



February

Minneapolis, Minnesota U.S.A.

2011

# Minnesota Frozen Float Fly 2011

by Curtis Beaumont

On an overcast January day, a few friends gathered out on Bryant Lake in Eden Prairie to enjoy each other's company and to shake off some cobwebs from the long arduous winter. This tradition started in 2009 when a few guys met online at RCUniverse.com. We decided to put some faces to names and meet up on the frozen lake to fly together. It also was a nice chance to have a relatively unlimited runway and fly-over areas.



This year about 15 folks arrived and enjoyed some decent weather for flying. The temperature was in the low 20's with about a 10 mph breeze out of the north. It was a little cold, but many managed to stay out in the elements from about 10 am to 2 pm. Minnesota flyers are a hardy breed!

There were quite a few planes among us. Pat Dziuk flew his Ultra Stick, Eric joined us from North Dakota and flew his Twist, while myself and Andrew W of the Grassfield R/C Club flew our 1/5 scale Cubs (one on floats, one on skis). Tim Len had a Seawind and a Dehaviland Beaver. Larry Couture flew his Multiplex Mentor and Mini-mags, while Joe Neidermayr flew his little WWI biplane on wheels. (I believe it was a Focker DR VII).

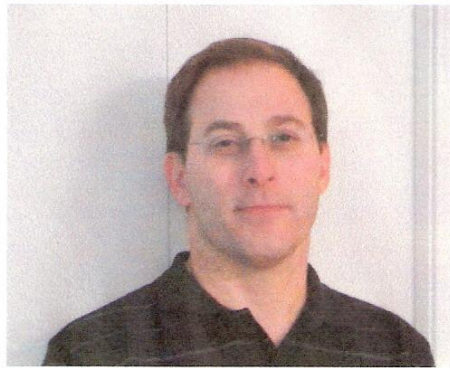
The bravest of us actually ran glow-powered engines in the cold weather, showing our true northern grit. For some it was the first time driving on a frozen lake, an experience sure to be repeated. In all, it was a fun experience and a great time meeting new friends and giving a hard time to others who may have experienced some technical difficulties.

As the winter wears on and the temperatures rebound, there will be more opportunities to join us, just keep posted via email and you should see and invite. J

**The Frozen Float Fly guys enjoy watching the masked marvel pilot his plane through the air on Bryant Lake. (Photo by Jon Perry)**

# From The Flight Deck

By President Tim Len



The first shop tour of the year was a big success, several TCRC members arrived at Wayne Rademacher's shop anxious to see all of Wayne's cool stuff. We received a warm welcome and great demonstration of how Wayne operates his computer controlled CNC. Wayne shared with us many of his current projects, and also projects that he has completed. Great shop tour.... Hats off to you, Wayne.... Thanks for sharing!

VP Mark Wolf is sure bringing us great programs at the meetings. In January, his presentation on cockpits was really interesting, and he had lots of examples of types that are available.



Here is just one of the many neat cockpits that Mark showed us at the January meeting. (Photo by Jim Cook)

I just finished putting together the Top Flite Cessna 310, though it was an ARF, it required a lot of work. This was due to the fact that I had to install all the landing gear door servos and make all of the doors fit properly. I'm in the process of completing the Nitroplanes Piper Arrow

PA-28, and working on gathering all the items I'm going to need to assemble the F9F Panther from Fei Bao Jets.

I would like to take this opportunity to mention the fact that there is information in this month's magazine of *Model Aviation* regarding the Regulatory Process of Aero Modeling. This information is contained on page 9 of that issue, please take a moment and review the article as it discusses what is going on with our hobby. There is also a timeline on page 11, *AMA and FAA Timeline Negotiations* -- this information contains the implementation timelines.

Look forward to seeing you all at the next monthly meeting, until then be safe. J

## Installing Landing Gear

When installing landing gear onto the fuselage with plastic or nylon bolts, place a thin 1/16"-thick sheet of light plywood or balsa between the aluminum gear and the bottom of the fuse. This way, if by chance you land hard and shear the plastic screws, you have a better chance of getting a grip on a section of the broken plastic for easier removal.

