



May

Minneapolis, Minnesota U.S.A.

2007

# Toledo Expo 2007 – What An Experience!

by Jim Cook

There is nothing bigger or better in our hobby of R/C aircraft than the Toledo Expo, sponsored by the Weak Signals R/C Club of Ohio.



The air is just full of airplanes, everywhere you look at Toledo Expo.  
(Photo by Jim Cook)

At Toledo, every vendor of R/C products that exists in the US, plus several international companies, is represented. Every name that you read about in the hobby magazines is present and just itching to talk about RC. And whatever is new to our hobby will be demonstrated and sold at Toledo. This year the new items were spread-spectrum radios;

and just about anything that had to do with the current hot area – electrics.

This year, Toledo Expo was the 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> of April. Several TCRC members attended this year. Scott Anderson, Jay Bickford and Jim Cook drove over in Scott's van. Mike Burk had a business meeting in Cincinnati, but diverted to the event. Chris O'Connor, Steve Meyer, Mark Wolf and Nathan O'Connor also drove in. And Scott's brother Todd was coming up from Alabama.

In Scott's van on the trip east, the three guys were making a list of places they wanted to see right away when the Expo started. There plan was to hit the upstairs swap meet area around 8:00 AM before the main floor opened at 9:00. This swap meet is huge, and many Minneapolis shops are represented. Tom Steinmueller had his usual place at the top of the stairs, and Rich Ross was down one hallway a short distance.

Once the main floor opened, the Scott-Jay-Jim 'hit-right-away' list included: 2DogRC, Futaba Spread Spectrum display, Ms. Skyshark, Extreme R/C (spread spectrum modules), and the RCCA (combat) booth. Once those areas were thoroughly examined, then it was a 'let's see it all' attitude. Cell phones

(Continued On Page 3, Col. 1)

# The President's Hangar

by Bill Jennings

Spring has arrived... for the second time this year! After a brief period of Spring-like weather earlier in the year, the month of April was much cooler than normal. However, recent temperatures are finally nudging closer to the seasonal average. The Minnesota River has finally receded below the flood stage, and our main field has recently become usable again. The field, still a little damp around the edges as I write this column, should be dried out nicely by the annual Field Cleanup Day, scheduled for May 5th.

Our nicely manicured flying field is made possible only through the efforts of a dedicated mowing crew. There was a very enthusiastic response to the call for volunteers to help out with the field mowing chores this year. Six new names have been added to the usual list of volunteers, which has been posted on the website. The expanded list has made it possible for most volunteers to only have to mow the field once during the summer flying season. The new volunteers will have an opportunity to learn safe operating procedures for the tractors during the field cleanup event. The crew members this year are Dave Andersen, Jay Bickford, Mike Burk, Ken Corrin, Duane Cote, John Dietz, Gerry Dunne, Stan Erickson, Bill Jennings, Scott Johnson, Brian McCutcheon, Conrad Naegele, Butch Neutgens, Jim Ronhovde, Orville Schneewind, Todd Schwartz, and Mike Timmerman. Additionally, Gerry Dunne and Jim Ronhovde perform all the maintenance on the club's two tractors. Be sure to thank all these guys when you see them at a meeting or at the field!



**Tim Johnson tells those attending the Kit Building Workshop about building ultra-giant-scale planes. (Photo by Bill Jennings)**

The Kit Building Workshop is experiencing some postponements this year due to several unforeseen circumstances. However, each session held thus far has provided a wealth of useful information for the loyal group in attendance. The last session featured Tim Johnson of Owatonna who shared the discoveries he made while building and flying his 2/3 scale J-3 Cub. Tim also brought the fuselage and stabilizers from his impressive current project, a 2/3 scale Spacewalker. Tim demonstrated several products he has used successfully on his ultra giant scale aircraft. All of the items can be implemented on our smaller scale planes to make them either stronger or safer without adding a lot of additional weight. Tim also provided information about Spread Spectrum radios, on using a flexible CA product that he feels is superior to epoxy, on determining the best propeller for your plane, and using glow fuel to prime a gas engine for easy starting. The workshop sessions will continue into early June this year, as speakers become available. Stay tuned...

