

# The Radio Hill Gazette

April 2016

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## From the Editor

Welcome to another edition of the Radio Hill Gazette.

Wow! What a mild winter season. The weather was far milder than we normally endure, and while the outdoor conditions were less extreme, the band conditions were less cooperative than in previous winters. I know I had difficulty logging any significant DX, and my overall counts were down from previous winter sessions. None of that stopped me from putting DX in my logs, Palmyra, South Georgia, South Sandwich, Lesotho, Marquesas Islands (I did this one QRP - twice!) and Guinea to name a few, and hopefully it didn't stop you either.

With winter behind us, it's time to look towards spring and operating out of doors. We have a SARC in the Park activity scheduled for the Medinah location, so plan on joining us. Tempus fugit! It's already April, fewer than 3 months before Field Day 2016, and this activity will help us prepare for the real thing.

There is an abundance of state QSO parties in April, including some states that are typically difficult to get in the log, like North Dakota. Also, if you don't have China in your log, the Worked All Provinces of China DX contest should present some opportunities to make QSO's into China.

Just one more thing, are you an Amateur Radio Operator or merely an Amateur Radio Licensee?

Anthony  
Editor, RHG

Notice: I will step away as editor of the RHG following the December 2016 issue. Someone needs to step up and assume the responsibility for the newsletter so it can continue as a valuable part of SARC's communication structure. If you are reading this, then ***you are someone!***



## From the President

**Greetings SARC Members and Friends** - This will be a great year for the Schaumburg Amateur Radio Club (SARC). Summer and Winter Field Day, weekly nets, VHF and UHF repeaters, construction "radio refurbish" meetings, social events, Elmer groups, great programs, etc... The Schaumburg Amateur Radio Club boasts many talented members in its 25+ year history. We're always looking for more people to join in the camaraderie. We think you will be happy you got involved.

If not yet a member, we cordially invite everyone, young and older, to make our acquaintance, learn about amateur radio, and participate in our activities. If other things in life have distracted you from Ham radio, now is the time to renew or begin your interest in the hobby. There has never been a better time than today! Help us continue in this tradition of technical innovation with your support by joining SARC today. **SARC Meetings are held the Third Thursday of every month at 7:00pm**; they are currently held at the Community Recreation Center, Schaumburg, IL. Come to the next SARC meeting and see what the excitement is all about!

**SARC Activity Reminder!!!** As previously noted, "Our intention is to make the 2016 Summer Field Day even more successful than last year's when we took 2<sup>nd</sup> place in IL for the 2A Category. My personal goal is to maximize Club member operating participation at a minimum for the GOTA, SSB, and VHF Stations, possibly even the CW Station... Not only will this be fun, but you may gain valuable radio operating time experience."

To that end, we are planning on having a Mini Field Day Practice Session from 11:00 am until 2:00 pm, Saturday, April 16, 2016 at the Medinah Park District located at 22W130 Thorndale Ave. Medinah, IL 60157.

The mission is to: *(paraphrased from a note that Dirk, K9DFS previously distributed)*

1. Have a practice exercise (for those interested in operating at FD)
  1. how to operate in "Pile ups"
  2. how to listen for Call signs
  3. CQ...
  4. calls
2. different Antennas normally not used at the Summer FD
3. some FUN!!!

Be sure to mark the event on your calendar and finish your taxes early!!!  
I will provide further details on the on the SARC Website and Reflector.

Steve Karson, AC9EM  
President  
Schaumburg Amateur Radio Club

## The Heartbreak of Kit Building

This is the story of an Antique Electronic Supply K-488 Wireless Transmitter Kit.

It is a simple kit, with a single tube acting as RF oscillator and modulator, to transmit audio to a nearby AM radio. It uses olde style breadboard construction, with the components attached to a wood base, and Fahnstock clips for audio input and antenna connections, like old time crystal radios used to use. It could be a great first kit or first tube kit for a ham or electronics enthusiast. By the way, they are still available, if you want to try to build one.

The end of the story begins with Ken KO9H buying it at a hamfest. The previous owner was not happy with it. Ken gave it to me to play with without having unpacked it and tested it himself. Now the flashback:

In 1992, someone (who shall remain unnamed) bought it. We know when he bought it, because the receipt is in the box. Someone (not necessarily the buyer) assembled it, and the assembled kit did not provide the desired results. The little zip lock bag with spare parts, many used, indicates that someone spent some significant time and effort trying to make it work. I plugged it in, and the little orange glow appeared in the tube. I left it on as I began looking at the assembly instructions in the box. While there was no smoke, there also was no output. That is the Heartbreak of Kit Building. (OK, smoke would have been even more of a heartbreak.)

