****

SIGNALS

Rockwell Collins

Monthly Newsletter of the

Amateur Radio Club

Volume 29 Issue 12 **Web Site** http://www.w5rok.us **September 2008**

****

RCARC
Membership Meeting

Thursday 25 September 2008
1700 Social 1730 Meeting
Rockwell Collins Building 462
Dallas Conference Room

Subject: **What is making Radio Amateurs wild about ALE?**
by Bonnie Crystal, KQ6XA, founder of HFLINK & HFpack

Local Club News

Meeting Notice All club members are strongly encouraged to attend this month's meeting! We have all spent countless hours searching the bands for an "opening" to make that wonderful DX contact or just get another QSO. How about if there was a system that did that automatically for you? Wouldn't that be wonderful? As the Rockwell Collins' employees who work with the SCOPE COMMAND well know, there is such a system. The US military has been using it for years. It is called ALE, which stands for Automatic Link establishment.

For example, whenever you transmit an ALE sounding signal on the air, it is picked up by ALE Channel ZERO stations and displayed in real time on the web.

Ham Radio ALE activity is automatically reported and spotted on the web, as received in real time by the network of Global HFN Pilot Stations around the world.

ALE Channel ZERO includes a Chat window to talk with other ALE and ALE400 operators, announce and find skeds (schedule of contacts), do experiments, send messages, get help with set up and testing of ALE software, hardware, and antennas.

Try it... you will like it... ALE Channel ZERO

Within Amateur Radio the ALE effort is lead by a group called HFpack founded by our club's guest speaker this month, **Bonnie Crystal, KQ6XA.**

HFpack was founded in November 2000 by Bonnie and currently has about 7000 members. HFpack is the international resource for Amateur Radio HF portable, mobile, emergency communications, information exchange, nets, and ionospheric propagation studies.

Radio Amateurs are invited to participate in HFpack's group and on-the-air nets around the world. The group exchanges information and provides a framework for communications between radio operators on-the-air and over the internet. HFpack's e-group is the largest fully-moderated discussion group of this type, primarily utilized by amateur radio operators interested in all kinds of HF portable, mobile, emergency communications and equipment. Subscription and membership in HFpack's e-group is FREE. It is currently using the Yahoo groups server system, where messages can be read and posted via the web, direct e-mail, e-mail, daily digests, and special bulletins. Participants in HFpack's e-group observe friendly cooperation.

In 2006, HFpack opened the HFpack Gear Store, run by HFpack Inc, as a service to provide HFpack insignia items for members, their friends, and the ham radio community. We hope that you will consider supporting HFpack by visiting the HFpack Gear Store: http://www.cafepress.com/hfpack

Try to arrive at 1700 for the social time. There will be coffee and snacks. The main meeting will start at 1730. And don't forget that there will be a 50/50 Drawing! We have some wonderful consolation gifts for those who may not win the first drawing for half of the cash donations:

- *Your Introduction to Morse Code, Accept the Challenge, Enjoy the Rewards (ARRL - contains two CDs).*
- *Ham Radio FAQ - Frequently Asked Questions - The ARRL Lab and "The Doctor" answer your questions. Good reference for the OT and newbies.*
- *The ARRL DXCC List, February 2008 (Published by the ARRL - The National Association for Amateur Radio). DXers may find surprises!*
- *License Plate Holder that reads "When All Else Fails...AMATEUR RADIO, www.arrl.org" (ARRL). All of us should have one of these on our vehicle.*

We have two dozen copies of two issues of ***CQ VHF*** magazine. These are **FREE** handouts for any member attending the meeting. First come, first served, but you must attend the meeting to get them

Annual Officers Elections The membership meeting in September is the time at which we elect new officers for the next fiscal year. The ballot was not quite ready at publication time, so be sure to attend and make your vote count.

RCARC OFFICERS

PRESIDENT
Bob Kirby **K3NT**
319.360.0500
k3nt@arrl.net

VICE-PRESIDENT
Dennis Cobb **WA8ZBT**
972.705.1464
ddcobb@rockwellcollins.com

SECRETARY
Jim Gaston KD5GYD
972.705.3369
jrgaston@rockwellcollins.com

TREASURER
Jim Skinner WB0UNI
214.535.5264
wb0uni@arrl.net

ACTIVITIES CHAIRMAN
John Champa K8OCL
972.705.1531 460-100
k8ocl@arrl.net

WEBSITE MANAGER
Wayne Hughes WA0TGH
972.705.1406 461-258
wa0tgh@arrl.net

STATION TRUSTEE
Steve Phillips K6JT
972.517.3332
k6jt@arrl.net

NEWSLETTER EDITOR
Jim Skinner WB0UNI
214.535.5264
wb0uni@arrl.net

CLUB STATION
972.705.1349

W5ROK
461-290

VE SESSIONS

Dallas tests are held 4th Sat of each month at 10:00. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD (972) 917-6362

Irving tests are held 3rd Sat. of each month at 09:00. 5th and Main St. Contact Bill Revis, KF5BL 252-8015

McKinney VE test sessions are held at the Heard Museum the first Sunday of the month. The address is 1 Nature Place, McKinney TX. The time of the testing is 14:30, ending no later than 16:45. ***Note: no tests given on holiday weekends.***

Garland testing is held on the fourth Thursday of each month, excluding November, and begins at 1930 sharp. Location is Freeman Heights Baptist. Church, 1120 N Garland Ave, Garland (between W Walnut and Buckingham Rd). Enter via the north driveway. A HUGE parking lot is located behind the church. Both the parking lot and the Fellowship Hall are located on the east side of the church building, with big signs by the entrance door. Contact Bill Reynolds, K8DNE, 972-475-3854.

