



July Minneapolis, Minnesota U.S.A. 2004

TCRC Spends June At The Fairgrounds Flying Site

by Jim Cook

The Minnesota River slipped out of its banks again in 2004 and crept onto the TCRC flying site.

Initially it looked like the water, which arrived on the field on June 1st, would only be there for a few days, but heavy rains to the west and south drained into the Minnesota River and it soon became apparent that the club would be spending most of the month at the Fairgrounds alternate flying site.



When Jim Luce of the Fairgrounds Board was notified that TCRC would be needing its alternate flying site for a period of time, he immediately had the site mowed. Shortly after, club member Brandon

Anderson had the TCRC tractor at the site to bring the runways down to flying height.

The Fairgrounds flying site sits on the main parking lot. Members who are going to fly there should enter the main gate and proceed up the road to the pit area on the left. The impound box, sign and frequency board are on the west side of the area. Pilots face east and their flight pattern is a north-south oval. The fairgrounds are a great evening flying site with the sun to the pilots' backs.

On June 24th, the River dropped below 718 feet, which is the level at which TCRC's flying site floods. As of press time, the River had receded to 713 feet, well below flood stage.

Now, runways, pit area, parking lot and piloting stations need to dry out. Hopefully this will occur during the first week of July and the club will return to his Jordan field. Please check the sign at the Jordan Field gate to see which flying site is open.

President Scott Anderson has scheduled the July Membership Meeting for Saturday, July 10th at the Jordan Field. The club will have its normal meeting, Show & Tell, and then plan on doing some field clean-up prior to getting the planes out of the cars and into the air. ☺

From the Cockpit of the President

by: Scott Anderson
president@tcrconline.com

That's the last time I kid about the river level! As of this writing, the river is back down, the runways are dusty but clear, and the woodpiles have not moved. The grounds are still damp and we have some clean up to do. Once we've had a few days of summer sunshine we'll be fully operational again. Thanks to Pat Dzuik for putting up the most recent photos of the flying field on www.TCRConLine.com.

We have a number of activities planned for this month including:

We'll hold the **July TCRC Meeting at the field on Saturday July 10th at 10 AM** in conjunction with a Site CLEAN-UP PARTY. Bring gloves, rakes, shovels and brooms as well as your planes and Show & Tell projects. The meeting will start at the Jordan Flying Site at 10 AM. The rain date will be Sunday July 11th at noon.

Saturday July 17th is the TCRC SUMMER FUN FLY at the Jordan site. Our Event Director, Geoff Barber has a great series of events planned. Bring your EGG BOMBER and Limbo Aircraft! Arrive by 10 AM for registration. Lunch will be provided for club members and families.

The RC Combat Competition has been CANCELLED for the weekend of July 24th & 25th due to schedule conflicts.

The Wings of the North AIR EXPO will take place Saturday & Sunday July 24th & 25th at Flying Cloud Airport. I am working with the event director to set up an RC AIRCRAFT DISPLAY at this event. We'll have a secure hanger and volunteers to explain the models to the crowds during the 2-day event. If you have an interesting aircraft to display, contact Scott Anderson to get on the schedule. If you want to be able to spend part of a day talking models and the rest of the day visiting with the war heroes contact me for a time and position. Visit www.wotn.org for details.

The weekend of July 30th, 31st & August 1st is the PARK RAPIDS FLY-IN to be held at Park Rapids, MN. Most people are driving up Friday July 30th and rooms are being booked at the C'Mon Inn and the Super 8 (across the street). The schedule of activities is a Friday evening get-together in the meeting room of the C'Mon Inn. Bring a snack and beverage. Saturday morning breakfast at the Lumberjack Camp and then on to the Headwaters R/C field for a day of flying. Evening dinner on Saturday is being finalized and we will finish up Saturday after dinner back at the C'Mon Inn. Contact Jim Cook if you are looking to participate.

Saturday August 14th is our Annual MODEL AVIATION DAY (MAD-2004) where we exhibit our aircraft and flying skills to our friends and neighbors. Let's

make this a big event and have as many members attend as possible. We'll have static displays and flying demonstrations. The doors for the public will be open from Noon to 3PM. The field will be open to members before and after the event.