*(Tech editor's note: Possibly. But better would be to heat the tip of a screwdriver in a butane torch and push the hot screwdriver into the broken bolt. This will make a very nice screwdriver slot.)*

*(Reprinted from the newsletter of the Rocky Mountain Modelers, Ft. Collins, Colorado)* J

# TCRC Meeting, Shop Tour & Frozen Float Fly Pix



Wayne Rademacher demonstrates his CNC during the January 15<sup>th</sup> Shop Tour.



Mark Wolf puts on a great program on cockpits at the January 11<sup>th</sup> TCRC meeting.



Getting another J-3 Cub ready for a great flight at the Frozen Float Fly on Bryant Lake.



The new 2011 TCRC officers kept the membership well informed at the January meeting.



Pat Dziuk's glow-powered plane comes in for a nice smooth landing at Bryant Lake.



TCRC president Tim Len returns to the warmth of his car after a flight at the Frozen Float Fly.

# Co-Pilot's Report

by Mark Wolf



## Wings

Have you ever looked through one of those encyclopedias about 'All The World's Aircraft' or 'The History of Aviation'? If you have, you'll soon realize that there has been a seemingly endless number of designs for flight, built and flown over the years all over the world. Single-engine, multi-engine, open-cockpit, cabin, monoplanes, biplanes, triplanes, fabric-covered, all-metal or composite construction, fighters, bombers, airliners and special designs from air racers to agricultural sprayers to long-distance / endurance record-setting types, and many, many more. (Conrad Naegele's 'Mystery Plane of the Month' should go on-and-on for some time!)

One of the most important components of an airplane that determines the performance characteristics of any aircraft has to be the wing itself. Here again the number of designs that have evolved over the years and the features that may be incorporated into it, are numerous and today sometimes taken for granted. The basic plan form shapes: straight leading and trailing edges, tapered (leading edge, trailing edge or a combination of both), elliptical, sweptback, delta. Different configurations: Low-wing, high wing, mid-wing, dihedral, gull, inverted gull, variable geometry or folding types. Airfoils: under-cambered, flat-bottom, symmetrical, laminar flow, different Reynolds Number (airfoil) from wing root to wingtip, wash-out, etc., to identify a few. All designed to produce lift when moved through the air.

The wing can also incorporate various additional features which can enhance its lift-producing capabilities, or provide a location for other essential required items. Most multi-engine aircraft usually have the power plants mounted on the wing. (Excluding some push/pull fuselage-mounted configurations). A nacelle for a piston engine protruding from the leading edge or maybe a turbine suspended from a strut or pylon.

Ailerons for roll control. How about flaps? Yes, on some leading edges, slats and slots too. The trailing edge is where most flap systems are located with several options. Plain, split, fowler, inboard/outboard,

maybe a flaperon design. Spoilers located on the aft upper wing surface and in aircraft roll control and assist in slowing the aircraft down, both in-flight and on the ground. Landing gear? Sure there's room for it. What type would you like? Fixed gear, not too much of a program. Retractable gear, well, we'll have to make a little more room for it and it will cost extra.

Of course there has to be all of the accessories to make this stuff work. Actuators, linkages, control cables, torque tubes, anti-ice pneumatic ducting, hydraulic lines, fuel pumps, fuel lines, electrical wiring, etc. – the works where it is all going to fit? But wait – there's more. Can't forget numerous provisions for access areas and removable panels for periodic service and maintenance. Last but not least, a place for the fuel tank.

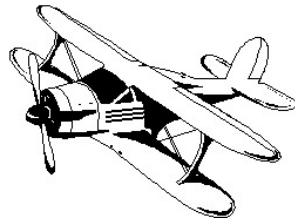
There are many other individual components used to make up the structure spars, ribs, capstrips, stringers, skins, fasteners, etc. Depending on the aircraft's intended use, not all of these features are found on all or every wing. The designers have taken a lot into account to come up with this important part of the airplane. Thanks to them for doing all of the hard work.

