

ALL EARS

www.earsclub.org

Official Newsletter of the Escondido Amateur Radio Society - N6WB

February 2007

GENERAL MEETINGS

EARS meets at 7:30 p.m. on the second Thursday of each month at the Salvation Army building at 1301 Las Villas Way, in Escondido. Come early and chat!

Thursday, February 14 **Overview of Wireless Data Technologies**

Presentation given by our very own Vince Sheetz, K16CFW, and covering WiFi, WiMax, Bluetooth, UWB, ZigBee... and more! (See page 5)

Thursday, March 13 **How Cel Phones Are Made**

The inside story from Steve Venner, W6TAN. Steve brings his experience as a globe-trotting cellphone quality guru straight to us.

Thursday, April 10 **EARS Annual Auction**

Mark this date and begin cleaning out those "skel-etons". Gotta make room for the new ones you'll bring home. Once again, Art McBride will preside.

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, N6EP, Editor
n6ep@arrl.net

Permission is given to copy any article contained in All Ears when not otherwise copyrighted and provided proper credit is given.

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

EVENT CALENDAR

Feb 14	EARS Monthly Meeting, 7 p.m.
Feb 16	Ears Monthly Breakfast, 8:30 a.m.
Feb 23	VE Testing, 9 a.m.
Feb 26	EARS Board Meeting, 7 p.m.
Mar 13	EARS Monthly Meeting, 7 p.m.
Mar 15	Ears Monthly Breakfast, 8:30 a.m.
Mar 25	EARS Board Meeting, 7 p.m.
Mar 29	VE Testing, 9 a.m.



The new cabinetry at the Salvation Army radio room is complete! This great operating position was designed and built by Sam, N6SD.
- photo courtesy N6SD

INSIDE THIS ISSUE

Awards and QSLing, Part XLIV - p. 3
To the Moon and Back - p. 4

PRESIDENT'S CORNER

by Steve, W6TAN, President

Hello everybody,

So – January has been and gone... and what a few weeks it's been! January's club meeting was a great success, even though we didn't have as many club members as we would have liked - those who attended said what a well organised, fun event it was. We had about 27 people in attendance, with about half of those being visitors from the Palomar club. More details & photos can be seen on the EARS website.

As for February's club meeting – as you probably know, we have arranged for Vince Sheetz to give a talk about various wireless data technologies – including WiMAX & Wi-Fi. I won't say too much more - I'll leave that to Doug, K6DAF (see page 4).

All I will say is that – yes, I know the club meeting is on Valentine's Day, but it was 'organised' at the Christmas party, and I don't think people were really paying too much attention to the date ;-). Anyway, I hope to see you all there – it should be a very interesting presentation.

Now on to a different subject...

As you are reading this edition of AIEARS, you may notice that the contributors are by-and-large the same each month. Well, I've been thinking... maybe YOU should write an article for AIEARS!

I think it would be very interesting to hear from our general membership. The article wouldn't have to be too long – just a few paragraphs about something that they've done or seen that is HAM radio related. For instance – it could be about how or why they got into amateur radio in the first place. It could be even as simple as a photograph with a few lines describing what it's about. So come on peeps... let's see those articles!

While we're on the subject of AIEARS, I had another idea for something that might be a little fun for our members... besides articles from the general membership, I thought it would be good to try and have a 'Puzzle Corner'. Some time ago, my wife - Gina (NOCALL) came up with the idea of creating a cross-word puzzle which was HAM radio based. Hopefully, by the next edition, we should have something which will test your mental prowess. I'm also in the process of devising a puzzle, but not of the crossword type. I was hoping to have it ready for this edition, but my leaky roof got the better of me (but that's another story). Watch this space...

continued on page 4

EARS Club Officers for 2008

President

Steve Venner, W6TAN, 760-737-0755
sbvenner@cox.net

Vice President

Doug Ferris, K6DAF
k6daf@yahoo.com

Secretary

Jane Hall, W6YAK
jhullsmhs@aol.com

Treasurer

Konrad Wallenda, N6UKO, 760-743-8826
n6uko@aol.com

Emergency Services Coordinator

Harry A. Hodges, W6YOO, 760-743-4212
w6yoo@amsat.org

Officers at Large*

All persons with an asterisk (*) plus:
Jo Ashley, KB6NMK, 760-741-2560
kb6nmk@amsat.org
Ron Rosson, N6XT, 760-749-1239
n6xt@sbcglobal.net

