K4NAB News

Serving Aiken County and Surrounding Areas

The first library book set has been purchased and it will be donated to the Schofield Middle School. Arrangements for a suitable presentation and press coverage are being arranged. The next book set already has 25% of the funds needed to be purchased. The library sets cost $200.00 including the shipping and this is a bargain because to the books included. The title list is:

ARRL No.	Title	Value
#0261	ARRL Handbook	$44.95
#9876	ARRL Antenna Book	$44.95
#1093	ARRL Operating Manual	$29.95
#9857	ARRL Satellite Handbook	$24.95
#9639	Ham Radio License Manual	$24.95
#9965	ARRL General Class License Manual	$24.95
#1352	ARRL Extra Class License Manual	$24.95
#3983	Understanding Basic Electronics	$29.95
#9892	RFI Book	$29.95
#1263	ARRL Instructor's Manual	$19.95
#9728	Getting Started with Ham Radio	$19.95
#1173	FCC Rules & Regs for Amateur Radio Service	$ 5.95
#7717	ARRL Map of the World (azimuthal)	$15.00

	Retail value	$330.40 plus shipping!

When we donate these sets of books to libraries and schools we support the future of Amateur Radio and give everyone a source of great knowledge. Thank you for making these library book sets a real gift to our communities.

When you join or renew your ARRL Membership the club can benefit!

ARRL Affiliated Clubs receive a commission for every new ARRL membership and renewal they submit to ARRL Headquarters.

- Clubs retain a portion of dues for each regular or senior membership sent to ARRL Headquarters:
- Clubs retain $15 for each new membership OR lapsed membership (of two years or more). A NEW MEMBER is defined as any individual who has never been a member of ARRL or any individual who has not retained a membership for two or more calendar years prior to the application submission.
- Clubs retain $2 for each renewal. A RENEWING MEMBER can renew at anytime, even before their current membership term expires.

What is SKYWARN®?

The effects of severe weather are felt every year by many Americans. To obtain critical weather information, NOAA's National Weather Service (NWS), part of the U.S. Department of Commerce, established SKYWARN® with partner organizations. SKYWARN® is a volunteer program with nearly 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the National Weather Service.

Although SKYWARN® spotters provide essential information for all types of weather hazards, the main responsibility of a SKYWARN® spotter is to identify and describe severe local storms. In the average year, 10,000 severe thunderstorms, 5,000 floods and more than 1,000 tornadoes occur across the United States. These events threatened lives and property.

Since the program started in the 1970s, the information provided by SKYWARN® spotters, coupled with Doppler radar technology, improved satellite and other data, has enabled NWS to issue more timely and accurate warnings for tornadoes, severe thunderstorms and flash floods.

SKYWARN® storm spotters are part of the ranks of citizens who form the Nation's first line of defense against severe weather. There can be no finer reward than to know that their efforts have given communities the precious gift of time--seconds and minutes that can help save lives.

Who is Eligible?

NWS encourages anyone with an interest in public service and access to communication, such HAM radio, to join the SKYWARN® program. Volunteers include police and fire personnel, dispatchers, EMS workers, public utility workers and other concerned private citizens. Individuals affiliated with hospitals, schools, churches, nursing homes or who have a responsibility for protecting others are also encouraged to become a spotter.

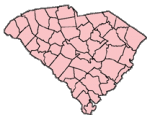
How Can I Get Involved?

NWS has 122 local Weather Forecast Offices, each with a Warning Coordination Meteorologist, who is responsible for administering the SKYWARN® program in their local area. Training is conducted at these local offices and covers:

- Basics of thunderstorm development
- Fundamentals of storm structure
- Identifying potential severe weather features
- Information to report
- How to report information
- Basic severe weather safety

Classes are free and typically are about two hours long. To find out when a SKYWARN® class will be conducted in local your area, contact your local Warning Coordination Meteorologist at:
http://www.stormready.noaa.gov/contact.htm

South Carolina Section (SC)



The Charlotte, NC hamfest 14-15 Mar 2009, will be at the Cabarrus Arena and Event Center in Concord, NC. For additional information, please visit the hamfest web page at http://www.w4bfb.org/hamfest2009/hamfest.html . Please make plans to attend the hamfest, and please attend the ARRL forum to congratulate Charlie AE4UX, SEC who will be receiving the 2008 Roanoke Division ARRL Service Award!

