The Ohio Radio Kontrol Society
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Newsletter

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Special points of interest:

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- Do you know this man?

TORKS Chapter 2172

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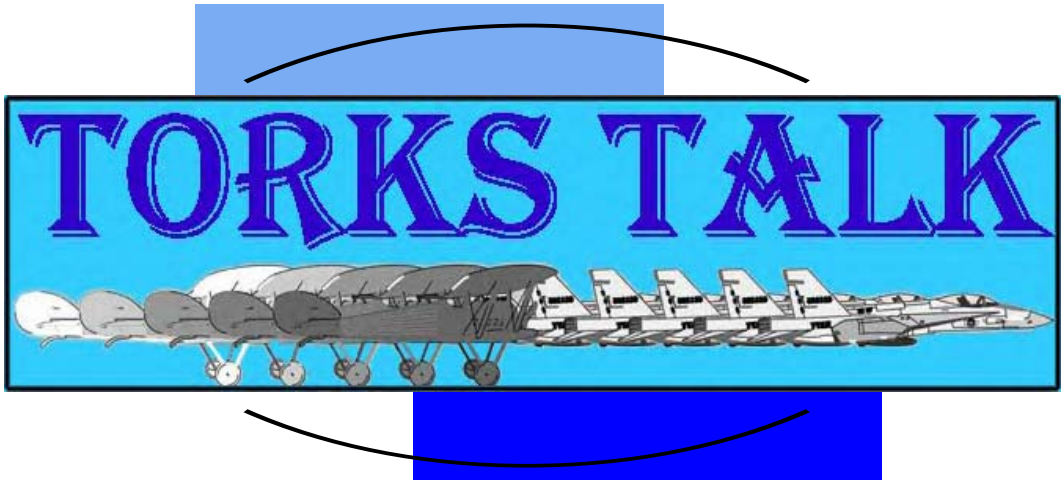

Presidents Message:

Hopefully you are getting this newsletter in plenty of time. Due to the Memorial Day weekend coming up, our meeting is going to be on May 18th this month.

If you were not at the last meeting, please see the minutes. There has been a lot of activity with our budget and other general activities.

The budget proposed by Dave Pickenpaugh was blessed by the Steering Committee and the passed by the membership. There has been a couple of items added to our budget that were not there in years past. Please contact Dave if you would like a report on these items in detail.

One item that was addressed in the last meeting was our pop machine. Even though this does cost more money due to refrigeration, the membership deemed this item as something we should replace. Terry Nitsch submitted a general catalog from Sams Club. Sams Club carries three models that would suite our club best. The membership voted on the expenditure and it was added to the budget. Dave will be letting us know when it is appropriate to get it.

The recent word is that Mike Barbee is going to be starting on our concrete work out at the field soon. Please bear with his crew as we try to get thru this. A lot of work is going to be done, and it sounds like in a short time. I'm sure it is going to look great when he is done.

Speaking of the field, we are still having problems with our front gate. Dowayne Gould supported and tried to hold up the pin recently. He noted that the gate is still loose and it won't take much to break it again. Please be careful of this.

Make sure you go to the club website in the near future and check out the club activities for this year. It has been approved by the Steering Committee and is posted.

Lastly, our club events are coming up and the contest directors need help in running the events. The first one on the list is the TORKS Big Bird. Please get with Bill Murray or Joe Harless if you think you can help out on those days.

Message From the Editor

Everything is clicking now. We have a plethora of information here for you this month. Stay tuned for more exciting newsletter stuff next month. Do not forget about the early meeting!

See you at the Field

TORKS CHAPTER 625

ATTENTION:

Our Next Meeting is

May 18, 2003 - 2:00p.m. at the

Field of Dreams

TORKS—THE OFFICIAL HOST OF THE HEART OF OHIO JET SCRAMBLE

Help Support The Sponsors

Last year was especially hard on the Jet Scramble committee to go out and solicit sponsors with the way the economy has been. In our newsletter we list many of these sponsors, please visit them as often as you are able to. They continue to help us out, it is the least the member of the club could do.