We rescheduled the TCRC Electric Fly-In to Saturday August 28th due to our little water problem. This event has been growing in popularity every year in our club and it brings a lot of friends from other clubs to play with us! Count on being there!

This is looking to be a very busy summer. I'm getting my electric fun fly 'shock flyer' ready so I can keep up with those electric boys!

I'll see you at the field! ☺

Film Covering Degreaser

Have you ever wanted to add more film covering (Monokote, Ultracote) to an airplane you've already flown? It's difficult to get all the oil exhaust the aircraft so the film will stick. Try using CyA kicker (catalyst). Just spray it on and wipe it off. It works as a good degreaser.

(Reprinted from The Evergreen Flyer, newsletter of the Evergreen Radio Modelers Association, Marysville, Washington, Tim Shea, Editor.) ☺

TCRC Unveils New Hats



Jim Ronhovde had 48 of TCRC's new hats at the June 8th meeting.

The new hats are cloth baseball caps that are royal blue in color and have the TCRC logo embroidered on the front. Price of the caps is \$15 a piece and can be purchased from Jim at the next membership meeting. At the June meeting, 15 or 20 of the caps were bought up by members in attendance, as indicated by the photo below.



The caps are going fast. You better get your TCRC cap today! ☺

Park Rapids FunFly July 30th

The annual trek north to Park Rapids for food, friendship, flying and fun will start on Friday, July 30th and go to Sunday, August 1st.

The event will start at the meeting room of the C'Mon Inn in Park Rapids of Friday afternoon. Everyone will bring hors d'oeuvres for snacks and they should plan on a nice relaxing evening getting acquainted. Hostess Marilyn Krekelberg is looking forward to seeing those members who make the trip every year and excited about meeting the newer members who are planning on attending.

Saturday morning will start with a hearty breakfast at the Lumberjack Camp and then everyone will move out to the Headwaters R/C field for some great flying. The spouses usually stay around to watch a few of the flights before heading to town for a day of shopping.

Everyone reconvenes at the C'Mon Inn before heading for dinner at one of the local eateries, and then back to the C'Mon Inn for friendship and a recap of the day's events.

Sunday finds everyone at breakfast at the West Forty before the group disbands and heads home.

This is one of the most enjoyable events that TCRC holds and the Headwater R/C field is really nice. If you are interested in joining the trek north this year, give Jim Cook at call at 952-445-5257. You'll have a great time. ☺

How Do You Tell The Age Of Your Batteries?

The Nicad batteries that we use in our transmitters and aircraft wear out with time. If you have a battery pack that is more than 3 years old you should be keeping a close check on it by cycling every month. If it is 5 years old or older you should replace it and be sure to properly dispose of the old cells.

So, how do we tell the age of our batteries? Most Futaba battery packs and individual Sanyo battery cells (which most OEM radio manufacturers use) have a 2-letter date code stamped somewhere on the pack or cell. The first letter of the code is the year of manufacture and the second letter is the month of manufacture.

- 1996 = "A"
 - 1997 = "B"
 - 1998 = "C"
 - 1999 = "D"
 - 2000 = "E"
 - 2001 = "F"
 - 2002 = "G"
 - 2003 = "H"
 - 2004 = "I"
 - 2005 = "J", etc. . . .
-
- January = "A"
 - February = "B"
 - March = "C"
 - April = "D"
 - May = "E"
 - June = "F", etc. . . .

So, if you have a battery or pack with a date code of "CB" it was manufactured in February of

1998 – probably not OK, but keep a close check on it.

The pack in my 8UAF transmitter was "ZF" or June of 1995 so I replaced it. I found one pack with a date code of "WC" which translates to 1992 – replace that one without question.

(Reprinted from The Flypaper, newsletter of the TriCounty R/C Club, Butler, New Jersey, John Donnelly, Editor.) ☺

TCRCOnline.com A Great Tool!

TCRC has a very nice and user-friendly website that is kept updated with up-to-the-minute happenings.