Newsletter Editor

*John Musselman, N6EP, 760-747-5303
n6ep@arrl.net

Past President

Dirk Reschly, N6SUN, 760-743-5839
darcpa@sbcglobal.net

Historian

Harry A. Hodges, W6YOO, 760-743-4212
w6yoo@cox.net

Membership

*Jeff Murdock, AE6GM, 760-730-3657
cozy765@pacbell.net

Property Manager

*Marvin Munster, W6MJM, 760-747-2223
w6mjm@amsat.org

HAM RADIO OUTLET

Open 10:00 a.m. to 5:30 p.m.
Monday through Saturday

5375 Kearny Villa Road, San Diego
560-4900 or Toll Free 1-800-854-6046

Equipment
Tech Support
Repairs
Books
HF
VHF
UHF
All Mode
Packet
GPS
Scanners
Antennas

AWARDS AND QSLING, PART XLIV

by Harry, W6YOO

There are two, count them, two DXpeditions going on right now to two very much wanted DXCC entities. Both places are hard to get to (read expensive) and would never be considered resort spots. The amenities on these two islands are somewhere between zero and none.

The first of these is Cocos Island, which belongs to Costa Rica, and the group is using TI9KK as the expedition's call sign.

The other island is Ducie Island, which is part of the Pitcairn Island group, and the team there is using VP6DX as the expedition's call sign.

Both groups will be transmitting on all bands and all modes. TI9KK will close down on or about February 14th and VP6DX will close down on or about February 28th. I am looking to work Cocos Island on 160 meters and Ducie on 30 through 160.

This brings me to my next subject which is the publication of the 2008 edition of the K1BV Directory of DX Awards which you can learn all about at www.dxawards.com. Let me state that I have no financial interest in this publication. This year's edition contains 3117 awards from 120 DX countries, the 1st edition in 1987 listed only 680 awards. Some call this the "Award Hunters Bible" and that is an apt description. Some awards are relatively easy, while others are extremely difficult to qualify for.

It seems to me that EARS used to offer an award some twenty or so years ago. If you made a QSO with ten different EARS members you could qualify for a nice certificate. What ever happened to that award? Is there anyone in the club who would like to take charge of such a program?

I am asked wherever I go: "How can I learn more about DXing and awards chasing?" There's one way that I recommend and that is to buy a copy of AC6V's publication DXing 101x and also a copy of K1BV's Directory of DX Awards. Rod's book can be purchased at HRO or direct by going to www.ac6v.com.

And, if you still have a question the answer to which you can't find in either of these two books, send me an email at w6yoo@cox.net and I'll try to find it for you.

Lastly, how does one learn about these DXpeditions and when they are on the air what frequencies they are on? Well, there are at least three FREE weekly

publications.

The 425 DX Bulletin and the Ohio Pennsylvania DX Bulletin are two. To subscribe/unsubscribe, please send your request to kf2ti@arrl.net and allow a few hours for acknowledgement.

Another is the ARRL DX Bulletin. Again these are all FREE.

When the DXpeditions come up on the air, the DX Packet Clusters light up with spots. See www.dxscape.com, <http://oh2aq.kolumbus.com/dxs>, or Telnet [ucsbdx.ece.ucsb.edu](telnet://ucsbdx.ece.ucsb.edu) 7300.

Also check out ve7cc's wonderful DX Cluster program which is also FREE.

73,

Harry, W6YOO

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.

IMPULSE ELECTRONICS

ImpulseElectronics.com

West Mountain Radio

RIRunners
RIGblasters
PWRcrimper
Power Meter
Powerpole Connectors
Power Cable
Coax Cable
Coax Connectors
Coax Adapters
Custom Cable
AGM Batteries
Battery Accessories
Fuses and Holders
Terminals and Splices

(866) 747-5277 sales@impulseelectronics.com

MasterCard VISA

RADIO SIGNALS FROM THE MOON

from John, N6EP

A few weeks ago, I was reading The ARRL Letter, the weekly e-mailing from HQ, when I came across an item about a moon-echo research project. The article asked all hams to help with this project. I checked the dates and realized it would take place in only half an hour. Since I wasn't doing anything else, I decided to participate.

The idea was thought up by HAARP, the High Frequency Active Auroral Research Project. This project is run by the Air Force Research Laboratory and the Office of Naval Research and uses a special transmitting array located in Gakona, Alaska.

Hams were asked to listen for echos from the moon of the HAARP transmitter. While I sat at the radio listening for the echo, I read the description on the internet of the HAARP transmitter. It is made up of a 15 by 12 array of steerable HF dipoles, each up 75 feet. Each dipole is fed with 20 kW. That makes a total of 3.6 megawatts, before the antenna gain of over 20 dB is taken into account. Wow!

