



January

Minneapolis, Minnesota U.S.A.

2004

TCRC'ers Earn Their All Season Flyers Patches

by Jim Cook

December 6th was a gray, cloudy day with moderate winds, cold temperatures and snow on the runways, but that didn't stop a bunch of TCRC'ers from showing up and taking a few flights.



Pat Dziuk, Jim Ronhovde, Jim Cook, Orv Schneewind and Rick Smith pose with their planes on December 6th. (Photo by Jim Cook)

This was a special occasion for the pilots. The day marked the final flight they each needed to earn their AMA All Season Flyer patch for 2003. To earn that patch, a pilot must put at least one outside flight in each month of a calendar year. To accomplish this in the state of Minnesota is quite an accomplishment.

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TCRC Auction Just Around The Corner

The biggest event of the year for the club is only a few weeks away – the TCRC Annual Auction.

The 2004 edition is scheduled for Saturday, February 7th at its usual place in the basement of St. Peter's Church in Richfield, Minnesota. Start time for registration is 8:00 AM and the bidding starts at 10:00 AM.

Last year was a big auction and this year promises to be even bigger yet. Every year there are at least 300 or so R/C aviation related items that come up on the auction block, including about 150 completed aircraft just waiting for you to purchase and put into the air.

The auction requires a big commitment from TCRC's members in the form of time to make the event run smoothly. Every member should mark his or her calendar now and plan on being part of the annual auction. And don't forget to look through all of your R/C gear to find out what you have to sell and what you need to buy. Be a part of TCRC's greatest event. ☺

From The Cockpit Of The President

by Scott Anderson

Happy New Year!

January's here, the Holiday's are spent, now I wonder where the money went?

Did you get what you wished for? In my house, I order what I wish for and then it gets wrapped as: To: Scott, From: Scott. It takes the surprise out of it. I did get to see that my nephew, Brandon Anderson, got a G&P Sales Albatross Twin Engine Flying Boat. (Now I'm getting envious!) Brandon is looking to put two OS.70 FS four strokes in it once he gets his set of retractable landing gear. It looks like a great project and I'm sure it will be ready for the May Building Contest as well as the May Float Fly!

We're starting our new 'Members in Profile' column in this issue of *Flare Out*. It's our goal to provide you with a picture and some basic information concerning the TCRC members you will see and hear about. Since we have over 100 members, it would be nuts to do one a month, so we'll be doing two each month. One Profile will be of a new, or recent member, and the second will be of a long-time member. Since we have so many of both, it will be pretty balanced for years to come! Don't be upset if they appear out of order, we'll be

publishing as we get information and as we feel appropriate. Keep your eyes open for someone you know!

I don't know about you, but I've used part of my holiday time to clean and inventory the shop in order to get things ready for the TCRC 28th Annual AUCTION coming Saturday February 7th, 2004. I've found I had a ton of aircraft and other stuff I'm going to put up for auction. If you're like me and have a lot of items for the auction, then you'll want to fill out a **Seller's Inventory Card** prior to the auction. I'm working with our Webmeister, Pat Djiuk to see if we can place a down loadable version on our Website with a registration log so sellers may register, download a PDF Seller's Inventory Card, and then fill it out and tag their items before they get to the auction. Placing items in the impound becomes easy. The seller takes his form to register and pays for his entry. Then he hands his Seller's Inventory Card to the impound so they can check each item as it comes in from the car to the impound.

Is your shop in order in case you have an accident? A shop is often a modeler's personal 'fortress of solitude' where most family members fear to tread. This chilling question popped into my head after I spent an afternoon last week with the widow of a former member, helping her clean out his shop. Unfortunately she had no idea as to what items went with what and whether any of it had value. To make matters worse, it had been 13 years since her husband had passed and the paints, fuels, and other flammables had been sitting in that basement shop

corroding and leaking, becoming potential fire hazards. Cans of spray paints had split at the seams and leaked on the shelves venting their volatile propellants into the closed spaces of the basement cupboards. This member had several radio systems, but as they had stayed on the shelf since 1988 they no longer had any value. What's the lesson to us? Organize your shop. Keep an inventory. Identify high technology items that should be sold immediately if you are unable to continue in the hobby for several years, (if at all). Radio systems, servos, and electronics lose value as time progresses. Keep your paints and glues in a controlled environment. Leave instructions as to what is hazardous and what is not. Identify items with limited shelf lives so they can be disposed of early, or given to someone who could use them. Airplane engines rarely age well. It's even worse when the modeler, like this gentleman, ran them on a test stand then wrapped them in rags to keep the dust out. The oils hardened and the engines became solid requiring extensive work to disassemble and clean them. If you find you have a lot of stuff in your shop that you have not used in several years, then bring it to the TCRC AUCTION Saturday FEBRUARY 7th! You can clean the shop, get some money out of it, spend some time with the Midwest's best group of modelers, and you'll help out TCRC as well.