Our next event is the annual Field Cleanup Day and Fly-In scheduled for May 5<sup>th</sup>. The Board organized cleanup will start about 10 a.m. in order to be finished in time for a noontime feast consisting of hotdogs, chili, chips, pop and all the fixin's. Those participating should bring snow shovels, push brooms, leaf blowers, etc. for cleaning the runways. Scrub brushes, large containers of water, old rags, etc. will come in handy for cleaning the shelter, signs, picnic tables and chairs, etc. After the cleanup and

**Continued On Page 7, Col. 2**

## Toledo Expo 2007

Continued From Page 1

were synchronized, watches checked, and when the doors opened the boys hit the floor running. There was some initial concern from Jay and Scott about Jim's month-old new hip holding up, but through the entire weekend he kept right up with them.

Scott immediately set the standard for spending dollars quickly and even though his brother Todd made a game effort to catch up, it was apparent that Scott would not be outdone.

It was very apparent that electric airplanes were the kings of the 2007 Expo – and the emphasis went in two directions – very big and very little. Several booths had electric motors that were meant to replace a 180-size glow engine, and of course, all of the additional equipment to make that motor run – ESC's, huge Li-po batteries, etc. And then there was the small side – planes and equipment smaller than the palm of your hand for in-door flying. Several booths also included the very light-weight profile planes that were used at the ETOC – Electric Tournament of Champions. These planes had wingspans close to 36-inches but only weighed 4 ounces fully loaded and ready to go. The ETOC was held Friday and Saturday evenings at the Toledo High School gym and the four guys attended both evenings. This got them very interested in the 4-ounce planes, and more than one was purchased by them before the end of Expo.

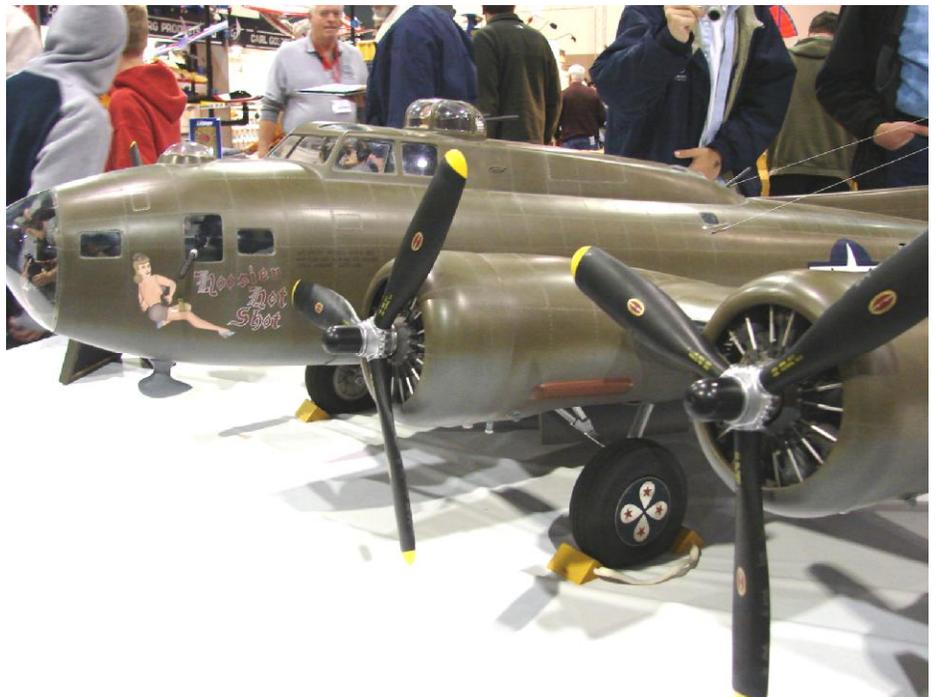
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## Small But Beautiful!



