



MARAC



THE MOBILE AMATEUR RADIO AWARDS CLUB, INC.

No. 192

MAY 1, 1986

MINUTES

Minutes of the MARAC meeting held at the Holiday Inn, East, in St. Paul, Minn. on April 12, 1986.

The Executive Committee was called into session at 9:00 A.M. by WBØTVL. In attendance were: NØAKC, NØDRX, WØFCO, WØHKF, WBØKIN, WØKMH, W9LHG, WAØLKL, WØNNH, WØOWY, WAØSGJ, WBØTVL, NOØU and WBØUPU. WØKMH presented the report of the Nominating Committee which stated that the nominees for Headquarters Area Director were NØDRX, WØNNH and NOØU. Nominees for the Pacific Area Director are W7LQT and KB7QO. The nominee for the Northeast Area Director is WB1ENJ. WAØLKL made a motion to accept the report and direct the Secretary to prepare a ballot to be placed in the May issue of the Newsletter, said ballot to be returned to the Secretary within 45 days of the date of the Newsletter. Motion seconded by WAØSGJ, carried.

The Executive Committee was adjourned and the general meeting convened, with attendance as indicated previously.

The minutes of the March meeting were read. Motion to accept by WAØLKL, seconded by WØNNH, approved.

The Treasurer's report was submitted by W9LHG. Motion to accept by WBØKIN, seconded by WAØLKL, approved.

WBØTVL reported that the Awards Committee would also have a ballot in the May Newsletter regarding the County Hunter of the Year and all other awards voted upon by the membership. Please note that these ballots are to be returned to him for tabulation.

WBØTVL additionally stated that the CW information was ready for inclusion in both the Awards packet and general MARAC Information packet.

WBØUPU reported that he had received the necessary information from the Treasurer and would prepare and file the Annual Corporation Report required by the State of Kansas.

WBØTVL reminded all present that he was acting as State of Minnesota Co-ordinator for the Great Armadillo Run in May and had amateurs available to activate all 87 counties in the state.

WAØLKL stated that he had received an inquiry from a new county hunter relative to the ruling by the CQ magazine USA-CA Custodian about team contacts. Awards Committee Chairman, WBØTVL advised members present that team contacts are only good at the present time for MARAC awards.



WAØSGJ and WBØKIN reported jointly that they completed an audit of the Treasurer's Annual Report, account books and records and found all to be in balance and to conform to established accounting procedures.

The next MARAC meetings will be on May 10 and June 7, 1986 at 9:00 A.M. in the Holiday Inn.

There being no further business, the meeting adjourned at 10:30 A.M.

Bill

Bill Olsen WBØUPU
Secretary

MARAC FINANCIAL REPORT

Checking Acc't as of March 1, 1986	\$ 449.46
Income	1,048.00
Expenses	936.57
Checking Acc't as of March 31, 1986	\$ 560.89
Savings Acc't as of March 1, 1986	\$2,887.75
Interest Income	16.23
Transfer from checking acc't	400.00
Savings Acc't as of March 31, 1986	\$3,303.98
Year to Date Totals	
Dues Income	\$6,139.75
Newsletter Expense	6,892.86
Awards Income	3,110.14
Awards Expense	\$1,902.59

John Lyon, W9LHG, Treasurer

ADDRESS CHANGES, NEW CALLS, CORRECTIO

- C32 KBOKS 318 Osage St Apt D Leavenworth Ks 66048 (Leavenworth)
- R1729 K7EQ 5564 Mt Acacia Way San Diego Ca 92111
- R1779 P O Box 135 Jackson SC 29831
- R1286 KCOMB change Box to Box 7
- R253 WA2GPT 40 Lynwood Dr Valley Stream NY 11588
- R590 WA4CHI 1623 Atwood St Longmont CO 80501
- R1884 K3GWA county is Arapahoe
- C85 N5DGG P O Box 63325 Pipe Creek TX 78063-3325
- R1779 AK8A 22W 26th St Holland MI 49423 (Ottawa)

R1774 WB9JSW 4429 Sherman Rd
R548 WA9CNV 1669 Wrightwood Ct Glendale Heights IL 60139
R212 VE7AVN IS NOW VE3NQG
R1830 WDOEQA IS NOW NO6YN

NEW MEMBERS

- R1900 K2SQS Frank Huminski 307 Monroe St Edgewater Park NJ 08010 (Burlington)
- R1901 KA0EQE Gary Ritterbush 1933 17th St Mitchell Nb 69357 (Scotts Bluff)
- R1902 W6ZQK Henry Alvernaz 1048 8th St Novato CA 94947 (Marin)
- R1903 KE6US Eric Jorgensen 3163 Newell Dr Riverside CA 92507 (Riverside)
- R1904 N1CBJ Phil Cunningham RFD 2 Box 366 Belfast ME 04915 (Waldo)
- R1905 KDBAM Gary Kline 6500 Highton SW Navarre OH 44662 (Stark)
- R1906 N5AWE Earl Gregg 1732 NW 35th Oklahoma City OK 73118 (Oklahoma)
- R1907 N4IXV George Heflin 9700 Botsford Rd Manassas Va (Prince William)
- S-007 WDX4RAD John 'JJ' Kahrs Rt 1 Box 23 Hwy 49 Byron Ga 31008 (Peach)

SILENT KEY

It is with deep sorrow that we must again recognize the recent deaths of two of our friends;

R1316 AE9W Bob Hicks formally W9UET

and

C76 K4ZA L. "Rundy" Rundlett USACA #311. Rundy died March 13 and was buried in Arlington National Cemetery.

