



February

Minneapolis, Minnesota U.S.A.

2005

## Robots Drop In Jordan From TCRC Airplanes

by Jim Cook

On a snowy morning on Saturday, January 8<sup>th</sup> lots of TCRC members showed up at the Jordan field to witness and participate in a government-funded program that involved the dropping of electronic robots from airplanes.



**Andrew Drenner inspects the drop mechanism to be used for the robot at Jordan Field. (Photo by Jay Bickford)**

Andrew Drenner of the University of Minnesota's Center for Distributed Robotics had contacted TCRC to see if the club could carry a robot aloft and drop it without parachute from a height of 100 feet and have the robot survive.

Aaron Sybrant's Great Planes J-3 Cub was chosen to take the robot aloft for the testing. The initial drop was done with a dummy robot just

**Continued On Page 3, Column 1**

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

The biggest event of the year for the club is just two weeks away – the TCRC Annual Auction.

The 2005 edition is scheduled for Saturday, February 12<sup>th</sup> 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. The set-up crew needed to get the area ready should be at St. Peter's by 7:00 AM.

Last year was a big auction and this year promises to be even bigger yet.

The auction requires a big commitment from TCRC's members in the form of time to make the event run smoothly. Every member should plan on being at the auction on Saturday and to put in the time necessary in one of the areas. 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. See you on February 12<sup>th</sup>. ☺

# From the Left Seat - TCRC President's Report

by Jay Bickford

What an exciting month! January opened with a bang on Saturday the 1<sup>st</sup> with the All Season Flyer kick off, and then exactly one week later on Saturday the 8th several members of TCRC came out to help the team from the University of Minnesota's Center for Distributed Robotics do a practice run dropping one of their Scout robots from an RC plane. We also had a great turn out of interested club members that just came to see what all the hubbub was about. Tuesday, January 11<sup>th</sup>, was our regularly scheduled monthly club meeting, and the team from the U graciously agreed to come and make a presentation of their robots at our meeting. We had a great turnout, and everyone enjoyed being able to navigate the Coke can sized Scout robot around the room while looking at the images produced by it's miniature onboard TV camera. I think they could have sold several that night if they had been for sale. Well, maybe not. They are \$10,000 each.



**Andrew Drenner with the Scout Robot. (Photo by Jim Cook)**

Next came the day of the real demo: Thursday, January 13<sup>th</sup>. Well, if you don't remember what the weather was like that day, let me refresh your memory. It was about 20 degrees below zero with 20 to 25 mph winds! With wind chills in the 50 degrees below zero range, flying out at the Jordan field was definitely out of the question, although one brave soul was prepared to do so. Luckily, we were able to come up with another option. An indoor flying venue was located at the last minute in a golf dome just west of Minnetonka. Brandon Anderson was able to get

his GWS Slow Stick with a robot and custom drop mechanism attached up to an altitude of about 20 feet for a successful drop test before the University's Air Force clients. A second attempt was made but battery problems on Brandon's plane keep him from making a successful second drop. All in all, the team from the U was pleased with the outcome. It also sounds like our own Dave Anderson has a pretty good chance of getting a short article about our exploits published in an upcoming issue of RCM. I'm sure he will let us know if he is successful and when we can all look for it. Thanks to all that lent their help and participated in this very interesting project!

I just spoke to Jim Cook a few minutes ago (of course he was bugging me for this article) and I think we did a great job of surprising him for his 60th birthday with the deluge of birthday cards. By all reports we really helped Mary catch him flat-footed this year. I hope you had a very Happy 60<sup>th</sup> Birthday Jim! By the way, did I mention that this was Jim's **60<sup>th</sup>** Birthday?

Also, I just wanted to say thanks to those that responded to my requests for club improvement ideas. I did get several, but not as many as I had hoped to receive. If you still have an idea you would like to share with me, please let me know. E-mail is probably the best way to contact me. Just drop me a line at [president@tcrconline.com](mailto:president@tcrconline.com), and I will put your idea on the list. Due to time constraints I did not get the survey together in time to include in this issue of the *Flare Out*, so it will have to wait until next month's issue. Look for it then.