Plano testing is on the third Saturday of each month, 1300 hrs at Williams High School, 1717 17th St. East Plano. Check Repeater 147.180+ for announcements.

Greenville testing is on the Saturday after 3rd Thursday, 1000 hrs at site TBA, contact N5KA, 903.364.5306. Sponsor is Sabine Valley ARA. Repeater 146.780(-) with 118.8 tone.

S I G N A L S is the monthly newsletter of the Rockwell Collins Amateur Radio Club, published by and for its members. The entire contents of this newsletter are copyright © 2008 by the Rockwell Collins Amateur Radio Club. Permission is hereby granted to any not for profit Amateur Radio Publication to reprint any portion of this newsletter provided both the author and Rockwell Collins Amateur Radio Club are credited.

President's Message

This month's meeting will be the Annual Election Meeting at which we wrap up the current year's business and elect the club's officers for the next year. So your attendance, if possible, is really important to the functioning of the club and the setting of its course for the next year. If you cannot attend, please consider sending in your input. Each voting member was e-mailed an election ballot.

It is also RCARC membership renewal time. A reminder to return your completed membership form with any changes, such as a new e-mail address, along with your dues to RCARC.

The RCARC August presentation on AMSAT OSCAR Phases III and IV, Amateur Radio's Next Generation Satellite, was well attended both on-site and via teleconference. The presenter was Keith Pugh, W5IU; AMSAT Area Coordinator. It is interesting to note that the amateur space program started with only $26 worth of parts by some very dedicated amateurs back in the late 1950's early 1960's. On December 12, 1961, OSCAR-1, the worlds first non-governmental satellite, was launched into earth orbit. It was carried to an orbital altitude of 430 kilometers with the Discover 36 spacecraft by an Agena-Thor rocket launched from California's Vandenberg Air Force base. OSCAR-1 had a 140-miliwatt CW telegraphy beacon powered by three paralleled 18V-mercury batteries. It transmitted the internationally recognized greeting of 'HI' in Morse code on 144.983 Mhz in the Two-meter band. Since an internal temperature sensor controlled the speed, it provided a look at what was happening on board the tiny satellite. OSCAR –1 operated for 21 days on the batteries. Keith's presentation brought us up to where we are today. If you were not able to attend, you will find his informative presentation in the 'members only' presentation's section of our website: http://w5rok.us/.

Our next big operating Special Event – The 75th Anniversary of Collins Radio – will take place September 19th through September 26th local time. I was asked if we are allowed to extend the SE operations beyond the end time. The answer is yes, operator preference, just make sure you correctly log the contacts and help follow-up with the verification QSL's. As in the last Special Event operation, please request a SASE. This helps us keep the postage cost down. Operators and helpers are needed. Please contact Ross Terry, K5SRT, to sign up to operate in this Collins 75th special event. News Flash! This past month Ross passed the exam to earn his General Class amateur radio license. Congratulations Ross!

Thanks go out to member Bob Diepenbrock, KC4UAI, who built an interface circuit for the digital modes like RTTY, AMTOR and PSK-31. While Bob's engineering is still in the works, I happened into the W5ROK station the other night to hear some PSK-31 activity on the Yaesu FT-2000 and to see Ross Terry, K5SRT performing some preventative maintenance on our club's computers. I inquired if he was working PSK-31 and he said "No, what is that stuff anyway"? Well, I explained that Bob, KC4UAI, was working on a digital interface, so we brought up the PSK-31 program on the computer.

After showing Ross how to tune in a station on the waterfall display, he asked how would you make a contact or call a CQ? Well I pointed to the CQ button, Ross pushed it and the display started printing CQ CQ CQ de W5ROK W5ROK W5ROK K and the FT-2000 went into transmit mode. After it returned to receive mode a W2 in NY or NJ answered that call. Well, Ross was the

one who pressed the CQ button and so he nervously completed the contact. As Ross typed to the other station he learned the other operator had also just started into PSK-31 digital mode just two days before this contact. Now you know how our member Ross, K5SRT, made his first PSK-31 contact. I, along with Dennis, WA8ZBT, were blessed to be there to witness the excitement. Hey Bob, KC4UAI, thanks to you, it looks like we may have another W5ROK digital operator!

Again, it works well when a member sees a way to make things better for our club and takes action to make it happen. Thanks again to KC4UAI and K5SRT. Great Job.

Members, our Rockwell Collins facility team deserves a 'Great Job' as well. Just this last week we requested an emergency generator in case our area was impacted by Hurricane IKE for W5ROK operation. They provided a top-notch unit for us along with the required fuel. Same excellent service as in this past June field day operation. The next time you see a facilities person when you are at the plant please let them know just how much you and your Amateur Radio Club appreciates their work and support.

