SPURIOUS EMISSION

ORLEANS COUNTY AMATEUR RADIO CLUB (OCARC)
14064 West County House Road Albion, New York 14411
OCARC Newsletter July 2012
News Editor Steve Maier (KZ2R) Email kz2r@rochester.rr.com

Meeting Time

The Orleans County Amateur Radio Club (OCARC) meets at 7:30 p.m. on the 2nd Monday of the month at the Orleans County Emergency Management Office at 14064 West County House Road in Albion, New York except in September when we have a dinner meeting.The next meeting will be July 9, 2012.

Refreshments by KC2EZJ(food) and WB2SQS(drink)

Club Officers

President: Andy Ogozaly KC2HZM
Vice President: Terry Cook KC2JKU
Secy: Ray Hertel N2VDR
Treas: Richard Toussaint KA2BCF
Dir: Bruce Sidari WA2TMC
Net Mgr: Marion Toussaint KA2BCE
Contest Mgr: Wayne King N2WK
Programs: Bruce Sidari WA2TMC

ORLEANS CO. AMATEUR RADIO CLUB 2-METER NET

WA2DQL repeater 144.67 MHz in/145.27 MHz out with a tone of 141.3. Every Tuesday night at 9:00PM We will be calling for officers first then anyone else that wishes to join in. We also have a simplex net once a month on the Third Monday at 9:00PM on 145.270.
Upcoming net control stations are:

July	3	KC2JKU	Terry
July	10	WA2TMC	Bruce
July	16	KA2BCE simplex	Marion
July	17	KA2BCE	Marion
July	24	KA2BCF	Dick
July	31	KC2JKU	Terry

WA2DQL 2-Meter Net

If anyone would like to be a Net Control station, please let me know, I'd be glad to send you the call up procedure or script for the net. It's not that hard. Or if anyone has any suggestions, please let me know.

73 Marion, Net Manager KA2BCE

OTHER NETS

2 Meter Sideband Net 144.260 USB 9:00 Mondays
Lara (Lockport Amateur Radio Club)
Sunday 8 p. m. 146.820
Swapnet after regular net Sept- May

ANNIVERSARIES

Terry KC2JKU and Brenda Cook 07/19/80

BIRTHDAYS

Rich Fizette K2EN 07/24
Marion Toussaint KA2BCE 07/28
Gene Mayer 07/25

NEWSLETTER REMINDER

Just a reminder to everyone, all submissions for our monthly newsletter are to be submitted to the editor by the 1st day of each month. Please make submissions via email. If you do not have any email account, you may submit a typed copy to the editor. Any submissions submitted after the 1st of the month will be published in the next month's newsletter if still appropriate.

NOTICE OF PROPOSED BY-LAW CHANGES

Club Members,

In our continuing effort to expand our club and bring more people together in the enjoyment of Amateur Radio activities this letter is to inform all club members of the proposed change in the By-Laws of Orleans County Amateur Radio Club.

Affected By-Laws that will be amended are on page seven, Section Two and reads as follows:

2. Annual dues for OCARC shall be as follows:
   A. The annual dues for FULL MEMBERS shall be $10.00 per year. Control of the amount of annual dues is vested exclusively in the members
   B. The annual dues for ASSOCIATE MEMBERS shall be $5.00 per year.
   C. Any FULL MEMBER may elect to enroll other members of the immediate family in OCARC. These individuals shall have membership as provided in Article II, Section 2. Each additional family member residing at the same mailing address shall pay $1.00 per year and shall enjoy full OCARC privileges appropriate to the class of membership. One copy of the OCARC Newsletter shall be sent to each family unit address.

Proposed amendments to read as follows:

2. Annual dues for OCARC shall be as follows:

   A. The annual dues for FULL MEMBERS shall be $15.00 per year. Control of the amount of annual dues is vested exclusively in the members.
   B. The annual dues for ASSOCIATE MEMBERS shall be $15.00 per year.
   C. Any FULL MEMBER may elect to enroll other members of their immediate family in OCARC. These individuals shall have membership as provided in Article II, Section 2. These family members would include:
      1. Immediate family members residing at the same mailing address.
      2. Grandchildren under 21 years old of full members acting as mentors, when their parents are not licensed Amateur Radio operators.

