mph. The B-17's effective gun range was about 1000 yards, so at 600 mph, the fighters were only in firing range for a very brief time. However, if fighters approached from the rear, the combined closing speed was only 200 mph (400 mph fighter speed minus the 200 mph bomber speed). The tail gunners had the fighters in range a much longer time and the kill success rate was much higher.

He said the flak was a very scary thing. This was the explosions of shells shot from the surface that could be set to detonate at certain

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28 Missions Over Germany During WWII In A B-17

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altitudes. During the bombing run, the plane would be buffeted by a close detonation, or would constantly be flying thru the raining shrapnel from detonations above the plane. He never returned from a mission without several holes in his aircraft. He once suggested to his crew chief that the chief paint each patch on the plane yellow. The crew chief looked at him incredulously and said that if he did that the whole damn plane would be yellow!



Inside the hanger of the 390th Bomb Group Museum.
(Photo by Jim Cook)

His explanation of the act of bombing was really interesting. Some of the planes in the formation were equipped with the top-secret Norden bombsights that took in account altitude, wind speed and air speed to hit the target. He said that assumed the wind speed at your altitude of 22,000 feet was the same all the way down. It wasn't. In reality, a wing of 21 bombers would open their bomb bay doors and when the lead bomber dropped his bombs all would. The next 21 bombers would see where the explosions were, and if they were to the right of the target, they would make a correction. The next 21 would watch those explosions and make their corrections, followed by the next 21, etc.

I asked him if any one position in the plane was more vulnerable to survival than the others. He said he had researched the statistics and the position with the least chance of survival was the pilot! He explained that on the pedestal of the plane was a toggle switch. When the pilot engaged that switch, alarms went off all over the plane and the crew was trained to grab their chutes and dive out of the plane. It was going down!

Of course, the pilot had to hold the plane as steady as possible while this was happening. When it was his turn to jump, no one was left to hold it steady for the pilot.

The English were great to the flying crews but were always joshing them. The British did not do day raids, only night runs, and they thought Yanks were crazy to fly over Germany in the daytime as targets for the fighters and ground crews.

Richard partook of the first raid over the Big Town (Berlin). He said 800 B-17's left England for a concentrated raid on factories in Berlin. 700 planes made it over target, dropping their bombs. 69 crews did not return home.

Richard's luck was amazing. Two planes he piloted were downed on their very next flights. His planes always made it home, though at times with missing engines, countless holes, but still flyable. Remarkably, his 28 missions were flown in a four month period!

Richard served in the Air Force for 32 years. In all he piloted 43 different types of aircraft from helicopters to jets. He has flown at speeds of 0 (hover) to Mach 2.1 in the F-4.

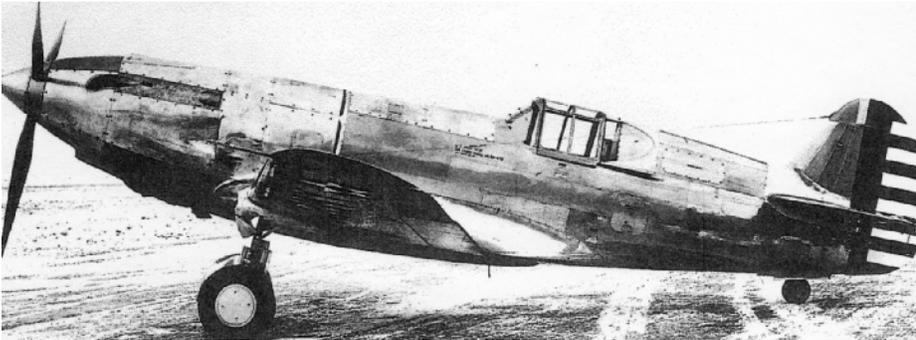
He explains that every plane that he has flown is now out of active service, and the ones still in existence are genuine antiques. But then, he says, so is Richard Bushong.