August/ Early September RCARC Activities:

- New GENERAL Upgrade – Ross Terry, K5SRT
- Hurricane IKE Emergency Preparation – RC Facilities, Bill Swan, K5MWC; Robert Diepenbrock, KC4UAI; Dennis Cobb, WA8ZBT; Randell Dunning, KC5QHH; Ross Terry, K5SRT; Bob Kirby, K3NT
- Collins 50th S-Line Special Event QSL card follow-up – John Champa, K8OCL; Robert Diepenbrock, KC4UAI; Ross Terry, K5SRT; Wayne Hughes, WA0TGH; Bill Swan, K5MWC
- W5ROK Telecommunications/LAN/WLAN/HSMM –Robert Diepenbrock, KC4UAI; Bob Kirby, K3NT
- QRZ.com – W5ROK update – Steve Phillips, K6JT
- Meeting Refreshments Setup Volunteer – Jim Skinner, WB0UNI (**more helpers please**)
- Submitted Newsletter Articles – Jim Skinner, WB0UNI; Wayne Hughes, WA0TGH; Dennis Cobb, WA8ZBT
- ARRL September VHF/UHF Contest - Dennis Cobb, WA8ZBT
- RCARC Marketing – Joe Wolf, N5UIC; Mike Hollingsworth, W5QH
- New Member Station Tour - Dennis Cobb, WA8ZBT; Bob Kirby, K3NT
- RCARC Digital project - Robert Diepenbrock, KC4UAI; Bob Kirby, K3NT
- Yet Another Great SIGNALS Newsletter – Jim Skinner, WB0UNI
- Treasurers Report – Jim Skinner, WB0UNI
- Club Librarian - Stephanie Keese, AC5NF
- Website Updates - Wayne Hughes, WA0TGH
- August Program - John Champa, K8OCL; Keith Pugh, W5IU
- RCARC Membership Applications & Database - Joe Wolf, N5UIC
- Secretary Report –Jim Gaston, KD5GYD
- Station Trustee – Steve Phillips, K6JT
- Member Profile Responder – Steve Phillips, K6JT
- CRARC (W0CXX) - Collector Edition QSL cards for our Collins 50th Special events operation

Hope to see or hear you at the meeting,
Best Regards (73),

Bob Kirby, K3NT
K3nt@arrl.net
http://w5rok.us

Secretary's Report

The minutes of the August meeting of the RCARC were unavailable at the time of the newsletter publication. The minutes will be composed and distributed by email to the general membership and/or made available at the September meeting.

Activities Corner *By John Champa, K8OCL*, RCARC Activities Chairman

What is ALE?
Our club speaker this month will be talking with us about ALE, so here is a little background information to help you prepare.

From Wikipedia:
Ale is a type of beer brewed from malted barley using a top-fermenting brewers' yeast. This yeast ferments the beer quickly, giving it a sweet, full bodied and fruity taste. Most also contain hops, which impart a bitter herbal flavor that helps to balance the sweetness of the malt and preserve the beer. The other major style of beer is lager, which is bottom-fermented.

Absolutely fascinating, but probably not what we are looking for as the connection to radios is bit weak, although I think we used to call these 807s (HI).

Then I found this item of insight written by none other than our guest speaker herself**: Bonnie Crystal:**

ALE (Automatic Link Establishment) in Ham Radio
For the past 7 years, a group of Amateur Radio operators has joined together for communications using ALE and Selective Calling. The number of hams has grown from just a handful active in 2001, to the thousands of enthusiasts in it today. Some are following the traditional ham curiosity to explore interesting aspects of communications; others are developing dependable HF nets, or just using it to keep in touch with a circle of ham friends. The need to call up emergency nets or inter-operability and liaison with government HF systems has led many hams to adopt the government ALE standard, called **FED-STD-1045 or MIL-STD 188-141**. This standard caught on slowly in the ham community, initiated by a few operators with limited government surplus gear and some with expensive commercial equipment having embedded ALE or hardware controllers. Recently, the cost of embedded ALE transceivers has been reduced, and they are now available at similar to the cost of a medium priced ham radio. Also, with ALE software, a ham HF transceiver, a PC computer as the controller, and an appropriate antenna system, hams can harness the power of ALE.

How ALE Works
Each ham radio ALE station uses the operator's callsign as an address in the ALE controller. When not actively in a QSO with another station, each HF SSB transceiver constantly scans through a list of frequencies (called channels in ALE jargon), listening for its callsign. To reach a specific station, the caller simply enters the callsign just like dialing a phone number. The ALE controller selects the best available frequency and sends out

brief selective calling signals containing the callsigns. When the distant scanning station detects the first few characters of its callsign, it stops scanning and stays on that frequency. The two stations' ALE controllers automatically handshake to confirm that a link is established and they are ready to communicate. The receiving station, which was muted up until now, will typically emit an audible alarm and visual alert for the receiving operator of the incoming call. It also indicates the callsign of the linked station. The operators then can talk in a regular QSO. At the conclusion of the QSO, one of the stations sends a disconnect signal to the other station, and they each return their ALE stations to the scanning mode. Some military / commercial HF transceivers are available with ALE options. Amateurs commonly use G4GUO's PCALE soundcard software interfaced to a ham transceiver via RS-232 CAT port, multi-frequency antenna.

ALE Using a Computer as the Transceiver Controller Unit
In 2001, Charles Brain G4GUO, wrote and released a soundcard PC program for ALE appropriately named PCALE. Charles is to be commended for his wonderful generosity and technical achievement. By doing this, he effectively opened up ALE to the non-professional user at low cost. The availability of PCALE in various improving versions made it possible for more amateur radio operators to start experimenting with ALE.

Ham Group for Coordinating ALE
During 2001, several hams in USA (including this author) started using PCALE, at the suggestion of Elaine WA6UBE. Elaine's already-operational Motorola Micom 2R transceiver (with embedded ALE) became one of the center points for testing and linking. In December 2001, from this core of early ALE operators, the author founded HFLINK. The purpose of HFLINK would be to further the development of methods and coordination for use of ALE and Selective Calling in HF Amateur Radio. HFLINK worked out guidelines for use and developed the digital programming protocols and standards for ham-friendly ALE. The scanning frequencies essential for effective ALE operation evolved and were coordinated with all IARU Regions of the world to become the International ALE Channel List.

