

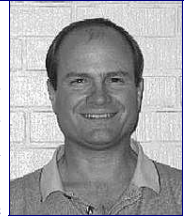
Southwest Dallas County Amateur Radio Club

The Groundwire

Volume 2004 Issue 4

April 1st 2004

<p>Hot Topics</p> <p>Don't Miss the First of a Series of Programs to be Presented at the General membership Meetings.</p> <p>The ELMER Series of Programs will start at the April General Membership Meeting.</p> <p>This Month's Program is ANTENNA 101</p>	<p>NOTES FROM THE PRESIDENT</p>	
<p>Inside this issue:</p>	<p>How to Fox Hunt Without a Radio And Win!</p>	
<p>HAMCOM</p>	<p>2</p>	<p>Greetings SWDCARC members and prospective members. Spring is here, wild-flowers are in bloom, and club activities abound. March 27th at Valley Ridge Park, our club held it's second annual "Easter Egg Hunt, HF Antenna Kite Fly, Fox Hunt, Pot Luck, and I have to say this was one of the more fun events we've held. All in spite of the thunder storms surrounding the area and 30 mph winds. The Easter egg hunt went off without a hitch (no chocolate grubbing dog this time) with the kids bringing in quite a haul of goodies. The kite fly was another story. High winds turned the HF kite fly into more of a 'kite demolition derby' with multiple in flight structural failures and runaway kites. Being somewhat of a kite buff, I never laughed so hard in years. Floyd Rodgers, KC5QBC, actually lofted a 200 ft wire and attempted making contacts, while Richard Baker, N5KXA, tried desperately to keep the antenna kite from falling out of the sky in wind speeds ranging from zero to 30 mph. The Fox Hunt was a completely new learning exercise. I now know it is possible to win a transmitter hunt with no equipment whatsoever! Simply bring along two or three non-gravitationally-challenged youngsters and let them loose. Halley Hanks and Katie Dryer (they aren't hams yet, either) won the Fox hunt by simply watching us with HT's and Yagi's, covering three times as much ground as us, and treating the event as an extension of the Easter Egg hunt. Running away with the transmitter, once it's found, is another new strategy learned that day. Family participation is a main goal of this club's leadership and March 27th certainly fit the bill.</p>
<p>GREETINGS</p>	<p>3</p>	<p>On the club event horizon is a busy June. June 18 and 19 is HamCom. From the looks of the HamCom website, this event will be bigger and better than last year. SWDCARC will be sponsoring two indoor tables for club member use. Bring your boat anchors or other items and display them for sale or trade. The tables will be considered 'home base' for the club at the event. Saturday the 19th, the club will hold a 'tail gate' party for lunch, out in the parking lot of the Arlington Convention Center. Bring your own food and drink and enjoy! The location will be determined the day of the event and announced on the 147.06 repeater.</p>
<p>R... R... R...</p>	<p>4</p>	<p>June 27th is FIELD DAY! My favorite amateur radio event and I'm sure others feel the same way. Bernie McPartland and Todd Houvinen will be the coordinators this year. The event will take place at Valley Ridge Park, Cedar Hill, same as last year. Last year the club chose to adopt 'themes' for field day. Wire antennas were used and proved to be the right choice. We took second place in our class! This year a theme will be adopted at the May general meeting. Be thinking of an idea such as homemade gear, QRP, battery only, kite/balloon lofted antenna, etc.</p>
<p>CONFESSIONS</p>	<p>4</p>	<p>The SWDCARC Elmering Series will kick off at the April General Meeting with "Antenna 101" presented by Russ Thompson, KX5G. Please plan to attend and bring a new ham if at all possible. The Elmering Series is designed to enlighten new hams as well as 'seasoned' to the wonders of amateur radio.</p>
<p>NO BPL HERE</p>	<p>5</p>	<p>Cheers and 73! Paul Dryer, KD5IVP, President</p>
<p>MINUTES</p>	<p>6-7</p>	
<p>FOR SALE</p>	<p>7</p>	
<p>NCS SCHEDULE April 2004</p> <p>05-KC5MQC 12-W5WB 19-KJ5UY 26-KB5TMD</p> <p>May 2004</p> <p>03-KC5MQC 10-W5WB 17-KJ5UY 24-KB5TMD 31-No Net-Memorial Day</p>		



Paul Dryer
KD5IVP

Ham-Com 2004 June 18-19



Haven't registered for Ham-Com 2004 yet? There are a lot of reasons to do it N-O-W! You can register on-line via <http://www.hamcom.org/> and save money. On-line registration discounts are only available for a short time, so act quickly to lock in your savings.