We do not know how much time someone spent working on this kit, and it's a shame. I looked at the assembly instructions, and saw that there was a discrepancy between how it WAS assembled, and how it SHOULD HAVE BEEN assembled. There was a photograph of the completed unit in the box, that also showed the discrepancy. I asked Ken if he wanted to fix it himself, he told me to go ahead and do the repair.



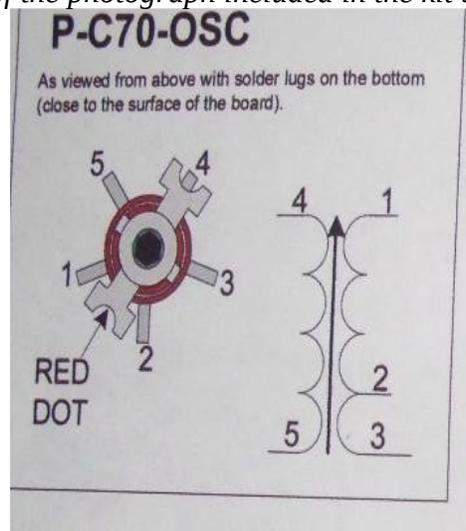
*Illustration 1: The KT 488 as received*

The problem stems from the oscillator coil being inserted upside-down. Since the coil has 5 terminals, only 3 of which are used, when you invert it, you use terminals 1, 2 and 5, rather than 1, 2 and 3. The red dot on the coil, between terminals 1 and 2 is still placed in the same location, but the terminals are reversed. Terminals 4 and 5 are connected to another winding on the coil, but not used in this kit. So, when it's inserted wrong, one lead is connected to one end of a coil that is not connected to anything on the other end.



Illustration 2: Part of the photograph included in the kit box

With a little effort, I removed the coil, without damaging it, and re-connected it in the proper way. With fingers crossed, I applied power. It did not smoke any more than it did the first time I plugged it in. This time, however, there was RF signal on the output. I placed a probe from my spectrum analyzer near the coil, and saw a clean signal, only one frequency, without harmonics or spurious output. Hmmm, that's not bad.



I tuned a portable radio high in the AM band, and thought 1270 might be a rather quiet spot.

I then tuned the oscillator coil to set the transmitter frequency there. I monitored the frequency for a while, and saw that it would not drift more than one or two KHz in a short time, by itself. It is very sensitive to its environment, though. If I approached it within a few inches, the frequency would change off the set channel enough that the radio would no longer hear it.

Now for the test: I connected a short wire to the antenna clip, and a jack to the audio and ground clips. I then plugged in a cable from my iPod into the jack, so there was a signal to listen to. I walked outside, and found that I could get to the back fence, and still hear the transmitter. It was weak, back there, and some noise came in,

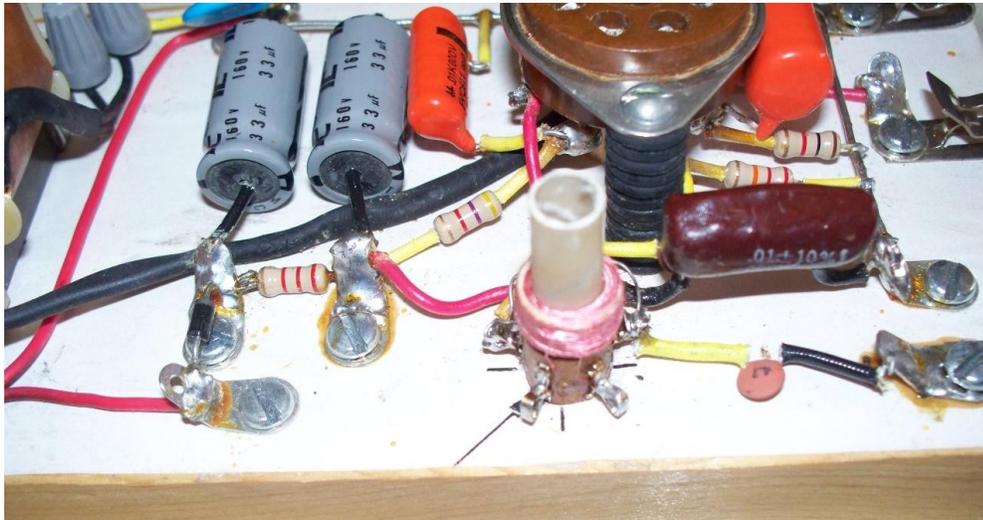


Illustration 4: The KT 488 after re-mounting the coil

but I could still hear it. I walked around the side of the house, and had good reception out to the front yard. I started walking down the street, and found that I could still hear it, past my neighbor's house, but as the transmitter's signal faded, I started hearing where the noise came from.