   The annual dues will be paid as a Family Membership at a cost of $20.00 Per Family. One copy of the OCARC Newsletter shall be sent to each family unit address.

The affected By-Laws will be approved and amended for the beginning of the fiscal year September 1st 2012, by majority vote of Full Members in good standing at the regular club meeting, to be held on:

Monday August 13th 2012 at 7:30 pm at the club house.
Orleans County Emergency Management Center
14064 West County House Road
Albion, NY 14411

These changes are necessary for the continued growth of our club in these changing and challenging times for amateur radio. I appreciate and encourage your continued participation in our club and hobby.

Thank You
73,
Andy KC2HZM
You're President

OCARC FIELD DAY RESULTS

Call Used: W2ORC GOTA Station Call: WA2DQL ARRL/RAC Section: WNY
Class: 2F

Participants: 33 Club/Group Name: ORLEANS COUNTY ARC
Power Source(s): Commercial
Power Multiplier: 2X

Bonus Points:

Media Publicity	100
Set-up in Public Place	100
Information Booth	100
NTS message to ARRL SM/SEC	100
W1AW Field Day Message	100
Site Visit by invited elected official	100
Site Visit by invited served agency official	100
Youth participation	40
Youth operator	2
Youth participants	2
GOTA Bonus	200
Submitted via the Web	50
Educational activity	100
Total Bonus Points	1,090

Score Summary:

	CW	Digital	Phone	Total	
Total QSOs	598	81	294	973	
Total Points	1196	162	294	1652	Claimed Score = 3,304

Submitted by:
Wayne King, N2WK
Orleans County ARC

14064 West County House Road
Albion, NY 14411
E-mail: n2wk@arrl.net

Band/Mode QSO Breakdown:

	CW		Digital		Phone	
	QSOs	Pwr(W)	QSOs	Pwr(W)	QSOs	Pwr(W)
80m	154	100			24	100
40m	147	100	6	100	106	100
20m	235	100	75	100	8	100
15m	60	100			1	100
6m	1	100			19	100
2m	1	100			6	100
GOTA					130	100
TOTAL	598		81		294	

GOTA Bonus: GOTA Coach - Double Bonus Points

Name/Call	QSOs	Bonus Points
Jason Sharping, (NONE)	4	0
Marion, KA2BCE	24	40
Dick, KA2BCF	40	80
Gerald, KB1JAE	6	0
Alex Strickland, (NONE)	20	40
Jeff Strickland, KD2CKS	8	0
Mike, WB2SQS	22	40
Shirley, N2ABX	4	0
Jim DeYoung, (NONE)	2	0

Orleans County Amateur Radio Club Minutes of June 11, 2012

7:30 pm Meeting called to order by the President, who welcomed all members and visitors
Attendance as per register to be appended.
No minutes of previous meetings were available but a brief recap of the meeting was given by the President.
OLD BUSINESS: President is working on the wording for changing the dues structure to make Individual membership @ $15/yr and FAMILY membership @ $20/yr. He will have the final wording included in the next newsletter.
TREASURER'S REPORT: previous balance $1374.53
Expenses $ 258.05 - WF2S for Hamfest prize
$ 132.32- KZ2R for Hamfest Prize
Income Split club- April $17 + May $11
Balance as of June 11, 2012 - $1012.16 Motion approved to accept
June 9 Work Party- Vertical antenna was re-installed, GOTA station set up by N2WK
WF2S made up 7 pair of radials to be added to the groundplane of the vertical
HAMFEST:
Next meeting will be on June20 @ 7pm in the Country Club Diner in Medina. Mike Gioka reported on testing, "ALL OK" AE2EE and KB2GLU to assist.AE2EE said he would order supplies and the fee is $14 for examinees.