Until next month . . .



## Robots In Jordan

**Continued From Page 1**

to make sure the plane was capable of performing the action. Following the dummy run three test runs were made with the real robots. All three flights and drops were successful, and in each case, the robot was able to literally walk away from the drop.

Andrew made a presentation about the program at TCRC's membership meeting on Tuesday, January 11<sup>th</sup> and had several robots to demonstrate at that meeting. There was a great turnout and the presentation was very interesting.

The UM robotics team next scheduled another drop for the Jordan field for Thursday, January 13<sup>th</sup> to actually demonstrate the ruggedness of the robots to their government sponsor. However that day was -20° F. with a gusty wind of 25 mph which created a -50° F. wind chill. The demonstration was then moved indoors to a golf dome in Long Lake, Minnesota. Brandon Anderson attempted to take the robot into the air within the dome but his 3D Sukhoi was underpowered and he failed to get aloft. President Jay Bickford's Slow Stik caught the carpet on his take-off attempt and the plane nosed over with resultant engine damage. Brandon was able to take the robot into the air with his Slow Stik. One drop was made, and again, the robot walked away. The University staff and the government personnel were very happy with the results.

Thanks to all who helped out in the many aspects of this program. It was very interesting and exciting, and successful to all involved in the project. ☺

## A Different Looking Robot



**One of the U of M Center for Distributed Robotics robots in position under a Slow Stik prior to being dropped. (Photo by Jay Bickford)**

## The Robots Didn't Miss A Beat After A Drop From The Airplane



**Andrew Drenner inspects a robot that was dropped from Aaron Sybrant's Cub at the Jordan Field. (Photo by Jay Bickford)**

# From The Co-Pilot's Seat

by Gerry Dunne

Hello, everyone!

Well, we asked for a little snow and now we got what we asked for, and then some. But snow is no problem to us Minnesotans – we just put skis on our planes and go flying. A bonus is that the air is more stable in winter and the snow makes the landscape look nice. Also the runways are much larger to land on, and if you have the misfortune to crash, the plane is usually not torn up as much. Try to get out to Jordan and take a flight or two. It is really easy if you are into electrics!

We are right around the corner from our biggest fund raiser, and about the biggest R/C event up here in the north country – the TCRC Annual Auction on February 12<sup>th</sup> at St. Peter's Church in Richfield. We will need all the help we can get to keep the auction flowing. I hope I will see every member turn up at the auction and not only working a shift, but also buying and selling some of the great R/C equipment that will come up for bids.

We have a great program lined up for the February 8<sup>th</sup> membership meeting. Chris O'Connor will be telling us all about giant-scale and showing us some of the neat big planes he has flown. He even indicated that there can be giant-scale electrics – an area I am known to be fond of.

Let's see lots of members come and enjoy this neat presentation.

The board is still working on putting together the land swap between TCRC and our neighbor Roger Preston. Last month's newsletter detailed the areas to be swapped. Now the legal descriptions of the areas have to be given to Scott County's planning department so that they can approve the swap. I understand we are a couple of months away from seeing this completed.

Well, that's it for this month. Fly fast, fly safe, and try to land on your wheels (or skis). ☺

## Winter Fun Fly March 5<sup>th</sup>

TCRC's annual Winter Fun Fly is scheduled for Saturday, March 5<sup>th</sup>.

Rick Smith is the CD for the event and start time is set for 10:00 AM. It is planned that the grill will be lit and hamburgers or hotdogs will be available around noon to all who show up.

Judging on the amount of snow that fell last week, it is probable that there should be enough snow at Jordan such that skis will be the preferred landing gear. However, as we all know, anything can happen with Minnesota weather, so we won't really be sure until March gets here.

To be prepared, get a set of skis on one of your planes, or grab something you can hand-launch, and head for the TCRC's Jordan field on Saturday, March 5<sup>th</sup> for some great flying, friendship and a free lunch. ☺

## Pay 2005 TCRC Dues Now

TCRC has changed the deadline for payment of club dues for 2005. The deadline was December 31, 2004.

The earlier payment will help the club determine its membership and to publish the TCRC Roster much earlier.