Apparently there is a station at 1270, that I can hear on this portable radio. It was weak, but I could hear it during the day. Making interference to a commercial radio station is maybe even WORSE than jamming a ham radio repeater. I tuned around on the radio, and found 1510 is clear. OK, returning to the house, I tuned the transmitter to 1510 KHz. The spectrum analyzer showed it was still clean, so, time to try again. This time, I couldn't get to the back fence, and I could not hear it beyond the middle of my neighbor's house, while walking on the sidewalk. (That's a little disappointing!)

I can hear it on ordinary AM radios I have, anywhere in the house, though, and if I want to transmit my own programming to an AM broadcast radio I have refurbished, it will work. Too bad the original buyer and / or builder wasn't able to use it. He probably would have enjoyed it. Ken will get it back at the next Construction Project Meeting.

73 de N9MVO,

Rob

## SARC Board of Director's Meeting at Schaumburg Airport on March 2, 2016

Kevin Willard, KB9QVX: Chairman of the Board opened the meeting at 7:02pm

### Attendees

Gary Bernstein	N9VU
Chris Brewer	AC9GN
Frank Giampa	N9QPD
Steve Karson	AC9EM
Ted Lester	AB9SZ
Kent Ochs	W9KAO
Roger Ryan	W9RDR
Anthony Willard	AB9YC
Kevin Willard	KB9QVX

Treasurer's report: Chris Brewer, AC9GN: Beginning balance for the month of February was \$3,455.67 with income of \$940.00 and expense of \$227.00 (Monthly Data Line; duplexer, Winter Field Day pizza, and microphone). Ending balance on February 29 was \$4,168.67. Currently have 78 paid members.

Secretary's Report: Kevin Willard, KB9QVX: Approval of February minutes; motion made, seconded and Report approved by SARC members.

Repeater Report: Kent Ochs, W9KAO: 440 exciter replaced; should improve levels on UHF. Gary, N9VU advises levels were still off this morning. Recommends considering taking down the antenna this fall rather than waiting until the spring. Kent submitted several expenses for reimbursement.

Construction Project: Ted Lester, AB9SZ: Construction Meetings are going well. Many projects. Next construction project is planned for Saturday, March 12, 2016. The Board discussed the need for an attendance record.

VE Testing: Steve Karson, AC9EM: Next VE Testing Session is Saturday, March 5.

Social: Roger Ryan, W9RDR: No report.

Nets: No report.

The Radio Hill Gazette: RHG is the newsletter of the Schaumburg Amateur Radio Club. Anthony Willard, AB9YC: Nothing new, but monthly RHG items submission deadline is 20th. Need articles.

Education: No report.

Programs: No report.

Ebay Sales: Gary Bernstein, N9VU: will soon be auctioning another item. The Board discussed securing radios, etc. at the Construction Meeting Site and recommended that an inventory be taken to determine prospective items to be placed for sales.

President's Report: Steve Karson, AC9EM:

- Mini Field Day Practice Session Saturday, April 16, 2016. Session will begin at 11:00am and go to 2:00pm. Dirk Smith, K9DFS has reserved the Medinah Park site.
- The ARRL Club Web Site has been updated.
- The SARC-All Member list has been purged and now includes only paid members.
- All prospective members are being called and invited to the Club and Construction Meetings.
- We are in the process of updating the SARC Directory, and will distribute a printed copy to each member.
- Jarek will be teaching a Technician Class at the Hoffman Estates Library starting early April.
- Elmer Program: have at least 7 Elmers wishing to participate: Gary, Joel, Mel, Mike, Rob, Russ, and Ted.

Recurring Calendar:

Prepare to renew Club Insurance

Old business: None

New business: None

Kevin Willard, KB9QVX: Chairman of the Board closed the meeting at approximately 8:35pm

Submitted: March 6, 2016 by Steve Karson, AC9EM, President, as Cliff Sowka, K9QD, Secretary, was unable to attend.