The keynote speaker this year is Riley Hollingsworth, K4ZDH, of the Federal Communications Commission. Mr. Hollingsworth and Jim Haynie, W5JBP, ARRL President, will also co-chair a special one-hour panel on the current license restructuring NPRM.

Ham-Com 2004 will host the ARRL West Gulf Division Convention on June 19, 2004 and there will be a number of ARRL North Texas Section activities on the agenda.

Interested in education, weather, Emcomm, APRS, DX, QRP or microwave? All of these topics are major tracks in the workshop and forum schedule. Want to cruise the commercial exhibitors and Flea Markets? We have new vendors in the commercial and indoor Flea Market sections plus we expect a large turn-out in the Outdoor Flea Market.

Want to learn something new? This year's event has over 80 hours of program material to choose from. Many of the programs scheduled for Saturday, June 19, 2004 are new to Ham-Com.

Take a close look at the list below and see why Ham-Com is one of the most exciting Amateur Radio events in the country.

AMSAT -

Introduction to Amateur Radio Satellites

Project ECHO: Our Next Satellite and Beyond

ARRL Education -

Using "Big Project" Materials In A Home School Environment (NEW)

Using "Big Project" Materials In Club Sponsored Workshops (NEW)

Using "Big Project" Materials In Schools (NEW)

Mars Lander Presentation (NEW)

ARRL NTX Section -

President's Forum

TX Dept of Health & Emcomm Representatives Exchange (NEW)

ARES Forum

Emcomm Appointee Meeting (NEW)

ARRL West Gulf Division - Convention and Forum

Boy Scouts of America - One Day Radio Merit Badge Program (NEW)

KTVT CBS 11 - Weather Situation Awareness for Kids (NEW)

Lone Star DX Society - Luncheon speaker and workshops to be announced SOON!

MARS Forum

National Weather Service -

Basic SKYWARN Class

Advanced SKYWARN (NEW)

Severe WX Operations Overview (NEW)

Anticipating Severe WX: SPC and NWS Products (NEW)

Radar Interpretation for Net Controllers (NEW)

Storm Ready Partner Program (NEW)

North TX QRP Society - Speakers and workshops to be announced SOON!

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North TX APRS Workshop -
 APRS and the Internet (NEW)
 APRS in North Texas (NEW)
 Configuring AGWPE (NEW)
 Weather tracking with APRS (NEW)
 Intro to APRS+SA (NEW)
 APRS for Public Service Events (NEW)
 Intro to Pocket APRS (NEW)
 Maps for APRS (NEW)
 Intro to GPS (NEW)
 Advanced Topics in APRS (NEW)
 Intro to APRS (NEW)
 APRS for Public Service Events (NEW)
 Intro to UI-View (NEW)
 Kenwood TM-D700 & TH-D7 (NEW)
 Tracker Show and Tell (NEW)
 Advanced UI-View (NEW)
 Intro to APRS Point (NEW)
 APRS Tracker Examples (NEW)

North TX Microwave Society -
 HSMM - Basic IP Networking (NEW)
 Intro to HSMM Infrastructure (NEW)
 Operating VHF and up with CC&Rs (NEW)
 Using 2 meter SSB for Regional Communications (NEW)
 What Causes Band Openings on VHF and UP. Causes and Indicators (NEW)
 HSMM: Securing Wireless Networks On A Budget (NEW)
 Building the W7PUA DSP-based 2 Meter Radio (NEW)
 Sources for Amateur Microwave (NEW)
 Microwaves Are Easy (NEW)
 HSMM: Malicious Code and Wireless Networks (NEW)
 HSMM Equipment Show and Tell (NEW)
 802.1x Microwave Link Design (NEW)
 HSMM for Public Service Events (NEW)
 HSMM: Decrypting 802.11 Complexities (NEW)
 Using 802.11x Gear for HSMM (NEW)

Texas VHF FM Society Forum

Tower Safety de Dick Weber K5IU (NEW)

Travis Co ARES -
 Applying for State and Federal Grants (NEW)
 Austin ARCHES Hospital Communication System (NEW)

Coast Guard Auxiliary - Speaker and video presentation (NEW)

W5YI On-site VE Testing

West Mountain Radio -
 Keyboard Modes (NEW)
 Power Pole connector workshop (NEW)

We look forward to seeing you at Ham-Com 2004.