Jay Bickford snaps a picture of a fantastic 'tiny-scale' warbird entered in the contests at Expo. (Photo by Jim Cook)

## But Big is Beautiful Too!



The models entered in the scale categories were favorites of those at the Expo. This bomber was gorgeous. (Photo by Jim Cook)

## Safety At The Field

by Larry Couture

The Safety Item for this month will be 'Did you check your plane before take off?'

When you fly with a commercial airline, if you watch closely you will see the pilot walking around the airplane and inspecting it. The reason for this is that he is going to get in the plane and fly and he does not want to crash or have problems.

That being said it seems that our planes should be carefully inspected so that a loose or malfunctioning part does not cause a crash. It takes just a few minutes to check all hinges, moving surfaces and electronics before take off. I know for a fact that had I done this more often and better I would have had a few less crashes on my record because they were not all pilot error. Just think of how many times in conversation you have heard some one say the crash was because of equipment, broken hinge, faulty servo, etc. Any of these might have been found by a good inspection prior to take off. So I am all for inspection, inspection and more inspection.

I just arrived home from the field and the flying was great! All those not there sure missed a great day. The field needs a good cleaning, and in some places it is still damp and sticky. So for safety sake walk carefully on those places (SAFETY TIP FOR THE DAY).

## Toledo Expo 2007

Continued From Page 3

There were many, many RC simulators to try out and I think every type was taken for a flight or two by the group over the course of the event. Todd had never flown 3-D before but after a few flights on the simulator at the 3DogRC booth, he was pretty proficient. So proficient that he added one of 3Dogs profile 3D planes to his purchases, including all of the necessary trimmings.

There were seminars to attend also. One popular one was on how to chose the components for an electric plane, big or small. Attending a seminar was interesting, and also gave a person a chance to sit down and catch his breath.

One of the neater purchases made was an ARF electric Jenny (purchased by both Scott and Todd). This plane was very well built and covered with transparent yellow covering. The wings were complete with wires, and the price

This being a new season of flying let's all review the rules in the front of the new roster and apply them every time we fly at our field or any other place or field. This should keep our hobby safe for everyone.

As usual all landings from which you can fly again (after inspection) are great, but not always graceful, so keep the rubber side down. ☺

was very reasonable. We will be looking to see Scott's appear at Show & Tell in the not-too-distant-future.

After two days of visits to the main floor and to the 2<sup>nd</sup> floor swap meet, the guys had either run out of energy or money or both. A nice meal at the Real Seafood Restaurant found them planning Sunday's trip home. After a very short discussion it was decided that the van should return home via Wright Patterson AFB which was about 2-1/2 hours south of Toledo at Dayton, Ohio.

An early wake-up put the van, with Todd following in his car, on the road at 6:00 AM. They arrived in Dayton in time for a nice breakfast and then entered the AFB museum as the doors opened. The guys figured they could afford 2 hours before hitting the road again for the long trek home.

The museum was well worth the trip. It has very hard to see in the 2-1/2 hours they group were there, but it was awesome. There are three full hangers of planes to see, plus a new building housing space displays. Most of the time was spent in the hanger with the WWII aircraft, but all hangers did get some time. It is very hard to put into words the effect that seeing these historic planes has on a person, but virtually everyone visiting in the hangers seemed to have a reverence for what they were seeing. ☺

**Spring Float Fly  
May 12th**

# Pictures From The 2007 Toledo Expo



The main floor of the Toledo Expo just moments before the doors opened.



Mike Burk, Jim Cook, Scott Anderson and Jay Bickford had a great lunch at Murphy's.



The Skyshark booth seemed to be quite an attraction at Toledo Expo.



The 2DogRC booth was very busy and a source of many bargains. Here Jay is with Mark, the owner.

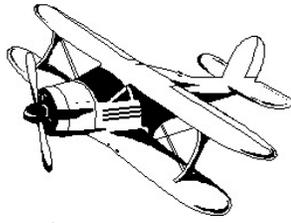


Scott, Todd & Jay at Wright Patterson AFB.



Jim at the AFB museum by a neat Spitfire.

# Show & Tell



Lots of planes at the April meeting.