## **SARC General Business Meeting Mar 17, 2016**

Steve Karson AC9EM President called meeting to order at 7:03PM

Treasurer's report: Chris Brewer AC9GN: Beginning balance for the month \$3,455.67 with income of \$940 from Dues and equipment sales. Expense was \$227.00 for Winter FD \$54 pizza, Data Line, Mic for TS570. SARC decided to keep the equipment for our own use instead of selling on eBay.

Public Service Rob Glowacki N9MVO Report during his absence: MS Walk currently set for May 1st. Described basic duties, equipment needed such as 5W HT sufficient. May 15th Chicagoland Marathon: Bill Clark has requested about 20 SARC Hams to help staff the 8 stations placed throughout the Busse Woods course. The Elk Grove repeater on top of the hospital will be used for communications during the event. Assemble and be ready 6AM; expected to end around 1PM. SARC typically has about 12 people arrive to help the effort and

we already have 5 people planning to help out for the event. July 4th parade for Hoffman Estates needs SARC support.

Secretary's Report: Cliff Sowka K9QD Meeting Minutes approved as published in RHG

President's Report: Insurance coverage payment for FD in the mail. Mini FD set for the 16th.

Motion to budget \$100 for Mini FD food with an amendment to charge attendees \$5 in additional expense. Passed. This means attendees will contribute \$5 each for food and any expense above (up to \$100) the collections will be disbursed from the treasury if needed.

ARRL website data for SARC has been updated to correct some information that was several years outdated. Visitors looking for Schaumburg Amateur Radio will be able to see much more timely information now.

RHG Anthony: Needs articles for next edition. Cut-off for submittance is three days from now.

Construction Project: Ted Lester (AB9SZ): Instituted a sign-in log for meetings. There is an additional column labeled Note that will help him plan/schedule topics for future meetings. Routine attendance of approximately 22 people; enthusiasm increasing. Review of the Construction Project venue was described for three new Hams attending our meeting tonight.

VE Testing: John Schofield AC9JS reported VE Test results of 2 Tech, 1 General, and 2 Extras. .

Social: Roger Ryan (W9RDR) : Buena Beef tonight. \$35 expense for paintball in June but thinking sometime earlier than Field Day. First Thursday in June (2nd) 7PM. Approx 8 people indicated interest at the moment. Maybe consider laser vests instead of messy paint on clothes.

Nets: Jim Brink (W9JFB): No Report. Still holding Tech Net 7:30 Tuesdays (currently doing antenna modeling. Regular Thursday net at 8PM.

Education: Ham Radio Class: Jarek (not present tonight) is hosting Technician Level Ham License Class starting in April. Seven sessions. Looking for teachers and would like more than the two people who have already come forward. April Field Day Mini on the 16th would be a good hands-on demo for students to observe actual operations.

EMCOMM: Bob Langsfeld WB9TZC. CERT Class Finished with 3 Hams graduating as part of the 18 citizens in the training class now qualified for Community Emergency Response Team (CERT) training.

Schaumburg Marathon is a precursor to the Chicago Marathon. Schaumburg has asked for May 15th SARC help to host the event with communication capability. Ready.Gov has a contest with a Weather Radio as a prize.

Schaumburg EOC antenna installation is now recirculating back to finance because the chosen vendor became ill and then the Village determined he didn't meet minimum wage compliance.

Now the bids have been resubmitted. Budget still in-force, and maybe antenna will hopefully install during March.

Yaesu Fusion system running flawlessly at the HE police station and completely portable. Set on 444.250 and set to operate dual-mode (FM or digital C4FM Yaesu) and detect mode and continue as incoming setup. Site is only temporary and does have emergency power. Permanent site has been located at the hospital. St. Alexis hospital on Barrington Road will have uninterrupted AC power and good antenna site. Installation by SARC members could begin shortly; just need to coordinate with plant management at the hospital and hope for good weather.

Russ and Gary brought 9 Yaesu shirts to sell \$10 each. Proceeds to the treasury.

The Radio Hill Gazette: RHG is the newsletter of the Schaumburg Amateur Radio Club. Anthony Willard (AB9YC) is in need of articles for the next edition.