The array is usually used to study the ionosphere. That is done by sending a carrier straight up. That level of power "charges up" the ionosphere about 1/100th as much as the sun does. The affect on the ionosphere is enough to be measured on the ground.

For the moon echo experiment, however, the antenna is aimed at the moon. The transmitter sends a carrier for two seconds and then goes off for three. The experiment was done on 6.7925 and 7.4075 MHz, above and below forty meters.

As I was reading this description and listening to the very loud transmitted signal, I suddenly started hearing the echo! Faintly at first, coming and going, peaking at about S4 or 5. It was an amazing thing to hear. It went on for the full hour of the test.

When the test was over, I e-mailed the results of what I had heard. A few days later, an acknowledgement showed up on the HAARP website thanking the hundreds of participants. Included was a calculation that the maximum signal strength that they expected you could pick up was S5. That was a pretty good match to what I heard.

Because of the short notice, I wasn't able to tip off many others about the test, but if it ever returns, I'll be right there listening - it was a blast.

For more information see www.haarp.alaska.edu.

PRESIDENT'S CORNER

by Steve, W6TAN, President

continued from page 2

I mentioned in my last 'President's corner' that I had some other ideas for activities for EARS. Well, besides the suggestions mentioned above, it occurred to me that we – as a club – only have 2 social events each year (if you exclude the club meetings, EARS breakfasts, Feld Day & the CQP etc.) These being the summer picnic & the Christmas party.

Anyway - sometime ago, at one of the said Christmas parties, Terry (K3PXX) treated us to a little magic show (if you didn't know it - Terry is a very accomplished professional magician). So we thought – wouldn't it be great if we had a few more social events throughout the year... Terry's magic show could be one of them.

Another idea that I had - was to try and get us away from our radios for a while... in that I'd like to try and arrange a few slightly more physical activities – such as hiking (Dixon Lake / Daley Ranch – has some great trails). Maybe we could incorporate a treasure hunt into the hike to make it a little more fun??? I'll try to arrange something for April, so keep your EARS open!!!

They were some of my ideas, but if any of you have any ideas for some social events as well – I would love to hear from you... After all – it's your club too!

My final words for this month are regarding the EARS Web site. You may have noticed that it's had a slight facelift. What you might not have noticed is that the EARS membership database is up-and-running! You can use your call sign as your username & password (all UPPERCASE) to log-in. Once you have accessed the membership database, you can change both your username and password – but note that they are case-sensitive. You can also access the member roster.

By default, only your name, call sign & class are displayed. You can change the information that is available to the membership by clicking on the 'Change DMI' button (Displayed Membership Information). You can select what additional information is displayed... address, phone number & email. If you can't log on – then let me know. It could be that you haven't yet paid your 2008 dues!!! I'll also be making some more visual enhancements and adding more functionality to the membership database as time goes on, so keep checking back from time-to-time to see what's new.

Well, that's all for now. Best wishes,
Steve, W6TAN.

K6DAF'S RAMBLIN'S

by Doug, K6DAF, Vice-President

Well, 2008 is marching on and it's only 11 short months til Christmas, OUCH. But until Christmas arrives we have some exciting meeting presentations planned for you in 2008. We will begin with our February meeting when we will host our first guest speaker of the year.

Vince Sheetz (K16CFW) will be presenting an overview of wireless networking and data technologies, with an emphasis on what's new with WIFI / 802.11n and a discussion on the coming capabilities and feature/benefit of WIMAX / 802.16.

Vince is an accomplished Network and Systems Engineer with a successful track record of over 20 years in wired and wireless networking design, installation, and support. Vince has extensive training and certifications in systems, security and infrastructure. He is currently a senior consulting network engineer with Intel Solution Services West Region, based in Southern California.

Vince provided us with the following agenda:

- Wireless Technology Categories
 - Wireless Network Topologies
 - o Mesh
 - o Point To Point / Point To Multipoint
 - o Comparison Of WiFi Variants, With An Emphasis On 802.11n
 - o 802.11n
 - § Advantages And Feature/Benefit
 - § Data Rate Comparison With Differing MIMO Implementations
 - § Evolution And Timeline
 - 2G/3G/4G/Wimax Characteristics
 - o Feature/Benefit
 - o Deployment Models
 - o Expected Commercial Deployment
 - Timeline
 - o Industry Ecosystem
 - o Comparisons
 - § 3G and WiMAX Mobile Metrics
 - § 3G vs. WiMAX Performance
 - Overview Of Other Technologies
 - o Sensornets
 - o BlueTooth
 - o UWB
 - o ZigBee
 - o VSAT
 - Applications Over Wireless Considerations
 - Wireless Client Device Considerations
 - Conclusion

Well, as you can see we will have an exciting first speaker for 2008. Bring you notepads as I know you

will want to take some notes, as this promises to be a very informative evening.

