

The Newsletter of the *Manned Space Center Radio Control Club*

## WHAT GOES UP ...

Well another month has passed us by with lots of good flying weather. I hope everyone was able to enjoy it. I only hope that it continues, although a little cooler temperature would be appreciated. This month's newsletter has good news in it for a change and I may not even ask for a volunteer for anything!! Well maybe just one... Anyway, the club cleanup day went as scheduled and was very successful. Roughly twenty people showed up to help which made the work go that much easier. Major areas of the field were swept up, and runway and landing areas were repainted. To those who weren't there, we'll catch you next time! I was VERY pleased at the turnout and even though I might not remember everyone's name, I don't forget faces. I thank everyone as well. To show the club's appreciation, all those who did help were invited to Fudruckers for lunch on the club. I for one had a good time and found out some interesting information from the other club members.

During the talk of airplanes, helicopters and anything else that flies, a number of people wanted to have some club only fun fly events. We even had people that were willing to do the work!! The only problem was that none of the volunteers had done anything like that before. They wanted to do the work, but would like to have a shoulder to lean on for moral support. If anyone would like to tutor these people, then let me know. Some of their questions were: What type of events are fun to do? Which ones draw the most people? Should their be skill levels to the events like expert and novice? How long should it last? etc. Remember we are talking low key events, therefore there shouldn't be that much work involved. All these people need are the ideas; they'll do the work. So what do you say?

(continued on last page)

**NEXT MEETING  
THIS THURSDAY  
JULY 12th  
at 7:30 PM**  
in the Clear Lake Park Building

## ENTERTAINMENT

Dave Hoffman will be providing this month's entertainment with discussions on two of his favorite subjects; all you would want to know about gliders, and the year 1991 and radios.

## A MEMBER'S REPLY TO DR. DOOM

As an original member and long-time officer of MSC-RCC I feel compelled to reply to last month's hot pen article and set forth the club's financial situation.

I am sorry Dr. Doom was bent about the low degree of support from MSC club members. I don't take issue with low support (which should have been expected) but the verbal cuts about the "rich club" and "do nothing" were sour grapes (from the Prop-Nuts side of the fence?) that need answering. Lets look at the facts.

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### MINUTES FOR THE JUNE MSC/RCC MEETING

On June 14, 1990 the MSCRCC monthly meeting was called to order by president Mike Goza. The meeting was held at Mario's Pizza due to an air conditioning failure at the Clear Lake Park meeting area.

#### Old Business:

The scale contest was held on May 12th and 13th at the Prop Nuts flying field. A list of contest winners was not available at the last meeting. A copy of the winners will be published in the Prop Nuts newsletter. Complaints were voiced about the participation of club members. The contest was voted on by all the club members, however, few members who were not also Prop Nuts members showed up. Dave Hoffman pointed out that most of our membership consists of student fliers and recent graduate fliers and this may contribute to lack of participation.

Club fuel is in. Wayne Green, Jim Brock, Tas Crowson, and Mike Goza have fuel.

Tas has pictures from the scale meet.

John Campo presented an idea for putting shade over the existing wood structure on the flying field. John estimated the shade would cost \$100.00. The club voted in favor of the idea. John is checking into the idea with NASA and will construct the shade if NASA approves it.

Field clean-up day will be this Saturday at 9am. Everyone is asked to bring push brooms, shovels, wheel barrows, and gas weed eaters. The field will be closed until the cleaning is finished. Lunch will be provided by the club for all workers.

The National Fun Fly was held at Scobee field on June 8th, 9th, and 10th. 125 pilots registered over the three days. The AMA lost \$6,000 due to the poor showing. The Fun Fly suffered from lack of advertising. HAMCI has voted to hold the National Fun Fly again next year.

#### New Business:

Moving the field to a better location was discussed again. The proposal was rejected, however, alternate NASA sites and available land are being researched.

Futaba has instituted a trade in program for radio equipment in order for modelers to meet the 1991 standards. The trade in program will run from October through March. An article on the program can be found in R.C. report.

Since the club has a bank balance of \$3739.00, several suggestions were proposed on how to spend the money in benefit of the club members. Higher subsidation of the fuel, a Christmas banquet, lower dues, T-shirts, and field improvements were suggested. All possibilities are being investigated. The Christmas banquet was approved with Sharon Goza looking into locations for a Saturday evening in December.

Dan Ashbury will bring refreshments for the July meeting.