Link Quality Analysis
For operation as an ALE system, the HF communications system normally has a number of frequencies throughout the HF spectrum. The system works much like a telephone in that each radio in a net has an address (callsign or ID). When not in use, each radio receiver constantly scans through its various frequencies (channels), listening for calls addressed to its own callsign. To reach a specific station, the caller simply enters the desired callsign just like dialing a phone number. It takes a lot of time for the radio to go through the sequence of calling a station on every possible frequency. But there are several ways the ALE system can be programmed to decrease the time it takes, over simple random scanning and sequential channel calling. Methods for decreasing the time by using a "smarter" way of predictive or synchronized linking can be applied. An ALE system utilizing (Link Quality Analysis) capability uses periodic sounding and linking signals between other stations in the network, to stay in touch, and to predict which channel is best to call a particular station on at any given time. Various stations may be operating on different channels, and this enables the stations to find and use a common channel that is clear, that they both have.

Here's how it works in an adaptive system using LQA. Once every hour or so, each station in a network will attempt to "sound" out each channel by sending a short transmission to all the other stations in the net, the transmission is its own callsign, and it may be sent on each of the channels it is operating on. All stations in the net that are scanning that channel may receive the sounding transmission and measure the signal quality on each channel for each other station IDs it receives. These signal quality "scores" are stored in a complex matrix of:

- STATION ID
- TIME DATE STAMP
- CHANNEL NUMBER
- SIGNAL QUALITY LEVEL

When a call is initiated to a station, the radio automatically checks its LQA matrix "memory" to make a determination of the most probable and best quality channel for the call to the desired station, based upon its record of recent Link Quality data it has logged on that station. It then makes its first attempted linking call on that most probable channel. If the link cannot be established, it will try again on the next best frequency in the matrix, and so on, until a link is established. Typical ALE systems using LQA make use of recently measured soundings or stations received within the past few hours. For full details on HF ALE, check out the website at http://www.hflink.com/.

Vy 73, John K8OCL

RCARC Member Profile

This month we are pleased to profile member K6JT (ex WA6TVA, KN7OOR).

1. How did you get started in Amateur Radio? A fellow band member friend of mine wanted to learn Morse code, so he asked me to help him study it during study hall in 7th and 8th grades. I did manage to memorize it then, but it was not until the 9th grade in the high school electronics class that the instructor offered extra credit to anyone who got a ham license (he was also studying for one). I took up the challenge and passed the Novice test in 1960. Noteworthy is that the fellow (I do not remember his call) who administered the test to me was using a Collins S-Line, and he gave me the code test using the sidetone on the receiver while connected to a dummy load! This was in Spokane, Washington. I received KN7OOR in early 1961, a terrible CW call, but I was happy. Also see my bio on QRZ.com.

2. What are some of the most interesting memories or QSO's (contacts). The most interesting memories are of my staying up all night to handle traffic from the Alaskan Earthquake in the early 1960's via Navy MARS, which I had joined at age 15. It was all on CW at that time. My folks even let me skip school the next day so I could get some sleep. Now THAT is memorable! Active on CW traffic nets since high school, and operated a lot from the University of California at Berkeley station, W6BB, while attending there in the 60's. I've had lots of memorable QSOs, even some DX (but that is not a major interest to me). Used to do RTTY DX'ing with some success, though, using all mechanical monsters and home-built RTTY modulator / demodulator. Particularly recall one RTTY contact with a VK one afternoon while showing the equipment to a neighbor.

3. Have you been a builder? If so, what were your projects? I've built a LOT of kits, and a few simple projects from scratch – kits include my first transmitter, a Heathkit DX-20, Knightkit T-150 and R-100A Tx/Rx, Eico 753 (?) transceiver, Heathkit Television set, Heathkit HW-100 transceiver, Radioteletype equipment, and a bunch of smaller stuff.

4. Do you belong to the ARRL? Yes, life member, which I did in the late 1960's (what a deal!).

5. Read any other Ham magazines, like CQ? Not any more. Used to get Worldradio, but now just QST.

6. What are your current Ham Radio interests? CW traffic handling (manager Texas State National Traffic System Net – TEX – see http://k6jt.home.att.net/), packet radio (and Winlink), formerly very active with RTTY, satellite communication, and even fast-scan television.

7. What are your other hobbies? Computers – all Macintosh machines on which I do a lot of digital video for family and other affairs, make DVDs, etc.

8. Are you active on any of the HF or VHF bands, Nets? VHF – packet radio plus the W5ROK repeater, occasionally the DFW nets on 2 meter FM; HF – TEX net, Region Net 5, Central Area Net, Pacific Area Net, Transcontinental Corps schedules – all on CW. Don't even have a microphone plugged into the HF rig.

The Changing Face of Radio *By Tim Feran*

Like many other communication mediums, radio is in the middle of a battle—for listeners, for profits, perhaps even for survival. The adversaries include MP3 players, cell phones, satellite services and the infinite dial of the Internet. A wide variety of music is offered free or for a low monthly fee, while radio—one of the oldest electronic mediums -- scrambles to defend its turf.

Figures for 2007 show that spending on radio advertising dropped 3.5 percent (to $10.7 billion) from 2006, according to TNS Media Intelligence, and was surpassed for the first time by spending on Internet advertising.

The audience, though still robust, has likewise eroded during the past decade: Arbitron reports that 93.3 percent of people 12 and older listen to the radio at least 15 minutes a week.

Can radio as it has been known for nearly 100 years survive? Industry leaders say yes.

To get the word out about radio and its latest attraction—digital multicast "high-definition" broadcasting—the National Association of Broadcasters has launched a promotional campaign: Radio 2020.