FIELD DAY: JUNE 23 -JUNE 24 Class 2F

President reported he will take care of the contract signature and the balance with Sterling Tent this week.
Antennas- one more G5RV E-W orientation from the fire tower needed. Bruce is arranging for a 40' bucket truck-highlift to support a tribander w/triplexer. It will also have 2 and 6 meter yagis with rotors. WA2TMC is VHF/UHF station manager.
Computers and Networking: KZ2R
THURSDAY: Tent to be installed.
FRIDAY: Computers and Antennas set up
Bruce will be staying onsite in his motorhome
Chairs and tables needed- will check storage barn
GOTA- important source of up to 500 points.
N2WK is circulating signup sheets for operating time slots
Satellite ops- Gerald to confer with WA2TMC.
FOOD- N8CL and XYL for Saturday supper, Sunday breakfast and lunch
Public Info -KA2BCE
Alternate Power for 5 qsos- KZ2R
W1AW RTTY Bulletin - N2WK
Site visits by officials- N8CL and KC2JKU to arrange
WA2TMC found 6 amateurs in 14411 zip that are inactive? and will invite them to participate with us. A separate notebook computer will be set up as a monitor for visitors to observe.

REPEATER:

WA2TMC explained the recent problems with the repeater output. The output was only 20mw . He added a Mirage amplifier to boost the output to 200 mw with a loss of 50mw at the antenna. Yaesu service was not responsive. Vertex can supply a new final board at $51.99. To be ordered by WA2TMC on 6/12/2012.

RTTY ROUNDUP January 2012:
The Club came in FIRST PLACE in the Local Club Category with 10 members participating. Our score far surpassed those of RDXA and WNYDXA. Plans are for >1,000,00 points in 2013

ADJOURNMENT: Motion approved at 8:30pm

50-50 Raffle :
won by Shirley Cataldi who donated her winnings back to the treasury. Proceeds of raffle were $40.

Refreshments:
provided by KA2BCE -KA2BCF

PROGRAM: WA2TMC showed three short video clips
1. WRTC 2014
2. Deerfield Hamfest
3. RTTY- European contester working OCARC members in 2010

Submitted by WF2S

Some Q&A About Coax and Stubs for Your HF Station

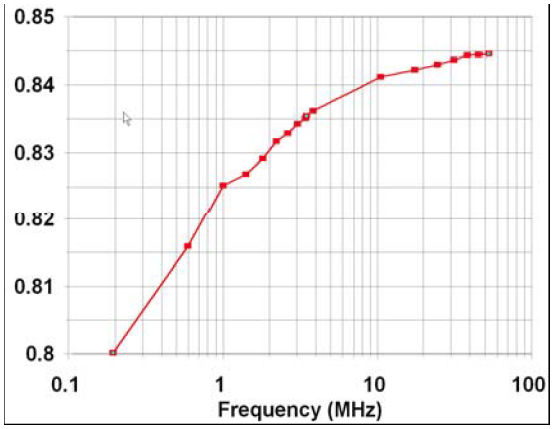
By Jim Brown K9YC

Second Edition – October 2011

PART 5

Q: Can I measure a long spool of coax as a stub to find its length?

A: Yes, but there's a bit more to the measurement than meets the eye. That's because the velocity factor V_f is not a constant – it varies with frequency. The variation is small in the HF spectrum, but, for many cables, can be quite significant at low radio frequencies. V_f starts out very low at audio frequencies, but quickly begins rising at low radio frequencies until it settles at the familiar published value. The graph at the right is measured data for Commscope 3227, a high quality RG8 coaxial cable. The published V_f for this cable is 0.84. Measurements were made by connecting a full 1,000 ft spool of cable as a stub in a precision 50 ohm system and observing the frequency of the nulls. The quarter wave resonance was 194.5 kHz. Additional nulls were measured up to 3.8 MHz (19 quarter waves).



To extend the measurement to higher frequencies, a 59 ft length of the cable was cut from the spool and measured as a stub in the same 50 ohm circuit, starting with its quarter wave resonance at 3.482 MHz, up to its 15 quarter wave resonance at 52.8 MHz. Because its 59 ft length was known precisely, it was used to compute V_f, and the data for measurement of the entire spool was adjusted so that the data agreed at the frequency where both lengths were measured. The two data sets were spliced together in the spreadsheet to get the full curve, and used to establish the actual length of the spool as 1,012 ft. The bump in the curve at 1 MHz is almost certainly a bad data point.