73

Barry A. Goldblatt, WA5KXX
 Chairman, Ham-Com 2004



Greetings One and All...

It has been a while since I've seen any of the club members. My daily schedule and the untimely passing of my father last month has kept me pretty busy (February 20th-2004), but "thanks" for your prayers on behalf of my family and my personal continued strength. My last article was a "Club Thank You", for stepping up to the plate and taking on the challenge of emergency communications for the Dallas County Department of Health and Human Services Bio-Terrorism project, as well as their amateur radio communications project aptly named the **Dallas County Center For Emergency Amateur Radio Operations**, (DCCEARO from this point on in the article) which strictly deals with emergency communications in the event of a bio-hazard, bio-terrorist or any other manmade or natural threat that involves Dallas Counties health department.

2004 has now put us into Phase II of this project, involving credentialing all of the ham operators who are involved in this project, technical training as "First Responders" and some health department field training.

Zachary Thompson, now Director of Dallas County Health Department, applauds your efforts and congratulates you on coming forward and volunteering this past year. He looks forward to continuing the partnership that you have undertaken. He has also asked that a few members take part in the "table-top" drill scheduled for **April 30th, 2004 at 1:00 pm** at the Dallas County Health and Human Services building on Stemmons Freeway. (Take the Motor Street exit and continue on the service road and go back underneath the expressway; the building sits on the right next to the Dallas County Appraisal Building) Anyone wishing to participate in these exercises please notify me before the event at 214-403-6929 (mobile). Also Lee Arning Jr. and Paul Shirley, the Senior Planners for Dallas Counties Bio-Terrorism Project will be at the **Tuesday April 20th, 2004** Club meeting to meet and greet everyone.

Once again thanks to everyone who has put forth an extraordinary effort in assisting with this project over the last few months. I look forward to serving as the SWDCARC club liaison as well as Dallas County's amateur radio communications liaison. Also if you would like to contact me via e-mail it is wd5akm@sbcglobal.net

Until next time 73's, and I'll see you on the radio...

Aaron McCarthy WD5AKM

RICK'S RANDOM RANTINGS - HAM RADIO HEROES



This article is an extension of a net we had recently. As many of you who participate in our weekly Monday night 2-meter net know, we often ask a question to provoke some "conversation" on the net rather than the typical "just checking in for the numbers" response.

The question asked during a Monday night in March was: Who is your ham radio hero?"

Some named Hiram Percy Maxim, W1AW, aka "The Old Man" as their ham radio hero, and if there ever was one, he should be at or near the top of the list. Certainly, HPM set the tone for the gentlemanly conduct and quest for technical growth through experimentation that still pervades the hobby today.

Others named their Elmers and for good reason. The backbone of this hobby is made up of many fine amateurs who gladly give of their time and knowledge to aid others. I don't think there's a ham out there that discovered or invented something that couldn't wait to show it (and perhaps even brag a little!!!) to someone else. Along similar lines, others listed those hams that had taught classes or conducted volunteer examination sessions when they received their licenses.

A few listed those ham radio "Minutemen" who respond to the call to serve the community. Whether it's a RACES net to report severe weather or to report a downed rider while supporting a bicycle race, hams who provide communications when the chips are down continue a rich tradition that all of us are justly proud of.

Several named handicapped hams as their heroes, and I can certainly see why. Ham radio has much to offer people in coping with a wide variety of physical challenges. I vividly recall a ham friend of my father's who was a quadriplegic since his teenage years following a diving accident, but you never knew otherwise on the radio. I had the privilege of meeting him about 30 years ago and left impressed and amazed by the grace and class of this wonderful man who overcame much.