PLANNED MOBILE TRIPS

WB6FJD June Mobile Trip

TENN Shelby, Fayette, Haywood, Madison, Henderson, Decatur, Perry, Hickman, Dickenson, Williamson, Davidson, Rutherford, Wilson, Smith, Putnam, Cumberland, Roane, Anderson, Knox, Sevier, Jefferson, Cooke.

K1CGI (Victor)

June 23-27 Honolulu Co, HAWAII June 13

Kauai Co, HAWAII June 14-26

(For other last counties write K1CGI 55 Bow St Lexington

MA

02173)

Leaving May 1 round trip to Asheville, N.C. putting out these counties: N.C.=Clark, Nye, Esmeralda, Mineral, Lyon, Carson City, Douglas, Storey, Washoe, Elko, White Pine, Lincoln. Ca.=Sierra, Plumas, Lassen, Modoc. Or.=Lake, Klamath, Deschutes, Jefferson, Cook, Wheeler, Grant, Harney, Malheur. Id.=Payette, Gem, Canyon, Boise, Ada, Elmore, Owyhee, Gooding, Twin Falls, Jerome, Minidoka, Cassia, Blaine, Power, Bannock, Caribou, Franklin, Bear Lake. Ut.=Cache, Rich, Weber, Morgan, Davis, Salt Lake, Toole. Wy.=Lincoln, Sweetwater, Carbon, Albany, Laramie. Neb.=Kimball, Banner, Scots Bluff, Morrill, Box Butte, Sheridan, Garden, Grant, Arthur, McPherson, Hooker, Logan, Thomas, Blaine, Rock, Brown, Keyapaha. S.D.=Tripp, Lyman, Jones, Mellette, Haakon, Stanley, Jackson, Ziebach, Pennington, Meade, Perkins, Dewey, Corson, Potter, Faulk, Spink, Clark, Codington, Deuel. Mn.=Lac Qui Parle, Yellow Medicine, Chippewa, Kandiyohi, Meeker, McLeod, Carver, Hennepin, Ramsey, Anoka, Sherburne, Benton, Morrison, Crow Wing, Cass, Hubbard, Beltrami, Itasca, Atkin, Kanabec, Pine, Freeborne, Steele, Rice, Scott, Dakota, Mille Lacs, Mahanomen, Norman. Wl.=Burnet, Washburn, Sawyer, Price, Villas, Oneida, Forrest, Oconto, Landlode, Lincoln, Taylor, Chippewa, Rusk, Barron, Clark, Wood, Portage, Marathon, Shawano, Waupaca, Menominee, Outagamie, Brown, Kewaunee, Door, Calumet, Manitowoc, Sheboygan, Ozaukee, Milwaukee, Waukeshaw, Racine, Kenosha. Il.=Lake, Cook, Dupage, Will. Ind.=Lake, Porter, LaPorte, St Joseph, Elkhart, Lagrange, Steuben. Mich.=Berrien, VanBuren, Allegan, Ottawa, Muskegon, Oceana, Mason, Manistee, Benzie, Grand Traverse, Leelanau, Kalkaska, Crawford, Roscommon, Missaukee, Wexford, Osceola, Lake, Clare, Midland, Isabella, Mecosta, Newaygo, Kent, Ionia, Gætiot, Clinton, Shiawassee, Genesee, Ingham, Livingston, Eaton, Barry, Kalamazoo, Calhoun, Jackson, Washtenaw, Lenawee, Hillsdale, Branch, St Joseph, Cass. Ind.=Elkhart, Lagrange, Steuben. Ohio=Williams, Defiance, Fulton, Putnam, Hancock, Hardin, Wyandot, Crawford, Richland, Ashland, Wayne, Medina, Summit, Portage, Stark, Mahoning, Columbia. Pa.=Lawrence, Beaver, Butler, Venango, Clarion, Jefferson, Forest, Elk, McKean, Potter, Pike, Bucks, Montgomery, Philadelphia, Chester, Lancaster, Adams, Franklin, Fulton, Bedford. N.Y.=Allegany, Steuben, Wyoming, Livingston, Ontario, Yates, Seneca, Schuyler, Chemung, Tioga, Tompkins, Courtland, Onondaga, Madison, Chenango, Broome, Delaware, Ostego, Schoharie, Schenectady, Montgomery, Fulton, Saratoga, Albany, Saratoga, Rensselaer, Green, Ulster, Columbia, Orange, Rockland, Sullivan. Vt.=Bennington. Mass.=Berkshire. N.J.=Sussex, Warren, Morris, Somerset, Hunterdon, Mercer. Md.=Cecil, Harford, Baltimore, Baltimore City, Anne Arundel, Prince Georges, Calvert, St Marys, Charles, Montgomery, Howard, Carroll, Fredrick, Washington, ALEGANY. Va.=Arlington, Fairfax, Loudon, Frederick, Clarke, Warren, Fauquier, Prince William, Culpeper, Rappahannock, Stafford, Spotsylvania, Caroline, King George, Westmoreland, Northumberland, Lancaster, Richmond, Essex, King & Queen, Middle Sex, Mathews, Gloucester, King William. W.Va.=Jefferson, Berkeley, Morgan, Mineral, Hampshire. Va.=New Kent, James City, Henrico, Richmond, Hanover, Chesterfield, Prince George, Surry, Sussex, Dinwiddie, Southampton, Brunswick, Greenville, N.Car.=Northampton, Halifax, Nash, Edgecombe, Wilson, Greene, Lenoir, Wayne, Duplin, Sampson, Bladen, Johnson, Columbus, Robeson, Gaston, Cleveland, Rutherford, Polk, Henderson, Buncombe, Haywood, Jackson, Macon. S.Car.=Horry, Dillon, Marion, Florence, Darlington, Lee, Sumpter, Clarendon, Orangeburg, Calhoun, Lexington, Aiken, Saluda, Edgefield, McCormick, Greenwood, Abbeville, Anderson,

