



# QSP



March 2009

## March VE Report

The **March 27, 2009**  
CKARC Meeting will be  
at  
**KWU's Peters Science  
Hall at 7:30 PM in  
Room 211**

Host: Bob Summerfield,  
**KCØVRC**

**For the Saturday February 21st Session**, we had 2 Candidates take 2 Exams, and 4 VE's in attendance. 1 Upgraded to General. Congratulations to Bill Matthes, **KDØEZT**, of Concordia for upgrading to General, and to Howard Adcock, **KDØGRH**, of Hutchinson for passing his Technician Exam. Upgrades were posted on the FCC site Feb. 26th.

VE's for this session were: Sid, NØOBM, Ron, WAØPSF, and Michael, KCØUBM, and Alvin, WØME..

### Mar. 11 Session:

We had one Candidate, Lydie Kelber, **KDØGYF** from Hutchinson, Ks. She passed her Technician Exam with a Perfect Score—despite the fact that English is a “Second Language” for her.

VE's in attendance: Sid, NØOBM, Ron, WAØPSF, Leon, WAØJFC, Alvin, WØME, and Don, KAØEIC.

Thanks to all the VE's who helped with the Exam Sessions. I appreciate the help, and so do those who took exams this month.

Next Exam session is **Wednesday April 8th**, at 7:00 PM, at the Saline County Sheriff's Office Classroom.

Sid NØOBM VE Team Leader

### Inside this issue:

<i>March VE Report</i>	1
<i>February Meeting Minutes</i>	2
<i>Reminders HamCom Colorado</i>	3
<i>Amateur Radio Quiz By NØAX</i>	4 + 5
<i>Contest Calendar for April</i>	6
<i>Volunteers Wanted!</i>	7
<i>Burghardt Changes</i>	7
<i>Birthday List</i>	8

## Minutes of the February Meeting

Meeting opened at 7:30 by President Robert Paul, WBØWTM

Pledge of Allegiance by all members

Introductions – 16 members and guests present

Reports:

**Secretary:** January minutes approved as printed in QSP

**Treasurer:** Virgil, NØXRS reported \$323.00 in receipts, \$241.00 expenses

Total in checking is \$ 413.97, Savings is \$ 4154.08, for a Grand Total of \$4568.05

**EC report:** Usual events are expected – March 1 Siren Test, March 2 ARES Net, March 19 ARES

Meeting.

**VE Report:** Feb Saturday session– 1 New Tech and 1 Upgrade to General, the rest is in the Jan QSP. Next session is March 11th at 7:00 PM.

**Repeater report:** Eric, NØYET

He mentioned we are occasionally (and more frequently) receiving interference from the Lawrence repeater. Adding a tone was suggested to help correct the problem. Eric said if we get a tone he would like to back up the current configuration of the repeater first so we don't lose all of the programming. A software package would need to be purchased for about 90 dollars to do so. There was some discussion. Ron Tremblay, WAØPSF, made a motion to purchase the equipment needed for to add the tone, and to purchase the software to back it up. Sid, NØOBM seconded the motion. Members voted, motion passed.

**Activities Report:** Mark, KBØMQX, Asked for volunteers for Field Day committee. Suggestion was made to have a fox hunting program. Mark agreed to have one in the near future.

**New Business:** Robert, WBØWTM, brought up the subject of advertising for the club. Some discussion. Robert will check with print media. Eric will check with radio advertising and get quotes. Quotes will be brought back to the club for discussion.

Robert, WBØWTM, brought up trying to get a membership drive going to increase membership. Mark (KBØMQX) mentioned that in the past John Burchill, KCØJNK, was going to have KWU students assist the club with a survey, and suggested checking with John again. Robert suggested putting videos on Youtube.

Discussion about offering a promotion to new members such as 1<sup>st</sup> 6 months free, with some conditions – Mark (KBØMQX) made a motion that discussion on this business be tabled until the next meeting when more members may be present. Eric (NØYET) seconded the motion. Motion voted on and passed.

Robert reminded members to contact Congress about BPL issues coming back into play.

Announcements: An engineer of the wind farm will put on a wind generator program March 19th, 2009. This will be held at the old Wal Mart in Concordia at 7 PM.

Meeting adjourned at 8:20 PM.

Host: Virgil, NØXRS

Program: Mark, KBØMQX had a program about APRS.

## Reminders

**City of Salina Siren Test Net, April 6th** at 4:30 PM on the NØKSC Repeater (or on 146.730 Simplex) if the Weather cooperates! *[Above 32 degrees at the scheduled test time]*

ARES Net **April 7th at 8:00 PM** on the NØKSC Repeater (or on 146.730 Simplex if it's not running).