Now it's up to us. Take your time when you assemble, build and install your wing(s). Ensure you produce a strong, straight-and-true wing structure. You'll be rewarded with the satisfaction of putting it together and will enjoy the optimum performance of its design -- each and every flight is riding on it!

Until next time . . .

J

# Show & Tell



With the new format for programs, there were only two planes at Show & Tell in January. However, February is scheduled to have Show & Tell as the program, so there should be lots of aircraft at the next meeting.

campaign signs. It was an electric and weighed in at 3 pounds. What Mike has done differently on this plane is that the FPV camera is located about 8-inches off center. He is hoping to get a smoother, un-obstructed view forward with this configuration, and also feels he should be able to get 20 to 25 minute flights off of the 3-cell 2,200 mah lipo 3-cell battery. As of the meeting, the plane had not yet been flown FPV, but Mike felt it should be done fairly soon. J



Kris Hanson had one of his many Aerostars at the January meeting. This is his overall favorite plane to fly, and he had been doing some experimenting with bomb-drop mechanisms which he showed the guys.

**Hobby Warehouse**  
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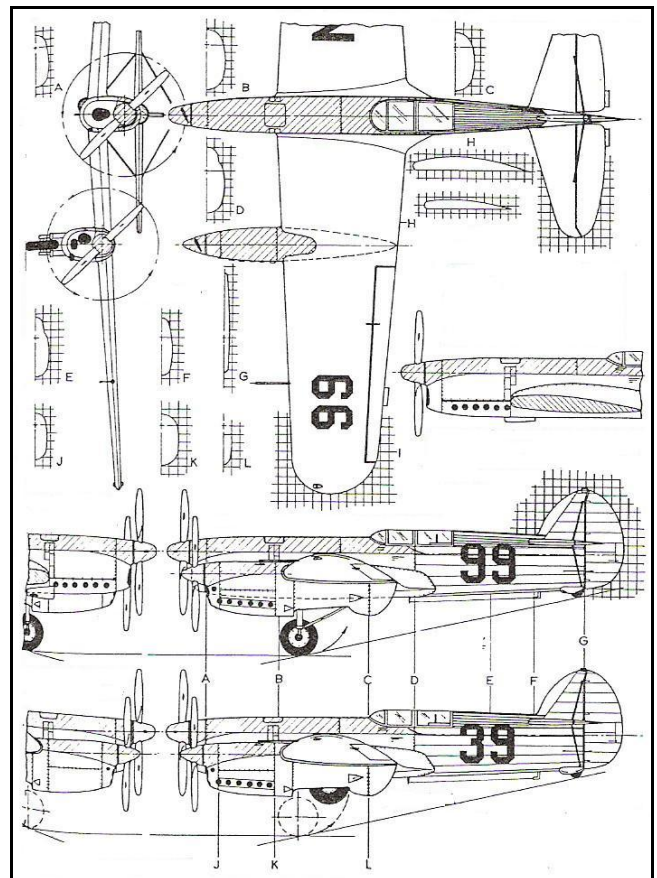
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**Stop In Today To Find Out 'The TCRC Special Of The Month'**

# February Mystery Plane



Mike Burk had his latest edition of his FPV aircraft at the meeting. The plane was a simple plane put together from foam-core cardboard obtained from old



# Wayne Rademacher's Shop Tour Is Always A Learning Experience

by Tim Len

Because of inclimate weather in December, Wayne Rademacher kicked off the Shop Tour season instead of Gerry Dunne.



The TCRC gang gathered for a photo op at Wayne's Shop Tour. (Photo by Wayne Rademacher)



Wayne at the computer of his CNC. (Photo by Tim Len)

Wayne's Shop Tour is always the one you should never miss. Why, you ask? Simple: Wayne has way too many super neat toys (oops, that should be tools!)

Number one on the list of neat tools is the computer-controlled CNC. Wayne built this himself from plans, and this alone would qualify him with the title 'wizard'! He gave us a demonstration of its abilities, and he is always showing up at the TCRC meetings with the latest gizmo he has produced on the CNC.

In addition to seeing his shop, Wayne also did a great job of feeding the guys – hotdogs and baked beans with hot coffee or cider as a chaser.