Laurens, Newberry, Fairfield, Chester, Union, York. Ga.=Raburn, Habersham, Banks, Franklin, Hart, Madison, Elbert, Ogelthorpe, Wilkes, McDuffie, Lincoln, Columbia, Richmond, Jefferson, Glascock, Washington, Johnson, Treutlen, Laurens, Wheeler, Montgomery, Toombs, Tattnal, Appling, Pierce, Bacon, Coffee, Irwin, Benhill, Turner, Worth, Dougherty, Lee, Terrell, Randolph, Calhoun, Early. Al.=Houston, Henry, Dale, Geneva, Covington, Escambia, Conecuh, Monroe, Clarke, Choctaw, Washington. Miss.=Wayne, Greene, Perry, Jones, George, Stone, Pearl River, Lamar, Marion, Walthall, Pike, Amite, Wilkinson. Ark.=Columbia, Lafayette, Miller, Hempstead, Nevada, Howard, Pike, Clark, Hot Springs, Garland, Montgomery, Polk, Scott, Sebastian, Crawford, Washington, Benton. Ok.=Leflore, Latimer, Pittsburg, Hughes, Seminole, Okfuskee, Cleveland, Oklahoma, Canadian, Kingfisher, Blaine, Major, Garfield, Noble, Payne, Logan, Lincoln, Pawnee, Greer, Tulsa, Okmulgee, McIntosh, Haskell, Sequoyah, Adair, Cherokee, Wagoner, Delaware. Mo.=McDonald, Newton, Jasper, Barton, Vernon, Bates, Cass, Jackson, Clay, Platte, Clinton, Buchanan, Andrew, Dekalb, Gentry, Worth. Ks.=Crawford, Cherokee, Neosho, Wilson, Green, Wood, Elk, Butler, Sedgwick, Kingman, Woodson, Coffee, Anderson, Allen, Linn, Bourbon, Miami. Iowa=Ringold, Union, Clarke, Madison, Dallas, Adair, Guthrie, Audubon, Cass, Pottawattamie, Shelby, Crawford, Ida, Cherokee, Madison, Buenavista, Pocahontas, Humboldt, Wright, Franklin, Hancock, Winnebago, Worth. N.Dak.=Trail, Steele, Griggs, Foster, Eddy, Wells, Sheridan, McLean, Oliver, Dunn, McKenzie, Billings, Stark, Golden Valley. Mt.=Dawson, Wibaux, Prairie, Custer, Rosebud, Treasure, Yellowstone, Musselshell, Golden Valley, Wheatland, Meagher, Broadwater Park, Gallatin. Wy.=Teton.

Thanks for all the help and looking forward to meeting many at the convention.

KB7QO

Ken

MISCELLANEOUS FROM THE EDITOR !!

Effective with this copy of the "County Line Roadrunner" if anyone has multiple address changes, I will only list the current change. It will be each persons responsibility to inform me as the second, third, etc. change takes place. I have tried to keep track of these however, there is getting to be to many "vagabonds" in the "group".

I have recently received queries regarding the status of conventions for which I have not published any information. I am not holding any information regarding possible mini's. If anyone knows of any planned conventions be sure and drop me a line.

CONVENTION NEWS

All going "FB" for 13th North Central Mini Sept 26 and 27 in Marshall MN. If the motor home holds up, Ken, KB7QO, and Norma will be here. Will get more info and registration in June, July and August "Roadrunner". Info available sooner by calling or writing Ben, KA0HJR, Marty, WB0DHS, or Ron WB0ZEZ. Good Hunting and 73. Ben.

FROM THE AWARDS COMMITTEE

With this issue of the "Roadrunner" you will find a ballot card on which you should indicate your choice for several MARAC Annual Awards. The cards should be completed and returned immediately. Ballots postmarked after May 31, 1986 will not be counted.

For "County Hunter of the Year" there are three choices, by the four District Directors who sent in nominations.

K0AYD Bob Dyson

Bob is a charter member of MARAC and held all the elected offices except that of Treasurer when the Headquarters were located in Kansas City. Bob was co-host of the 1984 Annual Convention and for several years has been the Editor of our monthly "Roadrunner" newsletter, this while holding down a full time job that takes him away from home much of the time.

W0DWY Bill Nash

Bill has been an active county hunter since 1974, he has served as the Convention Coordinator and has written a very comprehensive Convention Guideline Manual. At his own expense Bill furnishes the MARAC Officers and the QSL Bureau with monthly listings of membership additions, address and call changes. Bill also publishes The County Hunter Handbook and The County Hunter Directory.

KM4W Bill Bell

Bill is active both as Net Control and as a Mobiler, he actively promotes County Hunting and for a number of years has hosted the most successful and well attended Southeast Mini at Manchester Tn.