The Upstate Hamfest, our 2009 South Carolina Section Convention, will be held on May 2nd in Spartanburg, SC. Chuck Skolaut K0BOG will be attending as the ARRL Headquarters Representative. Chuck is the Field and Regulatory Correspondent for the ARRL, and handles the Official Observer program. This, I believe, will be Chuck's first appearance at a South Carolina Hamfest, and hope that we will have a great turn-out! Please mark your calendars for this hamfest. For further information, go to http://upstatehamfest.org or contact Rusty AJ4RK aj4rk@bellsouth.net .

N2ZZ congratulates Brian Fletcher K6NWS, DEC5 and John Welton N4SJW for their article "When the Big One Hits, South Carolina Will Be Ready" published in the March 2009 issue of QST on pages 62-63. This article highlights many of the emergency communication initiatives we have in South Carolina, and may serve as a framework for other states to follow.

Amateur Radio Quiz: The Yagi Antenna

By H. Ward Silver, N0AX Contributing Editor n0ax@arrl.net

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.

12) The "2:1 Bandwidth" of a Yagi refers to the frequency range over which the antenna maintains a...
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?

Club dues

Club dues for 2009 are due, $15 for individual membership, $18 for family membership. Please send your dues to Tom Arnold, W4KVF to his personal address, or to the club's address.