Programs: Cliff Sowka (K9QD): John Zetlow K9WIC will present Decibel primer tonight with Mel doing a Grounding primer during the April meeting. John Shofield AC9JS discussed the beer-brewing club which meets at Durty Nellie's in Palatine. More than 8 members indicated interest in visiting presenter from the Wort Club and may be better if those interested to attend a special venue.

Ebay sales: Gary N9VU SB220 sold for \$500. Also have Drake TR7 under repair and it may be worth \$800 once we fix the AM mixer section. R9MVO has injected 8MHz signal into the mixer section to determine the receive will eventually operate properly but we have to determine what part of the local oscillator is malfunctioning.

Publicity Dirk Smith Not present tonight.

Recurring Calendar: Chris is checking PO Box weekly. Insurance premium for Field Day submitted.

Old business: None

New business: John Schofield AC9JS described the Wort Club beer brewing hobby and determined there is sufficient interest for us to host a presentation during June. May take place during the regular business meeting or possibly take place at the Wort Club's venue in Palatine.

Move to adjourn 8:32PM. So moved.

Submitted: Mar 17, 2016 Cliff Sowka secretary

## A Call for Programs

### Potential Topics

RF Transmission Fundamentals	ARRL Awards	ARRL Contests
Semiconductor Developments	Operating Tips	QSL Card Process
Managing Pileups	Public Service	Emergency Communications
Village of Schaumburg Volunteers	Field Day Planning	Basic Electronics
Inductive / Capacitive Reactance	Biasing Transistors	uController Projects
SDR / Dongle Radio Tricks	Grid Locators	Frequency Charts
Antenna Basics / Installation	Advanced Antenna Tricks	Measuring Antenna Impedance
Lightning Protection	Shack Electrical Facilities	Solar Cycle Considerations

Ideas for presentations are endless. Our membership has talented and experienced people who are asked to contribute to interesting business meetings by bringing some of their knowledge forward for all to benefit.

Please let me know if you wish to present a topic and I will include your ideas into the schedule. Then our diverse membership will provide enthusiastic participation for a rewarding outcome.

Cliff Sowka K9QD  
Program Chair

## Trading post, things for sale or trade

“Nothing! I got absolutely nothing!”

## Calendar and things to do

### April

Breakfast at Maxfields	2	
NA SSB Sprint	3	<i>“The fastest 4 hours in radiosport”</i>
Board of directors meeting	6	
EmComm Roundtable	16	
SARC in the Park (Medinah)	16	
Worked all Prov. China DX	16-17	
Club Meeting	21	

There are plenty of contests this month operating in many modes on various bands, so find one and listen in. Check out <http://www.hornucopia.com/contestcal/weeklycont.php> to see what's coming up.

## Looking ahead

Field Day 2016, last full weekend in June

## VE Testing Results

Results for March 5, 2016  
 Next Test April 2, 2016  
 Park District CRC; Sr. Center;  
 Sunshine Room.

CLASS	NUMBER TESTED	NEW LICENSE or UPGRADE
Technician	2	2
General	3	1
Extra	2	2
Total	7	5



### New/Upgraded Licenses:

#### \*\*\*\*Technician\*\*\*\*

Edward Berg                      KD9FRJ

#### \*\*\*\*General\*\*\*\*

Mark Luckos                      KD9FRK

#### \*\*\*\*Amateur Extra\*\*\*\*

Sewim Ablay                      WB8BHN  
 Michael Gilles                      AC9NS

The SARC-sponsored VE exam sessions are held at 9:00 a.m. on the first Saturday of each month (unless it is a holiday or advised to the contrary by Schaumburg Park District) at **Schaumburg Community Rec Center (CRC)**  
**505 N. Springinsguth Road**  
**Schaumburg, IL 60168-0251**

The CRC is located at the S.E. corner of Springinsguth and Bode Road, park in the North lot and enter through the North doors. Testing will be in the Sr. Sunshine Room, signs will be posted to guide the way to the room.

The fee for taking a VE exam is \$14.00.

According to the FCC, the test fee allows an examinee one attempt to pass or fail each of the three examination elements. In addition, the order in which the examination elements are taken is not restricted; they may be taken out of sequence.

As in the past, an identical fee will be assessed to any applicant who fails an exam and wants to retest at the same session. The only condition is that the same exam (identical set of questions) cannot be given to the Applicant, since all our exams are unique, this is not a problem at our sessions.