#### Treasurer's Report

income: \$627.00

output: \$696.00

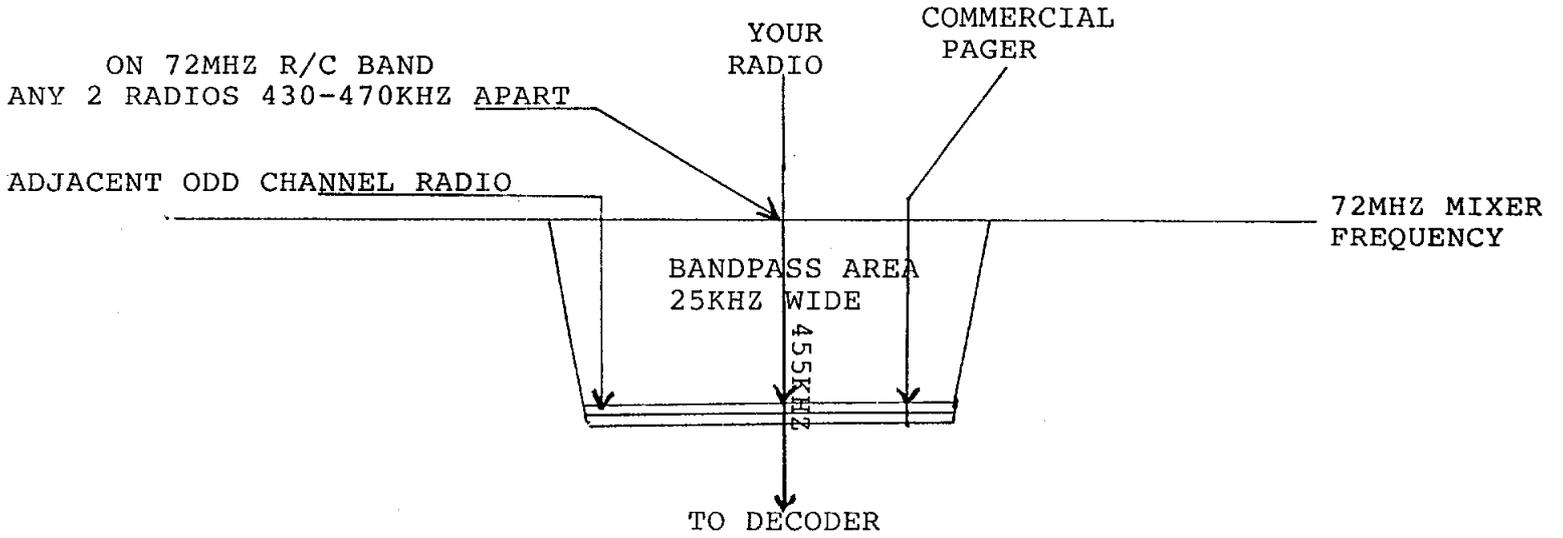
total: \$3739.00

#### Model of the Month

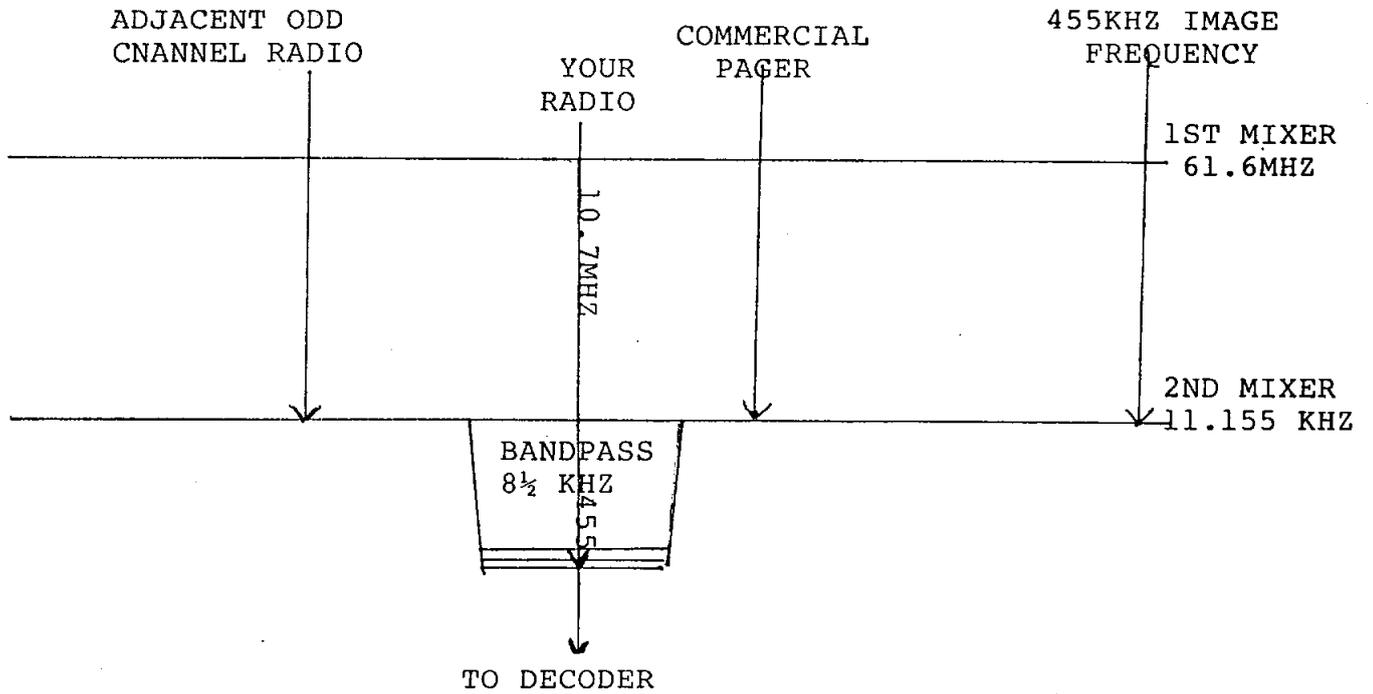
Andrew Copper won Model of the Month with his Gemini Twin

Secretary  
Sharon P. Goza

SINGLE CONVERSION (WIDE) RECEIVER



DUAL CONVERSION RECEIVER MEETING AMA SPECIFICATIONS



# WHY SHOULD I FLY AN R/C SYSTEM THAT MEETS THE AMA TECHNICAL GUIDELINES?

The F.C.C. authorized 50 channels, spaced 20 KHz apart, for model aircraft radio control operation effective December 20, 1982. However, due to the technical limitations of most R/C equipment in use then, as well as now, some of the channels can not be used immediately.

The AMA developed a Phase-In Plan for the new channels which was put into effect January 1, 1983. Eleven new channels (38-56 plus CH 12) went into effect immediately. Channels 14-34 were added on January 1, 1988, giving us a total of 22 channels. Seven older colored frequencies were withdrawn by the F.C.C. effective December 20, 1987.

All of the current numbered channels are spaced 40 KHz apart in order to allow most of the older radio systems to operate. On January 1, 1991, the remaining channels will be phased-in at the 20 KHz channel spacing as directed by the F.C.C. authorization. Failure to do so would put the channels in jeopardy of being withdrawn for R/C model use by the F.C.C.

The primary consideration of the phase-in process was to minimize modeler-to-modeler generated interference. Evaluation of the period from January 1, 1983 to the present time indicates that the Phase-In Plan has generally worked very well. This is especially true where individual R/C clubs have taken the lead in establishing positive frequency control.

All of our R/C channels are exclusive frequencies for control of model aircraft on the 72 MHz band. However, there are instances where commercial land mobile or pager transmitters can be as close as 10 KHz to one of our exclusive R/C channels, which

potentially can cause R/C interference.