Noted radio personality Paul Harvey recently had this to say about ham radio operators: "For all of our sophisticated technology, in any *real* disaster, our country still relies heavily on its hams--Amateur Radio hobbyists," Harvey said in the approximately one-minute spot. Among citizen volunteers in the US, he concluded, there are "none more unsung and certainly none more unpaid, than the hams--standing by around the clock." (ARRL Letter, Vol 23, No 12, March 2004) He made similar comments last year: "America's quiet warriors are the legion of ham radio operators, 700,000 of them, who are always at ready for backup duty in emergencies--amateur, unpaid, uncelebrated, civilian radio operators, during and after floods and fires and tornadoes," Harvey said. "After the 9/11 attacks, hams were indispensable in reuniting friends and families. Most recently it was they who expedited the search for debris after the disaster to the space shuttle Columbia, and right now, at this moment, they are involved in homeland security to a greater degree than you would want me to make public." (ARRL Letter, Vol 22, No 12, March 2003)

So, there you are: We're ALL heroes. Anyone who serves their club is a hero. Anyone who provides communications during an emergency is a hero. Anyone who gives license exams is a hero. Anyone who experiments and develops new technology or techniques is a hero. Anyone who inspires another to join the hobby is a hero. Anyone who organizes special events is a hero. Unsung, unpaid, overworked, but loving every minute of it!!!

Take a bow..... 73 de Rick/KJ5UY

CONFESSIONS OF A VOLUNTEER EXAMINER



By Dave Tucker KC5CPO

There is nothing more satisfying in life than teaching a skill or hobby to someone then seeing the fruits of your labor all in one day. On Sunday, March 28th I got that opportunity. It had been awhile since I had taught a Technician Class, so I decided it was about time to do it again. Around January, I started to get the wheels in motion. I started by picking a few alternate dates, then we started contact-

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ing various youth groups in the Johnson County area. As we were making the calls, I quickly came to the realization that if I taught this thing over a period of several days or weeks, we would run into scheduling conflicts with over half of the class. After much thought and consideration, it was determined that the best thing to do would be to teach the class and have the test all in one day!

I ordered 15 of Gordon West books from W5YI and got every one of them by the first of March. I encouraged every student to read through the book at least twice before the class so that whatever we discuss in the class will be either review or answers to questions they may have.

At last the day came... I think I was probably more anxious than most of my students. We were going to start at 9:00 am and run until 4:00 pm with a short lunch at noon and the test at 5:00 pm. By 8:30 I had 12 sets of eyes looking at me with anticipation, waiting for the education process to begin. Nine of the 12 students were under the age of 18! I structured the class to where I taught from a PowerPoint presentation for about 30 to 40 minutes at a time (Graciously Provided by Rick Ellis) Then we took breaks where the students could get exercise or study if they felt they needed to. By 4:00 we had covered all the material. Most everyone looked as if they had taken a mental beating and were really ready for this thing to be over. The VE Team arrived at 5:00 and we started the test. When the last test was graded, 6 students had passed. There are another 4 that were so close, we told them to study a little more and retake the test around the end of April... I am convinced that they *will* pass the second time around.

All in all the day was viewed as a success by both students and teacher and everyone is wondering when we will start code classes !!

BPL Resistant Communications



This article describes an experimental method that will prove to be BPL (**B**roadband over **P**ower **L**ines) resistant. It uses the encapsulation of data packets in avian carriers to accomplish this. This method is primarily useful in Metropolitan Area Networks but can be used in any data delivery type network or voice network. It should be noted that this is an experimental method.

Overview and Rational

Avian carriers can provide high delay, low throughput, and low altitude service. The connection topology is limited to a single point-to-point path for each carrier, used with standard carriers, but many carriers can be used without significant interference with each other, outside of early spring. This is because of the 3D bandwidth available to the carriers, in contrast to the 1D bandwidth used by IEEE802.3. The carriers have an intrinsic collision avoidance system, which increases availability. Unlike some network technologies, such as packet radio, communication is not limited to line-of-sight distance. Connection oriented service is available in some cities, usually based upon a central hub topology.

Frame Format

The data packets are printed, on a small scroll of paper, in hexadecimal, with each octet separated by white stuff and black stuff. The scroll of paper is wrapped around one leg of the avian carrier. A band of duct tape is used to secure the data packet edges. The bandwidth is limited to the leg length. The MTU is variable, and paradoxically, generally increases with increased carrier age. A typical MTU is 256 milligrams. Some data packet padding may be needed. Upon receipt, the duct tape is removed and the paper copy of the data packet is optically scanned into an electronically transmittable form.

