

SPURIOUS EMISSION

ORLEANS COUNTY AMATEUR RADIO CLUB (OCARC)

14064 West County House Road Albion, New York 14411

OCARC Newsletter March 2009

News Ed Terry W. Cook (KC2JKU) Email kc2jku@ocarc.us

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 August when we have our meeting at the Picnic and September when we have a dinner meeting. The next meeting will be **March 9**

Club Officers

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In Memory Of Yvonne Fizette



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.

March 10	KB2LXD	Ted
March 16	KC2JKU Simplex	Terry
March 17	KA2BCF	Dick
March 24	N2LVW	Liz
March 31	KA2BCE	Marion
April 7	KC2JKU	Terry

Local Nets

Gram (Genesee Radio Amateurs) Tuesday 7:30 p.m. 147.285 Tone 141.3 Cw Code Practice every night (except Tue.) at 8:30 pm. Voice bulletins from ARRL Head quarters every Tuesday night after the net at 8:30 pm. 10 Meter Net 28.323.00 Friday 9:00

2 Meter Sideband Net 144.260 USP 9:00 Mondays

Lara (Lockport Amateur Radio Club)
Sunday 8 p. m. 146.820
Swapnet after regular net Sept- May

Stars (Southtown Amateur Radio Society)
Saturday 10:00 a.m. 3.925 HF Net
Tuesday 7 p.m. 147.090 Swap Net
Wednesday 7 p.m.

It will be better next month
When I get back

Hamfest 2009

Greater Buffalo Winter Hamfest
Lancaster Amateur Radio Club
March 7 2009

Talk-In: 147.255 (PL 107.2)
West Seneca, NY
Ismailia Shrine Center
1600 Southwestern Blvd.

Birthdays

Richard Cooper KB2FRF 3/28
Robert Spriegel N2UJL 3/02
Gary Smith WB2GLU 3/12

Wedding Anniversaries

Jean and Hubby Seward N2MVB 3/15/52

March Club meeting will be run
by Howard for I will be in
England on a great Vacation

Thanks

Amateur Radio Quiz: The Yagi Antenna

By H. Ward Silver, N0AX
Contributing Editor
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March 02, 2009

It's a rare ham, indeed, that has not been exposed to the Yagi antenna design at one point or another in his or her ham career. Yagis are nearly everywhere -- from fantastically large wire arrays on the HF low bands to miniature metal sculptures at UHF and up. Enjoy this quiz to find out what you know about this versatile antenna!

- 1) A parasitic element...
 - a. is connected to the feed line.
 - b. is not connected to the feed line.
 - c. must be parallel to the feed line.
 - d. is only for mechanical balance.
- 2) Directors are (longer) (shorter) than reflectors.
- 3) Directors are (longer) (shorter) than the driven element.
- 4) Second directors are (longer) (shorter) than the first directors.
- 5) A Yagi's driven element generally has a feedpoint impedance (lower) (higher) than 50 ohms.
- 6) Which of following is NOT a useful transmission-line impedance matching design to transform the Yagi driven-element impedance to 50 ohms for coax feed?
 - a. Strip-line
 - b. Gamma match
 - c. Beta match
 - d. Hairpin
- 7) "Plumber's Delight" construction means that all elements are...
 - a. made from threaded pipe.
 - b. not insulated from the boom.
 - c. at the same RF potential.
 - d. trapped.
- 8) A "driven cell" refers to...
 - a. a loop used as the driven element.
 - b. two or more driven elements.
 - c. more than one Yagi on a single mast.
 - d. extra-strong rotator hardware.
- 9) Reflectors have self-resonant frequencies (higher) (lower) than that of the driven element.
- 10) Adding parasitic elements is done to improve the antenna's...
 - a. front-to-back ratio.
 - b. forward gain.
 - c both (a) and (b)
 - d. neither
- 11) The Yagi antenna was first described in...
 - a. 1926-28.
 - b. 1936.
 - c. 1946.
 - d). 1962.

- a. 2-to-1 SWR or less.
- b. front-to-back ratio of at least 3 dB.
- c. forward gain of at least 3 dB.
- d. efficiency of 90 percent or greater.

13) A “quagi” is...

- a. an array of four Yagis.
- b. a Yagi with one or more quad-loop elements.
- c. a quasi-Yagi design.
- d. a lightweight Yagi.

14) “Tapered elements” are...

- a. spaced closer together at one end of the antenna.
- b. covered with insulating tape.
- c. smaller in diameter at their tips than in their centers.
- d. no longer in general use.

15) Increasing the number of elements in a Yagi (increases) (decreases) the antenna pattern beamwidth.

Bonus Question: Who was Dr Yagi's co-inventor of the antenna that is now only known by Yagi's name?

Answers:

- 1. b -- The currents in a parasitic element are created by the field from the driven element. No direct connection to the feed line is needed.
- 2. shorter
- 3. shorter
- 4. shorter
- 5. lower -- A typical Yagi's feedpoint impedance is in the neighborhood of 20 ohms.
- 6. a -- The gamma, beta, and hairpin (another name for the beta match) are all widely used to connect a 50 ohm feed line to a Yagi driven element.
- 7. b -- This type of construction allows all-metal mounting hardware, simplifying construction and placing all of the antenna at the same dc potential for grounding.
- 8. b -- Using multiple driven elements improves the feedpoint impedance stability over the designed frequency range.
- 9. lower
- 10. c -- Both gain and rejection of signals to the rear is improved by proper placement of parasitic elements.
- 11. a -- The antennas were described in the Japanese IEE journals in 1926 and 1927, while the English papers were published in the IRE journal in 1928.
- 12. a -- This is sometimes referred to as “SWR bandwidth.”
- 13. b -- The broader frequency vs impedance characteristics of the loop help increase the SWR bandwidth of the antenna.
- 14. c -- Tapering reduces antenna weight and wind load.
- 15. decreases -- An antenna with more elements generally has a narrower or sharper radiation pattern.

Bonus - Dr Uda was the co-inventor of the “Yagi-Uda Array,” known today by the simpler name.