Webmaster Pat Dziuk has made the TCRC website a powerful tool for all of the club's members and a great source of R/C information for non-members.

The 'pictures' section usually has the pictures from a recent event within days, if not hours, of that event.

The *Flare Out* appears on the website the same day it is mailed to the membership. And the website has the advantage of displaying all of the pictures in color and in considerable better resolution than the printed copy.

The strongest tool offered by the website is the 'Forum'. Here members post messages, comments, and the latest information available on any R/C topic they can think of. This area started slow but has really gathered

steam as more and more members are becoming aware of the things that can be done with the Forum.

The newest section is the 'members only' section, which currently has the prototype copy of the 2004 TCRC Roster for members to review and correct before it goes to print.

The website also has a merchandise section displaying the various caps, shirts, sweatshirts available for sale.

Prospective members have a section that tells them about TCRC and the benefits of becoming a member of one of the best R/C clubs in the United States.

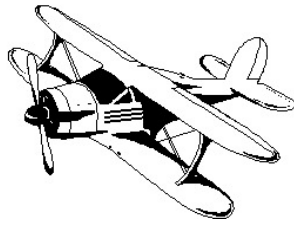
The front page of the site has a calendar of upcoming events and information about those events.

As of last count, about 80% of the membership has an e-mail address and can utilize TCRCOnline. About half of those members now use the site. If you haven't made the trip to TCRCOnline.com, this would be a good time to turn on your computer and access the site.

Thanks to Pat for putting together a great website and keeping it updated and very user-friendly. ☺

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.

Show & Tell



Savoia Marchetti in its bones. This is a push-pull electric and the design was the cutting edge in 1926, with a tri-tail and twin booms, and being an amphibious craft. Dan scratch-built it from plans and plans on covering it with white Econokote with red stripes. It should weigh about 20 ounces with the battery. Dan said it will fly soon.

Nice new planes keep showing up at the meetings. On the June 8th meeting we had four beauties.



Jerry Dunne had another new plane – an electric of course. It was a GWS Tiger Moth ARF Bipe. This nifty little plane was done in yellow trainer colors with roundels. Jerry only paid \$49 for the plane and he already has 40 plus flights on it and he says it is quite slow. It can take-off on its wheels though. He said it was his first electric bipe and now he wants to do a tri-plane next.



Jim Cook had his newest craft – a Big Stik on floats. The floats were about 40 years old and given to him at the Spring Float Fly. He promised the donor he would have a plane on the floats before the Fall Float Fly. The Big Stik came from Jeremy at Hobby Warehouse and it was done in red and orange Monokote. Jim had painted the floats silver and put a .52 OS Surpass 4-stroke in for a power plant. The maiden flight was scheduled for his cabin in Wisconsin later in the month.



The wizard of weird planes, Dan Stensby, had another at the meeting. It was an Italian S-55X



Brandon Anderson had his new TwinStar powered by two OS .25 FP engines. The plane was done in

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Show & Tell

Continued From Page 5

white covering with blue trim. Brandon had traded his Decathlon plus a little cash for the Twinstar, the engines and a radio at Hobby Warehouse. He was excited about getting his first twin-engined plane into the air but said he would wait until the Jordan Field was free of water before attempting the maiden flight. That should be around the first week or so in July if the weather goes well. ☺

Summer Fun Fly July 17th

Warm weather is finally arriving after getting a pretty late start this spring, and with the arrival of warm weather comes the TCRC Fun Fly.

This year's event will be at the Jordan Field on Saturday, July 17th with a start time of 10:00 AM. CD for the event will be Geoff Barber. Geoff has been conferring with other members to come up with some great events for the fun fly. Although at press time it is only a rumor, it has been heard that there will be an 'egg drop' event, and possibly R/C 'poker'.

Geoff will also be serving a lunch to all the members, family and guests that attend.

Mark your calendars and plan on taking part in the Summer Fun Fly on Saturday, July 17th at the Jordan Field. ☺

Airplane 'Toe-In'

It has long been an accepted fact among R/C buffs that toe-in aids in keeping a plane going straight during takeoff roll and landing rollout, particularly with tail draggers.