Steve Meyer had a very nice Great Planes ARF of a Curtiss P6E. This biplane was done in Army trainer colors of black fuselage with yellow wings, covered with Monokote. The plane was powered with a Saito 180 4-stroke engine and had a 76-inch wingspan, making it IMAA legal. It weighed 14 pounds and had not flown yet.



Jim Cook had his newest electric – an E-Flite Ultra Stick 25e. This plane was white with red and blue trim and had flaps. It was powered with a Dualsky 3548 motor and had two 2,100 mAh batteries wired

3s2p. Jim said he had to add an Ultra BEC because the Dualsky ESC could not power the 6 Hitec 225BB servos. With the flaps, Jim needed a 7-channel radio that hadn't arrived as yet. He said he might put a Futaba Spread-Spectrum radio in the plane if he got a great deal at Toledo Expo. The plane had yet to fly, but Jim was anxious to get it into the air.



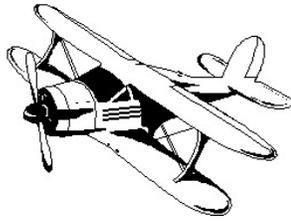
Tom and Tynan Thunstedt had a profile biplane called a Foamy 2X 3D which he built from Batix plans. It was made of Depron expanded foam and weighed 16 ounces including the battery. It was done in gray and yellow and had a 31-inch wingspan. He had flown the plane once, and said it flew very well.



Dick Patch had a Goldberg Anniversary J3 Cub that was 15 years old. He had never flown the plane and decided he wanted to switch it to electric. He had purchased a very large E-Flite 60 which would be quite powerful for the aircraft. He hoped the plane would fly this year.

**Continued On Page 7, Column 1**

# Show & Tell



Continued From Page 6



Larry Couture had yet another ARF at the meeting. This was a Fly Baby done in traditional yellow and red and was made by Kyosho. It was powered with a Saito 56 4-stroke and weighed in at 5 pounds. Larry said he put about 9 hours in its construction and finished just the evening before, so it had yet to have its maiden flight.



Scott Anderson had two of the newest rage in radios – spread spectrum. One was a Futaba and one was a Spektrum. He was very impressed with their value for the money and was eager to get them into a couple of airplanes. ☺

# President's Hanger

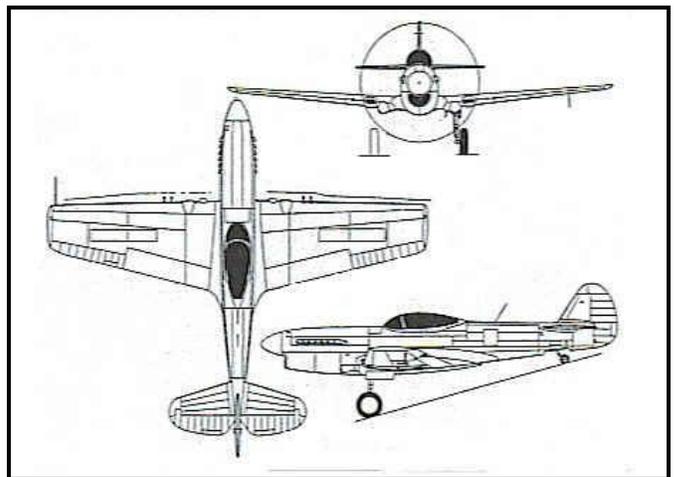
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lunch, those that bring aircraft can try out the clean runways and help us get the Spring flying season off to a great start.

One week following the cleanup is our annual Spring Float Fly event at Bush Lake in Bloomington. Mother Nature has forced us to cancel this event for the past two years due to cold weather and high winds. I plan to have at least one plane ready for the water – just in case...