On the same ballot is space for you to indicate your choice for other Annual Awards sponsored by MARAC

"The Mike Mutnick Memorial Award" CW Mobiler of the Year.

"The CW Net Control of the Year"

"The SSB Net Control of the Year"

"The SSB Mobiler of the Year"

Since the last report Annie, K9DCJ has earned Plaque #1 for 400 Last Counties. Mary, KC5UO has earned Second Time Plaque #42 1-8-86 and Bill, K2YIY Second Time Plaque #43 3-31-86

There are three new Awards available which were formally sponsored by the CW County Hunter Net. CW and/or SSB contacts can be used to qualify for these certificates.

USA Counties Award. Issued for contacts made with other amateurs in the US Call Districts. Basic certificate for confirming contacts in 1/3 of the counties in the district. Red, Blue and Gold Seals and Ribbons for confirming contacts with 1/2, 2/3, or all of the counties in call area.

Mobile Achievement Award. Issued in three categories. Category one is awarded for working mobiles in all counties of any one state. Category Two for giving out contacts from all counties of any one state as a mobile. Category Three is awarded for working the same mobile in all counties of any state.

Union County Award. Issued for working mobiles in any six "Union" counties of the USA. Red, Blue and Gold Seals and Ribbons for confirmed contacts in six, twelve, or eighteen "Union" Counties. There are eighteen counties with the name Union.

Fees are the same as for other awards, \$1.25 for the certificate, follow up endorsement seals free for an SASE

A rewrite of Awards Information is in the works, copies together with the Annual Report will be mailed to all active members at a later date.

I hope to see many of you in Asheville

73 & Good Hunting Jim, WB0TVL

COUNTIES TO FINISH A PARTICULAR STATE

K1ZIT Larry 207-439-1063

VA Orange, Giles, Stafford, Tazewell, Warren WA Chelan, Columbia, Ferry, Garfield, King, Okanogan, San Juan, Skamania WV Summer, Tucker

WOFBB Rudy 402-391-7885

KY Boyle, Casey, Mecer, Woodford KS Atchison, Nemaha MN Chippewa Lincoln MS Bates NE Johnson, Kearney NC Bladen, Green, Pender I Grant, Sioux NC Greenwood SD Dewey, Faulk TN Houston WI Burne

WB4FBS Cliff 512-656-0324 Mon-Fri after 2200Z weekends anytime

ND Slope OK Hughes OR Clasop, Coos, Tillamook SD Perkins TN
Washington WA Clallam WV Monroe

WBOVNN Ron 303-247-5148 after 0000Z Mon-Fri, anytime weekends

AZ Gila, Le Paz, Pinal ME Androscoggin, Aroostook MD Calvert,
Dorchester, Wicomico MA Dukes, Nantucket, Suffolk SC Chesterfield
Dillon, Edgefield, Georgetown, Jasper, Kershaw, McCormick, Marlboro
Bennington, Lamoille, Orange, Washinton WA Adams, Columbia, Ferry,
Franklin, Garfield, Pend Oreille

KOGSV Rich

AL Fayette, Pickens CA Kings IN Dearborn, Jackson, Ohio LA
Morehouse MD Kent MT Fallon, Treasurer NY Otsego, Putnam OH
Fulton, Gallia, Henry SC Marion WV Jefferson, Wirt WY Hot Springs

NODPX 303-986-4795 Evenings and weekends

AR Cleveland, Cross, Izard, Stone IA Boone, Grundy KY Butler,
Muhlenberg, Union MN Redwood SD Clark TN Blount NE Brown

NOCKC Buster (CW ONLY) 303-986-4795 Evenings and weekends

AL Limestone KS Kingman, Mation, Rice MT Petroleum, Ravalli,
Treasure OR Lincoln VT Addison, Essex, Orleans WY Weston

QUARTERLY BALLOT FOR N/C AND MOBILER

The following is the "Final" tabulation of the quarterly balloting for Best Net Control and Best Mobiler. As announced in a previous "Roadrunner", the balloting will now be held once a year in connection with the annual voting.

SSB-NC	SSB-MOB	CW-NC	CW-MOB
1st WA3TUC	KB700	WA4KER	NOCYB
2nd KC5CV	N9DEH	NOCYB	WA4KER
3rd KG5J	KB5FU	KA1CV	KB700

Congratulations to all.

Well, in the words of some famous actor, "Here we go again!". The solution for this problem is not difficult. It does require one to think a bit. You need to remember a couple of things to solve it easily, such as the fact that maximum power is transferred to a load when the load is equal in value to the impedance of the generator (or source). I chose this one particularly to demonstrate how to use Thevenin's theorem, and how it can be a handy tool to use when several loads are to be evaluated on the same generator.

First of all, one must realize that the "Load" is R_5 , and everything else is included in the "Generator". With that in mind, re-draw Figure 1 into the form shown in Figure 2. Label the two "generator" terminals A and B.