About a dozen or so TCRC'ers turned out for the tour on a cold Saturday afternoon in January, and they thoroughly enjoyed themselves.

Next up on the Shop Tour schedule is Corey Kaderlik's slated for 1:00 PM on Saturday, February 19<sup>th</sup>. Mark the date down and plan on being there. **J**

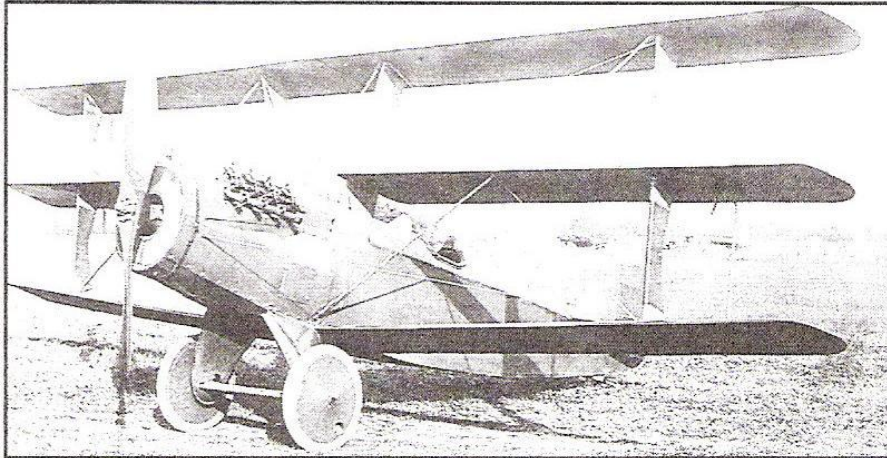
**TCRC meets every month on the 2<sup>nd</sup> Tuesday at 7:00 PM in Fellowship Hall of CrossPoint Church located on the southeastern corner of the intersection of 98<sup>th</sup> Street and France Avenue in Bloomington. Guests are welcome to attend these meetings.**

**The TCRC Shop Tours Are Great!!!!**

## Curtiss S-3

by Conrad Naegele

The January Mystery Plane was the Curtiss S-3.



America's answer to the 'tri-plane fighter' world, circa WWI, as it turns out, was 'too little too late'.

This plane was a derivative of an earlier Curtiss biplane, the 'wireless', signifying a lack of wing bracing wires. The S-2 was developed in 1916, but was not very successful. The S-3, or triplane speed scout possessed a similar fuselage, a 100-horsepower OXX-3 engine, and a large ducted propeller spinner, the inter-plane bracing employed K-type struts. The plane was of usual construction, wood, tube and fabric. On its 2<sup>nd</sup> flight it attained an altitude of 16,500 feet, at that time a record.

For initial testing, the center wing was attached to the fuselage at a low shoulder position, but then the wing spacing was changed, and the wing was moved above the fuse, the rudder and horizontal stab enlarged, and the large spinner deleted. Flight tests were satisfactory and an order for four planes was placed by the Signal Corps. Plans were made for two Lewis machine guns, but none were ever installed. It was reportedly easy to fly.

The OXX-3 engine was 8-cylinders and liquid cooled, developing 100 horsepower. The wingspan was 25 feet, the gross weight 1,320 pounds, had a speed of 115 mph and a range of 150 miles. J

## TCRC Auction February 12<sup>th</sup>

The 35<sup>th</sup> TCRC Auction time has arrived. It is Saturday, February 12<sup>th</sup> at CrossPoint Church at 98<sup>th</sup> and France Avenue in Bloomington. This is the same location it has been for three years now.

Set-up for the auction will start at 4:30 PM on Friday, February 11<sup>th</sup>. We would like to get as many TCRC'ers there as possible so that we can get all of the tables set up, all of the signage in place, the impound and concession areas organized, and the protective material down on the carpet in the concession area.

This will make the start-up on Saturday much easier. We will complete our set-up starting at 7:00 AM, and the doors will open for registration at 8:00 AM.

Auction rules will be the same as previous years, with a \$3 admission charged to all participants. The impound area will be opened for a short time immediately before the 9:30 AM start of the auction to give prospective bidders a chance to inspect the planes and equipment.

