

ALL EARS

www.earsclub.org

Official Newsletter of the Escondido Amateur Radio Society - N6WB

August 2005

GENERAL MEETINGS

EARS meets at 7:30 p.m. on the second Thursday of each month at the Salvation Army building at 1303 Las Villas Way, in Escondido. Come early and chat!

Saturday, August 20th **EARS Annual Picnic**

The annual picnic will once again take place at Rod McLeod Park, starting at 11 a.m. EARS provides the sodas, burgers, dogs and condiments. You bring a favorite side dish (if you wish), your family, chairs, sun screen, T-Hunting equipment, and your appetite. Talk in on 146.88

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ALL EARS

The official bulletin of the
Escondido Amateur Radio Society

An e-mail subscription to All Ears is FREE! You don't need to be a member. Just drop a note to:

John Musselman, WB6UHF, Editor
wb6uhf@arrl.net

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The deadline to submit material for the bulletin is by the previous month's Board meeting.

EVENT CALENDAR

Aug 20	EARS Monthly Breakfast, 8:30 a.m.
Aug 20	EARS Annual Picnic
Aug 23	EARS Board Meeting 7 p.m. at Sam's
Aug 27	VE Testing, 9 a.m.
Sept 8	EARS Monthly Meeting 7:30 p.m.
Sept 9-11	SW Division Convention, Riverside
Sept 17	EARS Monthly Breakfast, 8:30 a.m.
Sept 24	VE Testing, 9 a.m.
Sept 27	EARS Board Meeting 7 p.m.



A scene from last year's EARS picnic at Rod McLeod Park. John, W9EN, and Sam, N6SD, watch while Danny, AE6MB, gets ready for the T-Hunt.
photo courtesy of Nick, KK6TV

WHAT'S NEW AT earsclub.org

There are lots of new items on the EARS website. If you haven't been lately, here's what you're missing:

- ➡ A map to Rod McLeod Park.
- ➡ Information on this year's midnight madness.
- ➡ This year's Field Day pictures.
- ➡ Links to news, downloads, more...

Check out this and more now at www.earsclub.org!

PRESIDENT'S CORNER

by John, W9EN

Last month, I mentioned my Hi-Q purchase decision. Well, the 4/80 "Tune-A-Dipole" (TAD) finally arrived; I've been spending every spare moment of free time discovering its performance potential when mounted on an eight-foot tripod in my back yard.

Unfortunately, the sum of all those spare free moments still falls short of that required for an accurate assessment. (Ever notice how those spare moments are rarely free?). However, I did get to tune around the bands at various times of the day and did get to work a few CW stations.

Surprisingly, I was able to hear several DX stations on those days when others had reported that the band was "dead" due to solar activity. Except for those few stations though, the bands were pretty quiet; so, interference from tuning up certainly wasn't an issue. With the TAD only eight feet off the ground, I was able to obtain a perfect 50 ohm match on all bands 80 through 17 meters. Since I was using 102" whips on the ends of the 4/80 coils, I could not get a good match on 15, 12 or 10 meters. For those bands, I need to obtain shorter whips.

Synchronization of the 12V motors was not as much of an issue as I had originally thought. For those not familiar with the Hi-Q Remotely Tunable antennas, a small precision 12V motor operates the wiper in the loading coil. When using two of these kind of antennas in a dipole configuration, one would think that keeping the wiper position of the two loading coils synchronized would be a nightmare; not so.

Since the motors are identical, their movement is virtually identical. I had to run the wipers from one end to the other 3 times before I noticed they were off from each other by just less than 1 turn. A hint from the shack is that the match is no longer perfect (but close). Fortunately, the coil coverings are "see-through" so it's easy to count the turns to put them back in sync. I use quick connectors on each of the motors so it's easy to disconnect just one of them and move the other wiper slightly to match. Charlie, W6HIQ, is having someone work on a controller which will count the turns as measured from an optional reed switch (20 turns of the motor per 1 turn on the coil); the controller will keep the two halves of the dipole in synch automatically.

I've tried to keep everything extremely portable, using a heavy duty musicians tripod, quick disconnects on the whips and giant quick disconnects on each half of the dipole – The perfect setup for emergency communications (which is, of course, is

the main purpose for spending all this money ... right Dirk!). Now, if I could only keep generators running.

See you all at the picnic on Saturday, August 20th at Rod McLeod Park!