The 2005 TCRC dues are:

|              |         |
|--------------|---------|
| Adult Flyer  | \$50.00 |
| Junior Flyer | \$25.00 |
| Social       | \$30.00 |

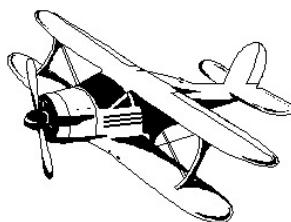
For new members, in addition to the above schedule, there is a \$50 initiation fee for adult membership, and a \$25 initiation for junior membership.

If there is more than one member of a family joining, the total family membership is equal to the one highest membership of those joining. For example a husband, wife and junior member that are all flyers, the total dues would be \$50.

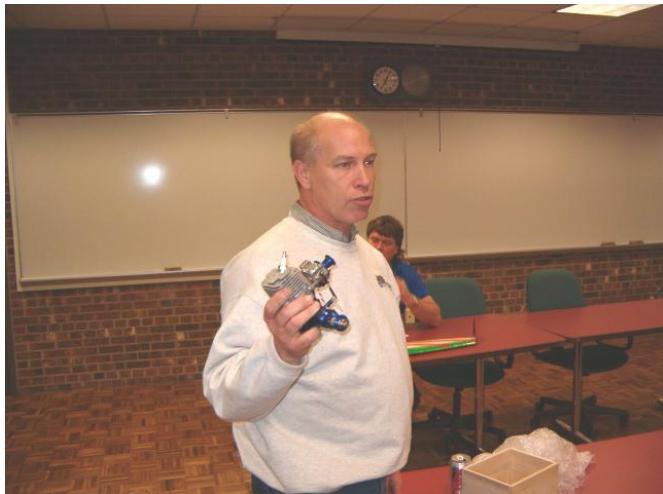
If a current member does not pay his/her dues by the deadline, then that member can be subject to a payment of the initiation fee.

Remember, to belong to TCRC as a flyer, you must be a member of AMA.

Payment of dues can be sent to treasurer Bill Jennings at 20700 Huntington Way in Prior Lake, 55372, or paid to him at a membership meeting. ☺

**Show & Tell**

More neat stuff is showing up at the membership meetings every month.



**Chris O'Connor and his YW 24 engine at the January 11<sup>th</sup> meeting. (Photo by Jim Cook)**

Chris O'Connor, known as a lover of giant-scale planes, had a new engine for his next big bird. It was a YW 24 1.5 cu.in. 2-stroke. The YW is made in Korea and is gasoline-fired. He didn't indicate what plane the new engine would be put into.



**Gerry Dunne and his twin-engined Zagi. (Photo by Jim Cook)**

Gerry Dunne had yet another plane at the January meeting – an electric of course. Gerry had a Zagi XT

Twin. It was done in green, orange and white Monokote. This plane was from a kit. He said the twin pushers moved the plane at 70 mph and could get up to 100 mph in a shallow dive.



**Jay Bickford with his camera-toting Slow Stick. (Photo by Jim Cook)**

Jay Bickford had his newest electric plane – a GWS Slow Stik. The Stik was outfitted with a HiMaxx brushless outrunner motor and he had a Kodam LiPo battery in it. It was covered with red Monokote and he had built a frame under it to carry his digital camera, and he had set up a servo to activate the shutter release. As of the meeting, it had not flown but Jay said it would be taking pictures the next weekend, and he was good for his word.



Above is a view of the TCRC Jordan flying field taken by Jay's Slow Stik on Saturday, January 15<sup>th</sup>. He was very pleased with how well it worked. More pictures can be viewed on [TCRCOnline.com](http://TCRCOnline.com). ☺