I look forward to seeing you there!

I've got to get back to my shop now. I barely have room for my PC to write this column! ☺

All Season Flyers

Continued From Page 1

Pat Dziuk and Jim Cook arrived early around 10:45 or so and immediately started setting up their planes. Shortly after most of the other pilots started arriving.

There are about 15 or 20 TCRC pilots who were in the running for their 2003 ASF patch, but a final accounting has not been done as yet. Those partaking of the December 6th festivities included: Pat Dziuk, Jim Cook, Jim Ronhovde, Orv Schneewind, Rick Smith, Stan Erickson and Jay Bickford. Many others either qualified earlier or later in the month.

Several of the members obtained their 9th AMA ASF patch in a row this year!

The January All Season Flyer Kick-Off has already been scheduled for Saturday, January 3rd. Several newer members have indicated they would like to pursue their ASF patch in 2004, and to do so, they need a January flight. If you are interested in becoming a 2004 All Season Flyer, come down to the Jordan Field at 11:00 AM on Saturday, January 3rd and put in a few flights off of the snow cover at the field.

If you miss this day you still have the rest of the month to get your January flight and be on track for your 2004 All Season Flyer patch. ☺

**Become An All Season
Flyer In 2004**

Neither Rain Nor Sleet . . .



Jim Ronhovde debates where he should put his plane in preparation for his December ASF flight. (Photo by Jim Cook)

Burning Holes In A Cold December Sky



Rick Smith and Pat Dziuk put their planes through their paces on a gray December morning. (Photo by Jim Cook)

TCRC Dues

With the arrival of the new year, the payment of TCRC's 2004 dues are due.

The dues have been raised this year to:

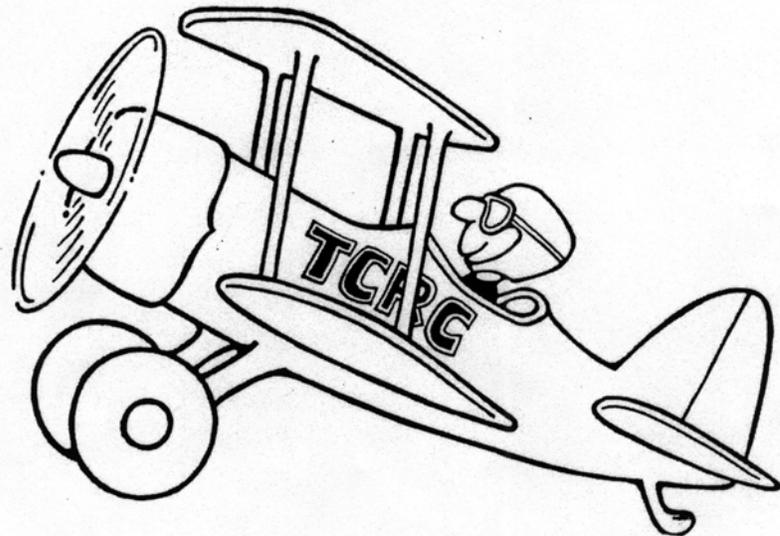
- Adult: \$50
- Junior: \$25
- Social: \$30

For members new to TCRC there is also an initiation fee of \$50 for adult membership and \$25 for junior membership. There is no initiation fee for social membership.

Dues should be given to treasurer Rick Smith at a meeting or sent to him at:

6507 Manchester Lane
Eden Prairie, MN 55346

Deadline for payment is February 15, but don't wait until the last minute. Take the time to pay your TCRC dues today. ☺



TCRC 28th Annual Auction

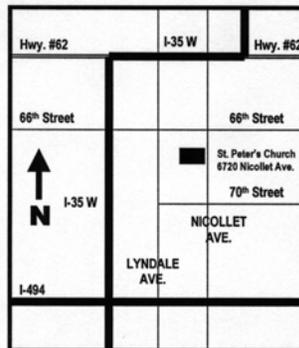
Twin City Radio Controllers – Minneapolis, MN – AMA Charter # 383
Radio Control Aircraft and Related Items Only!