Have you ever stopped to analyze why this is true? There's a good reason.

Planes with tricycle gear have the CG forward of the main gear. This automatically helps to straighten out a plane that has developed a yaw angle between where it is pointed and where it is going. A tail dragger has the CG behind the main gear and a slight yaw angle is not automatically corrected but is made worse and can rapidly result in a ground loop. Here is where toe-in of the wheels helps both types.

A plane rolling straight ahead has equal drag from each of the wheels. When the plane starts to take an unwanted turn to the left, the drag from the left wheel goes to zero while the drag at the right wheel increases. The net effect is that the unbalanced drag exerts a restoring torque to turn the plane back to the desired direction. This would not happen without toe-in.

(Reprinted from **The Cam Journal**, newsletter of the Central Arizona Modelers, Sedona, Arizona, Marvin Hinton, Editor.) ☺

**TCRC Summer
Fun Fly July 17th**

Field Covering Repair

Ever been at the field and had a less than perfect landing in the high weeds that put a small hole in your covering? I haven't either, but in case it ever happens, you might have to patch it. Usually you can do this at the field with a piece of adhesive trim strip, but unfortunately, this stuff is very hard to remove at home when you try to fix the hole permanently. Buy a roll of clear contact paper, cut it into small squares, and use them to do your patching. It matches any color you put it on, holds well (if you get all the oil off first), and comes off easily when you want it to. Note that when you cut any kind of covering to use as a patch, always cut so it has rounded corners or is a circle. You'll be amazed at how much better it stays on.

(Reprinted from *Servo Chatter*, via *WIRCS Touch & Go*, Whidbey Island R/C Society, Oak Harbor, Washington, Mike Mosbrooker, Editor.) ☺

TCRCOnline.com

Use It!

**Find Out What Is
Happening In
TCRC Today!**



At The Field

by Klotz the Kat

Mode 1: Elevator & rudder on the left stick; throttle & aileron on the right stick.

Mode 2: Throttle & rudder on the left stick; aileron & elevator on the right stick.

In North America, most pilots fly mode 2. The majority of Europeans, the rest of the world and all Japanese fly mode 1. In Europe, mode 1 is known as "Airplane mode" and mode 2 is known as "Helicopter mode." Germans also call mode 1 "Feuer om Recht" (power on the right.).

The majority of world champions fly mode 1. Bob Violett, Hanno Prettnner, Wolfgang Matt, Maxey Hester, Stephen Durstein, Quique Somenzini, etc. They are proficient at both modes but prefer mode 1. It seems that many in the modeling world perceive an advantage in mode 1. Why? Interaction.

Of the four primary flight controls, elevator and aileron are usually the most sensitive. Rudder and throttle are less so. Unwanted coupling between pitch and roll can be completely eliminated by putting elevator and aileron controls on separate sticks. To illustrate, perform the following experiment:

On your mode 2 transmitter, hold a fixed amount of up elevator as if flaring for landing. Then move the aileron control back and forth as if dealing with a crosswind. It's hard to keep the elevator from moving, isn't it! It's even harder when you are not concentrating on it.

Now try the same experiment on a mode 1 transmitter. Banging the aileron around doesn't budge the elevator because it's on the other stick. Detents on the throttle keep power from changing, but even if the throttle moves by a small amount, the effect on pitch is negligible.

Now consider the slow roll. The pilot must finesse very fine movements of both elevator and aileron simultaneously. In mode one, the pilot controls the attitude and direction of the plane by moving the left stick (elevator and rudder) in a circle while making subtle adjustments of roll rate with the right stick. Simple. Compare that to the complex stick movements of a mode 2 transmitter: fixed offset with small left-right adjustment combined with larger up-down movements and left-right movements in the left hand related to only one of the movements in the other hand. Got that?

Mode 1 pilots think of the left stick as a pointing device that aims the airplane's fuselage. The right hand controls only roll rate and thrust. Mode 2 mixes these functions over both hands with their resulting interactions.

Mode one flyers tend to be very good at rolling maneuvers, inverted flight and landing —

maneuvers that require precise pitch control. Mode 2 pilots tend to excel at knife-edge flight wherein pitch control is transferred to the left hand -- in effect, a temporary mode 1.