"Americans continue to have a love affair with radio," said David Rehr, association president. "More than 232 million people each week, according to Arbitron, listen to radio. And they think of radio like electricity or the washer or dryer. They love it, but they don't think about it very much, because it's so accessible, so free, and it's everywhere."

Industry leaders plan to save radio not by avoiding new technology but by embracing it. Here are some of the plans:

New delivery systems

While talk radio in particular has embraced iPods and other MP3 players that allow listeners to download radio shows for later listening, the industry is actively pushing for MP3 players that include a radio for live reception.

In a recent survey by the National Association of Broadcasters, "We found the No. 1 requested adapter on iPods was FM adapters," Rehr said. "You go through all these bloggers' comments, and most of them are all talking about how iPods would be so much better if you could get radio on them."

An even more promising delivery system is on the horizon: cell phones.

"If you've got cell phones that also can be MP3 players, how hard is it to add a chip so that they could pick up FM and HD? Not hard at all," said John Crenshaw, operations manager of Clear Channel Columbus.

The move toward listening to music on cell phones is well under way. A recent study from TNS Global Telecoms found that 43 percent of cell-phone users listen to some form of music on their phones. While much of that comes via MP3 players, use of FM players on cell phones could be ready to explode. About 30 percent of U.S. cell phones can receive FM radio, and the industry is hoping for more, Rehr said.

According to surveys by America Online, more than half the respondents say they would listen to the radio on their cell phones if it became available.

Satellite

The future of subscription radio remains in limbo, as the two giants, Sirius Satellite Radio and XM Satellite Radio, battle over Sirius' $5 billion bid for XM. The stakes are high: Without a merger, neither satellite radio company thinks it can become profitable and survive.

The Justice Department in late March approved the buyout, saying the deal was unlikely to lessen competition or harm consumers. The companies have a combined 17 million subscribers.

Sirius proposes to keep separate subscriptions for XM and Sirius customers, ultimately offering "a la carte" services that will provide options with fewer channels and lower prices.

Internet

Many central Ohio stations can stream audio live from a Web site. New, portable receivers that allow listeners to plug into Wi-Fi as easily as listeners use old transistor radios will open up vast opportunities.

A study to be released this month by Arbitron and Edison Media Research shows that online radio listenership grew from 29 million a year ago to 33 million. That means 13 percent of Americans age 12 and older listened to online radio during a recent week.

Arbitron said that while 42 percent of listeners use their computers to tune into Web streams made available by traditional radio stations, 56 percent are choosing Internet-only stations.

The number of people who listen to Internet-only stations may be large, but it is diffuse, Rehr said.

"We're always going to have new entrants, people with niche markets who put on Internet stations that offer classical ballroom music produced in Jamaica," he said.

"On the Internet, you can find 50 other people who want to listen, too, but for large bodies of people who care about genres, radio is well-positioned."

High definition

The big push is on among the old radio companies to switch to high definition, a system that will enable them to multicast three or more channels over one signal—turning what was a single station into several at the flip of a switch and allowing new segments of the audience to be served.

"Right now, you have to seek it out," said Peter Ferrara, president and chief executive officer of the HD Digital Radio Alliance. "But within five years, every radio will be HD. Kind of like when

you walk into Best Buy today, you don't ask for a color TV anymore."

"We had to struggle getting consumer devices out there," Rehr said, "but it's going to be an exponential increase soon. Now we have them in Ford, Volvo, BMW. It's moving forward."

Sales outside of cars have been slow, however, and that has hampered HD radio's growth. Bridge Ratings projects that it will be another two years before there are more than 1 million listeners nationally to HD radio.

Based on current trends, Bridge Ratings estimates that HD will have fewer than 10 million listeners by 2020, while 250 million will still be listening to "terrestrial" radio and 180 million will be listening to Internet radio.

The multicast capabilities of HD radio are already being put to use by many Columbus stations, Ferrara said."WCOL is doing country and new country, and that's not unusual.

"Most stations are doing one of three things with HD," Ferrara said, "straight brand extension like WCOL, or doing what I refer to as a demographic parallel—serving the same audience with a different format.

"A good example would be a station that has adult contemporary music (WSNY, for example) and would offer female talk on its second channel.

"The last thing stations do with HD is sort of a diversity experiment, fill in the blank, something that has nothing with a current format or a current target audience, but someone at the station says, 'Wouldn't it be great to have . . . ' whatever format you can imagine would fit an unserved niche."

tferan@dispatch.com *(Courtesy, The Columbus Dispatch)*

ARRL Membership Benefits

There are "fringe" benefits for RCARC when our members join or renew through the following process.

Renewing By Check—After filling out the form, return it to RCARC with your check. Note the definition of New or Renewing Member at the top of the form. If you have previously been a member of ARRL but have let that membership lapse for 2 or more years then you are considered a new member and the club would get a $15 commission. If you are renewing a current membership or one lapsed for less than 2 years, you are considered a renewing membership and would get a $2 commission. Do not deduct the $15 or $2 commission—make the check out to RCARC for the full renewal amount.

Renewing By Credit Card—If you wish to CHARGE the renewal to a credit card note the special instructions (Box on right side of form) which indicate that you would then pay the $15 or $2 directly to RCARC. Your credit card would be charged for the full amount minus the appropriate commission. In this instance the check should be made out to the RCARC for the appropriate commission amount.