Q: Your measured data is for coax with a foam dielectric. How about a solid dielectric?

A: The variability of V_f is a fundamental property of all transmission lines. The only difference is the nominal (HF/VHF) value of V_f resulting from its dielectric and the frequency at which the curve for that cable starts to flatten out to its nominal value. For a tutorial discussion of this, see http://audiosystemsgroup.com/TransLines-LowFreq.pdf You may be surprised to learn from this tutorial that Z_O also varies with frequency, and for the same reasons! See also two excellent papers by Frank Witt, AI1H, in the ARRL Antenna Compendium Vol 6.

Q: Do I need to account for the variability of V_f when cutting a stub?

A: It depends on the cable you're using for your stub, the frequency where the curve of V_f flattens out for your cable, and the frequency of your stubs. For the cable shown in the graph, this would only be an issue on 160, 80, and 40M. Let's say you're building a shorted stub for 80M, and you don't know the variability of V_f for your cable. You would ordinarily cut the stub 5% long, then trim it to length by observing the null with an open circuit at the fundamental frequency, allowing about one-quarter inch or so extra length to trim and short the end.

To correct for the variability of V_f, simply trim the open stub for a null at the third harmonic of the operating frequency rather than the fundamental! Now, when you short the stub, the null at the second harmonic is likely to be exactly where you want it.

Q: What's the best way to measure a stub?

A: Connect a 50 ohm generator to a 50 ohm receiver, placing a Tee connector in line. Connect the Male output of the Tee to the receiver, use any convenient length of 50 ohm cable to connect the generator to one female end of the Tee, connect the stub to the remaining female end.

Q:How do I kill the 3rd harmonic of 40M on 15M?

A: In his book (referenced above) George Cutsageorge, W2VJN, describes a number of very useful double-stub solutions. One of them, also described by Ward Silver, N0AX, in Nov 2007 QST, solves this problem quite neatly. At the same point on the line, insert two stubs – one a ë/6 Shorted stub and the other a ë/12 Open stub. On 40M, the Shorted stub looks like 86.6Ù of inductive reactance, and the Open stub looks like an equal value of capacitive reactance, so they cancel and are invisible on 40M. But at the third harmonic (15M), the Shorted stub is ë/2 and the Open stub is ë/4, so both stubs look like short circuits and null the harmonic.

To trim the ë/12 Open stub, you simply look for the null on 15M. To trim the ë/6 stub, trim it where it is ë/4 (at 10.5 MHz), cut it 1/4-inch long, and then short it.

Q: What's the best way to add a stub to a transmission line?

A: At the desired junction point in the line, connect one side of the junction to one female end of the Tee, connect the other side of the junction to the Male output of the Tee (a coax barrel is required) and connect the stub to the other female end of the Tee.

Q: How do I connect double stubs in a line?

A: You need two Tee connectors, two PL259 con nectors, and one barrel connector. Interrupt the transmission line and add PL259 connectors to the line on each side of the break. Reconnect one end to the male of the first Tee (using the barrel), connect the other end of the line to one of the females on the first Tee. Connect the Male of the second Tee to the remaining female of the first Tee, and connect the two stubs to the female ends of the second Tee. -

Q: Wouldn't this be easier with a Tee that has three females?

A: Yes, but the “triple-female” tees I've seen are real junk connectors. Make an iron-clad rule to avoid junk connectors. Those shiny, unbranded barrel, elbow, and tee connectors often have nothing but a tiny spring inside. They can easily overheat or become intermittent. I've had both happen to me more than once, and. I've had triple female tees and cheap N to UHF adapters fall apart with only modest pressure. Stick to brand name Amphenol connectors or old connectors with MIL numbers stamped onto them. They're the real thing. They cost more, but they're well worth it. They're also one of the things I look for at hamfest flea markets – they may have lots of oxidation because they're old, but they're well built.

(To Be Continued In Next Newsletter)