Mode 1 pilots tend to be better at flying a badly out-of-trim airplane. Their ability to hold a fixed amount of aileron offset and a fixed amount of elevator offset is simpler than mode 2 due to the lack of interaction between these functions.

Learning basic flight is easier in mode 1 because the student can learn roll or pitch separately while the instructor operates the other stick.

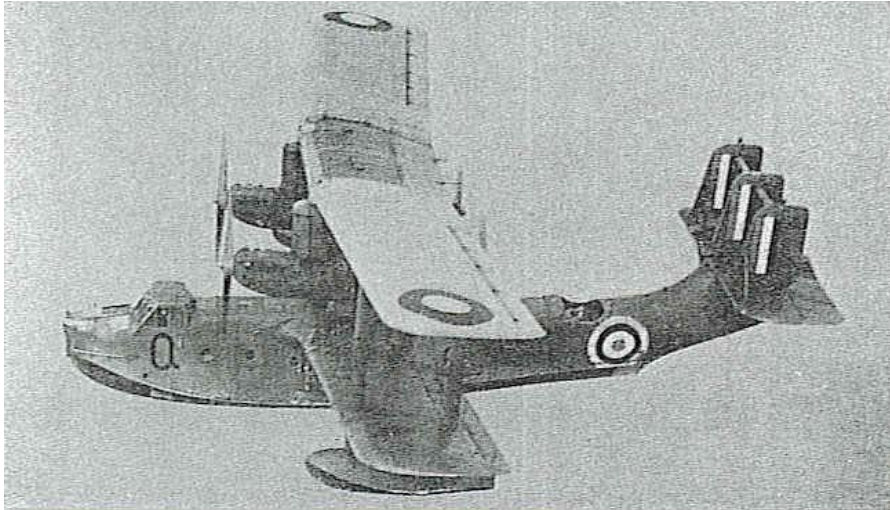
Mode 2's major advantage is the ability to reach switches, knobs and levers. The left hand (rudder and throttle) tends to be more available when switches need to be thrown (flaps, dual rate, trims, etc.). Mode 2 seems to have an advantage in hovering and other 3D maneuvers that use rudder and elevator controls primarily (Chip Hyde is mode 2). Mode 2 is clearly superior for helicopters wherein the right stick is used as a leveling/tilting device. And those who learned to fly in joystick-equipped full-sized airplanes tend to prefer mode 2. "Holding a stick that works like a stick in the full-scale airplane just seems normal," said Jeff Foley.

See ya at the field. Point a sandwich in my direction and roll it towards me. ☺

Short S 19 'Singapore III'

by Conrad Naegele

The June Mystery Plane was the British Short s 19 Singapore III.



The Short brothers design team led by Arthur George and C. P. Lipscombe did much to set the fashion in flying boat design from the mid 20's to the mid 30's and were largely responsible for Britain's pre-eminence in this class of aircraft.

The Singapore was the last in a long line of short biplane flying boats. Production was ordered in 1934 and the first Singapore flew in 1935. First models had four 640 hp Rolls Royce engines.

Pilot reports gave the Singapore high marks for water handling and ease of flying. The production run of these flying boats totaled 37 and were in service up to the early days of WW II. Later models in this series had 4 Rolls Royce Kestrel 8 730 hp engines.

The Short brothers' flying boats were world renowned and a few (the Sunderlands) are still flying. One is on display at the Kermit Weeks Museum in Lakeland, Florida. It is in flying condition and is usually at Oshkosh.

The Singapore was a general reconnaissance and coastal patrol flying boat. It had a wingspan of 90 feet and a speed of 145 mph. It carried a crew of 6 to 7 and had a range of 1,000 miles. ☺

Remember, No TCRC Meeting July 13th

Updated Roster To Be Printed

Mike Timmerman is planning on printing the 2004 edition of the TCRC Roster very soon. He had a prototype at the June meeting.



The new roster is in a very nice format and will be a much handier tool for all members.