Richard has authored a book, *My Wars*, by Richard Bushong. It can be purchased at Amazon.com for \$12.45, or if you are fortunate enough to be able to get to the Pima Air & Space Museum in Tucson, you can purchase an autographed copy **J**

Curtiss YP-37

by Conrad Naegele

The January Mystery Plane was the Curtiss YP-37.



In the 1930's the development of aircraft power plants was moving at a pace equal to the refinements in airframe design. The P-36 was proving itself as far as maneuverability was concerned but contemporaries were out-performing with higher speeds. The latest foreign-built fighters, powered by slim inline engines, were reaching speeds well over 300 mph. The U.S. Army's interest was indicated by Allison investing \$500,000 in the design of the V-1710 engine (a very large sum of money in the depression years.)

Curtiss then constructed the XP-37, using the P-36 airframe. The YP-37's long-pointed fuselage with the cockpit just ahead of the vertical stabilizer reminds one of the GeeBee, but with 1,100 horsepower. The location of the turbocharger presented all kinds of CG problems and was prone to failure. Despite these shortcomings, the Army ordered 13 examples. Due to being 450 pounds overweight and the failure to meet the 340 mph guarantee, the contract was cancelled.

The XP-37 was a single-seat fighter with a wingspan of 37 feet 4 inches and a gross weight of 6,890 pounds. Its top speed was 330 mph. For armament it carried one 30 caliber and one 50 caliber gun in the nose.

You're Needed At The TCRC Auction!

Saturday, February 3rd, TCRC will be holding its 42nd Annual R/C Auction. This auction attracts hobbyists from the Twin Cities area, out-state, and all of the surrounding states. From the time the doors open at 6:45 AM, until the church is put back in order by 7:00 PM, the club utilizes every member, plus family members and friends during those 12 hours.

This sounds like a long grueling day, and it is, but it is also a day filled with fun, friends and lots of interesting R/C items being bought and sold.

On Friday, February 2nd, there will be a special work detail starting at 5:00 PM to do a preliminary set-up of the church.

This is also the time to take a look at your inventory of planes and R/C accessories to decide if you have items for sale, and to also determine what items you need to purchase.

Be a worker, a buyer and a seller at the TCRC Annual Auction. **J**

FREE! Scale Plan Downloads

ARADO 96B, Focke Wulf TA -152H
Grumman Lynx, Howard Pete
Kawasaki Ki-45, Lavochkin La-7
Mitsubishi - "Babs"

MNBigBirds.com

Add'l Extras:

- In Flight Videos
- Construction Articles
- Scale Documentation
- Paint Masks & more...

Composite Parts Available thru...

MICKO
Aircraft & Accessories

The Norden Bombsight

Reprinted from Wikipedia, the free encyclopedia

(Editor's Note: After listening to Col. Richard Bushong, USAF Retired, discuss bombing in WW II and the Norden bombsight, I decided to do a little research on that bombsight.)



Norden Mark XV Bombsight

The **Norden Mk. XV**, known as the **Norden M** series in Army service, was a bombsight used by the United States Army Air Forces (USAAF) and the United States Navy during World War II, and the United States Air Force in the Korean and the Vietnam Wars. It was the canonical *tachometric* design, a system that allowed it to directly measure the aircraft's ground speed and direction, which older bombsights could only measure inaccurately with lengthy in-flight procedures. The Norden further improved on older designs by using an analog computer that constantly calculated the bomb's impact point based on current flight conditions, and an autopilot that let it react quickly and accurately to changes in the wind or other effects.

Together, these features seemed to promise unprecedented accuracy in day bombing from high altitudes; in peacetime testing the Norden demonstrated a circular error probable (CEP) of 23 metres (75 ft.), an astonishing performance for the era. This accuracy allowed direct attacks on ships, factories, and other point targets. Both the Navy and the AAF saw this as a means to achieve war aims through high-altitude bombing; for instance, destroying an invasion fleet by air long before it could reach US shores. To achieve these aims, the Norden was granted the utmost secrecy well into the war, and was part of a then-unprecedented production effort on the same scale as the Manhattan Project. Carl L. Norden, Inc. ranked 46th among United States corporations in the value of World War II military production contracts.