The first of TCRC's 50th Anniversary events will occur at next month's Membership Meeting on May 8th. If you'd like to learn more about the history of the club, this is a meeting program you'll not want to miss. Our club historian, Jim Ronhovde, has discovered some really old home movies that show a few of our current members when they still had lots of hair and wrinkle-free faces! Chris O'Connor is promising a few additional surprises that should make for a very entertaining evening. Come and join us as we celebrate 50 years of fun. See you there! ☺

# May Mystery Plane



**Get Your Plane Reading For the TCRC Building Contest June 2<sup>nd</sup>**

# From The Co-Pilot's Seat

by Chris O'Connor

The flying season is just starting for some of us, others have been flying all season. So just to review, make sure you preflight your plane before you start flying and by all means charge and discharge your batteries. I have been doing mine and found that my 800ma packs are fine, but that both my 1800ma may have to be replaced. Instead of showing about 1800ma capacity they are at 1150ma. Not good enough! Even replacing them is cheap insurance compared to a crash. If you're unsure how to discharge, I can bring a battery to the meeting and discharge a pack during the meeting.



**Steve, Chris, Jay, Nathan, Mark, Scott, Jim and more get together for a Photo-Op at Expo. (Photo by Scott Anderson)**

A couple of weeks ago, about 8 TCRC members made the trek to Toledo. They were: Jim Cook, Scott Anderson, Jay Bickford, Mark Wolf, Steve Meyer, Chris O'Connor, Nathan O'Connor and Mike Burk. All of us had a great time and I think most of us came home with something. We also saw familiar faces from other Minnesota clubs. For those that didn't make it, there's next year. Usually held in the first weekend in April. Of course the big things at the show were electrics, ARF's of all kinds, and 2.4 gigahertz. One thing I noticed was how much better the ARF's have become. The two that stood out with me were Hanger 9 and the outstanding models of Kondor aircraft (KMP). Many giant scale planes to see also. Many of the models that are entered in the building contest are unbelievable. Almost impossible to tell if

they were iron-on covering or painted. Start making your plans for next year, it is a must see!

Speaking of programs, last month we had an outstanding program by Dave Andersen on vacuum forming parts for your model. Thanks Dave for all your insight on this subject.



**Dave Andersen had lots of vacuum-formed parts to show and explain during his April program. (Photo by Jim Cook)**

This coming meeting on May 8, is featuring TCRC history in movie form, presented by Jim Ronhovde. The movies have scenes from TCRC's old field in Shakopee, by the glass plant, across the highway from Valley Fair. A special treat is in store for all that attend the May meeting. Make sure not to miss this one, see early films of the great club we all belong to.

As a side note, our Show & Tell section of the meeting has been very large the last couple of meetings. That's great, keep bringing those models and/or ideas. The only thing we ask is that you keep your talk to 5 minutes or less, so as to give everyone equal time. Thanks you in advance. Bring your planes, ideas or thoughts to the meeting, get involved it's fun and rewarding, and very easy to do. See you, yes, *you* in May!!!!

Remember, bigger flies better! ☺

# Calendar

# Proposed By-law Changes

- May 5            Jordan Field Clean-Up  
& Fun Fly, 10:00 AM
  
- May 6            Swap-A-Ganza  
Sky Hobby  
Parking Lot  
8:00 AM
  
- May 8            TCRC Membership  
Meeting, 7:00 PM  
Fellowship Hall  
CrossPoint Church  
Bloomington
  
- May 12          Spring Float Fly  
Bush Lake Park  
11:00 AM
  
- May 26          Kit Building  
Workshop #7  
9:00 AM, CrossPoint  
'Installing the  
Electronics'
  
- June 2          Building Contest  
& Fly-In  
Jordan Field  
Jay Bickford
  
- June 12         Building Contest  
Rain Date  
(At the regular meeting)

by Bill Jennings

At the last Board Meeting on April 24th, the club's By-laws were thoroughly reviewed for two reasons: first, to ensure they are meeting the current needs of the club; second, that they are being followed. The last revision to the By-laws was made over five years ago on 3-12-02. A number of minor revisions were proposed to bring the By-laws into alignment with the current club practices. Two examples: The By-laws require two signatures on all club checks, yet our bank no longer offers dual-signature accounts. The By-laws currently require twice-monthly membership meetings, yet the membership voted for monthly meetings quite some time ago.