We can find the voltage between A and B, the Thevenin equivalent voltage (V_{th}), by finding the difference between either the voltage drops across R_1 & R_3 , or R_2 & R_4 . Let's use R_2 & R_4 . To find V_2 , take the reference point as the negative terminal of the battery, which is common to both R_2 and R_4 , and use the voltage divider formula:

$$V_2 = V_1 \frac{R_2}{R_2 + R_1} = 100 \frac{27}{27 + 62} = 30.34 \text{ V. And for } V_4, \text{ use the same formula.}$$

$$V_4 = V_1 \frac{R_4}{R_4 + R_3} = 100 \frac{100}{100 + 68} = 59.52 \text{ V. The voltage between A and B is}$$

then the difference $V_4 - V_2 = 59.52 - 30.34 = 29.18 \text{ V}$, with terminal A being the negative polarity with respect to terminal B. This is the Thevenin equivalent voltage, V_{th} . Note this value in Figure 4.

Thevenin says that if the source voltage has no resistance (0 ohms) the generator resistance (or impedance) is the combined network resistance of those resistors as viewed looking back into the source terminals. So, looking back into A & B, we short out the battery, V_1 , and see a series-parallel set of resistors. Figure 3a shows Figure 2 re-drawn to show more clearly how R_1 , R_2 , R_3 , and R_4 are connected when V_1 is shorted out. For this example, V_1 was considered to have zero internal impedance, or another resistance, R_g , would have to be included in the network. Figure 3b shows the results of combining R_1 and R_2 , and R_3 and R_4 , to form a series circuit, R_A and R_B . Figure 3c shows the combining of R_A and R_B in series to form one single resistance from terminal A to terminal B, which is what we want for the Thevenin equivalent resistance, R_{th} . Note this in Figure 4.

$$R_A = \frac{R_1 R_2}{R_1 + R_2} = \frac{62(27)}{62 + 27} = 18.81 \text{ Ohms, } R_B = \frac{R_3 R_4}{R_3 + R_4} = \frac{68(100)}{68 + 100} = 40.48 \text{ Ohms.}$$

$$R_A + R_B = 18.81 + 40.48 = 59.29 \text{ Ohms} = R_{th}.$$

We now have a Thevenin equivalent generator. With this, as shown in Figure 4, we can add any value of load resistance, R_5 , and evaluate the current, voltage, and power, without re-figuring the generator impedance each time. Knowing that maximum power is transferred when the load and generator resistances are equal, we can say $R_5 = R_{th} = 59.29 \text{ Ohms}$, and calculate the current, voltage, and power dissipated.

Bridge Cont:

With this part out of the way, it is now a simple matter to complete the problem with this "optimum" value of R_5 as the load resistance. It is also quite easy to evaluate any other value of load resistance. Using the R_5 value of 59.29 Ohms, and remembering that this is the same for both the generator and the load, we can find the voltage across the load by dividing the V_{th} voltage by 2. Load voltage = $V_{out} = 29.18/2 = 14.59 \text{ V}$. This is, of course, the same as the voltage across the generator, or V_g . This is a special case, however, and when R_5 does not equal the generator impedance one needs to use the voltage divider formula.

The current, I , can be found by Ohms law. The total circuit resistance is $R_g + R_5$. In this special case, $R_t = 2 \times R_5 = 2(59.29) = 118.58 \text{ Ohms}$. Using the source voltage, V_{th} , the current is: $I = V_{th}/R_t = 29.18/118.58 = .25 \text{ Amperes}$.

For the power, P , one can use $P = I^2 R$, $P = E^2/R$, or $P = EI$. Seems to me the easiest one would be $P = EI = \text{Load Voltage times Current}$. $V_{out} I = 14.59(.25) = 3.59 \text{ Watts}$.

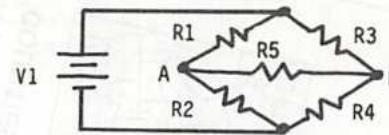


Figure 1

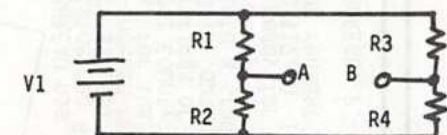


Figure 2

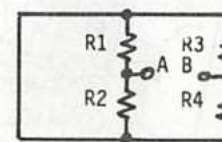
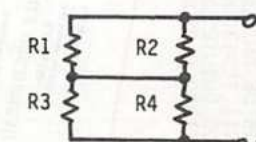
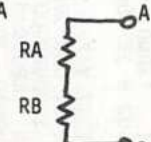


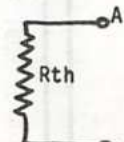
Figure 3



3a



3b



3c

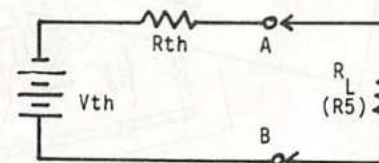


Figure 4

$$R_1 = 62 \text{ Ohms, } R_2 = 27 \text{ Ohms} \\ R_3 = 68 \text{ Ohms, } R_4 = 100 \text{ Ohms} \\ V_1 = 100 \text{ Volts.}$$