Tom Doyle K9MF  
 W5YI-VEC CVE & Test Session Manager  
 847-895-0174  
 Email: [K9MF@ARRL.NET](mailto:K9MF@ARRL.NET)

### SARC Email Reflector

Want to know what's happening in the club? Join the club's email reflector on Google groups. Point your web browser to: <http://groups.google.com/group/sarc-all>

The Radio Hill Gazette

Click on the Join this group link. You can use your current email account to sign up or create a free Gmail account.

You can elect to receive individual messages, a daily digest, or just read the messages on the Google Groups webpage.

### Club Nets

Technical information net - Every Tuesday night at 7:30 pm. on the SARC Repeater 145.23 MHz.-600 kHz WITH 107.2 Hz PL. Bring your Q&A's

Thursday nights are the 2 meter general information net on the SARC Repeater 145.23 MHz.-600 kHz with 107.2 Hz PL. at 8:00 PM (except meeting nights.)

### Club Meetings

Club meetings are held at the Schaumburg Recreation Center (CRC) on the southeast corner of Springinsguth and Bode roads. Our nets are held every Thursday (except Meeting nights) at 8pm on the K9IIK repeater; 145.23 MHz -600 kHz with 107.2 Hz PL.

### Club Officers - 2016

<b>President:</b>	Steve Karson	AC9EM	<b>Director:</b>	Anthony Willard	AB9YC	(2016)
<b>Vice Pres.</b>	Russ Shcmidt	KC9NUV	<b>Director:</b>	Rob Glowacki	N9MVO	(2016)
<b>Secretary:</b>	Cliff Sowka	K9QD	<b>Director:</b>	Kevin Willard	KB9QVX	(2017)
<b>Treasurer:</b>	Chris Brewer	AC9GN	<b>Director:</b>	Ted Lester	AB9SZ	(2017)
			<b>Director:</b>	Gary Bernstein	N9VU	(2018)

### Club Committees

Programs	Cliff Sowka, K9QD	RHG	Anthony Willard, AB9YC
Social Activities	Roger Ryan, W9RDR	Publicity	Dirk Smith K9DFS
Membership	Leo Ribordy, N9NBH	Net	Jim Brink, W9JFB
Education	Bruce Warrington, N9EHA	Technical Assistance	Ted Lester, AB9SZ
Public Service	Rob Glowacki, N9MVO	Fund Raising	Open
Emergency Communications	Bob Langsfeld, WB9TZC	Fox Hunt Coordinator	Steve Karson, AC9EM
Special Events/Field Day	Leo/N9NBH, Jim/W9JFB	Repeater	Rob Glowacki, N9MVO



## Schaumburg Amateur Radio Club

Thursday Night 8:00 Net  
S.A.R.C. Repeater  
145.230 MHz- 600 kHz  
PL=107.2  
442.275 MHz +5 MHz  
PL=114.8 Hz

Don't forget to check into the net! It will only take a minute and will let other club members know how you sound on the club repeater. The net features current club news, weekly NEWSLINE, news from other clubs and (of course) the swap-and-shop. Encourage your friends who are not yet members to check in with as well. Keep in mind that this is an open net and we encourage everyone to check in. See you Thursday at 8p.m.

The Schaumburg Amateur Radio Club, Inc. is organized as a general not-for-profit

corporation in the State of Illinois to render public service whenever applicable to the needs of the community and further various pursuits of amateur radio as a hobby. Meetings are generally held on the third Thursday of each month. Visitors are always welcome.

Please send all submissions for the Radio Hill Gazette to the following address:

Schaumburg Amateur Radio Club, Inc.  
790 Washington Blvd.  
Hoffman Estates, IL 60169-3077

Or you can send by email to [rhg@n9rjv.org](mailto:rhg@n9rjv.org).

We solicit letters, articles, news items, quizzes, advertisements, suggestions, and criticism – plus anything else you can think of, including ideas to improve the RHG! Please make submissions by the 20<sup>th</sup> of the month for inclusion in the next issue.

The editor reserves the right to edit submissions due to size or formatting limitations. S.A.R.C. shares newsletters with a number of other clubs. We

scrutinize their publications very closely to make sure that we do not infringe on any copyrights. As a matter of form, we try to acknowledge all prior sources.

Unless otherwise clearly identified as copyright protected, all material in the RHG may be used when due credit is given to the author and to SARC.

SARC is a recognized ARRL Special Services Organization.

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Visit the SARC Home Page at <http://n9rjv.org>

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