Data Delivery

Multiple types of service can be provided with a prioritized pecking order. An additional property is built-in worm detection and eradication. Because the data packet only guarantees best effort delivery, loss of a carrier can be tolerated. With time, the carriers are self-regenerating. Storms can cause some data loss. There is persistent delivery retry, until the carrier drops. Audit trails are automatically generated, and can often be found on logs and cable trays.

Security Considerations

Security is not generally a problem in normal operation, but special measures must be taken (such as data encryption) when avian carriers are used in a tactical environment.

Future Enhancements

With the proper seed money, this method of data transmission can be enhanced but it will rely mostly upon the user community for any improvements.

MEETING MINUTES

Board Meeting April 6th

Welcome and Introduction of Guests attending was Floyd Rodgers (KC5QBC), Jessica Huovinen (KD5SXF), Johnny Roberson (KJ5LB), Danny Cromaz (W5WB), Adam Adkins (KM5N), Aaron McCarthy (WD5AKM), and Rebecca Ellis (KC5FHG) Previous meeting minutes were approved as published.

Financial Report was e-mailed to the board and Neal provided a revised update of the March report showing an ending balance total of \$3300.45

Committee Reports

Repeaters - Working great

VE Testing for the following month will be set up through Rick Ellis (KJ5UY). Anyone wanting to be tested contact Rick via e-mail or phone. Rick will be starting technician classes on July 10th, 17th and 24th from 12 pm-3 pm, with the option of testing after the last session. This will be at the same church where Rick's previous classes have been held.

Net Reports - For Monday, April 05, 2004 Bernie McPartland (KC5MQC) reported 15 check-ins.

New **Membership** information packets were turned over to Neal (W9NDP) from Danny (W5WB) Danny to Neal . Danny handed out a new roster of members. The club will be sending e-mails to those members which have not been present or dropped off the roster this year to attempt to reclaim them. Effective the next year all members will be required to fill out an application, so we may update information on addresses, phone numbers, and e-mail addressees.

County Bio-Terrorism Program Aaron announced on April 30th, there will be a Table Top Drill with the Health & Human Services Department for the County at 1:00PM with Lee Arnie, Paul Shirley who are Seniors Planners for Dallas County. Zachary Thompson will also attending who is Director over this department. Paul Dryer (KD5IVP) and Aaron McCarthy (WD5AKM) are planning on attending and setting up the portable station which the club has set up. Anyone wanting to attend, please get with Paul or Aaron before the 30th. This will be a demonstration to show the county what we are cable of doing as a club and hopefully get more equipment to help in this project.

Special Events Group will be meeting at the monthly club meeting to discuss upcoming events, budgets and plan an` six month calendar of social events for the club. One of the upcoming events is Ham-Com which we will have a tailgate party, June 18-19th, We will have two tables set up at Ham-Com this year is anyone is interested, and of course special planning for Field Day on June 27th , which Bernie will be liaison and Todd the alternate.

Website is great and working well for everyone.

Special Interest Groups - None to report this month.

Old Business none.

New Business; The club to reimburse Danny for the two tables reserved at Ham-Com for a club sales and various other activities we may need them for.

The Bi-Law Committee will be announcing a meeting in the near future to review the previous rules and regulations of the club.

Presentation for the month of April will be presented by Russ Thompson (KX5G) Antenna's 101. This is Elmering Series #1, the first of many to come. These programs will introduce concepts and help new radio operators and well as refresh some things that may have been forgotten by others. The month of May will be Series #2 and Rick Ellis will present Soldering 101 as the program.

Motion to adjourn by Rick Ellis and Teresa Rodgers seconded the motion.

Submitted by Teresa Rodgers (KD5UHI) Club Secretary

General Membership Meeting March 16th

The March 16, 2004 General Membership meeting was called to order by President Paul Dryer KD5IVP at 6:32 pm at the Windsor Park Baptist Church in Desoto. No guests were present at this meeting. Rick Ellis KJ5UY gave the invocation.

The previous minutes were approved as posted in the Groundwire.