Saturday February 7th, 2004

St. Peter's Church, 6720 Nicollet Avenue, Richfield, Minnesota

REGISTRATION OPENS @ 8 AM

AUCTION BEGINS @ 10 AM



MIN. OPENING BID: \$20
BUYBACK FEES: 10% of Bid to \$20 MAX.

RAFFLE & CONCESSIONS ON SITE

SELLERS: Attach Brief description on each item to be sold.

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SCOTT 952-934-1471 AndersonScottE@HotMail.com

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Admission: \$3.00 (includes Bidder Card)

Hobby Warehouse

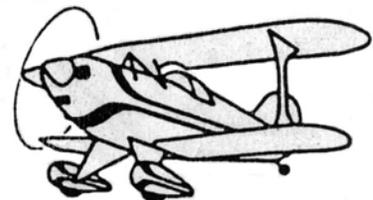


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TCRC Calendar For 2004

DATE	EVENT	REMARKS
January 3	All Season Flyer Kickoff	Champion: Scott Anderson
January 27	1 st Quarter Board Meeting	Auction Planning Session 7:00 PM Room H195
* February 7	TCRC Annual Auction	St. Peter's Church
February 15	Deadline for TCRC Dues	Contact: Rick Smith
February 21	All Season Flyer Session	Champion: Rick Smith
February 26	Board Meeting	Auction Review Meeting 7:00 PM, Room H195
March 6	Winter Fun Fly	Champion: Conrad Naegele
* April 2-4	Toledo R/C Expo	Champion: Jim Cook
April 20	2 nd Qtr Board Meeting	7:00 PM, Room H195
April 24	Fairgrounds Clean-Up & Fly-In	If Needed
May 1	Building Contest & Fun Fly	Champion: Jay Bickford
* May 8	Spring Float Fly	11:00 AM, Bush Lake Jim Cook, CD
June 5	Jordan Field Clean-Up & Fly-In	Champion: Orv Schneewind
* June 11-12	Electric Fly-In & Camp Out	Champion: Scott Anderson
* July 1-29	AMA NATS	Muncie, Indiana
* July 17	Summer Fun Fly	Champion: Geoff Barber
July 20	3 rd Qtr Board Meeting	7:00 PM, Room H195
August 6-8	Park Rapids Fun Fly	Champion: Conrad Naegele & Marilyn Krekelberg
August 14	Model Aviation Day	Champion: Scott Anderson & ?
* September 11	Fall Float Fly	11:00 AM, Bush Lake Jim Cook, CD
October 16	Season Finale	Champion: Jay Bickford
November 9	TCRC Elections	7:00 PM, Room H195
November 14	TCRC Annual Banquet	5:00 PM, Dangerfield's Shakopee
November 16	Joint Board Meeting	7:00 PM, Room H195
December 4	All Season Flyer Celebration	Champion: Jim Cook

* Denotes events open to other than club members.

TCRCOnline Fully Operational

Recent new member Pat Dziuk has been working overtime to get the TCRC website up and running and he has done a great job.

www.TCRCOnline.com has been functional since before Christmas. Currently the site has Club Information, Upcoming Events, Newsletters (including color pictures), Recent Photos, Frequently Asked Questions, and the TCRC Forum.

Pat worked hard to get the Forum functional and in a user-friendly form. With the new Forum, when you go to the site for the first time select 'register' from the menus at the top and register so that you can log on to the Forum. If you do not register and log on, you will not be able to see the responses of other members. Take the time to register and then leave a test message to make sure the Forum is working for you.

The board has made it a point to get upcoming events highlighted on the Home page of TCRCOnline so that everyone has current info on what is happening in the club.

Also, the current newsletter will be posted almost immediately after mailing. The pictures in the newsletter will be in color and be much sharper than what appears in print.

Thanks to Pat for getting the website back into a usable form. This is a very powerful tool for the club and for its members. ☺

Members in Profile:

Bruce E. Anthony of Minnetonka, Minnesota.



What is your Profession? Retired tool-and-die maker (designer)

TCRC Member Since: 1962-1994 Dropped out because of health problems. Rejoined in 2001. (34 years)

Why did you join TCRC? Got tired of free flight in a hurry. TCRC was very active in pattern when I joined.