73, John

EARS Club Officers for 2005

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AWARDS AND QSLING - PART XIV

by Harry Hodges, W6YOO

We have talked alot about QSLing, what is required on your card and what you hope will be on the other person's so as to qualify you for an award. All well and good; however, there are some folks who collect QSL cards just to be collecting them. The Colvins, Lloyd and Iris, both now Silent Keys, who operated from over a hundred DXCC "entities", collected over a million cards as they traveled under the auspices of the Yasme Foundation.

One would think that something as trivial as collecting QSL cards would never merit the publishing of a book about it, but there is one. Really! The title of this book is "Hello World: A life in Ham Radio" by Danny Gregory and Paul Sahre. It is the story of Jerry Powell, WO2JW (now a SK) and his seventy some years in Ham Radio. More than that, it is a story of his QSL collection and the underlying story of each of the cards in that collection. One probably learns more about the history and mystery of Amateur Radio by reading this book than any other publication I can think of. The book was published in 2003 by the Princeton Architectural Press and can be ordered through most bookstores or from Amazon or Half.com. I recommend it highly and I believe you will find it as fascinating as I did.

As some of you might remember, one of the award programs I am involved in is Islands on the Air or IOTA. Managed by the Radio Society of Great Britain, it involves the making of contacts with other Amateur Radio stations on qualifying islands scattered around the globe. There are some twelve hundred islands or island groups that qualify in the IOTA program. Recently, the last European island to

WEBSITE CHANGES

by Nick, KK6TV

Well, I performed a system upgrade on the EARS website and I guess you could say Murphy struck. For some unknown reason, the upgrade refused to read all of the user passwords as well as the admin password. After spending a few hours trying to resolve the issue, I decided to just start from scratch. So, with time, we will have things back as they were! I think you should see some performance improvements. There are also some new PM modules. More is sure to come!!!

Let me know what you think of the site or better yet, post a comment!!!

be activated came on the air and after the required number of contacts received an IOTA number. I must confess that I heard midwest stations calling them and exchanging signal reports but I was unable to hear them. The propagation gods were not smiling on me that day.

The expedition to what is known as Rockall Island was not an easy one. Seas were running high with twelve meter swells adjacent to what is essentially a large "conehead" shaped rock sticking out of the ocean many, many miles from the coast of Great Britain. Jumping from the Zodiac to the rock and scaling like a rock climber to a point where a station could be set up was like taking your life in your own hands. Because of lousy weather (very cold, windy, rainy, and high seas and a storm approaching) our intrepid Dxers could only stay a few hours and they made only a few hundred contacts but they did it!

To see the island, their QSL card, and to learn more about this wacky world of IOTA go to: www.rockallisland.co.uk. To learn more about Rockall Island, just type that name into your search engine and browse.

Harry, W6YOO

FOR SALE from Curt, KF6VHA

Please make offers on the following:

2ea-2meter Radio Shack 1/2watt hand helds-\$25pr
1ea-2meter Radio Shack 25watt mobile-\$45
1ea-10meter Radio Shack all mode mobile 20w-\$65
1ea-Alinco 6m FM mobile 20w DR-M06 mobile-\$110
1ea-Alinco 2m-70cm mobile DR605-\$95
1ea-Diamond base ant-V2000-(6-2-70cm)-\$65

Curt Lawrence
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The Escondido Amateur Radio Society

is a non-profit organization of educational and social benefit to Amateur Radio operators and others interested in Amateur Radio in the Escondido area.

Dues are very affordable. Come join the fun! See the application form on Page 6.

AMATEUR-CIVILIAN COMMUNICATION

by Kurt Barnhart, N6MD

From time to time, especially during public events, emergencies and disasters, it's useful for ham radio operators to communicate with unlicensed civilians over the air. During the 70's and 80's (although we hated to admit it) some of us did this on 11 meters. Today, the 27 MHz CB craze is long gone and there are now better ways to stay in touch with non-hams.

This article is the first in a series where we'll discuss how amateurs can communicate over the radio waves with friends, family members, co-workers and neighbors who don't have the time or temperament to study theory and/or code for an amateur radio Technician, General or Extra class license. The following is an introduction to the topics we'll discuss in more detail in the future. Please send your comments and questions about these subjects to N6MD@arrl.net and we'll respond to you in a future article.

