

## MARAC NEWSLETTER

Number 3

MOBILE AMATEUR RADIO CLUB INCORPORATED

20 August 1970

## MINUTES OF MARAC, INC AUGUST 8, 1970

The regular meeting of MARAC was held at 8:25 PM, August 8, 1970 at the QTH of W0SJE, Lee's Summit, Mo. Members present were: WA0WOB, W0SJE, W0YLN, W0AYL, WA0KQQ, WA0SHE, K8DCR and WA6KHN.

The meeting was called to order by the President. Minutes of July meeting was waived and accepted as presented to all members in Newsletter. Motion by WA0WOB, seconded by WA0SHE. The Treasurers report was waived. Motion by W0AYL, seconded by WA0KQQ. Future financial reports to be published quarterly. W0SJE read a letter from W5ROP/KR6IX. W0YLN reported on the Newsletter and asked for permission to buy supplies for the Newsletter. Approved by all members. W0SJE reported he now has the rules and regulations governing all Amateur Radio Operations and it will be available for all inquiries by club members. Proper mobile operations will be printed in the Newsletter. WA0SHE reported 81 Charter members and 21 Regular members and asked for permission to buy MARAC name tags for the new Charter members. Letters from WA4BMC were read by members. She has offered to be information center for MARAC. W0SJE presented the M-50-M award as finished by the artist. All members approved and the award will now go to the printer. The Associate Member Award is now ready for distribution. W0SJE reports he has received two applications for this award. Discussion followed re: A certificate of appreciation to be presented to those silent, non radio operators, who have given time, work and materials to MARAC without compensation. Discussion on the YL Mobile Award was held and WA0WOB is to give the ideas to the artist. Meeting adjourned at 9:45. Motion by WA0KQQ, seconded by W0AYL. Next meeting to be Sept. 12 at the QTH of W0AYL in Edwardsville, Kansas.

## FROM THE EDITOR

Due to increased cost of mailing, we have gone back to a more condensed form with the Newsletter which will enable us to get more news in and also to use 1st class mail from now on. The 6th page in last month's N/L ran the postage to 12 cents per letter for 1st class. Until such time that it becomes a necessity we will stick with 5 pages and 1st class postage. Circumstances beyond my control caused a delay in the printing of this month's N/L and all I can say is I hope it doesn't continue to happen this way. We are receiving lots of material for the N/L but I am sure some of you must have something you would like to say so take time out and drop me a line. We have some regular contributors but let's not make them do it all. There is room for more and MARAC is for all it's members. I wonder if perhaps someone needs a hard to get County or contact. The N/L might be a good way to get it as some of our members are quite well informed (look at all the 3079ers we have) and we are practically all mobileers and like to give them out. I was mobile a few days this month in Mo., Kans. and Okla. and found conditions very poor on 20 meters but 75 meters seems to be much better in this area except for stormy nights. I guess that is a good indication that it is about time to start thinking about how I am going to improve my 75 meter rig. I did check 40 meters but could find no activity. WA4BMC has been appointed information center for MARAC. Bertha has kindly volunteered for the job and I can think of no one that could do it better. All queries for net information such as what is this net? How do I join? etc should be directed to WA4BMC. She also keeps an up to date address file for those who may need addresses. Catch her on the air or send her an SASE.

## AWARDS

Having seen the artist's work on the M-50-M Award I can safely say it is a beautiful Award and quite different than most. For that reason, I am working on my GCR now as it should be ready anytime. For this month, our awards column will be short and we are going to use the space for the special on noise suppression. This information is from WØSJE and we present it in hopes it will help someone.

Since there are many things that can cause interference in the receiver, it is well to try to locate the source of trouble before any suppression is attempted. This is not always possible but in most cases it can be identified and a lot of time and trouble saved since you can suppress it at it's source. Here are some indicators to use as a guide:

High Voltage secondary noise - Popping, increasing with motor speed, stops completely when ignition is shut off.

Generator or Alternator - High pitch whine, frequency of whine will increase with engine speed.

Voltage Regulator - Raspy, chattering rough sound. Doesn't stop instantly when ignition is shut off. Will occur at an irregular rate depending on rate of battery charge.

Instrument Cluster - Hiss, crackling or irregular popping. Look at oil guage sender, gas tank sender, heat guage, instrument cluster regulator on later model cars.