**ARRL-VEC Test Sessions** on Wednesday April 8th at **7:00 PM**.

**Board meeting** follows the exam session on April 8th at 8:00 PM (or after Testing—which ever is later) in the Saline Co. Sheriff's Office Classroom.

**Eisenhower Marathon** is **Saturday April 11th** Race starts at 0700!

**ARES Meeting** is **April 16th at 8:00 PM** in the EOC.

**CKARC Meeting** **April 24th** at 7:30 PM at **Kansas Wesleyan University**.

There is a full **Calendar of Events** on the CKARC Web site <http://www.centalksarc.com>

### This just in:

To: CENTRAL KANSAS ARC

From: HamCon Colorado 2009  
CQ, CQ de HamCon Colorado 2009!

We are writing this evening to remind you about HamCon Colorado 2009, the ARRL 2009 Rocky Mountain Division Convention. The conference will be held in Estes Park, CO, **May 29-31, 2009**.

We've got top notch speakers lined up, a full day of technical sessions and operating forums, a huge W1AW/0 station you can operate, a VE session, a transmitter hunt, a Wouff Hong ceremony, QLF contest and much, much more! You simply won't want to miss this one, and we'd love to have you there.

Head on over to our website, [www.HamConColorado.org](http://www.HamConColorado.org) for all the details, and to register for the conference.

## Amateur Radio Quiz: The Yagi Antenna

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

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...
- 2-to-1 SWR or less.
  - front-to-back ratio of at least 3 dB.
  - forward gain of at least 3 dB.
  - efficiency of 90 percent or greater.
- 13) A "quagi" is...
- an array of four Yagis.
  - a Yagi with one or more quad-loop elements.
  - a quasi-Yagi design.
  - a lightweight Yagi.
- 14) "Tapered elements" are...
- spaced closer together at one end of the antenna.
  - covered with insulating tape.
  - smaller in diameter at their tips than in their centers.
  - 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:

- 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.
- shorter
- shorter
- shorter
- lower -- A typical Yagi's feedpoint impedance is in the neighborhood of 20 ohms.
- 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.
- 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.
- b -- Using multiple driven elements improves the feedpoint impedance stability over the designed frequency range.
- lower
- c -- Both gain and rejection of signals to the rear is improved by proper placement of parasitic elements.
- 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.
- a -- This is sometimes referred to as "SWR bandwidth."
- b -- The broader frequency vs impedance characteristics of the loop help increase the SWR bandwidth of the antenna.
- c -- Tapering reduces antenna weight and wind load.
- 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.

## April 2009 Contest Calendar

SARL 80m QSO Party	1700Z-2000Z, Apr 2
SP DX Contest	1500Z, Apr 4 to 1500Z, Apr 5
Missouri QSO Party	1800Z, Apr 4 to 2400Z, Apr 5
JIDX CW Contest	0700Z, Apr 11 to 1300Z, Apr 12
EU Spring Sprint, CW	1600Z-1959Z, Apr 11
Georgia QSO Party	1800Z, Apr 11 to 2359Z, Apr 12
SARL Hamnet 40m Simulated Emerg Contest	1200Z-1400Z, Apr 12
Holyland DX Contest	0000Z-2359Z, Apr 18
TARA Skirmish Digital Prefix Contest	0000Z-2400Z, Apr 18
ES Open HF Championship	0500Z-0859Z, Apr 18
Michigan QSO Party	1600Z, Apr 18 to 0400Z, Apr 19
EU Spring Sprint, SSB	1600Z-1959Z, Apr 18
Ontario QSO Party	1800Z, Apr 18 to 1800Z, Apr 19
YU DX Contest	2100Z, Apr 18 to 1700Z, Apr 19
Run for the Bacon QRP Contest	0100Z-0300Z, Apr 20
SP DX <b>RTTY</b> Contest	1200Z, Apr 25 to 1200Z, Apr 26
Helvetia Contest	1300Z, Apr 25 to 1259Z, Apr 26
QRP to the Field	1500Z, Apr 25 to 0300Z, Apr 26
Florida QSO Party	1600Z, Apr 25 to 2159Z, Apr 26
Nebraska QSO Party	1700Z, Apr 25 to 1700Z, Apr 26

From the WA7BNM Contest Calendar <http://www.hornucopia.com/contestcal/index.html>



### Field Day 2009 T-Shirts and Pins

-- 2009 ARRL Field Day is June 27-28

Show off your support for ARRL Field Day with official T-shirts and Pins.