FRS (Family Radio Service) -- Many people don't realize that those little \$20 radios that you buy in bubble packs at Costco, Target, Walmart and elsewhere are actually part of the Citizens Band Radio Services, authorized under FCC Parts 95.191 through 95.194. FRS was created in 1996 and operates on 14 prescribed UHF channels between 462.5625 MHz and 467.7125 MHz with an ERP of one-half watt or less using frequency modulation (F3E with filtering),

FRS is intended for use by family, friends and associates to communicate within neighborhoods and on group outings over a range of less than a mile. No license is required to transmit a half watt or less on the FRS channels 1 through 14 (unless you are a representative of a foreign government). FRS radios may not be connected to external antennas of any kind, power amplifiers or other apparatus or the public switched telephone network. Repeaters are not permitted on FRS channels. The history of FRS is an interesting story that we'll share in a later article.

GMRS (General Mobile Radio Service) -- Starting about two years ago, the FRS bubble pack radios on the shelves in the warehouse clubs and discount stores were slowly replaced by combination FRS/GMRS radios with more channels and a little more power on channels 1 through 7 and 15 through 22 (up to five watts permitted on an HT). What most buyers didn't realize is that if they used any of the channels above channel 14, they were required to pay the FCC an \$80 fee for a five-year license, so there are now literally millions of people operating

unlicensed GMRS radios in violation of FCC rules. This development was very unpopular with the GMRS community that had been conducting licensed operations for many years, because many foul-mouthed adolescents now began using GMRS frequencies without a license.

Authorized under FCC Part 95.1 through 95.181, GMRS permits the use of duplex operation and repeaters on eight specific channel pairs. It also allows external gain antennas (mobile or base) and a power output of up to 50 watts in a mobile or base station on the eight GMRS-only channels on 462.550 MHz through 462.725 (channels 15-22 on most combo radios). Licensed GMRS operators may also transmit 5 watts on the shared FRS/GMRS channels (1 through 7 on most FRS and combo radios).

Essentially, GMRS FM phone works and propagates just like FM phone on the 70cm (440MHz) amateur band, but generally has more restrictions than amateur radio, except that family business communications are permitted on GMRS. If you own a 70cm (UHF) ham repeater, it's often possible to retune it to work on GMRS (UHF) and vice versa.

The only thing required of a US citizen to get a GMRS license is the ability to pay \$80 (no theory and no code). One GMRS license covers all members of an immediate family including spouse, kids, grandparents, in-laws, aunts, uncles, nephews and nieces — the joke is that one small mountain community could share a single GMRS license.

The cheap bubble pack FRS/GMRS combo radios don't operate duplex and cannot be used with repeaters, but slightly more expensive commercial-grade HTs (\$90 to \$200) from ICOM, Motorola Midland and other companies do operate duplex with GMRS repeaters. Some amateurs have been known to open up their 70cm radios to transmit on GMRS, but this is clearly a violation of FCC rules. GMRS is one of the very best ways to communicate with non-ham friends and family members over distances up to 50 miles simplex and 150 miles with repeater assist.

One GMRS repeater on Palomar Mountain covers most of San Diego County, and another high-elevation GMRS repeater near the LA Basin covers most of coastal Southern California from Ensenada to Ventura and east to Julian and Big Bear. However, GMRS repeaters are usually closed repeaters and many require a financial contribution to the owner. There are many more interesting facts about GMRS and FRS that we'll share in the future.

MURS (Multi-Use Radio Service) -- This is an unlicensed VHF FM Radio Service authorized by FCC Part 95 using five FCC prescribed channels between 151.820 MHz and 154.600 MHz that were previously assigned to the FCC's Business Radio Service. Announced by the FCC in 2000, MURS is now available for personal and family communications and unlicensed business communications are also permitted.

MURS VHF radios can operate with as much as two watts transmitter output power and may be connected to external gain antennas for additional range. No station identification is required at any time and you can talk to your family members, friends, neighbors or co-workers via FM phone without an FCC license. This makes MURS an ideal way to communicate with non-hams over moderate distances.

In theory, you could work 100 miles or more on MURS in simplex mode line-of-sight using high-gain directional VHF antennas. Whatever can be done with 2 watts FM phone on 2 meters simplex can usually also be done on MURS without a license. VHF signals on MURS propagate just like signals on the 2 meter VHF band, so the effective range of MURS is better than FRS or GMRS on UHF. Some amateurs have been known to open up their 2 meter radios to transmit on MURS frequencies, but this is clearly a violation of FCC rules. MURS has some other interesting applications that we will discuss at a later time.

Part 15 Low Power Radio (AM Broadcast Band) — FCC Part 15 allows anyone to operate a low-power AM radio transmitter in the broadcast band between 520 KHz and 1710 KHz with a power output of 100 mw and an antenna of less than 10 feet in length. This means that a neighborhood CERT team or ham radio club could broadcast community or emergency messages in a small town or neighborhood to people listening via AM car radios, portables or tabletop radios.