Wheel Static - Raspy noise evident when car is moving and ignitions shut off.

Tire Static - Crackling noise evident when car is moving and ignition is off.

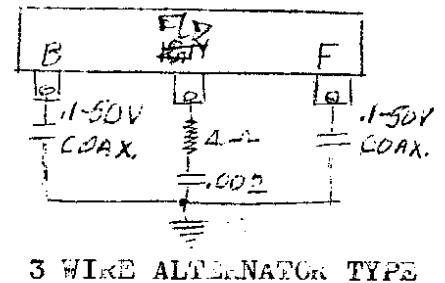
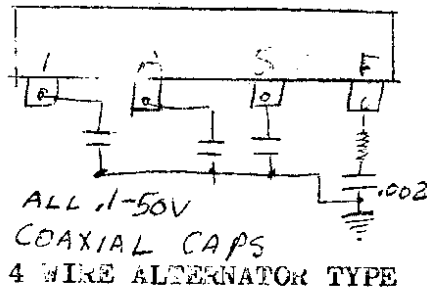
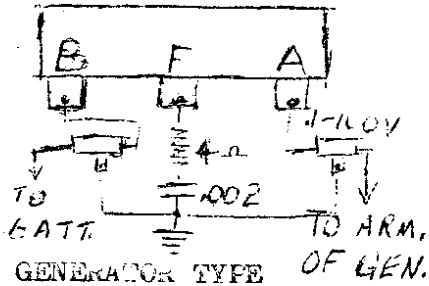
Brake Shoes and the cotter key in front axle's both can cause interference and are evident under the above test.

For tests, a sniffer can be made to help find the trouble spots on a standing vehicle. Put 50 turns of bell wire on the end of an old broomstick or something similiar, run one end of the wire to ground, the other to receiver antenna connector. Use it to probe the trouble spots indicated above and the receiver S meter will tell you the story.

Mobile Noise Reduction\* BONDING - A common ground must be provided to route all interference from ignition, charging, and miscellaneous accessories from traveling throughout the vehicle. Tooth type or star type lock washers must be used above and below any bonding straps. 1. Battery ground to body to frame. 2. Opposite side of front of motor to body to frame. 3. Back center or both sides of motor block to firewall. 4. Bond across both hood hinges to firewall. 5. Bond coil and distributor to motor block. 6. bond air cleaner to motor block. 7. Bond both sides of trunk lid. 8. Bond gas tank flange to tail pipe, body and frame. 9. Bond opposite side rear body to frame, if second tail pipe also ground it. 10. Ground bumper mount to coax line to frame. 11. Ground center of coax line braid to frame and body. 12. Be sure transceiver has good ground.

CAPACITORS - Do not use conventional bypass capacitors as they are only effective up to about 2 KC. or so. Special coaxial type capacitors should be used. Be sure any capacitors used on alternators or generators are capable of handling the maximum current output of the charging system. Do not install any capacitor alone on the field connection of the voltage regulator. Use special KC type filter, consisting of .002 capacitor in series with a 4 ohm resistor - these special KC type filters are available or can be made up to suit the occasion. Install tooth type washers to insure good bonding of capacitor case. 1. Install .1 coaxial capacitor in series with battery lead to ignition coil and be sure ignition coil case is well bonded to motor block by use of tooth type washers and soldering case to bracket or by slipping

inside-outside tooth washer between bracket and coil case. (Install capacitor as near coil as possible). 2. Install .5 coaxial capacitor in series with battery lead to transceiver. Be sure to take power for transceiver directly from battery or battery terminal on starter relay to insure full voltage to unit power supply. 3. Install .1 coaxial capacitor in series with hot leads to air conditioner motor, heater motor, windshield motors and other accessories which are considered later on. 4. Install .5 mfd coaxial capacitor in series with generator armature lead mounting capacitor on generator near as possible to armature terminal. Some generators come with standard capacitor. Remove and install coaxial capacitor. Diagrams below indicate proper capacitor networks to be installed for voltage regulator suppression. If generator or alternator has factory installed capacitor, remove and install type indicated below.