$$\text{Power (max)} = P_L = 3.59 \text{ Watts}$$

$$\text{Current} = I_L = .25 \text{ Amperes}$$

$$\text{Voltage} = V_L = 14.59 \text{ Volts}$$

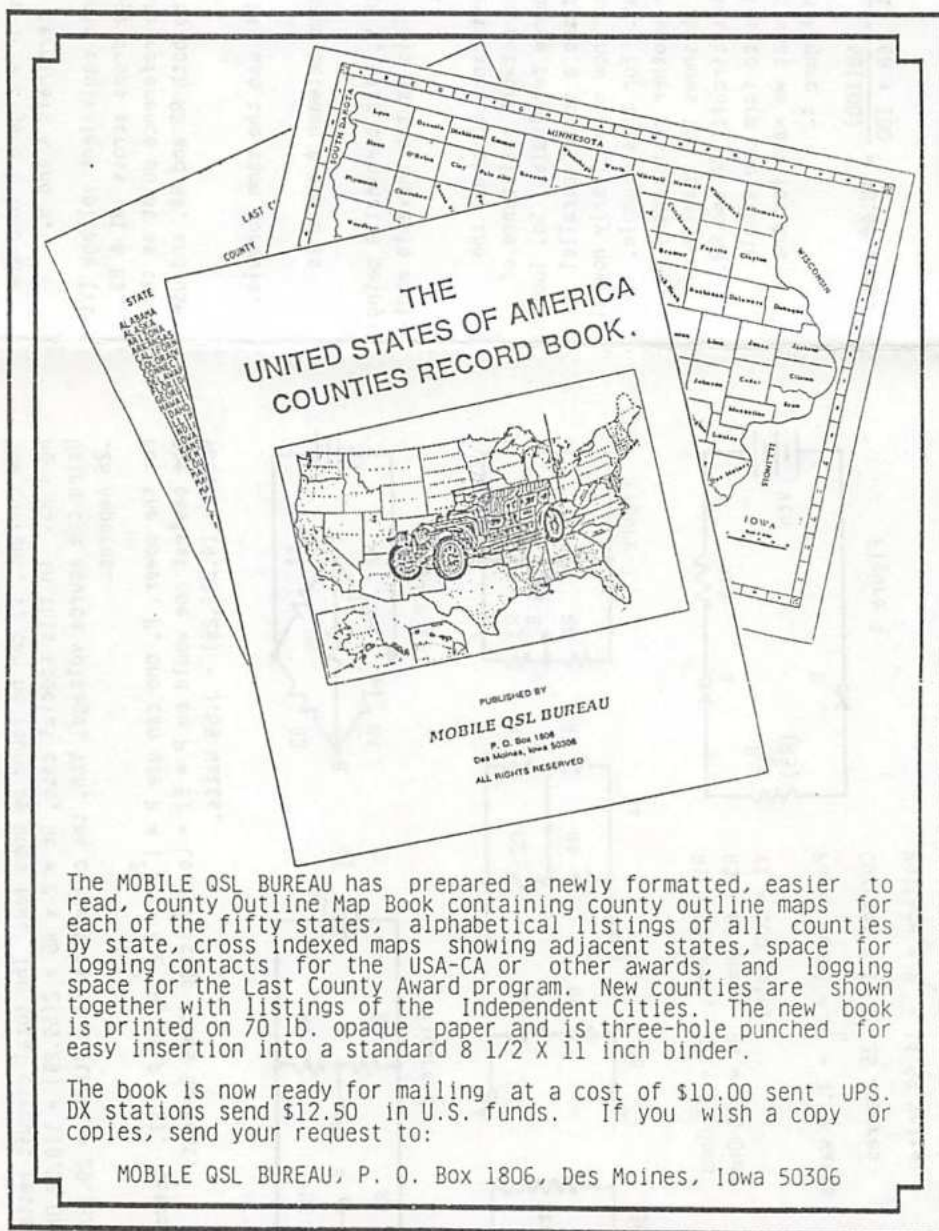
$$\text{Resistance (optimum)} = R_L = 59.29 \text{ Ohms}$$

To prove to yourself that this is the maximum power, try raising and lowering the R_5 value and solve for the power. Kirchoff and calculus work too, but, to me, this is the simpler method. And now you have it.

TO ALL COUNTY HUNTERS:

The comments we made in last month's newsletter generated quite a lot of mail this way. All comments we received were favorable, so that must mean the non-phonetic advocates are less verbal, or they are reserving comment until a future date! Thanks to all of you who responded. Jerry and I do not mind the "Was this you?" business, as we are just trying to get your confirmations back to you! It becomes rather a challenge at times, however! Of course, we are not able to guess them all, but have a pretty good ratio of recent contacts where other MRC's can be used for comparison.

During the last several months, we have been working on a new edition of the Counties Record Book. You will find a little information below. As it is completely redone, we hope you will find our efforts valuable. It is definitely easier to read with larger type and the county lists are now on the right hand page which should make it easier to enter your log information.



The MOBILE QSL BUREAU has prepared a newly formatted, easier to read, County Outline Map Book containing county outline maps for each of the fifty states, alphabetical listings of all counties by state, cross indexed maps showing adjacent states, space for logging contacts for the USA-CA or other awards, and logging space for the Last County Award program. New counties are shown together with listings of the Independent Cities. The new book is printed on 70 lb. opaque paper and is three-hole punched for easy insertion into a standard 8 1/2 X 11 inch binder.