In practice it was not possible to achieve the expected accuracy in combat conditions, with the average CEP in 1943 of 370 metres (1,200 ft.) being similar to Allied and German results. Both the Navy and Air Forces had to give up on the idea of pinpoint attacks during the war. The Navy turned to dive bombing and skip bombing to attack ships, while the Air Forces developed the lead bomber concept to improve accuracy, while adopting area bombing techniques by ever larger groups of aircraft. Nevertheless, the Norden's reputation as a pinpoint device lived on, due in no small part to Norden's own advertising of the device after secrecy was reduced late in the war.

Other interesting facts about the Norden bombsight:

The first Mark XI bombsights were delivered to the Navy's proving grounds in Virginia in 1924. In testing, the system proved disappointing. The circular error probable (CEP), a circle into which 50% of the bombs would fall, was 34 metres (110 ft.) wide from only 910 metres (3,000 ft.) altitude. This was an error of over 3.6%, somewhat worse than existing systems. Moreover, bombardiers universally complained that the device was far too hard to use. Norden worked tirelessly on the design, and by 1928 the accuracy had improved to 2% of altitude, enough that the Navy's Bureau of Ordnance placed a \$348,000 contract for the devices.

The new design, the Mark XV, was delivered in production quality in the summer of 1931. In testing it proved to eliminate all of the problems of the earlier Mark XI design. From 1,200 metres (4,000 ft.) altitude the prototype delivered a CEP of 11 metres (35 ft.), while even the latest production Mk. XI's were 17 metres (55 ft.). At higher altitudes, a series of 80 bomb runs demonstrated a CEP of 23 metres (75 ft.). In a test on 7 October 1931, the Mk. XV dropped 50% of its bombs on a static target, the USS *Pennsylvania*, while a similar aircraft with the Mk. XI had only 20% of its bombs hit.

In spite of the security precautions, the entire Norden system had been passed to the

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The Norden Bombsight

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Germans before WWII started. Herman W. Lang, a German spy, had been employed by the Carl L. Norden Company. During a visit to Germany in 1938, Lang conferred with German military authorities and reconstructed plans of the confidential materials from memory. In 1941, Lang, along with the 32 other German agents of the Duquesne Spy Ring, was arrested by the FBI and convicted in the largest espionage prosecution in U.S. history. He received a sentence of 18 years in prison

In 1940, it was claimed that "we do not regard a 15 square feet (1.4 m²) ... as being a very difficult target to hit from an altitude of 30,000 feet (9,100 m)". At some point the company started using the pickle barrel imagery, to reinforce the bombsight's reputation. After the device became known about publicly in 1942, the Norden Company in 1943 rented Madison Square Garden and folded their own show in between the presentations of the Ringling Bros. and Barnum & Bailey Circus. Their show involved dropping a wooden "bomb" into a pickle barrel, at which point a pickle popped out. J

2018 TCRC Dues

With the arrival of the New Year comes the time to renew your TCRC club dues.

The TCRC board of directors met and set the 2018 TCRC dues as shown below:

- Regular \$85.00
- Junior \$47.50
- Social Affiliate \$35.00

Dues invoices were handed out at the December meeting if you were present, or mailed after the December meeting.

Remember, to be a member of TCRC you must be a member of AMA and supply proof of that membership at the time of your TCRC renewal.

Your TCRC dues can be paid to treasurer Tim Wirtz at a meeting or by mailing them to Tim at:

Tim Wirtz
1511 Emerson Avenue N
Minneapolis, MN 55411

The TCRC board confirmed the initiation fee for new members or members who had not paid their dues for the previous year. The initiation fee is \$75.