In both cases, return the application to RCARC regardless of payment method in order for RCARC to get credit***. The application is now available on the RCARC website!*** Mail to the following address:

RC Amateur Radio Club
Attn: Treasurer
MS 461-290
PO Box 833807
Richardson TX 75083-3807

Upcoming Events and Public Service Opportunities

18-19 October 2008: ARRL International EME Competition. The object of this event is two-way communications via the earth-moon-earth path on any authorized amateur frequency 50 MHz through 1296 MHz. **Date and Contest Period:** Full weekend 48-hour period **September 20-21** (0000 UTC on Saturday through 2359 UTC Sunday). More info at http://www.arrl.org/contests/calendar. html

RCARC Membership Renewal Is that time of year again. Your continued membership in RCARC is greatly appreciated. If you haven't re-upped yet, please bring your renewal form to the meeting on Thursday 25 September. If you haven't received your form, please contact Joe Wolf, N5UIC, @ X1388

Meeting Place Change Don't forget that our regular monthly radio club meetings have been moved to a new location **We now meet in the Dallas Conference Room**

Club Meeting Talk-In Each month, on the night of the membership meeting we have a Talk-In on the club repeater. The Talk-In is from 1700 to 1730 hours, prior to the meeting.

ARRL September VHF QSO Party Results W5ROK operated in the ARRL September VHF QSO Party Contest for about 2.5 hours on Sunday Night, 14 September. Here are the results:

Freq/Band	QSOs	Grids	Freq/Band	QSOs	Grids
50 MHz	8	6	432MHz	12	8
144MHz	13	8	1.2 GHz	4	2

A total of 37 Q's and 24 Grids. K5QE (in EM 31) operated on Sunday on emergency power. They are located along the LA/TX border. W5ROK worked K5QE on 50, 144 and 432 MHz. Very impressive results, especially on 1.2 GHz. Congratulations, Dennis, WA8ZBT!

Looking for J.D. Hill Stan Johnson, WØSJ, from Cedar Falls is looking for some information on one of the Collins old timers. He is researching who really invented VOX. The patent 2,969,486 (January 1961) Voice-Operated Control System assigned to Collins Radio (Cedar Rapids) shows a circuit as prior art which looks like it came from work done by J. D. Hill of Collins Radio (Richardson, Texas). J. D. Hill's patent, 2,980,827, Voice Operated Relay System, was issued in April of 1961, a few months later. In other words, the first patent shows the second patent's circuit as prior art. If J.D. Hill is still around, Stan would really like to hear his side of the story. Can any of the club members help Stan locate him or some of his former co-workers? Stan would greatly appreciate help in unraveling the mystery of who really invented VOX. The following is Stan's contact info.

Stan Johnson WØSJ
2706 Cedar Heights Dr
Cedar Falls, IA 50613
stanlois@cfu.net

India Set to Lose Voice of America After 53 Years, Radio Service Will End

By Rama Lakshmi, Washington Post Foreign Service Friday, September 12, 2008; Page A10

NEW DELHI -- At the height of the Cold War, as India leaned resolutely toward the Soviet Union, one direct line of communication remained open from Washington to India's teeming millions: Voice of America, the U.S. government's radio network.

Rangisah Prasad, 70, recalls the days when there was just one radio set in his village, and Voice of America's Hindi-language broadcasts provided an escape from the dull drone of India's state-controlled radio news.

The Cold War is over, but Prasad's devotion to VOA lives on. "I have been hearing this station for 40 years now. Their tone was always friendly and informal. People gathered around the radio in the village square and listened to Voice of America," Prasad said in a telephone interview from Dumarsan village in the Indian state of Bihar. "We understood the world through their programs."

But in a move that reflects shifts in U.S. foreign policy after the Cold War and the terrorist attacks of Sept. 11, 2001, the U.S. Broadcasting Board of Governors has decided that VOA's seven-hour Hindi-language radio service will end this month, after 53 years. VOA will also eliminate radio broadcasts in three Eastern European languages. Radio broadcasts in Russian went off the air in July.

The news is unwelcome indeed for several dozen "VOA listeners clubs" in small towns and villages across India, where radio is still a part of daily life. People there have no Internet, cable television or even reliable electricity. But they have radio.

Prasad's son, Hira Lal, is a goldsmith and heads the village radio club. There is no power in his village, so small groups crowd around battery-powered radios. Sitting by a kerosene lamp, they have listened to and taken part in the popular call-in shows "Hello America" and "Hello India."

VOA goes to considerable trouble to get listeners on the air. First, people send Hindi-language postcards to Washington, announcing their desire to participate and giving a cellphone number. When the show begins, the U.S. studio calls them and for a brief time, they are on the air.

"I am very sad because radio is our life here," said Lal, 30. "VOA is the only station that gives the price of gold and silver around the world. This is very useful for my business. I also like programs about successful Indians in America. They are our estranged brothers, and I ask them questions sitting in my village."

VOA is the largest American broadcaster, reaching a global audience of 134 million by radio, TV and Internet in 45 languages. In India, the VOA Hindi service attracts a weekly audience of more than 8 million people.

Radio news in India is a government monopoly. What gets on the air is strictly controlled and censored by bureaucrats. For decades, Indians have often first learned of big news in their country -- for example, communal riots -- through VOA or BBC radio, because government radio considered the news incendiary or was slow in airing it.

Several reporters who work for the Hindi radio service said the move to kill it is shortsighted. They argued that the United States needs to remain engaged with India because of broadening economic ties, a new deal for nuclear cooperation and the powerful Indian American community.

One VOA editor, who spoke on the condition of anonymity because he is not authorized to speak to the news media, said resources will now be deployed to the government's Middle East broadcast operations. But an official at the broadcasting board said there was no "one-to-one correlation" between the two. The official said that in the past seven years, VOA has sharpened its focus in the non-Arabic Muslim world, including Iran, Indonesia, Nigeria and Afghanistan.