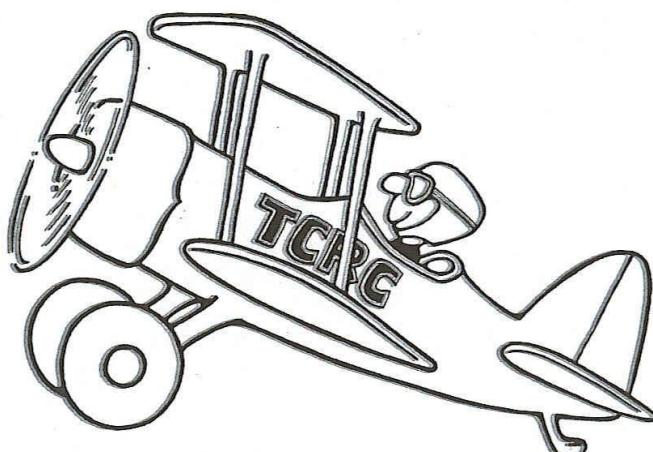
## TCRC Raffle At The Annual Auction

TCRC's Annual Raffle is always held in conjunction with the Auction which is scheduled for February 12<sup>th</sup>.

CD's for the raffle are Brad Spencer and Gerry Dunne and they have indicated that the club will again have some great prizes for the event.

Every member should have received an envelope in the mail in January containing \$15 worth of raffle tickets. It is hoped that each member will either sell or buy those tickets and return the stubs and money to raffle co-chair Brad Spencer or to treasurer Bill Jennings. Winners of the prizes do NOT need to be present to win. The pre-sale of the 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 before the auction.

Thanks to Brad and Gerry for contributing their time to make the raffle a success.



### TCRC 29<sup>th</sup> ANNUAL AUCTION

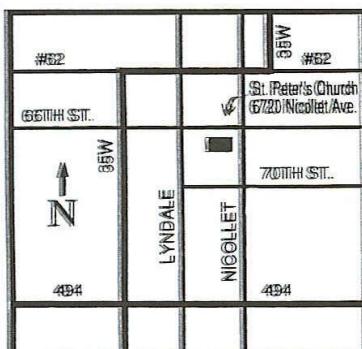
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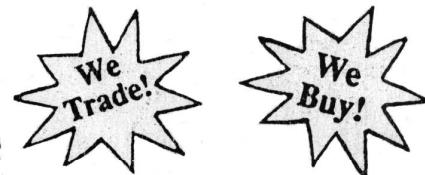
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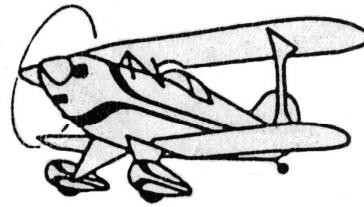


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## New TCRC Membership Cards

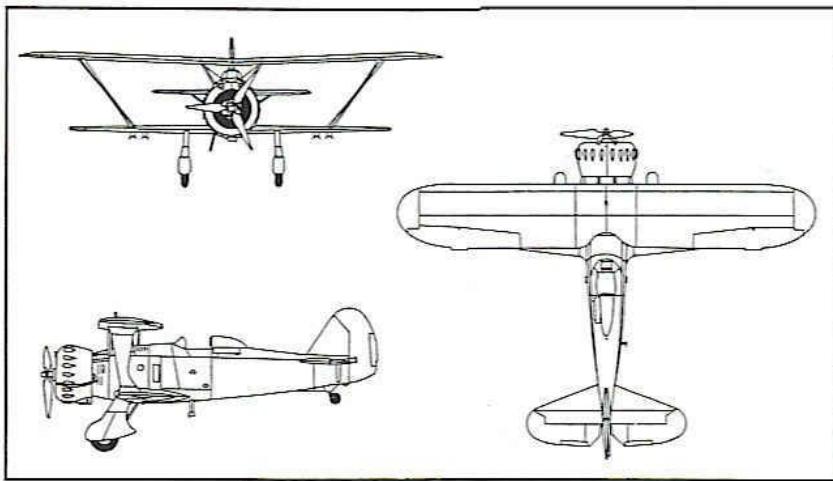


At the January 11<sup>th</sup> regular meeting club treasurer Bill Jennings passed out the new TCRC 2005 membership cards. The new cards were blue in color with the TCRC logo in its own colors, and were laminated in a heavy plastic. The above picture shows what the new cards look like.

If you have paid your dues and have not received your new card, give Bill a call at 952-440-6300.

©

## February Mystery Plane



## Thanks For The Birthday Wishes

I would like to thank all of you guys who sent me a birthday card for my 60<sup>th</sup> birthday.