Are you a member of another RC Club? Scale Flyers of Minnesota -6 years, Minnetonka Aero Modelers - 10 years.

What TCRC Volunteered Services & Offices have you held?

- Secretary 1964
- Vice President 1965
- President 1966 and 1973
- Board Member 1967, 68, 69 & 70.
- TCRC Club Historian for 20 years.
- Walt Billett Trophy Recipient for 1965, 1966 and 1982
- Organized and ran TCRC's 25th Anniversary celebration.

What are your Model Aviation Interests? Scale modeling and attending the Scale Flyers meetings and fun fly's.

What is your Favorite Airplane? The PICA WACO -- I've had 3!

What is your Favorite Flying Memory? Competition Pattern flying and the TCRC air shows. (Bruce was a perennial pattern competitor when I first met him in 1971 and always contributed his flying and organization skills to the old TCRC Air Show that was held in the late '60's and early '70's. - Scott Anderson)

What has been your Favorite TCRC Event? The Annual TCRC Pattern contests.

What would you like to see as a Field Improvement? More shelters for spectators. ☺

TCRC Raffle Tickets To Be Mailed

TCRC's Annual Raffle is again to be held at the TCRC Auction on Saturday, February 7, 2004.

CD's for the raffle are Brad Spencer and Gerry Dunne. and they have indicated that the club will again have great prizes including a computer radio, an airplane kit and an engine.

Every member will be receiving an envelope in the mail this month containing \$15 worth of raffle tickets. It is hoped that each member will either sell or buy these tickets and return the stubs and money to raffle co-chairman Brad Spencer. Winners of the prizes do NOT need to be present to win. This pre-sale of tickets is very important to the success of the raffle. Please take the time to sell your tickets and return the stubs and money as soon as possible.

Thanks to Brad and Gerry for again contributing their time and energy to making the raffle a very successful part of the TCRC auction. Remember to get your money and ticket stubs into Brad soon so that you can be a winner at the TCRC Raffle this year. ☺

Members In Profile:

Mike Timmerman of Shakopee, Minnesota



What is your Profession? Electrical Engineer

TCRC Member Since: June 2003

Why did you join TCRC? I got started in flying a year ago Christmas when my wife gave me a kid's toy electric airplane. All it did was climb and turn left and right. I was hooked and knew I had to do something bigger so I purchased an electric foamy Soar Star-and flew it in the schoolyards. That was neat but that made my want to try gas and I knew I would need a bigger place to fly. I had looked at Minnesota Valley, but it was way too close to the highway and people for me. I did a little web research and found the club in Jordan so I drove out one Sunday afternoon to have a look. That was all I needed. The field appeared to be a safe place to fly; no matter how bad a pilot I might be, it looked as though I couldn't do much damage to anything other than my own plane.

What TCRC Volunteered Services & Offices have you held? I helped re-shingle the shelter. I had just joined the Tuesday before we did it. I am now a member of the board.

What are your Model Aviation Interests? Taking off and landing in such a way that I can do it again. Just flying for the general fun of it. I haven't been at it long enough to develop a primary interest. It all looks like fun. I tell my wife that if there is some

twelve step program to get me out of this hobby that I won't be signing up.

What is your Favorite Airplane? I only have three surviving planes: a GWS Slow Stick, a Hangar 9 Solo Star Trainer and a Hangar 9 Super Stick. The Super Stick has never been flown by me. The Slow Stick is fun around home, but the biggest thrill is with nitro and the trainer. More Power!!! Grunt, grunt, grunt.

What is your Favorite Flying Memory? I was flying the Slow Stick around the yard one morning and flew it head on into the top of the light pole. The plane slid straight down the pole about 10 feet. I didn't see any parts fly off so then I hit the throttle and it took off again. All it did was crack the wing a little, but I ended up landing in one piece. This wasn't the first encounter with a stationary object but it was the most memorable. I wasn't as fortunate with the other encounters.