"It's a mystery why they want to shut Hindi radio. India is the largest democracy and has the second-largest Muslim population in the world," said Tim Shamble, president of American Federation of Government Employees Local 1812, the union that represents broadcasters and journalists at VOA. "The region has two nuclear powers and several hot spots."

Shamble said shortwave radio should continue because it is an effective way of reaching conflict spots where the Internet and satellite TV can be blocked by hostile governments. He said his opposition is not about job loss but the erosion of a powerful tool of public diplomacy.

The board, however, maintains that radio is no longer the most effective medium for India, which has had an explosion of private TV news channels in the past eight years.

"In response to the growing and diverse media market in India, we have decided to end VOA's Hindi radio. But Hindi service will continue to go to television and the Web," said Letitia King, acting director of public affairs at the Broadcast Board of Governors in Washington.

"It is a difficult decision, but we had to see how our resources could be used in the most effective manner. Radio is not fruitful in getting us the market share."

The annual budget for VOA's Hindi service in radio, TV and Internet is $2 million.

Although BBC radio has been a bigger name in India, listeners said VOA's signal is easier to catch and voice clarity is better. In addition to those call-in shows, Lal said, VOA pampers its listeners with pens, caps, diaries, T-shirts and key chains. Probably the most popular freebie is the colorful VOA calendar that adorns the mud walls of many rural homes. It shows images of the Grand Canyon, Capitol Hill and other classic American scenes.

"Radio listening in these villages is a time to sit together and share experiences," said Janki Kathayat, who coordinates listeners club activities for VOA in India. "We also enlist the clubs for public health campaigns like anti-polio in the village. It will be a shame to let go of this audience nurtured over generations."

"VOA was America's invisible weapon of the Cold War. But that war is over now, and VOA won in India. I am not surprised they now want to focus on the Muslim world, where the new war for people's hearts and minds is being fought," said N. Bhaskara Rao, chairman of the Center for Media Studies in New Delhi.

Rao conducted a study for the American government in 1974 to assess the impact of VOA among Indian youth.

"Just look at the number of Indians who went to America during the Cold War versus those who went and settled in Russia. That is how effective their propaganda was," he said.

Rockwell Collins Amateur Radio Special Event

75th Anniversary of Collins Radio

What: The various facilities of Rockwell Collins' amateur radio clubs announce a special event: The 75th Anniversary of the incorporation of Collins Radio. The special event will take place in September 2008.

When: Commencing 0001z 20 September 2008 and running through 2359z 26 September 2008

Who: Look for the following stations on the bands:

W0CXX: Cedar Rapids, IA – South Campus, HQ Station

N0CXX: Cedar Rapids, IA – North Campus

W5ROK: Richardson, TX

W4CRC: Melbourne, FL

W6CXX: Tustin, CA

F6KNZ: Toulouse, France

Where: (+/- QRM)

CW (kHz): 3550, 7050, 10115, 14055, 18085, 21050, 24900, 28050

SSB (kHz): 3885, 7285, 14285, 18155, 21385, 24955, 28455

How: Operators will announce when they are QRV via Packet Cluster.

QSL: Via www.qrz.com for each different facility station. Please include a large #10 envelope SASE with enough postage or funds for first class return of QSL. No eQSL's

Special Certificate: Collect four (4) or more QSL's from 4 different facilities and mail them to: W0CXX. Collins Amateur Radio Club ● 400 Collins Rd. NE ● Cedar Rapids, IA ● 52498

A special certificate and your QSL's will be returned to you.

Info: http://w0cxx.us/ http://w5rok.us/

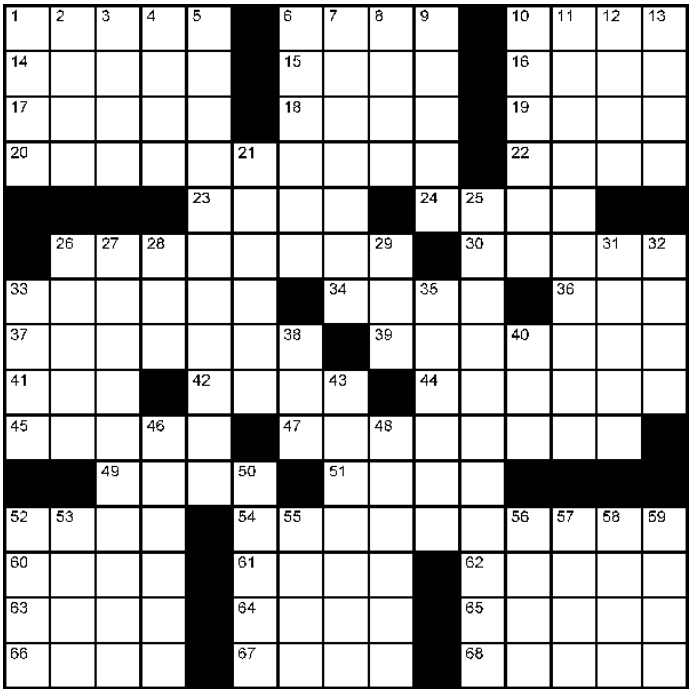
Questions? Contact: w0cxx@rockwellcollins.com

****

The Paris Texas Hamfest!!