My wife Mary did a number on me this year. She threw a surprise party for me at Dangerfield's on Saturday night that I never saw coming. She also had alerted my co-workers at Gedney and sent apparel that I had to wear during a staff meeting. She did the same at a Rotary meeting. Rick Smith showed me, after the fact, the page 6 of the newsletter that all of you received. It was obviously considerably different than the page 6 I prepared. I received numerous cards from all of you and was mystified as to why I was suddenly getting them. I am obviously married to a very devious woman!

The birthday event finally ended with a trip to Rick Smith's house where Mary presented me with an electric R/C Scorpio Threedee Stik ARF with all the trimmings, including a Triton charger. She had Rick determine everything that I needed to get into electrics and then had me stop at his house on the way to dinner in Chanhassen.

Again, thanks to all of you who wished me a happy birthday and did such a great job of keeping Mary's secret.

☺

**Winter Fun Fly  
March 5<sup>th</sup>**

# McDonnell XP67

by Conrad Naegele

The January Mystery Plane was the McDonnell XP67.



Just prior to WWII, there were numerous fighter aircraft projects awaiting development and testing. However, contracts and production heavily favored proven aircraft. After Pearl Harbor, only unusually high prototypes like the XP 59 and the XP 61 were finished in less than 18 months. Others drifted along for two or three years, and one, the XP 58, kept at it for 44 months! One example of 'delay' was the XP 67 project. Finally assigned the XP 67 code in July of 1941, the first prototype was flown on January 6, 1944. After some flight testing, it crashed and burned in September, 1944. The second prototype was cancelled.

The airfoil shaped fuselage and center section gave the 67 a really unique appearance. It had large fuel tanks, was pressurized, had tricycle gear and was to have carried 6-37mm cannon. The engines were new unproven Continental, driving large 4-bladed propellers, and used engine exhaust for added thrust. Unfortunately the proposed 1,350 horsepower only turned out to be 1,050 hp, and the top speed 405 mph rather than the planned on 448 mph. The concept was sound, but time simply ran out. It was, in any event, an extremely pleasing design. It was considered a supreme example of designer's art!

The XP 67 had a wingspan of 55 feet, a gross weight of 22,114 pounds and a range of 2,384 miles. ☺

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## Hints/Tips

From The AMA Newsletter

### Rotary Film Cutting

Those miniature, rotary fabric-cutting tools from the fabric or sewing store are ideal for cutting covering film. Use a straightedge as a guide, or make curved trim pieces freehand or with a French curve.

(Reprinted from *Brainbuster Newsletter*, Brainbuster Free Flight Club, Newport News, Virginia, Abram Van Dover, Editor.)

### Storage For Small Items

If you can find a kitchen spice rack at the flea market, get one to put your CyA and epoxy bottles in. The kind made for small bottles works very well. Empty bottles can be used to store small hardware items.

### Bending Balsa

A spray bottle of water on your workbench comes in handy for bending balsa sheets. If you spray a little water on the wood before you use filler, it will stick much better and will go on smoother.

(Reprinted from *Airmailer*, newsletter of the Benton County Radio Control Club, Corvallis, Oregon, Jim Trump, Editor.) ☺

AuctionAuction

**Duluth / Superior Area  
Radio Control Aircraft Auction**

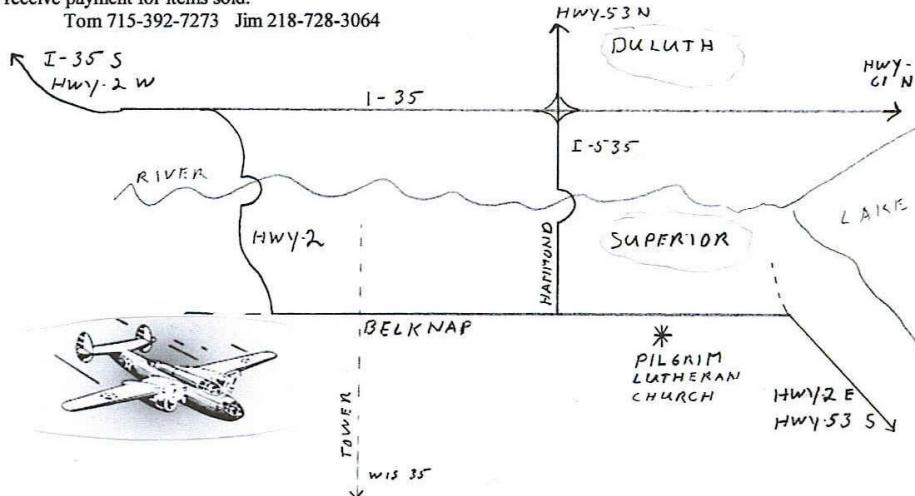
**Saturday - February 19, 2005 - 10:30 am**