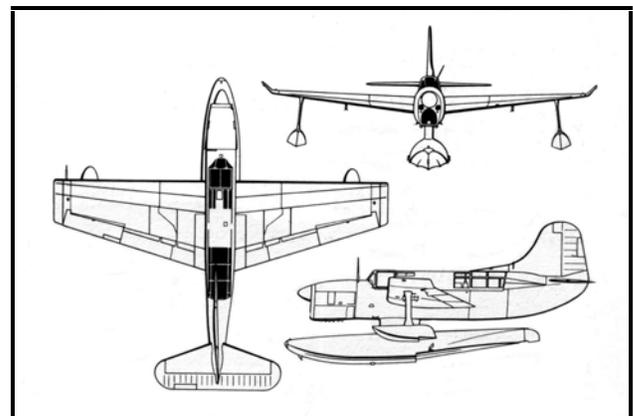
What has been your Favorite TCRC Event? I haven't had the opportunity to participate in any yet, but I am working on a bomb bay for the egg drop event.

What would you like to see as a Field Improvement? Less trees. People may have noticed a few missing or displaced trees since I joined. I would really like to see the field opened back up to the way it used to be from some of the old pictures I have seen.

What would you like to Learn at a Meeting? I am open to anything related to flying.

What would you like to Teach at a Meeting? I am in a learning mode right now and don't have a lot to offer at this point in time. ☺

January Mystery Plane



Gotha GO 145

by Conrad Naegele

The December Mystery Plane was the German Gotha GO 145.



In 1917 and 1918, the people of Great Britain came to dread the attacks by the Gotha bombers. Although other German airplanes were able to bomb England, all planes were called Gotha.

Gotha closed down in 1919 under the terms of the Versailles Treaty but was started up again in 1933, producing a trainer (not excluded by the Treaty). It was a single-bay biplane of wooden construction, fabric-covered with an Argus engine of 240 hp. The prototype was flown in 1934 and was accepted by the Luftwaffe in 1935. Although ostensibly a trainer, it was soon developed into a 'warplane' when the Germans decided to use it as a nuisance raider -- similar to the Russian PO-2. In 1943 these units were assigned to and remained operational on the Eastern front to the end of WWII, approximately-10,000 were built by Gotha, BFW and Focke-Wulf. Later it was license-built in Spain as the Casa 1145L.

This aircraft was a feature article in RC Modeler recently and while the airplane was rather conventional, it was for the purpose designed, a very successful aircraft. Pilots reported it was very pleasant to fly and quite maneuverable. There was several variants.

The GO145 had a wingspan of 29-1/2 feet. It was powered by a 240 horsepower Argus 10C inverted V piston engine and carried a 7.92 mm machine gun as armament.

New R/C Hobby Shop Opens

Central Hobbies opened at 401 15th Avenue N in South St. Paul at the end of the year.

The owners, Rich and Susan Ross, are no strangers to Twin City RC'ers, having been in the retail end of the hobby for many years.

Stop in and see Rich and Susan at their new store and see what they have to offer.

2003 Service Awards

by Jim Ronhovde

The 2003 TCRC Service Awards were made at the Annual Banquet in November.

Those receiving awards are:

5 Years

Charlie Dempewolf

10 Years

Tom Rendos
Mike Robin

15 Years

Larry (Butch) Neutgens

20 Years

Boyd Bowdish
Larry Edelmann

25 Years

Conrad Naegele

30 Years

Scott Anderson

Congratulations to all of these members who have been an integral part of our great club for so many years.

**Get Ready For The
TCRC Auction
Saturday
February 7th**

From The Co-Pilot's Seat

by Jay Bickford

New Year's Resolutions; we all make them, and most of us break them. But this year, if you are not a regular attendee of our monthly meetings, why don't you make a New Year's Resolution now to attend three or more meetings during the upcoming year. The meetings are a great place to meet new people that share some of the same passions you do and to deepen the relationships you have already made within TCRC. We would really enjoy seeing you there!

This year we have a pretty interesting schedule of topics on the agenda for the monthly meetings, with a real emphasis on skills for the new modeler. If you are new to the club, and especially if you are new to the hobby, these meetings should be right up your alley.

In January, our first presentation in our Basic Skills Series will be "Basic Building Skills – Tools and Equipment – Setting up a Basic Shop or Workspace." Dave Andersen and I will be the presenters.

In February, we will be continuing our Basic Skills Series and will be covering the topic of, well, uh, "Covering". Specifically, the use of the ever-popular plastic shrink covering materials such as MonoKote and UltraCoat, among others. Rick Smith and I will be the presenters.

During our March meeting we will be stepping up the Building Skills Series a bit to "Advanced Building Skills – Building a Scale Model from Scratch". Dave Andersen will be giving us a run through of a presentation he will be making on this same subject at the National RC Show in Toledo. You won't want to miss this one!