Tom Arnold, W4KVF
1909 Curtis Dr
North Augusta, SC 29841

North Augusta Belvedere Radio Club
PO Box 7692
North Augusta, SC 29841-7692

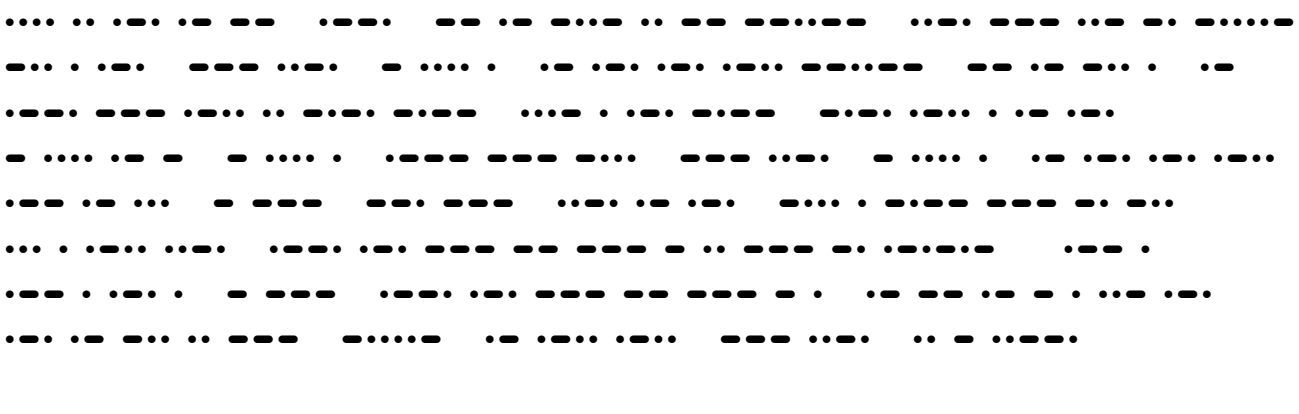
ARRL New and Renewal Memberships

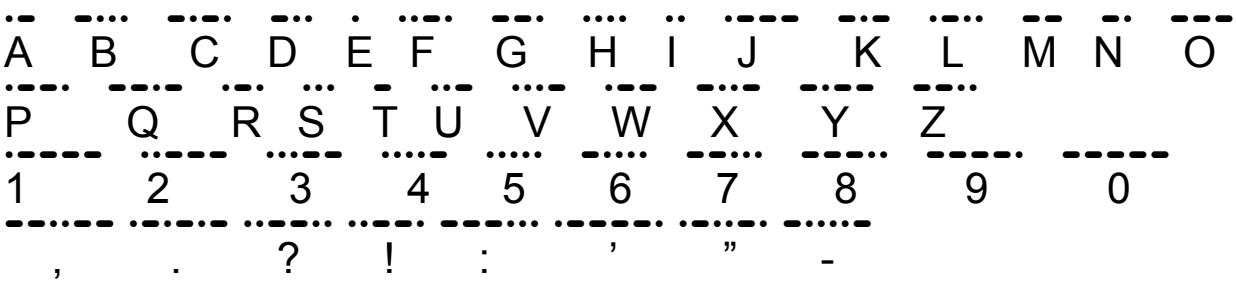
Please remember to apply for new or renewal ARRL membership through the Club. The club receives a rebate of $2 for renewals and $15 for new ARRL memberships, but you MUST use the ARRL membership form that is supplied by the Club. You pay your dues directly to the Club, and the Club forwards your membership application and fees (less the Club's rebate) directly to ARRL. If you are a NEW ARRL member, or haven't been a member for the past 2 years, the $15 rebate that the Club receives will be applied to your Club dues, so your next year's Club dues will be FREE! It's a Win-Win-Win for everyone, YOU, the CLUB, and the ARRL !! See Steve W8SC or Tom W4KVF for information or forms.

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.

Morse Out





Upcoming hamfests and events.

14-15 March 2009
Roanoke Division Convention
Mecklenburg Amateur Radio Society
http://www.w4bfb.org/hamfest.html
Talk-In: 145.290(-) & 146.940(-)
Contact: Mary & Tom Hunt, N4MH & KA3VVJ
16007 Wynfield Creek Parkway
Huntersville, NC 28078
Phone: 704-948-7373
Email: hamfestinfo@w4bfb.org
Cabarrus Arena & Event Center
4751 Highway 49 North
Concord, NC 28025

21 Mar 2009
Kennehoochee Amateur Radio Club
http://www.w4bti.org
Talk-In: 146.880 - offset (PL100)
Contact: Don V. Heppe, W5LGK
1425 Ridgeway Drive
Acworth, GA 30102
Email: W5LGK@bellsouth.net
Jim Miller Park
2245 Callaway Road
Marietta, GA

11 Apr 2009
North Carolina State Convention (Raleigh Hamfest)
Raleigh Amateur Radio Society
http://www.rars.org/hamfest
Talk-In: 146.640 - (no tone)
Contact: Chuck Littlewood, K4HF
2005 Quail Ridge Road
Raleigh, NC 27609
Email: k4hf@arrl.net
Exposition Center Building
1025 Blue Ridge Road
Raleigh, NC

2 May 2009
South Carolina Section Convention (2009 Upstate Hamfest)
Blue Ridge Amateur Radio Society
http://www.upstatehamfest.org
Talk-In: 146.61
Contact: Rusty Kirkpatrick, AJ4RK
Email: aj4rk@bellsouth.net
Piedmont Interstate Fairgrounds
575 Fairgrounds Road
Spartanburg, SC

May 9, 2009
Spring picnic & swap meet
Pendleton King Park
Augusta, GA

May 15-17, 2009 (Fri thru Sun) - Dayton, OH Hamvention
http://www.hamvention.org
Hara Arena
Talk in on 146.94-

6 June 2009
Georgia State Convention
Atlanta Radio Club (W4DOC)
Jim Miller Park
2245 Callaway Road
Marietta, GA
http://www.atlantahamfest.com
Talk-In: 146.820 (PL 146.2)

Field Day June 27 & 28, 2009

Local Repeaters and nets

6 Meter	Freq.	PL:	Callsign	QTH
☺	53.030-		W4WTA	Augusta
2 Meter				
	144.390		KR4XN-2	Augusta digi
☺	145.110-		KK4HL	Augusta
☺	145.130-		W4JAK	Greenwood
☺	145.170-		KY4S	Aiken
☺	145.290-	(100.0)	W4DV	Augusta Echo-
link node: KI4NFJ-R Node #325847				
☺	145.350-	(100.0)	N2ZZ	Aiken
☺	145.410-		K4KNS	Augusta
c	145.450-	(123.0)	W4ZKM	Sav. River Site
☺	145.490-		W4DV	Augusta
☺	146.730-		K4NAB	N. Augusta
x	146.835-		KC4GSS	Thomson
☺	146.985-	(100.0)	K4KNS	Evans
c	147.120+		KT4N	Wrens
☺	147.285+		N4ADM	Aiken