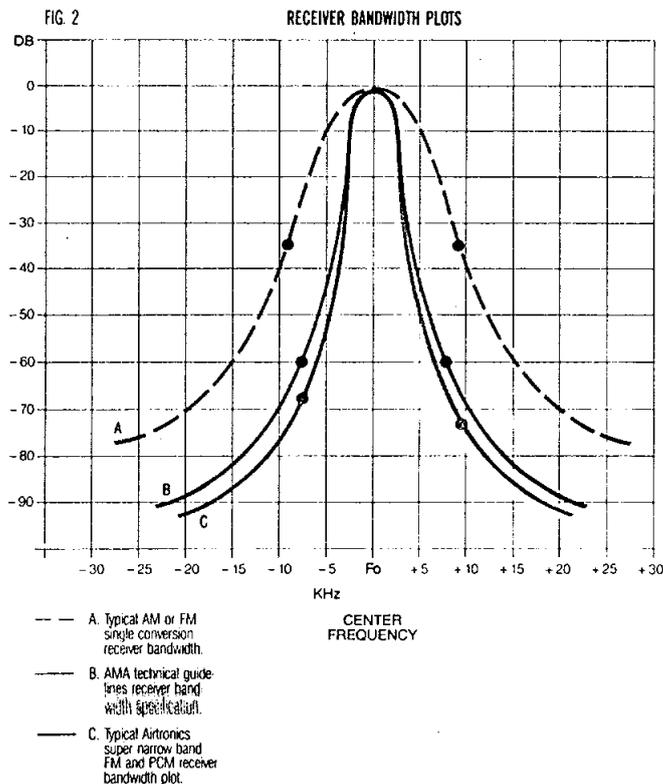
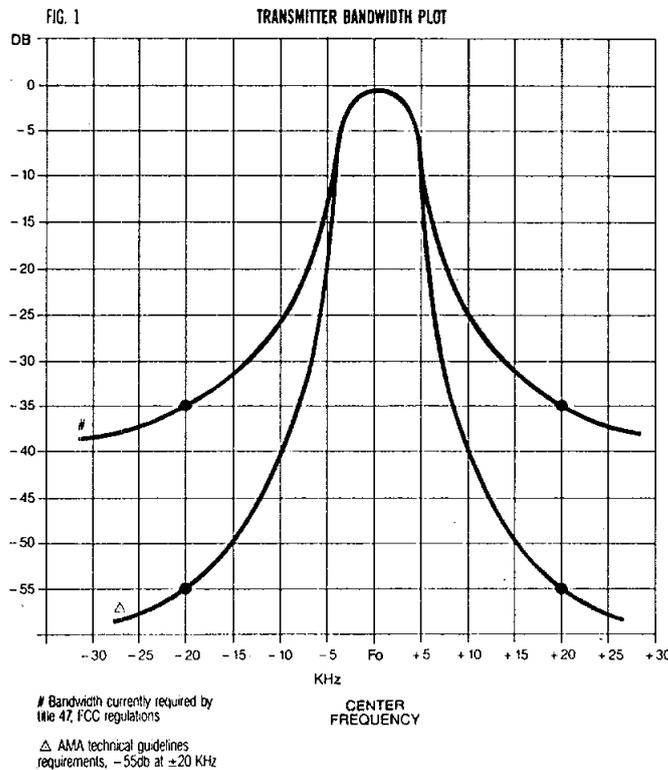
In addition, interference can be caused by modelers with equipment that doesn't even meet minimal F.C.C. transmitter bandwidth specifications. A transmitter with excessive bandwidth will splatter and can cause interference to legal R/C units operating in close proximity. (Please see Figure 1.)

AM, FM and TV broadcast stations can also be a source of unknown interference. Care should be exercised when flying in the vicinity of AM broadcast stations located close to VHF low band TV stations, such as channel 2, 3, or 4.

An image response is possible between some model receivers and stations operating at a frequency which is above or below the R/C operating frequency, at twice the R/C receivers intermediate frequency (IF).

Primary things to consider when evaluating potential interference to an R/C receiver are: the receiver bandwidth, image frequency rejection, and 3rd order intermodulation product rejection. Many R/C receivers being flown today have a receiver bandwidth at -30db of 20 to 25 KHz, which is excessively wide. They also have a 3rd order intercept point of from -8 to -12 or worse, and an Image Response of 0db. (See Figure 2. for receiver bandwidth plots.)

These receivers are extremely vulnerable to interference from any land mobile or pager transmitters operating 10 KHz away from R/C model transmitters in close proximity. The advent of more commercial transmitters and resultant potential interference makes it imperative that R/C model receivers meet or exceed the technical guidelines promulgated by the AMA. ▶





## A MEMBER'S REPLY TO DR. DOOM

(Continued from page 1)

I was at the meeting in which the joint scale meet was proposed -- by one of the dual Prop-Nuts/MSc members. The meet was talked up by the Prop-Nuts/MSc members -- no MSc only member pushed for this meet. The 35 members in attendance consisted of around 20 students/new pilots/guest, 5 older MSc members, 5 dual members and the club officers. A vote was requested on whether to support a joint contest. A majority of those present voted to support a scale contest with the Prop-Nuts and to advance funds for food and for the raffle prize.

What did this vote realistically mean? Did this mean that the 150 members not present would support/enter/spectate at the meet? Think "yes" only if you also believe in the Tooyh Fairy. The new members present only voted yes to the idea so as not to be a wet blanket to the 5 members pushing for the joint meet.

