

OPEN MIC

A NEWSLETTER OF THE
RUNESTONE AMATEUR RADIO CLUB, W0ALX

AUGUST 2018

W0ALX RARC, 15125 160th Ave, Villard, Minnesota 56385-2350

www.w0alx.org

Alexandria Rpt: 146.790- (146.2)

442.025+ (146.2)

Sauk Centre Rpt: 147.255+

CALENDAR NOTES

AUGUST 18: THERE WILL NOT BE A RARC MONTHLY MEETING; ALSO THERE WILL NOT BE A SUMMER PICNIC THIS YEAR

AUG 18: 8AM COFFEE/BREAKFAST IS OPEN TO THOSE WHO ARE INTERESTED AND CAN COME TO THE BRASS LANTERN

TAKE NOTE:

If anyone in the club is interested in following my trip through Canada in August, please lookup **KC0SAL-9** on aprs.fi from **Aug. 1- Sept. 3 (Labor Day)**. I'm using the built-in aprs modem on my Yaesu FTM-100 and connecting to i-gates as I drive. It should be an interesting experiment. In fact, the program for September's meeting will be a report on how well it worked or didn't work along with fun facts from the trip. Andy KC0SAL

RUNESTONE ARC MEETING MINUTES, JULY 21, 2018

Glenwood State Bank, Alexandria, MN 10:00AM

Present: Wayne WB0KUG, Nick N0QXM, Dave N0JOG, Norm W7ISD, Wayne WA0EBZ, Bill KG0DX, Alden N0MIC, Andy KC0SAL, Roger KD0UTA, George N0RCL, and Steve visitor

Robert's Rules of Order were suspended for this meeting at the request of the President and accepted by the membership in attendance.

The Minutes of the June meeting were approved; EBZ/JOG, approved.

Treasure Rpt: beg bal: \$2647.95; end bal; 2650/64; ISD/QXM, approved

Trustee Rpt: INZ absent

Tech Rpt: QXM, JOG, and KUG have reorganized the repeater cabinet contents; a couple heliax connectors needed repairs; Norm Bakken picked up all the super link equipment

Old Business:

- a. After the financial audit was completed several issues surfaced: loss of corporation/non-

profit status, IRS filing not completed, equipment and liability insurance not current. After several hours of labor and telephone time, WA0EBZ resolved all of these issues. Henceforth, WA0EBZ, has been assigned to deal with these issues on an annual basis. He will maintain the necessary documents in his files AND the Presidents brief case. DX/ISD, approved

- b. Loaning of club equipment: test equipment for one month max, radios up to six months max.
- c. Annual picnic will be cancelled for Aug 18—motion by RCL, seconded QXM, approved
- d. No picnic in September—motion by QXM, seconded ISD, approved

New Business:

a. Motion to upgrade 2 meter digitala repeater from DR1 to DR2 and purchase necessary cabeling; JOG/ISD, approved, one abstention

b. Discussion regarding two axel 6x12 cargo trailer available for purchase. May be too heavy duty for our purposes, licensing and tow vehicle capability

HF talk: Baker Island Dxpediton coming up as well as Market Reef...turn those radios on!!!!

Adjourn: EBZ/ISD

Temp Secy: Bill KG0DX

[Get your free copy of A Field Guide to Simple HF Dipoles](#)

by Dan Romanchik, KB6NU

A link to *A Field Guide to Simple HF Dipoles* (<http://www.dtic.mil/dtic/tr/fulltext/u2/684938.pdf>) was posted to reddit recently, and I liked this document so much that I thought I would share it with you. It was originally written for the military, but is now available for free from the Defense Technical Information Center.

The preface to this document reads:

“Under project Agile, Stanford Research Institute has supplied several teams to assist operating personnel in improving the performance of field radio networks. In this work, it has been observed that U.S. military and civilian antenna manuals often contain misleading information regarding the operation of field antennas and tend to be overly complex. Consequently, this guide has been prepared to assist in training personnel concerned with the construction of simple HF antennas in the field.”