Procedures for making revisions are stated in the By-laws, Article VI Amendments – Section 1: "Amendments to these By-laws must be made by a two-thirds vote of the members present at any meeting, but such amendment must be submitted in writing and read to the members two weeks or more prior to being acted upon.

Therefore, at the May 8th Membership Meeting, the proposed changes will be read to the members in attendance. There will also be written copies of the changes available for those who wish a paper copy. A detailed list of the proposed changes will also be posted on the website in the Members Only section.

At the following June 12th Membership Meeting, a motion to incorporate the changes will be discussed and brought to a vote by those members present. Anyone wishing to comment or vote on the changes should plan to attend the May and June meetings. ☺





**Swap-A-Ganza!**  
**Sunday, May 6th**  
**8:00 AM til ?**  
**Food. prizes. etc.**

# Sky Hobby

**7144 Chicago Ave. S. Richfield, MN**

**Store Hours**  
**Mon - Fri 10 - 7**  
**Saturday 10 - 6**  
**Closed Sundays**

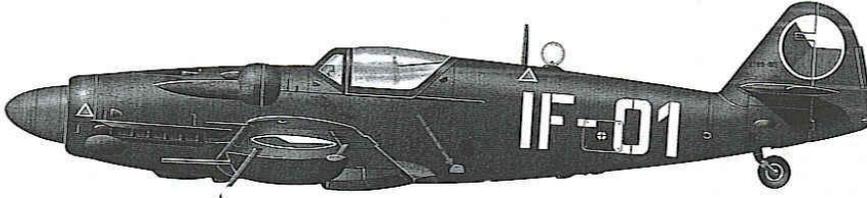
**The Best Prices In Town!**

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## Avia S-199

by Conrad Naegele

The April Mystery Plane was Avia S-199.



During the last stages of WWII, with the German war industry virtually reduced to rubble, the Czechoslovakia Air Works (Avia) was assigned the task of assembling Bf109 (Gustav) single-seat, and some two-seat, trainers – fighter planes. When the war finally ended, large stacks of airframe components remained at the factory.

Therefore, a small group of 109's were assembled, and were assigned to the newly-formed National Air Guard. However, due to the lack of the proper DB 605 engines, the factory substituted the grossly inferior Junkers Jumo 211F engines, which were in plentiful supply. This engine was rated at 1,350 hp for takeoff, but only 1,060 hp at 20,000 feet, a common 'working altitude'. This engine also required a paddle bladed propeller, which thrashed the engine, so to speak. Nevertheless, Avia produced about 550 of these units. Pilot reported that the airplane was somewhat unstable and difficult to control. During the war, the 109 was labeled a fighter's fighter, with the vision from the cockpit a minor drawback.

Avia assembled these fighters up until 1951, and most were sold to the new country of Israel! The entire concept of the engine and airframe was poorly thought out, and the product of a really outstanding wartime aircraft 'did not fly' (pun intended).

The Avia S-199 had a wingspan of 32.5 feet, a gross weight of 8,236 pounds and a top speed of 328 mph. For armament, it carried two 20mm cannon and 2 13mm machine guns. ☺

## Why Is TCRC Special To Me?

I have seen lots of clubs in Minnesota, Arizona, North Carolina, and many other states – and most of them have been very nice clubs. But I have never seen another club that specializes in what TCRC is great at: **friendliness** and **warmth**. A trip to the TCRC Jordan Field, or the monthly membership meeting is always a very enjoyable event because of the members that make a person feel so welcome. I have been a member of TCRC for 20 years, and hopefully will enjoy the next 20 as much as I did the first 20.

--- Jim Cook ☺

## Cleaning Pushrod Tubes

The oily residue of model fuel sometimes makes its way into the pushrod tubes, which also captures small particles of grit. The oily residue also makes some of the flexible plastic pushrods and tubes swell and soften slightly, which makes operation in curves almost impossible.