Do You Know This Man? (TORKS Profile)

Do you know this man? He is a member of TORKS and can be seen at the field quite often.

He was born toward the end of the Great Depression of immigrant parents. He and his wife had three boys. He likes other things besides RC such as golf, bridge (the card game, not "building a"), and most spectator sports and has been a referee in many sports. He is civic minded and participates in many of his communities activities.

He graduated high school in Columbus and attended OSU for a time. He then became involved in the military and went through many military courses, most importantly FLIGHT SCHOOL. As a high light of his military education he completed the US Army Command & General Staff College in 1975.

During his business career he was involved in the insurance industry.

Now for the juicy part! He started out in the Ohio Air National Guard in 1953 as an armorer. He rose through the ranks and in 1980 became a Colonel in the US Army.

He was then transferred to the Inactive Reserve in late 1980 and retired in 1995.

During his time in the military he flew many fixed wing and rotary wing aircraft including F84's, L-19's, H-13's, and the list goes on. He was dual rated in both fixed and rotary wing aircraft.

He is proud to tell you that his total active service was 27 YEARS 4 MONTHS and 27 DAYS.

If you see him at the field say "Hi" to Jack Rowlands, your new TORKS VP.

Profile by Bill Murray

May 4, 2003

April Meeting Minutes

1. The meeting called to order 2 p.m.
2. Roll call was taken and a quorum was present
3. Min. of the last meeting were published in the newsletter. No corrections were made or noted
4. Treasures report: Dave gave the 2003/2004 budget proposal. Special notes: pop machine was added to the budget, the quorum felt that a pop machine was a good thing to have of the field.

The budget was voted on and passed unanimously.

5. Steering committee: reviewed Dave's recommendations with some minor changes and passed, unanimously the budget proposal that was voted on and passed by the steering committee.
6. Orientation committee: Doug Johnson/Matthew Finley: special note more people needed to help of the training of new fliers if anyone meets these qualifications please contact Doug Johnson/Matthew Finley.

Deal committee: Dowayne Gould-need to have spring work party in the near future. Special notes Dowayne has done a temporary repair or on the gate all member should please be careful with the gate until a full repair has been accomplished.

Painting the building was discussed. Member John Kriesehas mentioned donating the paint for the building. The painting of the building will be done if the paint is donated and volunteers can be found to do the work. Otherwise the painting will be left till next year's budget.

Site retention committee: Greg Poppel Greg does not present at the meeting President Matt Short stated that everything is doing well and reminded everyone that there is a fund which the club sets aside each year for the amount check treasures report.

Membership notes: new members, gas, visitors? Mick: from Hobby Town spoke to the members about the interests in the Ikarus-USA electric helicopter . If there was enough interest in the electric helicopter, Hobby Town would be able to stock it for the membership. The membership wishes to thank Mick for keeping us in mind for our hobby supplies. Special note Hobby Town does have the electric helicopter in stock ready for flight just add your transmitter.

Ryan Bowman was accepted into "probation" status (there is a picture of him on the web site in the 5/4/03 photos). Dave Agee was voted to "regular" member status

The only member promotion for the next meeting is Ron Williams (probation to regular status).

Concrete work, still up in the air is up to Mike Barbee. Mike is currently at Top Gun so it will be at least a couple weeks before the work commences.

Victor McCall; has proposed fund-raiser : the program under consideration is through the Kroger foods store. Program benefits: Your organization purchases Kroger gift certificates and five percent discount [$200 minimum], and then sells them at face value, thus making a profit the gift certificate may be redeemed at any the Kroger stores.

Proposal is under consideration of the membership for further discussion next meeting.

Motions made and passed that we do get a new pop machine (price~$1000) to replace the old one in the clubhouse. The thousand dollars was placed into the budget which, as mentioned, was passed earlier.