1.5 Meter NOAA Alerts

162.400	WXJ20	Columbia, SC	1000 Watts
162.425	WXM88	Waynesboro, GA	375 Watts
162.450	WNG62	Aiken, SC	300 Watts
162.475	WXM93	Cross, SC	100 Watts
162.500	KHC29	Barnwell, SC	1000 Watts
162.525	KHA35	Orangeburg, SC	300 Watts
162.550	WXK54	Augusta, GA	1000 Watts

1.25 Meter

x	224.200-		Augusta
c	224.940-	WB4KXO	Augusta
x	224.960		Aiken

70 Centimeter

c	443.400+(107.2)	AC4WW	Aiken
x	444.400+		Augusta
c	444.800+	KE4RAP	North Augusta
☺	444.900+(100.0?)	W4QK	CCARC
(closed system)			
c	444.950+(T162.2)	W4DV	Trenton ARCA

x = not coordinated with SERA c = coordinated with SERA
☺ = Full member of SERA
SERA = South-Eastern Repeater Association

SCHEARTS ETV Repeaters Short List

*70–Conf. Main, *71–Conf. Backup, 73–Drop Link
(L) Link Ready. (A) Antenna installed but repeater not installed yet.

1. .... (L) Link *31 ..... Charleston-A.....146.7600 123.0
2. .... (L) Link *51 ..... Charleston-A.....441.7250 123.0
3. .... (A) Link *33 ..... Charleston-W.....147.1050 123.0
4. .... (L) Link *53 ..... Charleston-W.....441.5750 123.0
5. .... (L) Link *32 ..... Columbia.....146.7150 .. 91.5
6. .... (L) Link *52 ..... Columbia.....441.7250 .. 91.5
7. .... (L) Link *30 ..... Conway.....146.7150 162.2
8. .... (L) Link *50 ..... Conway.....441.6750 162.2
9. .... (L) Link *35 ..... Florence.....146.6850 .. 91.5
10. .. (L) Link *55 ..... Florence.....441.5750 .. 91.5
11. ... (A)Link *56 ..... Greenville-C.....443.1250 123.0
12. ... (A)Link *36 ..... Greenville-C....._____ 123.0
13. .....Link *37 ..... Greenville-P.....145.3700 .. 91.5
14. .. (L) Link *57 ..... Greenville-P.....441.6750 .. 91.5
15. .....Link *41 ..... Lake City.....147.0600 .. 91.5
16. .....Link *38 ..... North Augusta.....146.8500 .. 91.5
17. .....Link *58 ..... North Augusta.....441.5250 .. 91.5
18. .....Link *39 ..... Orangeburg.....146.8800 123.0
19. .....Link *59 ..... Orangeburg.....441.7500 123.0
20. .....Link *40 ..... Rock Hill....._____ 123.0
21. .....Link *60 ..... Rock Hill.....441.5250 123.0
22. .. (L) Link *34 ..... Walterboro 146.7150 123.0
23. .. (L) Link *54 ..... Walterboro 441.6750 123.0

NETS

Augusta Radio Club Net	Daily @ 8:00 PM on 145.490 repeater
Carolina State Line Net	Sunday @ 9:00 PM on 146.730 repeater
Emergency Traffic VHF Net	Sunday @ 4:00 PM EST (5:00 PM DST) on 145.490 repeater
ARCA 10 meter Net	Friday evenings at 9 PM
Newcomers Net -	Thursday @ 9:00 PM on 145.490 repeater
CSRA ARES Net	Wednesday @ 8:30 PM 0n 146.985mhz
CSRA 2 Meter Net	Tuesday @ 2100 hrs, 147.120 repeater
ARCA CW Net	Monday @ 9:00 PM on 28.170mhz
SC Single Sideband Net	Daily @ 1900 hrs, 3915 KHz
Carolina Net	Daily @ 1900 hrs and 2200 hrs, 3573 KHz
Carolina Slow Net	Daily @ 2000 hrs, 3573 KHz
SC ARES/RACES Net	1st & 3rd Mondays, 1800 hrs, 3990 or 3993.5 KHz

Contests 2009
Mar 21 1700Z - Mar 22 0100Z North Dakota QSO Party CW & Phone RST and S/P/C website www.k0ln.com - logs due May 1
CW: 1.805, 3.550, 3.705, 7.050, 7.125, 14.050; Phone: 1.890, 3.890, 7.230, 14.290, 21.350, 28.400.