A minimum opening bid of \$20 is required, and the minimum bid increment is \$5. The impound personnel will inspect incoming items to make sure that the minimum bid can be achieved.

TCRC needs all of its members and many of the spouses to work the auction to make this a successful event. Plan on being a seller, a buyer, but most importantly, a worker at the TCRC Auction on Saturday, February 12<sup>th</sup>. J

**TCRCOnline.com**

**Are You Using It?**

## TCRC Raffle February 12<sup>th</sup>

TCRC will again be holding its annual raffle in conjunction with the TCRC Auction on Saturday, February 12<sup>th</sup>, at CrossPoint Church in Bloomington.

Gerry Dunne, with son Gerry Junior, is again chairing the event for the club, and he has lined up some really great prizes:

- E-Flite Blade 120 Helicopter
- BNF Parkzone F4F Wildcat
- OS Max .46 AX Engine

In addition, Gerry will have several gift certificates from Hobby Warehouse and Big Sky Hobby.

Every member of TCRC should have received \$15 worth of raffle tickets in the mail in early January. It is the sale of these tickets that covers the cost of the prizes and is the major contributor to the profitability of the raffle. It is hoped that every member can either sell his raffle tickets or purchase them and get the stubs back to Gerry at the auction.

As in previous years, you do NOT need to be present to win, so make sure you get the tickets to Gerry so that you can be a winner of one of the great prizes.

Let's make the 2011 edition of the TCRC Raffle the best ever. Sell your tickets and be a winner at the Auction. **J**

## February Program Preview

by Mark Wolf

While I am vice president and responsible for the program at each monthly TCRC meeting, I thought I would have a regular article which would preview the upcoming program for the next meeting.

In February, you're part of the program! Thanks in advance for bringing your airplane / project to the February regular club meeting. Everyone likes to see and hear about the latest and greatest of our members' efforts in this hobby. Completed airplanes always get attention and those aircraft in-progress keep us anticipating a look to the future. From ARF's to kit-builts to custom aircraft designs, technical challenges and everything in-between; the Show & Tell segment is a popular part of the meeting agenda. A lot of questions get asked during set-up and a lot of information is usually exchanged even before the meeting has begun.

So . . . if you have a completed model project, bring it to the February meeting; we'd still like to see and hear about it. If it's a work-in-progress, bring it to the February meeting; we'd still like to see and hear about it.

The program is all Show & Tell this month, and you'll be a part of it (as long as you bring a plane). So . . . have fun and . . . thank you! **J**

## 2011 AMA Dues

All TCRC members should have paid their 2011 AMA dues by this time. If you have not, take the time to get them renewed today.

AMA 2011 dues have not changed from the previous year. They are:

- Adult (19-65) \$58
- Senior (65 and up) \$48
- Under 19 \$1  
or \$15 with *MA*
- Additional family \$30

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 \$29.95 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](http://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.

If you haven't paid your AMA 2011 dues, get it done today! **J**

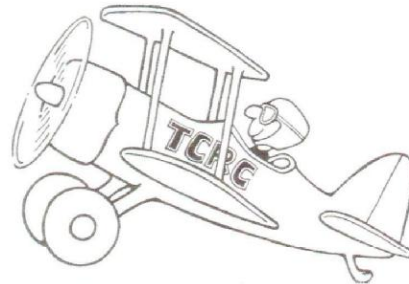


# Didn't Get Your Newsletter?

Did you go to the mailbox early in January to get your January *Flare Out* and not find it?

If this happened to you, it was by design. As of January, the TCRC publishers have taken the *Flare Out* to a paperless form. That means that it is only being posted on the website, TCRConline.com, and not being put into the mail. This will be saving the club considerable amounts of money, plus eliminating the very time-consuming job of printing and publishing.