In April, in preparation for our Spring Float Fly, the topic will be "Floats and Flying Off Water". Jim Cook is the scheduled presenter.

In May, we are back to our Building Skills Series, but this time with a more intermediate topic: "Planning, Layout, and Checkout". During this session, we will be discussing the basic layout of your electronics, other in-flight gear, and how to check everything out before that all-important first flight. The presenter is yet to be determined.

June will bring back to TCRC the subject of Electric RC Flying. We hope to have a presentation from one of the many skilled electric RC flyers in the Twin Cities area.

In July, the subject will be "Fun Fly Stuff". In this session, we plan on covering a range of topics such as building your own egg-drop device to choosing the right planes for fun fly events. Our very own Rick Smith will be the main presenter.

August will see the era of advanced 3D Flying hit TCRC. If you have not seen or tried this type of flying before, it is definitely on the cutting edge of the RC flying

envelope. We hope to have Steve Pritchard of St. Paul RC as our guest presenter for this month.

In September, we are back to our Basic Skills Series. Rick Smith will be presenting the topic of "Battery Maintenance".

In October, just before our annual Season Finale and traditional Burnt Offering of Deceased Planes to the RC Gods, we will have a presentation titled: "Is it Fixable? Deciding to Rebuild or Not". The whole TCRC Board will be presenting.

Dave Andersen will be back in November as our guest presenter. This month he will be covering the advanced skills topic of "Adding Scale Details".

As you can see, we have a lot of interesting things planned for you this coming year. I hope you will plan to attend several of the meetings. Also, if you feel you would like to participate in one of the presentations, please let me know. We would love to have you.

Don't forget that just because there is snow on the ground and it is a little cold outside you still can't go to our great field to do some flying. There are a bunch of us that put at least one flight in every month of a calendar year and qualify for our AMA All Season Flyer patches. Why don't you come down to the field and join us this year. We have a great time and winter flying is very enjoyable.

Have a very Happy and Prosperous 2004! ☺



At The Field

by Klotz the Kat

Need stuff and can't get enough? Check out these wonderful places:

Sterling Supply Inc
459 NE Harding St.
Minneapolis, MN

Plaster, plastics, resins, molding materials

Ax Man Surplus Stores
1639 University Ave W.
St. Paul, MN 55104-3820

Electronic parts, materials, tools

Seven Corners Ace Hardware Inc
216 W 7 St.
Saint Paul, MN 55102-2521

Everything in hardware and tools

Midwest Surplus & Electronics
124 12th Ave. S.
Minneapolis, MN 55415-1221

Electronic components, materials, tools.

Copy Equipment Inc
1000 W 79 St Bloomington
MN 55420-1021

Large size copying, enlarging, etc.

Express Composites
3147 California Street NE, Suite 300
Minneapolis, MN 55418

Fiberglass, foam, resin, vacuum bag supplies, tools, etc.

Midwest Steel
1328 N 2 St.
Minneapolis, MN 55411-3402

T6 aluminum sheet, bar stock, tubing, etc. ☺

AMA Dues Are Past Due

The deadline for paying your AMA dues was December 15th. However, don't despair if you forgot. Just pay them today.

AMA dues have not changed for 2004. The dues are:

Open	\$58
Senior	\$48
Junior	\$ 1

Take the time to complete your AMA membership renewal and send it in today. To save time and the price of a stamp, go to www.modelaircraft.org and renew online.

Remember that all regular and junior members of TCRC must belong to AMA. ☺

Canopy Tip

by Ernie Lee

Before you glue the canopy on your new plane, drill a small hole either in the floor of the cockpit, the back wall, or at the top/rear of the canopy itself. This will let hot or cold air circulate, and prevent heat build-up in the summer which could pop off the canopy, and also keep the canopy from deforming when you go flying in the winter months.

(Reprinted from the *Duluth/Superior R/C Club Newsletter*, Duluth, Minnesota, Joan Johnson, Editor.) ☺

Calendar

- Jan. 1** Happy New Year!
- Jan. 3** All Season Flyer Kick-Off Celebration
Jordan Field
11:00 AM
- Jan. 13** TCRC Membership Meeting, 7:00 PM
Room H195
Hennepin Technical College
Eden Prairie
- Jan 27** TCRC 1st Quarter Board Meeting
HTC H195
7:00 PM
- Feb 7** TCRC Auction
St. Peter's Church
Richfield, 8:00 AM
- Feb 15** Deadline for TCRC Dues Payment

TCRC meets every month on the 2nd Tuesday at 7:00 PM in room H195 at the South Hennepin Technical College located at 9200 Flying Cloud Drive (Highway 212) in Eden Prairie. Guests are welcome to attend these meetings.