5. Ignition cabling suppression - Install ignition suppression cable on coil tower to distributor tower or install 5 to 10 K suppressor and wire from tower to tower. Factory installed or standard suppression cables are not too good for higher frequencies. The best cables for mobiles so far encountered are ones made by Whittaker cable Co. They have suppressor built into rubber head that pushes onto top of spark plug and stranded wire running to distributor. 6. Voltage regulator instrument cluster. Some new cars Mercury for one, has voltage limiter mounted on back of instrument panel to regulate voltage for thermal type fuel and temperature gauges. It's points reduce battery voltage to about 5.5 volts. Most of these have provisions for mounting capacitor on the unit. If there is no capacitor on it you will get from S2 to S4 hash noise.

#### THE MEMBERS SPEAK

WA4BMC - Not being a regular mobileer, Sunday night was quite an event in our lives. July 27th, that is, GMT. Juls, K7ZJP, was not able to confirm Okeechobee county with WA3LGA. After several telephone calls, finding out there were no fixed stations active in that county, Slim, my devoted OM says to me.. "you blankty-blank female, get yourself into the car.. we are going to get Juls last county for him. You would want someone to do that for you!". Next time I looked, we were off into the black of night.. heading toward streaks of lightning toward the west. It was 9:15 PM, EDT.. Slim had, unknown to me, brought along the D-104 and the earphones.. Soon we had turned off onto route 710 (B-Line Hwy to us) and were headed for Indiantown. There was no Moon, but plenty of fog and frogs and lightning. WA5ZUV was booming in for a while, but soon he faded out. TG9UZ did the same thing. WA6OTV was in there a bit longer. Then there was nothing but Spanish QRM. I gave a couple of stations a mobile contact with Palm Beach County (ah, the RARE county).. Then we were FINALLY in Martin county. I had a couple of takers for that one. Then SILENCE. Then a 5-lander, in New Mexico, called CQ and we chatted with him for a while. Route 714 (609) is supposed to intersect at the county line

of Martin and Okeechobee counties..but it sure does not. We drove on and on and on, almost to the dikes of Lake Okeechobee. Then the county line sign came along, saying we were in Okeechobee County. I hollered, "Hey Juls, we are here"..and he came right back with a 5/9, which I also gave him. Then we turned around and K9HFR, TG9UZ, K7UXN and WAØLRQ all gave me signal reports..and on we went, this time, toward home. Did you ever try to hold a D-104, a pencil, a cigarette and a flashlight (trying not to shine it in the driver's eyes), all at one time? Well, don't try. I assure you it is impossible. I worked WAØLRQ in Dawson and Lincoln counties, Neb. and he asked me if I ever got into Martin county. I had a time getting him to understand that I was in Martin county right then. Finally he understood. Then all faded out.. but the Spanish QRM, so Slim, bless his heart, turned on the Commercial FM radio, rolled up the windows, turned on the air conditioner and sped on toward home, at about 80 mph. We passed Pratt Whitney Plant, at the change of shifts, so there was a lot of traffic coming toward us. We were gone 2½ hours and 120 miles. When we got home, I sent a telegram to Juls, (had to send it from Miami.. Palm Beach office was closed) and he got it at nine PM his time Well, nine something... Anyway, it was 3 hours earlier than I had sent it, my time.. So, Claustrophobia, change of life and all, I have at last, given someone his last county. And all the credit goes to Slim, WA4AZZ, who shamed me into overlooking the fact that I couldn't do it and...He is so much that way.

WØQDL - Imagine, if you will, a radio club meeting, like any other. All the usual activities and discussions have been made apparent when someone brings up an idea. "Since there are few if any organizations based upon mobile awards, why not start a local group to aid abet mobile amateur operations? And so it came to pass that the club was named MARAC. Amateurs were invited to join. The charter membership fee was thought to be high, but then since only 10 to 15 amateurs were figured on, the \$10.00 would give the beginning treasury a nice figure of \$100 to \$150. Little did anyone suspect that the lid was going to blow off the kettle and within 4 weeks this "Local" club group was to become international in scope. Letters and checks began coming in and the original hams who opened up this can of worms literally reeled back in amazement at the interest and enthusiasm. The commitment was made and there was only one way to go...forward! Many meetings were held, discussing ways and means. The plan was a good one and the thought was "if this is worth doing, it is worth doing well"! The problems encountered were numerous and the discussions and arguments went on, often stretching into the wee hours of the morning. At this time incorporation papers were drawn up so that everything could be kept legal and proper. I attended a meeting of the MARAC HQ group on Saturday, June 13, 1970. It was extremely interesting and enlightening to meet the people who came up with the original MARAC idea. Their sincerity and concern that the MARAC group be something worth while is so stimulating that it is difficult if not impossible to envision the word "failure". There are a few things which should be brought up here and I'll try to say a little on each. First of all, the KC area club members are worried that everyone else will think that the KC hams are playing "BIG WHEEL". Let me assure you here and now from first hand experience that this is not the case at all. We must all remember that the HQ of any organization must be somewhere, be it in Hesperus, Colo. or One Lung, Maine. The point is that without a specific HQ area disorganization would without a doubt reign supreme. Secondly, since the MARAC group has grown like topsy, and has gone international, help from everyone will be very important. It can be as little or as much as you can handle commensurate with the need. Every little bit helps.