The book is now ready for mailing at a cost of \$10.00 sent UPS. DX stations send \$12.50 in U.S. funds. If you wish a copy or copies, send your request to:

MOBILE QSL BUREAU, P. O. Box 1806, Des Moines, Iowa 50306

CW COUNTY HUNTERS

CONFIRMED CW CONTACTS

JAN 1, 1986

HONOR ROLL

#1 W8RSW #2 W2MEI #3 KA5A #4 W1JTD #5 W3HQU #6 W3ARK
 #7 NGØT #8 WBØODS #9 N2RT #10 WLAQE #11 N5QQ #12 WA6VJP

	<u>Jan 86</u>	<u>Jan 85</u>		<u>Jan 86</u>	<u>Jan 85</u>
W9VEN	3064	3064	K8MW	2567	2314
K3LK	3063	2992	WD4SIG	*	2489
WØFBB	3051	*	OK1APV	*	2480
N6QA	3021	2987	W7HZL	2400	1544
W7GHT	3000	2954	N9DR	2374	2365
KA4IFF	2988	2872	NØCYB	2350	1887
K8KIR	2955	2904	N7TT	2301	*
K7EQ	2947	*	W4BV	2239	*
W1SBU	*	2925	W9MYI	2205	1875
W2EMW	2903	2770	WB1EIL	2020	*
W7IEU	2899	2665	W3HQU	1934	(2nd time)
W4POA	2850	*	VE3KZE	*	1725
W8RYP	2845	2710	VE1ASJ	1702	*
K3ZMI	*	2824	W3XE	*	1539
NØCKC	2822	2695	KA1CLV	1512	1250
W8WVU	2758	2720	WA4KER	1262	502
W8YL	2757	2729	N5QQ	1250	(2nd time)
W5VGF/6	2753	*	VE3IR	*	933
W1TEE	2741	*	NFØX	868	*
N2CWG	2722	2600	KA1CV/grp	707	*
W6NNV	2671	*	WB1AOD	597	*
KN4Y	2591	2380	KA8MSU	449	435
			W6CF	385	*

* NO INFO

That's it for this year -

73

Buster

BUSTER BOATMAN, NØCKC
8973 W. HARVARD DR.
LAKEWOOD, COLO. 80227

NEW USA-CA HOLDERS

#508 KA1CKX 04-11-86

#509 K5OUK 04-12-96

COUNTIES NEEDED TO FINISH USA-CA

N3AHA ACE 307-637-3829

AL Bibb, Winston CO Rio Blanco IA Jackson, Kossuth, Shelby KS Lane, Scott, Stevens MO Bolinger, Moniteau, Lincoln MT Glacier NI Boone, Platte NM Lea NY Livingston ND Burke, Oliver OH Brown, MOrgan SD Butte, Day, Walworth WA Asotin, Wahkiakum

W00WY Bill 612-738-1144 after 2300Z and weekends

GA Aitkins, Brantley, Bryan, Bullock, Coffee, Jenkins, Morgan, Taliferro, Walton Wayne IA Adams KS Allen, Pottawatomie, Republic KY Estill, Garrard, Webster MS Coahoma, Lawrence, Leake, Quitman, Smith NE Garden, Saline VA Amelia

WB4FBS Cliff 512-656-0324 after 2200Z and weekends

GA Hart, Jasper, Stephens, Terrell, Wilkinson KS Rawlins KY Nicholas MI Baraga, Ontonagon MS Cly, Tippah NE Arthur NC Cla Franklin, Mitchell, Pamlico ND Slope OR Clatsop, Coos, Tuillamook SD Perkins TX Jackson UT Wayne WV Monroe

FOR SALE

Which way should you point your antenna during high winds? You need custom-made wind sock by Nancy, K800K's XYL. Custom made with ;your

call and possibly color-schemed to your QSL. Please send \$25 (post paid) and your QSL or a 2 or 3 color combination desired to Nancy Eilers 1925 Benjamin NE, Grand Rapids, MI 49505-5437. Ask ORV how he likes his!

MEMBERS SPEAK!!

K800K- Mike

I would like to correspond with a mobiler that has had experience installing low-band gear in late model vehicles with (EFI) Electronic Fuel Ignition.

WB9NUL- Joyce

To all the people in IL and MO who helped put out the counties in the phone portion of the Armadillo Run I send a big THANK YOU! The CW portion of the contest is coming up in July and I am in need of operators. If you are interested in helping please send a note to me and I will get information to you. The date for this is the same as the County Hunters Contest (July 26 and 27). Look forward to hearing from you. If you have any questions feel free to call 815-467-6912 or write. 73 and 88 Joyce Boothe, WB9NUL.

MORE GRIPES, COMPLAINTS AND PEEVES.....

Today has been a bad day! Couldn't sleep last night, things went wrong at work, the XYL was sick today and there is no supper this evening. So, this is written in frustration; a bunch of little things that have piled up over the years. They don't apply to everyone; in fact only a minority are guilty, if that is even the right word. And, these are offered as constructive comments for the benefit of all. I've been an active CHER since 1979, a MARAC member since 1980, attended three conventions, and I run mobile 5 or 6 times a year, both on SSB and CW.

1. If you ask a mobile station to detour for a last or next to last county, be there! I've had this happen several times, and it's frustrating to drive 30-60 miles out of the way for nothing.
2. With some of the awards, QSL's are not required. But, if you ask a mobile to get your "last county", you should still send a QSL for that effort, if not a last county award.
3. If the mobile station does not know what county he is in, the NCS should not run him/her. Drop him one, or two, until he knows where he is! I've seen it take 5 minutes to check maps on the net.
4. Recognize the endorsements. Some of us are working on "all mobile", "all 80m", "all CW", etc. If you run mobile and have time to make accommodations, carry a key or resonators.
5. Seems to me that if the mobile would announce at the start of the run that he/she was heading for Denver, Dallas or whatever, on Hiway #---, it would save unnecessary questions later.
6. Always check for DX. First relays should be for DX and mobiles.