For those of you who do not have access to a computer, you should let the publishers Pat Dziuk and Mike Timmerman know. They do print a very small number of the newsletter and bring them to the monthly meeting. These are meant to be used only by those members who do not have computer access to the TCRC website. **J**



## TCRC'S 35<sup>TH</sup> ANNUAL AUCTION

TWIN CITY RADIO CONTROLLERS - MINNEAPOLIS AMA CLUB 3383

**SATURDAY - FEBRUARY 12, 2011**



**What's for Sale?**

- R/C Airplanes
- R/C Airplane Kits
- R/C Airplane Engines
- R/C Airplane Radio Systems
- R/C Aircraft Related Accessories and R/C Aircraft Support Equipment
- No Cars, No Boats, No unrelated Stuff

**Where:**

Cross Point Church  
9801 France Avenue  
Bloomington, Minnesota

**When:**

REGISTRATION Begins at 8:00 AM  
AUCTION Begins at 9:30 AM

**Details:**

- \$3.00 Admission: *Includes Bidders Card*
- \$ 20.00 MINIMUM OPENING BID (to speed the auction! Nothing will be sold for less than \$20)
- commission of \$5 or 10% whichever is greater
- Seller MUST attach a brief description to Each Item being sold
- Pre-Registration Available for Sellers
- BUYBACKS AT 10% UP TO A MAXIMUM FEE OF \$20

**Raffle & Concessions!**

- Hot Coffee & Donuts
- Soda/Pop
- Hot Dogs & Chips

**Questions?**

Call Jim 952-445-5257 or Scott 952-934-1471  
Email [auktion@tcrconline.com](mailto:auktion@tcrconline.com)  
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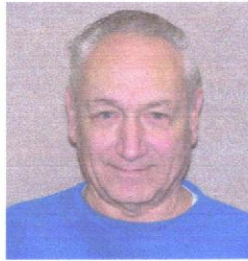
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## Safety At The Field

By Larry Couture



*(Editor's Note: I believe our illustrious safety officer is basking in the sun in Arizona as this is written, so I have taken the liberty to invite a guest columnist to expound upon safety.)*

## Safety, Safety, Safety

by Duane Vierling, Editor of Plane Talk News, Newsletter of the Des Moines Modelaires, Ankeny, Iowa.

Per [www.dictionary.com](http://www.dictionary.com): It is the state of being safe; freedom from the occurrence or risk of injury, danger, or loss. It is the action of keeping safe. It is the quality of averting or not causing injury, danger or loss.

Accidents happen, it's easy to do. A little less focus, thinking three steps ahead of yourself, and lacking the respect that it deserves. And sometimes, it isn't you that you need to worry about, but the other person nearby. We hear about bad prop strikes, some of us have had them, some of them have taken us to the hospital. But there are a lot of other safety issues that all of us need to be aware of. For instance, can each of you recall where the fire extinguisher is located at for both of our fields? Have you thought about what would be your first step to do if you have an accident and you're all alone? What about safety at your nearby city park when there are kids around? I could write for pages and pages, but one thing I would recommend is to go onto youtube.com and search for RC ACCIDENTS. You'll be surprised by some of the gore, some of the stupidity, and some of the down right laziness we sometimes demonstrate. Watching other people's mistakes will hopefully allow you to avoid some of your own.

I'm not writing on a soapbox, I've had accidents too. But here are a couple of examples I watched the other night that made me rethink my own concept of safety as it is very easy to get comfortable with how you think you are being safe.

On the first video I watched the other night, one individual had his aircraft catch on fire due to a fuel leakage. Several members jumped to his aid, one with a sleeping bag which caught on fire itself, some brought water in small cups, some tried to help stomp out some of the flames on pieces that had completely burned off. The problem wasn't

the amount of help that the flyer got, nor necessarily the methods used to try to help. The problem was that in the video, less than ten feet from the fire, sat a nice new fire extinguisher on the lower shelf of one of their workbenches. Out of the five or six people that tried to help, not one grabbed the extinguisher. You might want to double check our fields the next time you go out there, so that you know where the extinguishers are at.