It's a Ham Radio Event Like No Other!!!
Friday and Saturday October 10 and 11, 2008
RED RIVER VALLEY FAIRGROUNDS 570 EAST CENTER ST. PARIS, TX
VE TESTING, COMMERCIAL VENDORS, INDOOR FLEA MARKET, LIVE MUSIC, ONE OF THE LARGEST OUTSIDE TAILGATE SECTIONS AROUND, CONTESTS, FOOD, DRINKS, AND FUN
TALK IN FREQUENCY 147.040+ PL 100.0 *ADMISSION $2, * FLEA MARKET TABLES $15 EACH, * TAILGATE $10.00 FOR UNLIMITED SPACE *ELECTRICITY IS AVAILABLE*
RV CAMPING AVAILABLE, HOOK-UPS AVAILABLE $15 per night , TENT CAMPING IS OK TOO!!
DEALER SETUP AT NOON ON FRIDAY AND 6:00 AM SAT MORNING. DOORS OPEN @ 5:00 PM FRIDAY NIGHT AND CLOSE AT 9:00 PM. DOORS OPEN AGAIN AT 8:00 AM SATURDAY MORNING
WELL OVER 150 DOOR PRIZES !!
BRING YOUR LAWN CHAIR AND GET READY FOR THE BEST TIME YOU EVER HAD AT A HAMFEST!!! THERE WILL BE A LIVE OUTDOOR CONCERT ON THE BIG STAGE FROM 7:00 PM TO 10:00 PM
LIVE MUSIC SATURDAY BY THE 14TH STREET REUNION BAND
CONTESTS INCLUDE GLOBAL MOBILE II, 80 METER SHOOTOUT, 2M FM SHOOTOUT
SPECIAL HAMFEST RATES AT THE HOLIDAY INN CALL DIRECT 903-785-9510
SPECIAL GUESTS SO FAR.. AUSTIN AMATEUR RADIO SUPPLY, CLEAR SIGNAL PRODUCTS, TEXAS BUGCATCHER, HF PROJECTS AND MORE !!!
CHECK OUT THE WEBSITE FOR THE LATEST INFO www.paristexasradio.com/hamfest OR CONTACT FOR MORE INFO
RICHARD KI5DX OR CHRISTY LENOIR N5RDJ 903-783-0968 903-517-4483
PAUL KC5OOS OR KARMYN GREEN 903-739-9694
for info ki5dx@yahoo.com
Richard Lenoir-KI5DX
2150 plum st
Paris, Tx 75460
903-783-0968 (H)
903-739-8382 (w)

The Amateur Radio Crossword Puzzler



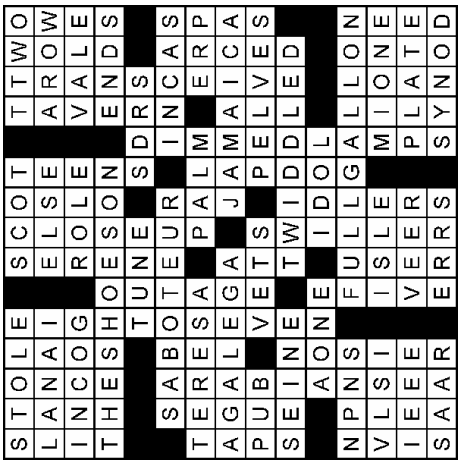
Across

1. Swiped
6. GM OM
10. Tuvalu IOTA
14. KH6 IOTA
15. If's partner (to a programmer)
16. Get one's ducks in ___
17. __nito
18. Stage part
19. Poor QTH, say
20. Foot covered?
22. Means justifiers
23. Amplifier knob
24. Softrocks, e.g.
26. Murphy, e.g.?
30. OA denizens, once
33. Mother ___
34. W4 Beach
36. Xmtr pwr plus all following dBs
37. 3B6 IOTA
39. 6Y IOTA
41. Where you might get a 5-down - or maybe five, 5-down's down
42. November honorees
44. Multiple Elvises?
45. F capital bisector
47. Carefully did 23-across, with the big knob probably.
49. CW
51. Hero
52. They're turned on by a positive base
54. Two cartons of ice cream?
60. Kind of IC
61. Word often found in IOTA names
62. Possible Northern UK prefix
63. IRE descendent, in 1963
64. Zig or zag
65. Where the HV goes
66. Western DL river
67. Blunders
68. Church assembly

Down

1. Narrow opening
2. Trig function
3. How many times a grid can be grossly overdriven
4. XW land
5. Brewski, to a ham?
6. Pacific
7. Zoomed in
8. LA city
9. The 18 and 21 MHz bands?
10. See 41-across
11. What a K2 can do
12. Harry Chapin's callsign?
13. Is in the red
21. Power problem
25. Result of key down amplifier, possibly
26. Smooth transition
27. Borders both VU and A4
28. RTTY char
29. G rule in VU
31. (The amp.) made an untoward noise
32. Hot Springs and others
33. Manipulates a key
35. Small pet
38. Opposite of amp.
40. Worked ___ Continents
43. Drinker
46. More meddlesome
48. Types of gears
50. North Cook IOTA prefix
52. Cloud burner sig.
53. "Guilty," e.g.
55. ___-friendly
56. Easter flower
57. Possibly needed to purchase an IC-7800
58. Not taken in by
59. The last one for DXCC #1, say

This month's Puzzler Solution



Rockwell-Collins

Amateur Radio Club

Mail Station 461-290

P.O. Box 833807

Richardson, TX 75083-3807

TO:

CLUB STATIONS

(972) 705-1349

W5ROK REPEATER

441.875 MHz +5 MHz Input

131.8 Hz PL - RX and TX

W5ROK-1 PACKET BBS ROK Node

145.01 MHz

MEETING

Thursday 25 September 2008

1700 Fellowship
1730 Meeting

Rockwell Collins Building 462
Dallas Conference Room

NEXT SIGNALS DEADLINE:
13 October 2008