I must say that *A Field Guide to Simple HF Dipoles* does this very well. It not only explains how dipole antennas work, it also does a very good job of describing the basics of radio waves and propagation. And it does this without getting overly technical.

For example, below is Figure 10. It's used to describe current flow in a dipole antenna.

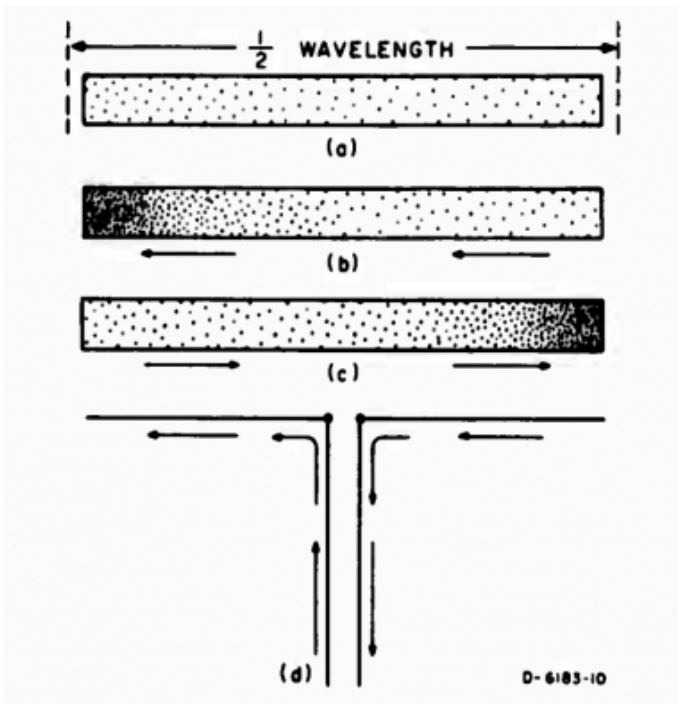


FIG. 10 CURRENT FLOW IN DIPOLE ANTENNA

The *Field Guide* reads:

“Electric current in a conductor consists of the flow of small particles called electrons. Figure 10(a) represents a dipole with electrons in it. When the transmitter is turned off, the electrons distribute themselves evenly throughout the dipole, as shown. All electrons repel each other and try to get as far from each other as possible; that is how they achieve the uniform distribution shown in Figure 10(a). When the transmitter is turned on, the electrons flow back and forth from end to end as shown in Figures 10(b) and 10(c). First the electrons flow to the left and crowded at one end as shown in Figure 10(b). Second, since the electrons repel each other, they push off to the right and get crowded together at the other end, as in Figure 10(c).”

It then uses this description to talk about voltage and current distribution along a dipole antenna:

“The difference between voltage (volts) and current (amperes) in a dipole is also illustrated by Figs. 10(b) and 10(c). You can see that the maximum flow of current is going to be in the middle of the dipole. An observer at the center of the dipole would see the electrons rush past, first one way and then the other. The center is the maximum current point. Very little current flows near the end of the dipole; in fact, at the extreme ends there is no current at all for there is no place for it to go. However, at the ends of the dipole, there is a great change of voltage; when the electrons are densely packed, this represents a negative voltage, and when there is a scarcity of electrons, it represents a positive voltage. Thus you can see that the voltage at each end swings alternately positive and negative. An end of the dipole is a maximum voltage point.”

A *Field Guide to Simple HF Dipoles* is packed with all kinds of goodies like this. Download it (<http://www.dtic.mil/dtic/tr/fulltext/u2/684938.pdf>) right now.

[PROGRAM CALENDAR](#)

September-KC0SAL
October-N0RCL

November-KD0UTA
December-Christmas Party

EVENTS CALENDER

Aug 18: 8am, Optional coffee at Brass Lantern in Alexandria

Sep 1: 8am Coffee/Breakfast, Truckers Inn, Sauk Centre

Sep 15: 8am Coffee/Breakfast, Brass Lantern, Alexandria

Sep 15: 10am RARC Membership Mtg, Glenwood State Bank, Alexandria