The data base for the roster is in the 'members only' section of the website, TCRCOnline.com. To access that section, click on 'members only', enter 'tcrc' in the user box, and the password is the number that was printed in the upper right corner of your newsletter label last month. Once you are in the 'members only' section, open the roster and look at the listing for yourself. Note any corrections necessary and e-mail those corrections to mtimmerman@mn.rr.com. If you do not need any changes, let Mike know that also.

Members will find a copy of the TCRC Field Rules and the AMA Safety Code in the roster, plus a map showing directions to the Jordan field.

Mike is hoping to publish the 2004 TCRC Roster this month. ☺

Calendar

- July 1-29 **AMA NATS**
Muncie, Indiana
- July 10 **TCRC Meeting at the Field, 10:00 AM**
Jordan Clean-Up Party
- July 13 **NO REGULAR TCRC Membership Meeting**
- July 17 **TCRC Summer Fun Fly**
Geoff Barber
- July 20 **TCRC 3rd Qtr. Board Meeting**
Room H195, HTC
- July 24, 25 **Wings Of The North EXPO**
Flying Cloud Airport
- Aug. 28 **Electric Fly-In**
Jordan Field
Scott Anderson
- July 29-Aug 1 **Park Rapids Fun Fly**
Park Rapids, MN
Marilynn Krekelberg
- Aug. 14 **Model Aviation Day**
Jordan Field
Noon to 3:00 PM
- Aug. 28 **Electric Fly-In**
Jordan Field
Scott Anderson

July Meeting To Be Held At Field

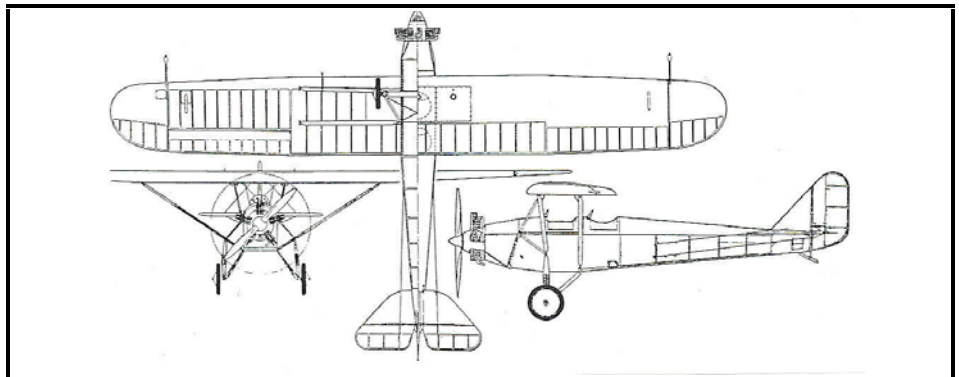
The TCRC board of directors has cancelled the Tuesday, July 13th regular meeting, and rescheduled it for Saturday, July 10th at the Jordan Field.

Start time is set for 10:00 AM. There will be Show & Tell at the meeting if any members bring new planes. This will be followed by a short membership meeting.

After the meeting, the club will spend the morning cleaning up the field. Hopefully, the field will be dry such that the runways and pits can easily be swept. Members should bring brooms, shovels, etc. It is anticipated that the clean-up should not take that long of time if we get a good turn-out. Those in attendance should bring a plane or two and plan on flying after the meeting and clean-up.

Let's have lots of members show up on Saturday, July 10th for the Meeting at the Field. Remember, we are NOT having our regular meeting at Hennepin Technical College this month. In case of rain, a rain date of Sunday, July 11th has been scheduled. ☺

July Mystery Plane



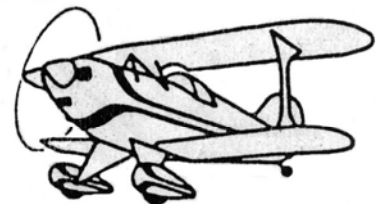
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Getting To The Float Fly In Style



Jim Cook's newest float plane made it down to the water of Viola Lake in style. Jim has a new cabin on the lake in Wisconsin and put the maiden flight on this Big Stik on June 27th. The plane flew well. ☺

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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