The range of a Part 15 station is very limited, communications are usually one-way only, and this arrangement is more useful when combined with one of the previously described services. For example: cross-band repeating amateur radio nets or GMRS emergency messages on the AM broadcast band for people in your community who don't have amateur or GMRS-capable receivers.

Perhaps the best use of Part 15 radios is to communicate during events or emergencies with civilians in their cars stopped or moving slowly along a highway or entering a parking lot at a fair, rodeo or other public gathering. The potential uses of this service

are also very interesting, so stay tuned for a future Part 15 article.

Business Radio Group License — Some community service radio teams have applied for and received FCC licenses permitting them to use frequencies normally reserved for UHF business band communications and operate a wide-area repeater. This is not always the best solution because there are some extra licensing costs and single-purpose commercial radios may have to be purchased. However, this does enable civilians who do not possess a ham radio license or any other kind of FCC license to operate moderate-range two-way radios using the group license privileges issued to the community organization or radio club.

The Internet — The future potential for IP (Internet protocol) voice communications is as broad as one's imagination will allow. Other than email, which everyone now seems to have, AOL, MSN, Yahoo and other companies offer messaging via text, voice and video. These and other Web conferencing and group discussion technologies make it possible to conduct two-way, three-way and many-way voice and video conferences for neighborhood planning meetings or cross-state and cross-country volunteer organizations.

It's possible to set up Web-based audio conferences similar to Echolink (www.echolink.org) with non-ham, non-licensed participants (Echolink requires a Technician-class amateur radio license or higher). There's even a company connecting two-way radios to the Internet and allowing people to talk across the country from living room to living room without an FCC license.

Summary - It is not essential for civilian public service volunteers, CERT team members and other emergency and disaster workers to study for a test and earn a ham license to communicate over a two-way radio. FRS, GMRS, MURS, Business Band and the Internet enable people to stay in touch electronically for all kinds of events and reasons.

Please feel free to send your questions, comments, errors and omissions to N6MD@arrl.net and we'll respond to you in a future article. This article (No. 001) along with related Web links and future installments may also be accessed at

www.expresswire.com/radio001

73,

Kurt, N6MD

JULY BOARD MEETING SUMMARY

information provided by Sam, N6SD

1. Marvin, WB6PKK, reported that the Echolink is operational again. He will pick a date to check out the vertical antenna to see if it will work with our repeater and e-mail the board for assistance.
2. Harry, W6YOO, reported the ARES breakfast and training for the 13th of August will be to prepare operators for the state wide SET simulated emergency test to be held on the 20th of August.
3. Sam, N6SD, reported that SDG&E will begin their BPL testing during the month of August. Harry, W6YOO, suggested everyone take readings of ambient noise levels on all bands several times a day and keep a log.
4. Jo, KB6NMK, reported that John, WB6UHF is looking for a place to hold a license class.
5. John, W9EN, will outline the duties of the Membership Chairman before recruiting a replacement.
6. Dirk, N6SUN, will organize the picnic. We need

to bring a grill. \$200 was authorized for purchasing picnic supplies. Sam, N6SD volunteered to show up early to secure a site.

7. Harry, W6YOO, met with representatives of the C of C and the Street Faire organizers and was successful in getting the club invited back to participate in the two events held each year with the understanding that club members will not have use of the golf carts. They are for official business only. The control center will be outside in a parking lot so we need to provide our own shelter and tables and chairs. It was suggested that we request the use of a PARC repeater to facilitate communications. We will need two shifts to man the following positions; 1 operator at each intersection, 1 or 2 roving operators, 1 operator in the police van, 1 operator at the control center

8. Marvin, WB6PKK, suggested that we keep notes on each activity and compile a notebook to help in organizing club events such as the picnic. It was also suggested that we expand the notebook to include the duties of each of the Chairmanship positions. Sam, N6SD volunteered to gather and organize the information.

Escondido Amateur Radio Society Membership Application and Renewal Form

Name _____

Call _____ Class _____

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Phone No _____ Date of Birth _____

E-mail Address _____

Date Licensed _____ Expires _____

Member of the following organizations?

ARES _____ ARRL _____

EVAC _____ MARS _____

Red Flag _____

Interests _____

Other _____

Membership Rates

One year \$13.00
 Family membership \$3.00
 Lifetime membership \$130.00
 Lifetime membership (family) \$20.00

Mail this form with payment to EARS, PO Box 3243, Escondido, CA 92033, or give it to the treasurer or any other club officer at a regular club meeting.