A simple cure is to apply a solution of powdered graphite, mixed with mentholated spirits or rubbing alcohol. Holding the model in an appropriate position (thus having one end of the errant tube in an upright position), apply the solution with a syringe onto the rod (or it can be applied to the mouth of the tube while moving the rod in a back and forth motion) to encourage the solution to circulate.

The mentholated spirits, or alcohol, washes away the oily residue and grit, leaving the graphite behind providing a good lubrication to the pushrod.

*(Reprinted from the newsletter of the San Gabriel Valley Radio Control League, South El Monte, CA) ☺*

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

**TCRCOnline.com -Use It!**

# TCRC 50<sup>th</sup> Anniversary Apparel Available Now

by Pat Dziuk

TCRC member Tom Thunstedt owns a shirt printing shop and has designed a 50th Anniversary logo along with the 50th Anniversary committee. He has the ability to print up T-shirts and polo shirts on demand as well as hats. Orders for shirts can be done in person at any club meeting, via email, phone or postal mail.

To order call, send an email or letter to Tom Thunstedt. Be sure to include your name, phone number, quantity of shirts and sizes. Tom will deliver them at the next club meeting. Payment is due upon receipt of the shirts. Checks should be written out to TCRC. Tom's address is: 13313 Oliver Avenue S., Burnsville, MN 55337. His phone number is 952-894-6146 and his e-mail address is [tantshirtdesigns@comcast.net](mailto:tantshirtdesigns@comcast.net)

Available in the following styles: T-Shirt (\$20) and Polo Shirt (\$25)  
 Available in the following sizes: Adult Medium, Large, Xtra-Large,  
 2X-Large and 3X-Large (\$2 more)  
 Youth Large, Xtra-Large  
 Hats: \$7 each

## Personalized Denim Shirts Also Available

Jim Ronhovde is taking orders for 50th anniversary denim shirts. The shirts will have embroidery 50th Anniversary TCRC logo and your personalized name. Due to setup time and fees this will be a one time order event. The cut off date has not been set but is expected to be by the end of May.

An order form can be obtained from TCRCOnline.com. Fill out the order form and either mail to Jim Ronhovde along with your check for \$40 each shirt or bring to the May club meeting. Shirts will take 6-8 weeks from the date the entire order is submitted. Give Jim a call if you have questions. Jim's address is 9037 Bloomington Ave S, Bloomington, MN 55425. His phone number is 952-854-9062 and his e-mail address is [jaronh@aol.com](mailto:jaronh@aol.com).

See the TCRC website for pictures of all of the new apparel. ☺

## Jordan Field Open Again

The flood water has receded off the Jordan field once again. It is drying up nicely and is in a useable state. The road is dry coming down. There is a bit of mud under the shelter, but with some warmer weather this should dry. Field cleanup day on May 5th. Start time is 10:00 AM. Bring brooms, shovels and leaf blowers and an airplane or two. ☺

## Membership Roster Correction

The listing for long-time member Ken Duncan was inadvertently omitted from the 2007 Membership Roster. The roster is never 100% current as the club welcomes new members almost every month during the year. However, Ken has been a loyal member for over forty-one years! Anyone wishing to contact Ken, can find his information posted in a revised edition of the roster in the Members Only section of the website. We'll also have adhesive-backed updates to the roster available at the next several meetings. We apologize for the error. ☺

## Building Contest June 2nd

TCRC's Annual Building Contest will be held at the Jordan Field on Saturday, June 2<sup>nd</sup>. In case of bad weather the rain date will be June 12<sup>th</sup> at the regular membership meeting.

Jay Bickford is the chair for the BC and the announced start time is 10:00 AM.

The contest will again have four categories: Trainer, Sport/Pattern, Scale and ARF. Their will be gift certificates for the winners of each category.

Following the judging, a lunch will be served to all in attendance and then a Fun Fly will commence. Come to the Building Contest on Saturday, June 2<sup>nd</sup>. ☺

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## 50-Year Patches For All!



Everyone attending the April meeting received the new patch denoting TCRC's 50<sup>th</sup> Anniversary. The patches were printed by member Mike Robin and given to TCRC without cost. Thanks, Mike! ☺

### 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.

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