Take the time to pay your 2018 TCRC dues today. J

2018 AMA Dues Statements

Most older TCRC members should have received their 2018 dues statements in the mail in September from the Academy of Model Aeronautics. Newer members renew on the anniversary of the month they joined.

AMA 2018 dues are the same as the previous year. They are:

- Adult (19-65) \$75
- Senior (65 and up) \$65
- Under 19 Free or \$15 with *MA*

Your AMA membership gives you \$2.5 million in personal liability coverage, \$25,000 in medical coverage and also a subscription to *Model Aviation* for the year.

To belong to TCRC, you must have a valid membership for the year in AMA.

Please note that AMA also has a Park Pilot membership that has a cost of \$38 per year, but that membership is not valid for membership in TCRC.

To renew your membership in AMA, the Academy gives you four methods: at the AMA website, www.modelaircraft.org; by fax at (765) 741-0057; by phone at (800) 435-9262; or by returning the renewal form you received in the mail in the supplied envelope.

Pay your 2018 AMA dues today to avoid a lapse in membership services. J

TCRCOnline.com

Use It!

Seller Pre-Registration At TCRCOnline.com

by Pat Dziuk
TCRC Webmaster

The Twin City Radio Controllers 42nd annual auction is just about here! This year it will be again held at CrossPoint Church, 9801 France Avenue South in Bloomington on Saturday **February 3rd**.

You can register for a seller's number online again this year allowing you to fill out your seller's inventory card and label your items in the comfort of your warm home instead of freezing in the parking lot the morning of the auction.

To register please send an email to auction@tcrconline.com with your name, address and phone number requesting a seller's number. You can find full details including the seller's inventory card at

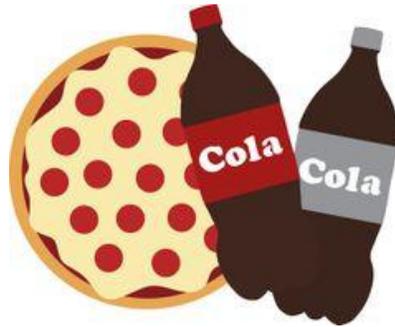
http://www.tcrconline.com/pages/auction_seller_registration.htm

General information at <http://www.tcrconline.com/pages/auction.htm> and <http://www.tcrconline.com>

Hope to see you at the auction and please feel free to forward this on to your fellow modelers at other clubs. J



Pizza & Pop Party February 13th



At the February 13th TCRC Membership Meeting, the club will be serving pizza and pop to all of the many members who worked so hard at the 42nd TCRC Auction held on February 3rd.

In addition, all people who worked the auction, member or not, will be entered into a drawing for several \$25 gift certificates to Hobby Warehouse.

So come to the February 13th meeting at 7:00 PM at CrossPoint Church with a good appetite and plans to win a gift certificate. J

For Sale

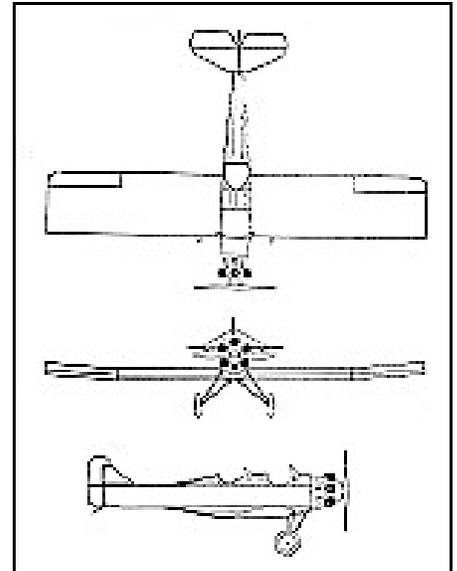
President Bob Breisemeister has some nice airplanes for sale.

Bob's planes range from small electric ARF's up to 1/3-scale sport planes. Some planes are still in kit form, and some are entirely completed.