Another video had a father and his two kids at the field. The father worked and worked to get the engine running. He got it started and then ran the engine up, .. while he was kneeling directly in front of the prop! He was finally satisfied, reached over . . . and you know what is coming . . . and was politely greeted and was the recipient of 65 stitches in his hand. Easy to do and happens in less than a second. But the safety thing I kept watching that scared me even more, and maybe it's because I have young kids, was that his very young son was watching his father and the plane intently and the boy was positioned directly parallel with the prop. So while the flyer committed two basic safety fouls and the injury sustained was to himself, he wasn't aware of the others around him and their safety and the injury could have been inflicted with much more disastrous results.

The last one, and I'll make this quick, was a flyer at a city park. He decided to fly his aircraft low and fast past himself. Only it didn't go much further. It impacted someone who was in the flyer's blind spot who was looking on and the flyer

**Continued on Page 11, Col. 1**

## Safety, Safety, Safety

Continued From Page 10

didn't know they had walked up close to him. You might think that the onlookers put themselves in danger by standing in the wrong spot. But it is the flyer that put his aircraft into a dangerous position and did not continuously check his surroundings. Remember to be mindful of your surroundings.

I saved everyone a description of any bloody example, even though blood did flow on two of these. But go online and watch some videos and remember, the red stuff isn't ketchup or Hollywood makeup. But most importantly, with each trip to the field, continuously think about your current status and also look out for our other flyers, our new members, and any of our visitors.

Don't hesitate to speak up, shout if you need to, even tackle someone to the ground if you see someone who isn't being safe. Being safe isn't being rude. We should all be safety monitors for ourselves and for each other and hopefully our first aid kit can continue to accumulate dust. Additionally, if there is an accident and our first aid kit is used, please let a board member know so that we can properly restock it as needed. J

**Always Think  
Safety!**

## Calendar

Feb. 5	All Season Flyer 10:00 AM Jordan Field Pat Dziuk
Feb. 8	Membership Meeting, 7:00 PM Fellowship Hall CrossPoint Church Bloomington
Feb. 11	Auction Set-Up CrossPoint Church 4:30 PM
Feb. 12	TCRC Auction 8:00 AM Registration 9:30 Auction Action CrossPoint Church Bloomington
Feb. 19	Shop Tour, 1:00 PM Corey Kaderlik
Mar. 5	End of Winter Fun Fly Jordan Field Gerry Dunne
Mar. 12	Shop Tour, 1:00 PM George Toon

## TCRC Dues Renewal

The TCRC board of directors voted to keep the 2011 club dues at the same level as the 2010 dues.

They are:

- Regular \$75.00
- Junior \$37.50

Dues payments were due on January 1, 2011

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:

2422 Downing Avenue  
Shakopee, MN 55379

Take the time to pay your 2011 TCRC dues today and secure your discount. J

## Show & Tell Data Form

Are you going to be bringing your latest airplane project to the regular meeting on February 8<sup>th</sup>? If you are, make sure you stop at TCRCOnline.com and download the 'Show & Tell Data Form' that is at the website.

When you bring your plane to the meeting, fill out the form – it will only take a minute or so – and bring it with you. The form can both help you in covering all of the information on your plane, and can also benefit the newsletter editor so that he can use the form to put together the Show & Tell article in the next newsletter.

For someone like the very prolific Gerry Dunne, he should maybe download 10 or 12 copies of the S&T Data Form so that he has enough for the next 4 or 5 meetings! J

Editor, Jim Cook  
@ Flare Out Publisher  
1177 Polk Street  
Shakopee, Minnesota 55379

## A Stroll In The Snow At The Frozen Float Fly



Jon Perry gets an assist from Larry Couture after a flight at the Frozen Float Fly at Bryant Lake on Saturday, January 29<sup>th</sup>. The 3<sup>rd</sup> annual event attracted about 15 pilots from the Twin Cities area, and even a pilot or two from North Dakota. 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.

#### 2011 Officers

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Vice President	Mark Wolf
	952-475-2307
Secretary	Curtis Beaumont
	612-991-8693
Treasurer	Tim Wirtz
	952-941-5357

#### TCRC Flare-Out

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Publishers:	Pat Dziuk	952-445-3089
	& Mike Timmerman	952-496-1631
Website:	<a href="http://www.tcrconline.com">http://www.tcrconline.com</a>	