Meeting ending time: approximately 3:10 p.m.

Minutes taken by Secretary Randy Thomas

Each year, Chuck Thompson is a big player in our Friday night hanger party.

They will deliver to the field also!!!

(The one in Harrisburg, numbers are posted in the building)

Increase Mechanical Advantage

Posted: 01/22/2003
Written By: Len Alessi
Provided By: Horizon Hobby

By Len Alessi
Team JR Member

Mechanical Advantage is a very important concept when setting-up linkages - especially with larger aircraft. It refers to the leverage that the servo can exert on the control surface. Since the control surfaces are rather large it is important for the servo to have enough mechanical advantage or leverage to control them, regardless of the servo's rated torque. A large amount of torque is of little value if there is not enough leverage to use it. Insufficient leverage can lead to control surface flutter (usually a catastrophic event) and blow-back, where the air flow pushes the control surface backwards resulting in mushy or no control at higher speeds.

There are two ways to increase the mechanical advantage of the servo. One is to make sure that the control horn device is long enough, whether it be a horn as shown in the illustration above or a bolt with a Rocket City-type fastener. The horn is the lever that the servo uses to control the surface. The longer the horn, the more leverage the servo has. It's like a lug wrench - when you can't get a lug nut loose you put a piece of pipe over the end of the lug wrench to extend the handle and that gives you more leverage to break the lug nut free. It's the same thing - the lug nut is the control surface and you are the servo trying to move it. As a general rule-of-thumb, try to attach the linkage at the control surface so that it is at least 1" away from the surface - longer is better.

The second way to increase the mechanical advantage for the servo is to attach the linkage at the servo arm as far inward (towards the servo arm retaining screw) as possible while still providing enough throw. It's the "lever thing" again, but in reverse, as we are trying to take leverage away from the control surface by providing it with a shorter lever to work against the servo.

Ensure that the attach-point is the same distance from the hinge line for like surfaces (two ailerons, two elevators and two rudder horns). If the attach points are not the same distance from the hinge line there will be unequal throw and it will be more difficult to synchronize the surfaces for equal deflection. This is especially critical for the rudder where two servos are attached to the same surface - unequal throw will

JR MatchBox (JRPA900)

cause the servos to fight one another causing excessive battery drain, and in severe cases may cause servo damage.

JR produces a device called a Match Box that is designed to make multiple servo set-up on a single control surface very easy.

Always try to use the maximum amount of travel (100%-150%) that the radio provides. If it is too much travel, don't reduce the percentage of travel in the radio. Instead, move the linkage further away from the hinge line at the control surface and/or move the linkage inward on the servo arm or use a shorter arm. If you use high percentages of travel you maintain resolution (fine movements of the stick result in fine positive movements of the control surface). When we decrease travel percentages we lose resolution.