FINANCIAL REPORT: Neal Palmquist W9NDP gave the financial report including balances in the general fund and the repeater fund. Paul Dryer read the letter from Ted Black W0TSX who recently completed the audit of the 2003 books advising that all entries were accurate and the audit was completed 03/01/04.

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COMMITTEE REPORTS:

Repeaters-Danny Cromaz W5WB reported that as of 03/15/04 the repeater has a “K” in CW as the courtesy tone. Hopefully, this new courtesy tone will help people recognize and remember to leave space between conversations. Plans are in the works to change the voice for the meeting and Monday night net announcements. Johnny Roberson-KJ5LB reported that with the new controller we should soon be able to access a chip for pre-recorded announcements as the club deems fit. Danny Boyer is working out the details.

VE testing-Paul Dryer-KD5IVP reported 2 tested and 2 passed. Ted Black upgraded to extra and Rachael Palsky is awaiting her call for her new technician license.

NET Reports: Paul Dryer proposed that the ladies consider a “Ladies Net”. It would be innovative and encourages all the ladies to give it some serious thought.

Membership: Neal Palmquist W9NDP welcomed Bill Ellis, N5TXN as our newest member.

Special Events-Rebecca Ellis KC5FHG reported that the Easter Egg Hunt/Fox Hunt/Kite Antenna/Pot Luck Dinner would be a Valley Ridge Park in Cedar Hill on 03/27/04. The Kite Antenna will begin around noon. At 3PM the Easter Egg Hunt will be first, followed by the Pot Luck Dinner, the Fox Hunt will follow. Children of all ages are encouraged to attend including grandchildren and neighbors. Rebecca also asked and received members for the special events committee. The volunteers include Rebecca Ellis, Teresa Rodgers, Floyd Rodgers, Laura Baker, Don Hickey, and Rachael Palsky.

Ben Barber K5NEB requested participation in the Scout Show on 05/08/04 at Market Hall in the Parking Lot. He would like to set up 2 stations working between the hours of 9AM to 3PM.

Website-Danny Cromaz-W5WB advised that he has had no complaints. Future plans include an Elmer page and either a calendar of events or events listed on the first page. A discussion was held concerning the website expenses. The membership agreed to continue reimbursement of quarterly expenses to Danny Cromaz.

OLD BUSINESS:

Thanks to all the help with the Ben Woodall-W5MBO station and getting him back on the air. Special thanks to Ed Jones-K5ZPC for providing a new tri-bander antenna and feed line.

NEW BUSINESS:

Paul Dryer welcomed the new board members.

Bylaw review committee-Danny Cromaz, Rick Ellis, and Teresa Rodgers

Materials committee-Bernie McPartland, Floyd Rodgers, Todd Houvinen, & Johnny Roberson

Repeater Committee-Paul Dryer, Danny Cromaz, Rick Ellis, Johnny Roberson

Membership-Neal Palmquist.

Programs-Rick Ellis asked for volunteers to help with the programs for this year. He would like to see some basic programs and will be calling this his “Elmering Series”. Anyone wishing to present a program and or clinic on any basic topic is welcome.

Some items one might consider is soldering; PL259 connectors, repeater usage and manners. If you can help, contact Rick Ellis. It was announced that the board approved an appreciation gift certificate for Danny Boyer.

Johnny Roberson-KJ5LB presented the program on Automotive Radio Installation. This topic concerned today’s vehicles and their sophisticated electrical systems.

The motion to adjourn was made by Floyd Rodgers and seconded by Johnny Roberson at 7:52PM

Respectfully submitted by:

Teresa Rodgers-KD5UHI

Secretary

FOR SALE

- Kenwood TS-50 HF transceiver..... \$700
 - AT-50 Antenna Tuner
 - matching mobile mounting brackets
- Alinco DX-70 HF+6m transceiver \$450
- Kenwood TS-820S HF Transceiver \$275
- Uniden 2600 10-meter all mode Transceiver ... \$90

- Diamond 2m/70 cm mobile antenna \$45
- Diamond 6m mobile antenna \$45
(above as set...\$80)
- Cushcraft R-7 10-40 Meter antenna \$200

- Cushcraft R-7 10-40 Meter antenna \$200
- Cushcraft 2m/70 cm Beam antenna \$80
- Various Hustler HF resonators \$10 ea

Contact Rick Ellis / KJ5UY at KJ5UY@arrl.net for details