The Annual Duluth / Superior Radio Control Club Auction will be held at Pilgrim Lutheran Church, located at 820 Belknap, (Hwy 2) in Superior WI. (Next to Burger King), on Saturday 19, February 2005. All area R/C Clubs are invited to bring their items for inclusion at the Auction. The doors will be open at 9:30am, for setup, Buyer and Seller registration, and preview of items for sale. Buyers must obtain a Bid Number and Sellers should have all of their items registered prior to the Auction start at 10:30am. Late items will be included as time permits. A discussion of Auction rules will be conducted prior to the Auction start. Refreshments will be available during the Auction.

This Auction is for both members and non-members, and can include planes, cars, boats and related R/C equipment. Small items should be bundled if possible so that we can start with a minimum bid of at least \$5.00. The R/C Club will retain 10% of the selling price.

Sellers should have a brief description on each item to be sold attached to the item to assist the auctioneer and to help get the best available bid for the item. If there is a Sellers minimum acceptable bid it must be noted on the item. If starting bids do not meet the Sellers minimum the item will be returned to the Seller. All sales are final and as-is, therefore it is recommended that you come early and preview any items of interest. Upon completion of the Auction all Buyers and Sellers must meet with the Treasurer to pay for their purchases or to receive payment for items sold.

Tom 715-392-7273 Jim 218-728-3064



## TCRC Land Swap Update

The proposed land swap between TCRC and our neighbor Roger Preston is progressing.

Larry Couture completed the survey of the two areas and is in the process of creating the legal descriptions of the two parcels. When that is done, the proposed trade must be submitted to the Scott County Planning Department for its approval. It is expected that once the documents have been submitted, it will take about two months for the approval.

When the swap has been completed, TCRC will be able to control the willows east of the runways that have been growing quite high. ☺

## Calendar

|          |   |
|----------|---|
| Dec. 31  | Deadline for TCRC Dues Payment  |
| Feb. 8   | TCRC Membership Meeting, 7:00 PM<br>Room H195<br>Hennepin Technical College<br>Eden Prairie |
| Feb. 12  | TCRC Auction<br>St. Peter's Church<br>Richfield, MN   |
| Feb. 22  | TCRC Board Meeting<br>2005 Auction Review<br>Hennepin Technical College<br>Eden Prairie     |
| Mar. 5   | Winter Fun Fly<br>Jordan Field<br>Rick Smith  |
| Apr. 1-3 | Toledo R/C Expo<br>Toledo, Ohio   |

**TCRC meets every month on the 2<sup>nd</sup> 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.**

## TCRC Meetings Well Attended

The monthly regular meeting of TCRC on the 2<sup>nd</sup> Tuesday of every month has had great turnouts every month. This is partly because of the great programs that are held, but also because the club has many projects going that interest the members. ☺

**Editor, Jim Cook  
1075 Miller Street  
Shakopee, Minnesota 55379**

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## Aerial Photos Made Easy



Here is a close-up of Jay Bickford's GWS Slow Stik with his Canon A310 digital camera mounted on it. Jay can actuate the shutter via a servo and took many shots of the snow-covered field in January. ☺

**THE TCRC FLARE-OUT**  
Monthly Newsletter



**\*\* TWIN CITY RADIO  
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**Purpose:** To preserve, encourage, and further develop the hobby of building and flying radio controlled model airplanes.

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