That 7 - 10 MSc and/or dual MSc/Prop-Nuts members worked at the meet looks pretty good by my books. My visual view of the meet on Saturday didn't see any non-joint Prop-Nuts actively running things except for the hard-working Prop-Nuts concession stand ladies. If these 10 were the only personnel running the show from both clubs, then they had their hands overly full. It would appear that both clubs didn't "support" this meet.

One would be hard pressed to pick a worse date for this meet:

First day: Buckets of rain were falling all over Harris County on Saturday. It would require an act of great faith for an ordinary MSc member to drive over to Highlands through the rain to spectate -- and fulfill their proper definition of support by buying food and raffle tickets. I drove over anyway and saw a few flights between squalls.

Second day: Sunday was Mother's Day in which most families go to church and take mother/grandmother to dinner. Dumping mother to go see a "toy airplane meet" is the stuff divorces are made of.

The Prop-Nuts are a good bunch and I have no quarrel with them. They have permanent facilities, shade, cold drinks, drive to flight line, etc. They also have a restricted flying area, nearby road, houses, field and facility maintenance, rent/land payments, grass to mow and a steady need to raise funds to keep dues and assessments within reasonable bounds.

The small \$68 net contest profit and possible disappointed financial hopes for the Prop-Nuts treasury might be the source of the barbs thrown at the MSc club treasury and for attempts by certain MSc/Prop-Nuts members at the June regular meeting to give MSc money to charities, cut dues or throw expensive parties. I personally vote the give the MSc \$68 share back to the Prop-Nuts.

MSc club has an almost no-maintenance site and wide open flying spaces. Yes, we have to walk out to the flight line and, until recently, we had no shade. Yes, we also have low dues.

MSc has a successfully functioning Instructor-Student training program. This program (started in 1988) is the reason we had 150 dues renewals (65 - 70 is usual) this past December. This put the club treasury -- for the first time ever -- to \$4k at the end of 1989.

These funds are and will be put to use in bulk purchases of fuel for members, purchasing T-Shirts, hats and patches, field improvements, member/family dinner meetings, and fun fly/club contests at little or no cost to members. All of the above is being done without any dues assessments to members. It is expected that club funds will fall under \$2k by the end of this year. A \$2k pad is about the minimum balance we want to see during the year to allow MSc officers to run the club without financial headaches over whether there are enough funds to pay the bill. I find it interesting that the club funds were not a subject of attack until after the scale contest.

I have written this response as strictly a MSc member with only this club's welfare and service to fellow members in mind. I believe MSc officers should emphasize future energies towards the needs and desires of our own members with special attention to our largest single group -- the almost 130 students/new pilots in the club.

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## WHAT GOES UP ...

(Continued from page 1)

The flying field has a new addition in case anyone hasn't noticed. John Campo got approval for the shade out on the flight line and it is already installed!! While its not 2000 square feet of air conditioned shade, I know of three flyers that enjoyed the break from the sun. The transmitters enjoyed it as well. Thanks to you and any unknown helpers that you may have had. Well done John.

During the next club meeting, Sharon will have a short report on the Christmas banquet. She will be discussing various places, prices, and available dates. The club will have to decide during THIS meeting if, when and where we will have the banquet. The available dates are dwindling fast, so time is of the essence. **WE WILL MAKE A DECISION THIS MEETING.** Therefore, if you want a vote, then you better show up. I think the club will be pleased with what she has found out.

I also believe that we will have entertainment this month. It should be a good time. Hope to see you there!!

Mike Goza

### The R/C Flyer

c/o Joe Kastetter  
827 Baronridge Drive  
Seabrook, Texas 77586  
(713)326-5216

## A MEMBER'S REPLY TO DR. DOOM

(Continued from page 3)

The MSC members who used to run the highly regarded MSC scale contest of ten years ago are retired, moved or totally inactive. Very few current members are into scratch-built scale models. Except for some of the dual members, there is no general interest in full fledged contests. Considering the current membership I see no reason in the future to officially participate with other clubs in the holding of contests or other activities.

Dave Hoffman

## INSTRUCTORS

Dave Thomasson	471-0642
Dave Hoffman	497-1945
	476-5206
John Campo	488-7748
Charles Copeland	532-1570
David Fennen	326-4719
Mike Goza	554-4016
Dennis Smerz	482-9431
Ken White	332-6898

## FUEL FOR SALE:

Jim Brock	334-1715
John Campo	488-7748
Tas Crowson	474-9531
Don White	488-1024