DATE	*DAY*	*EVENT DIRECTOR*	*SCHEDULED EVENT*
Apr 4-6, 03	**Fri-Sun**	**Weak Signals**	**Toledo R/C Show at SeaGate Center**
Apr 23, 03	**Wed**	**Executive Officers**	**Transition meeting: Executive comittee audit treasurer's books, prepare budget and schedule for fiscal year**
April 27, 03	**Sun**	**Torks Officers**	**General Meeting, 2:00 PM at Field of Dreams**
May 18, 03	**Sun**	**TORKS Officers**	**General Meeting, 2:00 PM at Field of Dreams**
May 24-26	**Sat,Sun**	**N/A**	**Memorial Day Weekend**
June 7, 03	**Sat**	**Murray/Harless**	**IMAA Big Bird Fly-In / Tail Gate Swap 9AM-3PM, 8:30 Registration**
June 29, 03	**Sun**	**TORKS Officers**	**General Meeting, 2:00 PM at Field of Dreams**
July 4-6, 03	**Sat,Sun**	**N/A**	**Fourth of July Weekend**
July 12, 03	**Sat**	**Event Committee**	**Club Fun Fly**
July 19, 03	**Sat**	**Chuck Elkins**	**Warbird Fly - In / Tail Gate Swap 9AM-4PM**
July 27, 03	**Sun**	**Torks Officers**	**General Meeting, 2:00 PM at Field of Dreams**
Aug. 20, 03	**Wed**	**President/Terry Nitsch**	**General Meeting, 7:00 PM at Field of Dreams - HOOJS Kickoff**
Aug. 21, 03	**Thur**	**Jet Scramble Comm.**	**HOOJS set-up at Darby Dan Airport**
Aug. 22-24, 03	**Fri,Sat,Sun**	**Jet Scramble Comm.**	**Heart of Ohio Jet Scramble**
Aug. 30-31, 03	**Sat,Sun**	**N/A**	**Labor Day Weekend**
Sept 27, 03	**Sat**	**Special Committee**	**PARTY!!!!!!**
Sept. 28, 04	**Sun**	**Officers & Harless**	**General Meeting, 2:00 PM at Field of Dreams**

Charging Your Ni-Cd Batteries

Posted: 01/24/2001
Provided By: Horizon Hobby

If only electricity came in a bottle. Although it can be a headache, battery charging doesn't have to be a guessing game. We talked to Team JR member Anderson Yau about proper Ni-Cd charging. Here's his take.

Should you discharge first?

Yes, you should always discharge Ni-Cd batteries to the point where they are depleted and no longer usable in the application they are intended for (i.e. car pack, transmitter pack, or receiver pack).

How do you know when to stop charging?

If you are using a modern peak detection type charger, this is not something you will have to worry about - the charger will automatically stop charging for you. If however, you own a charger with a timer, there are 2 things you can do to determine when to stop charging.

Continually to monitor the temperature of the battery pack when charging. When you notice it becoming warm to the touch, stop charging. This should allow the battery to become roughly 85% charged.

To safely reach a full capacity charge you will need to add a voltmeter in parallel with the battery to monitor its voltage as it is charging. As soon as the voltage on the voltmeter begins to drop (.005V per cell), the battery pack is fully charged.

Is capacity a factor in charge time?

Yes. With a fixed charge rate the higher the capacity of the batteries the longer it will take to charge a battery pack. To determine how long it will take to charge a fully discharged battery pack use the following: Time= (Capacity/Charge Rate) x .06, where .06 is the conversion factor for converting hours into minutes and amp into milliamp. Let say you have a 1500mAh battery pack and a charger that charges at a 4amp rate. Plugging these figures in would give us 1500/4 x .06 = 22.5 minutes.

Do Ni-Cds really have a memory factor? If so, how do you deal with it?

Yes. Most people often notice these phenomena in the form of reduced battery runtime (capacity) and lower performance due to repeatedly charging the Ni-Cd pack without completely discharging it after use. In many instances you can overcome this phenomena by regularly going through the cycle of discharging your Ni-Cd pack completely after using it and then charging it right before you plan to use it again. This will help most packs regain some capacity, but not necessarily all of its capacity.

How often should you change your batteries?

Ni-Cd batteries are fairly durable batteries so you will not need to change them often unless you notice any performance decrease.

Will running Ni-Cds down to empty before charging diminish their lifespan?

Running Ni-Cds down to empty is good as long as none of the cells in a battery pack go into reverse polarity. You can prevent cell reversal from happening by remembering to not leave your car, radio gear, or other equipment that will drain the battery pack indefinitely after it has ceased to operate.

What's the trick to getting the most charges out of Ni-Cds?

Completely discharge your Ni-Cd batteries after you use it. Let the batteries cool down and rest several hours before you charge it again. When charging, do not let your batteries become overcharged to the point where the pack is too hot to touch. If the cells do become overcharged and vents, it releases chemicals and gases, which make up the battery and therefore reduce its useful life.