The T-shirts and pins are a great way to recognize your involvement in this popular, annual operating event. Distinctive pins are also available to help identify GOTA (GET ON THE AIR) operators. Make sure you have these attractive keepsakes in time for Field Day!

Clubs, order early! Collect orders from members, and place a single order (only \$12 shipping within the US for T-shirt orders over \$75).



#### 2009 Field Day T-Shirts

**\$12.95 Each** Soft, heavy weight cotton. Hunter Green (unisex sizes).

- |            |           |            |           |
|------------|-----------|------------|-----------|
| · Small    | #0515-S   | · Medium   | #0515-M   |
| · Large    | #0515-L   | · X-Large  | #0515-XL  |
| · 2X-Large | #0515-2XL | · 3X-Large | #0515-3XL |

## Volunteers Wanted!

Hello to all CKARC members (and non - members). This time of year we all get pretty busy with extra activities. For most of us we seem to try and find the extra hour in the day, the extra day in the week, or simply enough time to finish that one last project. Any time we, the officers of CKARC, have asked people to help with any projects or promotions, or especially elections; the standard answer has been "I'm just too busy right now."

I wanted to take this moment to see what everyone's interests are. Do you have enough interest in ham radio to help with some upcoming events? Field Day is one of the largest ones coming up in just a few months. However, there has been some talk about JOTA (Jamboree On The Air) with the Boy Scouts, and possibly Fox Hunting. I have a few people in the club who want to do more activities, but they expect me, as activities chairperson, to make it happen. I cannot accomplish things by myself. In the past, all activities that I have been a part of have been put together by a team of volunteers.

In short, if we are to start doing more activities as a club, we will need more people to get involved. More people with ideas, sharing their interests with the club. Without the involvement of its members it is hard for any organization to accomplish tasks they are asked to do.

I ask each of you to consider how much ham radio means to you. Do you want to see the Boy Scouts get interested? Do you want to see new people in our club? If so, please take a minute to notify an officer of the club what you would like to see. What activities are you interested in helping with, coordinating, or contributing to. Please, find that extra hour or two each week to help our club become larger and stronger.

Thank you to those who have helped in the past, and thanks in advance to those who will assist with any upcoming activities.

Yours truly,

Mark Boyle

**KBØMQX**

Activities Chairperson

kb0mqx@centralksarc.com

**Burghardt to No Longer Sell Amateur Radio Equipment** (Mar 17, 2009) -- On March 16, Jim Smith, W0MJY, owner of Burghardt Amateur Center in Watertown, South Dakota, announced that the company will no longer sell Amateur Radio transceivers and accessories. The company, now called **Burghardt Radio Repair**, has canceled all backorders. In an e-mail, Smith blamed the current economic conditions for the change that forced the company "to re-evaluate our goals and direction. We will continue to provide radio repair service as it has become a very busy business. Our technicians are very experienced and parts inventories are good. Thank you for your support in the past and we look forward to continuing our relationships through our servicing facility." Jim Smith's son, Mike Smith, KC0FTM, told the ARRL that even though the company has had to lay off employees in the past couple of months, "Burghardt will concentrate on service, just like we have been doing since 1973." Burghardt was founded in 1937 by Stan Burghardt, W0IT (SK), as Burghardt Radio Supply. He sold the company to Smith in 1982, remaining active in the company until January 2002. Burghardt passed away in 2004 at the age of 93.

**Central Kansas Amateur Radio Club**  
P. O. Box 2493  
Salina, Ks. 67402-2493

**QSP Editor:** Sid Ashen-Brenner, NØOBM  
Phone: 785-823-6560  
Fax: 785-823-6560  
Email: OBM@centralksarc.com



[Http://www.centralksarc.com](http://www.centralksarc.com)

*Your issue of QSP is Here!*

**April Meeting is Friday, April 24, 2009**

**SUBMISSION DEADLINE FOR THE  
APRIL QSP IS APRIL 15, 2009**

## **CKARC March Birthdays**

F/Member	Merlene	Cornwell	4/1
	Ellen	Spaulding	4/2
KCØTKA	Larry	Coates	4/6
KCØHHU	Sharon	House	4/7
F/Member	Diana	Gray	4/13
KAØDDY	Jennifer	Holcomb	4/13
NØXRS	Virgil	Yost	4/19
	Mike	Makins	4/21
KBØNOT	Geraldine	Eitel	4/28
WØME	Alvin	Wiechman	4/30