Trimming Your Plane

by Brian Dorff

So you have this new plane that you want to fly some smooth, relaxing aerobatics with. Or maybe you have been flying the fun-flies and on the timed loop event and your plane keeps falling out to one side losing time. Ever had a plane that just didn't want to land? Whether you fly competition or not, the fact is the same; you want your plane to fly and react properly. Ideally only to your inputs, and you don't want the plane to yaw, or hunt side-to-side, during any maneuver. Most pilots associate a properly trimmed plane as one that flies straight and level, but what we really want is a plane that flies straight and TRUE. An airplane that is not properly trimmed can fly level, but it may have unwanted tendencies during other maneuvers such as loops, knife-edge flight, and even landing. This can be very frustrating to the pilot, and often he will label the plane as a poor flyer, or the plane may crash, and he will never know the cause.

The truth be told, the most important aspect of trimming the plane happens before the plane is ever flown, I repeat, **BEFORE** it is flown. During construction, if you are lucky enough to be part of the assembly, (with today's ARFs and used plane market, that may not be possible) an incidence meter is a great tool to have. Always set the wing and stab to what the plans say, which for sport models are usually 0 degrees and 0 degrees. Also make sure that the wing and

stab are square to each other, i.e. the distance from the wing tip to the stab tip is the same on both sides. A tailor's tape measure is really handy here, since one end can be pinned while the other held. My 1/4 scale Cap, though an ARF, let me do all of these myself. And don't forget the most important part, making sure the wing and stab are level when viewed from behind.

Proper balance, both front to back (Center of Gravity) and lateral (wingtip to wingtip) are a must. For the CG, if a measurement from the leading edge of the wing is given, *always* measure from the root of the wing, where the wing meets the fuse. Never from the tip of the wing! For lateral balancing, suspending the plane by a string works really well. Most people do not balance from side-to-side, and since most planes are close, the planes do fly, however in high G situations, especially loops, the weight difference is multiplied, and one wingtip will track much differently than the other. This can lead to a very ugly loop, or in multiple loops, make you fall out all together. If you haven't done this to your planes yet, do it now! Hang it from the centerline, and add weight to the high tip until it is level. (Oddly enough, for side-mounted engines, the side that the cylinder hangs is usually the heavy side hmmm) A great way to add weight to the tip is with wood screws in the wingtip - just screw some in. It should not take much since most of the heavy stuff in the plane is close to the centerline.

Correct control throws are a must. Always use the recommended throws on a new

airplane, for high and low rates. Only adjust the throws after flying the plane, and make very small adjustments at a time -- you don't want to surprise yourself. Lastly, start with manufacturer suggestions for engine thrust angles, both up and down and side thrust. Usually you don't have to change these. The companies pay people to fly and trim their aircraft so your job is easier as a result. The reason they do this is so that newer builders can have a decent flying airplane from the start and the company can keep their reputation intact. 'Nuff said on building. Next month we will talk about flying the plane and correcting all the little things that make the plane more difficult to fly. I know we didn't get to the flying yet, but doing the above stuff properly will save a lot of time and frustration when it comes to flight trimming. As always, I am open to suggestions about what to write about, so if you like it, or don't like it, tell me; or have a question that you would like to see answered, let me know as well!

(Reprinted from Servo Chatter, newsletter of the Anoka County Radio Control Club, Coon Rapids, Minnesota, Stan Zdon, Editor.) ☺

Basic Flying Rules

1. Try to stay in the middle of the air.
2. Do not go near the edges of it.
3. The edges of the air can be recognized by the appearance of ground, buildings, sea, trees and interstellar space. It is much more difficult to fly there.

(Reprinted from the newsletter of the Des Moines Modelaires, Charles Blake, Editor.) ☺

Editor, Jim Cook
1075 Miller Street
Shakopee, Minnesota 55379

This Winter Flying Is Fun!



Pat Dziuk taxis out his trainer for another flight at the December All Season Flyer celebration. Pat has become a very enthusiastic member this year, splitting his time between the field and his computer, getting the TCRC website operational. ☺

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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