Thirdly, communications are one of the basic and important building blocks, so get your ideas to your area information gathering point or to any HQ amateur in the KC area. Make suggestions, comments, etc. Send in complaints and be constructively critical. It is my opinion that any club leader who cannot accept constructive criticism is not deserving of membership in MARAC. Fourth, we must conduct ourselves in such a manner that every other ham would desire to copy us. I have probably forgotten much but let me again assure the doubters that after the meeting in Leavenworth, Kansas on June 13, 1970, I am 100% behind the HQ group. 73, Gary- WØQDL  
 K7WQJ- 8 Aug, 70. Just got home last night, after several weeks on the road. Will be leaving again Monday and be gone for about 2 weeks. I have been so busy I haven't had much chance to get on the air. It is always this way at this time of the year for me. I want to thank everyone in MARAC for the wonderful award I received. It was a very great thrill for me and certainly a surprise!!! It will always have a place of honor in my shack!!! Without a doubt it is the most treasured award I have ever received and will always be #1 for me, no matter what ever else I am fortunate to receive. Will you please pass on to all members of MARAC my sincere appreciation. Hope to meet all of you in KC one of these days.

#### TRIP INFORMATION

K7NHV-August 31st to Sept 3rd. Michigan, Wisconsin, Minnesota, North Dakota and Montana through 53 counties. Sept 16th through 18th, Montana, Wyoming, South Dakota, Minnesota, Wisconsin, Illinois, Indiana and Michigan, 55 counties. W6RP-Starting in September after school starts, Carle will go through 169 counties in the following states. Mass, R. I., Conn, N. Y., N. J., Del, Md., Va, N. Carolina, S. Carolina, Georgia, Florida, Miss, La, Tex., N. M., Ariz., Nev, and Calif. Carle says he is retired and has no schedule to follow but will have time to search for county lines and or make sortees down back alleys.

#### NEW ADDRESSES

K7NHV-Through Dec. 71.	WA6KHN	W5ROP/KR6IX
Al Francisco	514 3rd Ave. S. W.	Dr. J. Blasi
1312k Univ. Village	Independence, Iowa	Box 46, USA MEDC
East Lansing, Mich.	50456	Ryuku, APO, SF
48823		96331

About out of room and have a few things I must get in. First I must apologize for leaving our Canadian members off the list that attended the Meeting in Knoxville last month.. they were VE3CBY, VE3DFO and VE3DXZ. Anyone that wants MARAC nameplates may obtain same by sending \$1.25 with order to WAØSHE.

WAØSHE is QSL manager for K8DCR and WAØSKQ among her other duties as secretary for MARAC and the 1971 Independent County Hunters Convention. A little item I forgot to add on the noise suppression article was that if all else failed, try shielding the distributor and spark plug wires. This can be done using a tin can and braid and lot's of patience or by using some of the commercial systems available (which are quite expensive).

The following was recieved from John, SM3BCZ, who is an ardent county hunter and is very interested in what we are doing. John says he started hunting counties in 1958-1960 on 10 meters. At that time, he found he needed good maps and has managed to obtain through American amateur friends, maps of most of the States, but still needs Ariz., S. Dak., Hawaii and Alaska. John is 36 years old has 3 children. He uses Sommerkamp FTDX500 and a vertical folded dipole. He has 495 counties confirmed and about 750 worked. He recently obtained his USA CA Record book and will soon apply for the 500 Award. Good luck, John!