Stay tuned for our March guest speaker: A little hint: we use them everyday and can't live without them. No not our spouses but they do qualify. Still looking for some ideas for upcoming meetings. Remember this is your club. Lets get out and support our group. With over 100 members, it would be nice to see a larger gathering at our Monthly Club meetings. Your Officers are working very hard to make this the best Amateur Radio Club around so please come out and support them.

Well the Ramblin's of K6DAF are finally coming to an end for this newsletter hope to hear you all on the air sometime. Remember, use those repeaters.

73, Doug, K6DAF

GET THE SPACE OUT

from the ARRL SW Division e-Newsletter

California License Plate Issue Resolved

The California Department of Motor Vehicles has made it official that Amateur Radio callsign license plates will again be issued without spaces in the callsigns.

Those who currently have plates with spaces can get them exchanged. Information is on the DMV web-site at www.dmv.ca.gov/ham/ham_plate.

Amateur Radio's case was made by a number of individuals, including a number of individuals who contacted DMV and/or their elected representatives.

DMV apparently has several lists of license plate numbers, such as regular automobile, motorcycle, commercial vehicle, and amateur radio. Therefore California law enforcement personnel have to search their DMV database computers for callsign plates under the "ham" designation.

Several people have reported that certain policemen were unaware of this, and unpleasant confrontations have occurred. People are suggesting fixes for this, such as putting the words "Amateur Radio" on the plates. These suggestions are being politely passed on to DMV.

In the meantime, remind any officer stopping you that he must search for ham plates.

JANUARY BOARD MEETING SUMMARY

information provided by Jane, W6YAK

1. Doug, K6DAF, reported the January 10 Section Manager Question and Answer Forum went well.
2. Marvin, W6MJM, reported a working party will be going to the repeater site to see how to interface the (new) controller to the 440 repeater. The 440 machine is functioning properly currently.
3. Harry, W6YOO, reported alert status is none and that the next ARES breakfast/training session (ICS300 taught by FEMA) will be held on Saturday, February 9.
4. Jeff, AE6GM, reported we have 2 new members.
5. Steve, W6TAN reported the database will be finished by the end of the month for everyone's use. Discussion followed regarding the status of the data base spreadsheet and the process for updating.
6. Jeff, AE6GM, stated the operating station looks great.
7. Steve, W6TAN would like photos of board

members to update the website. He would like to get pictures of everyone operating in their shack.

8. Ron, N6XT, reported the EchoLink is working. Dirk, N6SUN indicated it was choppy at times. Ron worked during the net and Michigan came in ok.

9. Harry, W6YOO, and Jane, W6YAK, agreed to meet March 1 at the public library to arrange the display case. All members and creative ideas are welcome.

10. Marvin, W6MJM, announced the Yuma Ham Festival Feb 15,16,17.

11. John, N6EP, announced we have the Salvation Army auditorium for the April Auction (no food or drink allowed in the Chapel). Art McBride, KC6UQH will be the auctioneer (provided the event does not conflict with his wife's birthday).

12. John, N6EP, reported Field Day planning will start in a couple months and asked whether someone else would like to take over. Jeff, AE6GM,

Escondido Amateur Radio Society Membership Application and Renewal Form

Name _____

Call _____ Class _____

Address _____

City, State, Zip _____

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 \$15.00

Family membership \$4.00

Lifetime membership \$150.00

Lifetime membership (family) \$38.00

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 any club officer.

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. The price is \$8.00

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 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.sandarc.org.

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 7:30 a.m. at the offices of Sharp Healthcare Corporate, Spectrum Auditorium, 8695 Spectrum Center Court, San Diego, CA 92123. Catered breakfast is \$8.00. The monthly meeting begins promptly at 8:00 a.m. ARES is a service organization providing back-up emergency communications. If interested, go to www.sdgares.net or contact Jim Cammarano, SEC, sec@sdgares.net, or Asst. SEC for EMS, Teri Rowe, RN, ki6fkf@sdgares.net, for any additional information.

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, 5511 Maryland Drive, La Mesa, CA 91942-1519. You must include your FRN 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 - A SANDARC Volunteer Examiner team administers license examinations on the last Saturday of each month at 9:00 a.m. at the LDS Church, 1917 East Washington Avenue, Escondido, 92025. Contact Harry, W6YOO, at (760) 743-4212 or w6yoo@amsat.org 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. See Harry, W6YOO/AAR9LX for details.