Now, I really do feel better. My son is fixing supper and all is well.
Good hunting!

Buster NØCKC, USACA 489

Don McMinds, KB7JI
COFF MILL F. O. I. C.

I just returned from a fine vacation to the island of Kauai, Hawaii. While there, I had the pleasure of meeting three county hunters: Clarence, AH6CG; Evillo, KH6DRT; and J.J., KH6JJC. Evillo came by my apartment every day I was there and drove me up the hill so I could use his mobile rig to put out the county. I cannot begin to thank him for his hospitality and kindness.

While discussing net operations, band conditions and so on, all three asked me to request that mainland stations listen for them. They usually can hear mainland stations from about 1700Z on, but often no one hears their calls to the NCS or the mobile. They are aware that part of the problem is the poor band conditions we all are enduring, but they felt no one was even aware that they are around. If all of the net members would keep an ear out for those gentlemen they would certainly appreciate it.

By the way, if anyone is interested in or planning for a trip to Kauai, I can provide some tips on where to stay. We had a very secluded, privately owned 1 BR apartment for \$430.00 per week. It is located on the far western part of the island and is right across a road from the beach. There is a 2BR, 2 bath apartment upstairs that is really plush for \$700 per week. Write to me at the above address or give me a call on the net for further details.

Thanks and 73's.

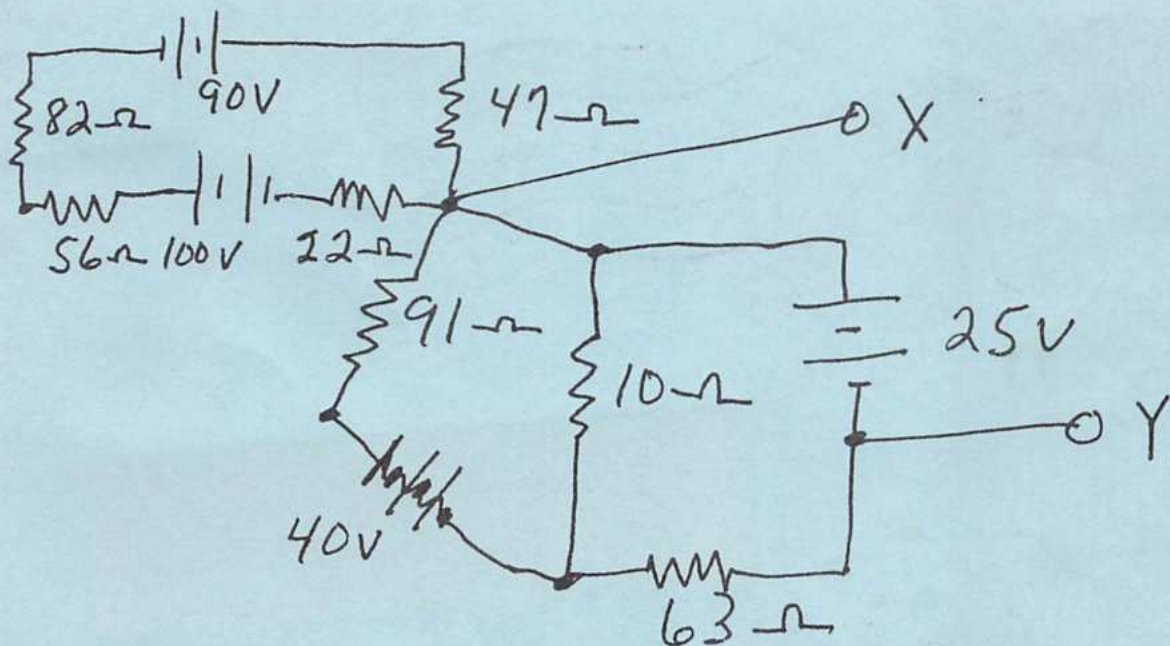
Don

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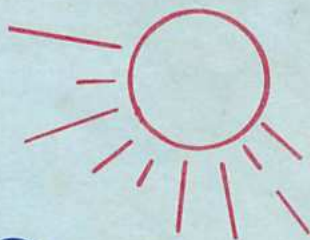
The COUNTY LINE ROADRUNNER is a monthly publication of the Mobile Amateur Radio Awards Club, Inc. (MARAC). MARAC's stated purpose is to promote mobile amateur radio efficiency and portable operation: recognize and award outstanding accomplishments in amateur radio with emphasis on mobile operation, both phone and cw and to promote good will and fraternalism among amateurs. MARAC also serves as the communication and social arm of the County Hunters. The newsletter Editor is KOAYD, Bob Dyson 8943 South Overhill Circle, De Soto Ks 66018. Current MARAC dues and membership information can be obtained from the Secretary, WBOUPU, Wm Olsen 221 Ogden Ct St Paul, Mn 55119. All information for inclusion in THE COUNTY LINE ROADRUNNER should be in the Editor's hands prior to the 20th of the month preceding publication. All articles are subject to being edited to fit the space available and are printed at the discretion of the editor. Items in the COUNTY LINE ROADRUNNER may be copied, provided credit is given.

HERE IS A "JUNE BUGGER"
(ONE MONTH EARLY)



WHAT IS VOLTAGE ACROSS X-Y

The County Line Road Runner



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THE COUNTY LINE ROAD RUNNER

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A ROAD RUNNER IS A
VERY FAST BIRD!!