Membership is from January 1 to December 31. After July 1, membership to the end of the year is ½ the annual fee. Special rates apply for family membership for each additional licensed amateur radio operator in your immediate family and for lifetime membership.

For membership confirmation, include a self-addressed stamped envelope with this form.

GENERAL INFORMATION

CLUB REPEATERS - EARS operates two repeaters in Escondido. The two meter EARS repeater is on 146.88 MHz with a PL of 107.2. The 440 EARS repeater is on 449.240 MHz with a PL of 127.3. Both repeaters are local in nature and primarily serve the immediate Escondido area.

ECHO-LINK - The two meter repeater is tied to the Echo-Link system as node 2846. See the Club website, www.earsclub.org, for information on Echo-Link. There is also a listing of local Echo-Link codes in the members section of the website.

EARS WEB PAGE - EARS is on the Internet. You can read about upcoming activities, get links to other ham radio sites, read back issues of All Ears, or update your call or address. The site is updated regularly. Check it out at www.earsclub.org.

EARS REFLECTOR – is a free service that keeps members up-to-date via e-mail. To get on the reflector, go to the EARS website and click on Yahoo Groups in the site map. If you have any questions, suggestions or comments, e-mail Nick, kk6tv@arrl.net.

CLUB BADGES - Let everyone know that you are a member of EARS and avoid having them guess what your name is. See Harry, W6YOO, to obtain a badge.

CHANGE OF ADDRESS OR CALLSIGN - Please let us know if you change your address, callsign, telephone, license class, e-mail, etc. We want to keep our records up to date. Contact Marvin, WB6PKK, the keeper of the club database, or any club officer.

ARRL LETTER - The ARRL Letter, a weekly e-mailing of Amateur Radio related news, is available to ARRL members free of charge directly from ARRL HQ. To subscribe for e-mail delivery, ARRL members first must register on the Members Only Website, www.arrl.org/members. The ARRL Letter is also available to all, free of charge, at www.arrl.org/arrlletter, where it is posted each Friday after it is distributed via e-mail.

SANDARC - EARS is a member of the San Diego Amateur Radio Council, an association of San Diego area Amateur Radio clubs. Among other things, SANDARC runs the local Volunteer Examiner program (SANDARC-VEC), and manages the ARRL Southwestern Division Convention when held in San Diego every fourth year. See www.qsl.net/n6oph.

MONTHLY BREAKFAST - EARS members meet socially the third Saturday of each month at the Westside Cafe, on West Ninth Ave. at the corner of Redwood St. at 8:30 a.m.

SUNDAY EVENING NET is every Sunday at 8 p.m. local time. You can get the latest information on club activities there. Tune in to the club repeater at 146.88 MHz, negative offset and PL of 107.2, check in and say hi.

MONTHLY ARES MEETING – The San Diego Section ARES meets on the second Saturday of each month at 8:00 a.m. at Giovanni's Restaurant, southwest corner of Clairmont Mesa Blvd and Ruffin Road. Order your breakfast at the counter and it will be brought to your table in the meeting area. The monthly ARES training session follows the breakfast meeting and takes place at the Kearney Mesa Recreation Center, 3170 Armstrong Street (near Mesa College). Training begins at 10:00 a.m. and lasts approximately one hour.

SECTION NEWS – The latest happenings around San Diego are available at www.arrl.org/sections/SDG.html, the official website of the ARRL San Diego Section.

AMATEUR RADIO LICENSE RENEWALS AND CHANGE OF ADDRESS - To renew your license or supply the FCC with a change of address, use NCVEC Form 605 (obtainable from Harry, W6YOO). Attach a photocopy of your license and mail to SANDARC VEC, PO Box 2446, La Mesa, CA 91943-2446. You must include your Social Security Number. There is no charge for this service.

HAM RADIO LICENSE PLATES - All California hams may receive their call sign on their license plate. Use DMV Form REG17A. The cost is \$21.00 and is a one-time fee.

VE TESTING - is conducted in Escondido under the auspices of SANDARC at 9 a.m. on the last Saturday of every month at Fire Station One, 310 N Quince Street. Contact Harry Hodges, W6YOO, to schedule an appointment.

MILITARY AFFILIATE RADIO SYSTEM - The US Army, the US Air Force, and the US Navy/Marine Corps Military Affiliate Radio System (MARS) are looking for a few good men/women. If you would like to get on HF regardless of license, now's the time. See Harry Hodges, W6YOO/AAR9LX for details.

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