The prices of the various planes are very moderate and any one of the aircraft would be a great value for the money.

If you are interested, give Bob a call at 612-964-8877, or see him at a meeting. J

February Mystery Plane



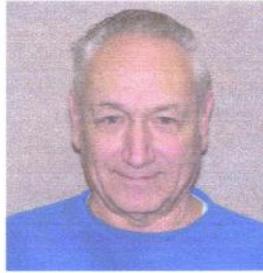
Calendar

- Feb. 2 TCRC Auction
Set-Up 5:00 PM
CrossPoint Church
- Feb. 3 TCRC Annual
Auction 7 AM – 5 PM
CrossPoint Church
Bloomington
- Feb. 13 TCRC Membership
Meeting, 7:00 PM
CrossPoint Church
Bloomington
- Feb. 17 All Season Flyers
TCRC Jordan Field
10-10-10 Rule
- Mar. 3 End of Winter
Funfly
TCRC Jordan Field
10-10-10 Rule
- Apr. 6-8 Toledo Air Expo
Seagate Center
Toledo, Ohio



Safety At The Field

By Larry Couture



Well here it is the end of January 2018. The January snow storm has come and gone, and the short January thaw has come and gone. I have heard that there has been some flying at the field with wheels during the thaw period, but now the field is all white and one will need skis.

The coming really big event will be the TCRC auction on Saturday, February 3rd and all members are needed to work this auction as this is the time that brings in the money for about 1/3 of the operating expenses for the club, and therefore keeps the dues lower for all members. It's hard work and a long day but it is a lot of fun and you will see and meet people that are from all over but enjoy the same hobby as you. AND YOU MAY FIND THAT PLANE OR PROJECT THAT YOU CAN'T LIVE WITHOUT. (For a very low price). I hope to see you all there for Friday night set up and the Saturday sale.

FOR ALL MEMBERS NEW AND OLD:

The rules are printed in the front of the roster and on a large board in the shelter at the field. I suggest that all members should read them from time to time just to refresh the memory. The thing I will always harp about is let your fellow flyers know what you are doing or going to do by LOUDLY ANNOUNCING take offs, landings, dead stick and on the field travel, and make sure the other hear you and acknowledge you. In my opinion this is the most important rule or suggestion to follow as it will make accidents less likely to happen. IT SEEMS TO BE WORKING SO LETS ALL KEEP IT UP.

Thought for the day: Fly often, have fun and crash less and as usual all landings from which you can fly again are great but not always graceful. (DO NOT MISS THE ACTION)

Safety Always Comes First!

**You're Needed At The TCRC Auction
Saturday, February 3rd**

New Member

Greg Happ became the newest member of TCRC for 2018. Greg lives at 1988 Clover Ridge Drive in Chaska, 55318. His phone number is 952-334-0535 and his email address is greghapp@gmail.com. Greg has been flying R/C for about ten years and currently has a Kaos 60 EP.

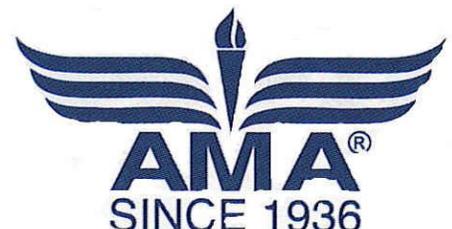
When you see Greg at a meeting or the field (or the TCRC auction) be sure and introduce yourself and welcome him to TCRC.

Treasurer Tim Wirtz reports the club now has 100 members. If you have not renewed your TCRC dues for 2018, now would be a good time to do it. **J**

18304

If someone was injured at the TCRC flying field and you had to call 911, what would you tell the operator for the location of the emergency? You would tell the operator the fire number for our field: 18304.

For safety reasons, it is very important every member knows our fire number. Hopefully we will have the fire number prominently displayed in the shelter at the field in the very near future. **J**




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