

ALL EARS

www.earsclub.org

The official bulletin of the Escondido Amateur Radio Society – N6WB May 2014

May's Meeting Details



Our May 8th meeting will be about the Open Source Maker Labs See Matt's VP article for more details...

EARS Event Calendar - 2014

- May 08 EARS meeting, 7:30 p.m.
- May 15 Board Meeting, 7:00 p.m.
- May 17 Monthly Breakfast, 8:30 a.m.
- May 22 Field-day meeting, 7:00 p.m.
- May 31 VE Testing
- Jun 12 EARS meeting, 7:30 p.m.
- Jun 19 Board Meeting, 7:00 p.m.
- Jun 21 Monthly Breakfast, 8:30 a.m.
- Jun 26 Field-day meeting, 7:00 p.m.
- Jun 28 VE Testing
- Jul 10 EARS meeting, 7:30 p.m.
- Jul 17 Board Meeting, 7:00 p.m.
- Jul 19 Monthly Breakfast, 8:30 a.m.
- Jul 26 VE Testing

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Welcome to May's All EARS

By Steve Venner, W6TAN



Welcome to May's ALL EARS...

As usual, I'd like to say many thanks to all of you who provided the articles – especially to Mike & Matt, whose articles always arrive on

time!

Also big thanks go to John McNelly, AF6UA who provided a great article on 3-D printing.

As for myself, I've got a couple of articles lined up for publication when I have time (besides the resurrection of the Puzzle-Pages, and the Technical Challenges)...

The first article is going to be about what it's like being on the other side of the fence so to speak.

As many of you might know – For my sins - I currently work for Martin Lynch in the UK, where I provide technical & engineering support (and the occasional bit of sales when necessary).

It's very interesting to deal with customers' on a daily basis who are supposed to be technically minded!

The other article will be about a recent visit to Bletchley Park, where most of the German / Japanese code-breaking was done during WW 2.

<http://www.bletchleypark.org.uk>

Visitors can explore some of the iconic WW2 code-breaking Huts and Blocks and marvel at the astonishing achievements of the code-breakers whose work is said to have helped shorten the war by two years!

73 for now,
Steve, W6TAN.

The Presidential Prose

By Mike Hightower, KF6SJ



It is mid-spring and our club just had our annual auction.

I hope everyone that attended the event had a good time and maybe went home with new toys.

The new software that we used for bidder check-in and managing the items sold - made for a much easier operation than previous years.

Looking forward, the next few months we have many upcoming activities that need our club support.

First up is a very important meeting of the Poway City Council to discuss the on-going amateur radio antenna ordinance.

This meeting will be held at the Poway City Hall on Tuesday, May 6th.

The Poway hams need a strong show of support from all hams at this meeting. A Poway civic association will be battling against the proposed antenna ordinance at this meeting in an effort to defeat the efforts of the amateur radio community.

The Poway hams are requesting that all hams come to the city hall parking lot at 6PM for free hot dogs and refreshments before the meeting. A strong show of support is needed.

Dayton

May is the Dayton Hamvention, the biggest hamfest in the country. It attracts about 25,000 attendees during this three day event.

I would like to go to Dayton because I haven't been since 1974, and maybe it has changed a little. Back then, it was in a rundown convention building called Hara's. I'm sure it has improved through the years. (I say that tongue-in-cheek.)

Field Day

Field Day is only a month and a half from now. On the last weekend of June this year, our club puts up antennas on a hilltop at Dixon Lake and participates

in the annual ARRL Field Day. It is a 24 hour operating event starting on Saturday morning and running continuously through Sunday morning. It is a great opportunity to operate radios, hang out with other hams, eat some good food, and maybe even learn some new ham skills. If you haven't seen good CW operators at work, this is a great event to watch the CW experts operate a contest (Ed: Erm... Is Field-Day a contest?)

We set up antennas on Friday afternoon and take them down on mid-day Sunday. Any help would be appreciated.

We are planning the annual club picnic in August and hope to have some hands-on activities this year.

The details will be forthcoming soon.

Lastly, every four years the ARRL Southwestern Division Convention is held in San Diego.

This year it will again be held at the Four Points Sheraton Hotel in Kearny Mesa during the weekend of September 12th. There will be interesting technical talks and lots of equipment in the exhibit hall for your review.

Please support SANDARC (San Diego County Amateur Radio Council) and plan on visiting the convention this year while it is in our backyard. You can purchase tickets on-line from the SANDARC website:

<http://sandarc.net/~convention2014~/index.php>



Happy operating and 73,
Mike, KF6SJ

Verbal from the VP

By Matt Tucker, N6EAJ



Thanks to everyone that came to the EARS auction last month and especially to those that helped out.

Our first auction with a computer setup went very well.

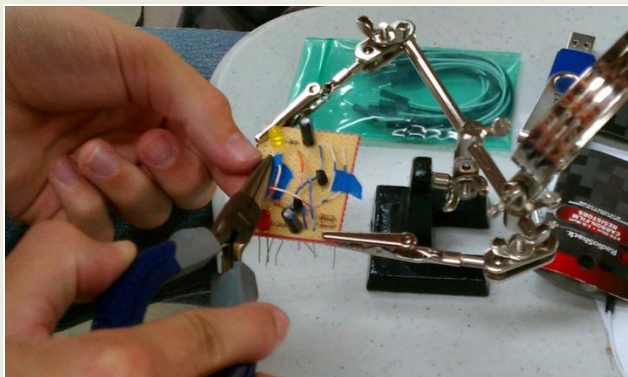
Zac's (KJ6MLT) call sign database spreadsheet greatly reduced data entry.

A special thanks goes to Art McBride KC6UQH (auctioneer), and Robert Arnold KJ6DYG for bringing and running the sound equipment.



Our Thursday May 8th meeting presentation will be by Dan Hendricks.

Open Source Maker Labs is a high-tech digital fabrication lab, where members can learn, collaborate, innovate, design, and build almost anything!



Makers of all ages and skill levels have access to a wide range of tools, equipment, resources, and workspace.

The founder, Dan Hendricks, will be giving EARS an update on their progress in opening in North County, their capabilities, and the kind of projects that members will be working at OSML.

<http://www.opensourcemakerlabs.com/>



John McNelly AF6UA suggested contacting OSML after he saw them at the San Diego Mini Maker Faire.

Thanks for the meeting suggestion John!

Do you have ideas for an EARS presentation? If so, send them to me at:

mail4tucker@gmail.com

Matt
N6EAJ

Dayton Hamfest

Information provided By Steve Venner, W6TAN



The weekend of 16th-18th is the Dayton Hamfest. If there are any EARS members who will be attending, a few photos for next month's All EARS would be most welcome!

More details can be found here:

<http://www.hamvention.org>

73-37-21-12

Information provided by Nick Uran, KK6TV



On a recent episode of The Big Bang Theory, Sheldon Cooper was wearing a "73" T-shirt".

A web search revealed the following:

Sheldon:

"The best number is 73. Why? 73 is the 21st prime number. Its mirror, 37, is the 12th and its mirror, 21, is the product of multiplying 7 and 3, and in binary 73 is a palindrome, 1001001, which backwards is 1001001."

Leonard:

"73 is the Chuck Norris of numbers!"

Sheldon:

"Chuck Norris wishes... All Chuck Norris backwards gets you is Sirron Kcuhc!"

Current EARS Membership

By Steve Venner, W6TAN



This past month, there were no less than 7 new members joining:

David Carson, KK6LAW
Richard Nielsen, KK6LAS
Joseph Lowery, KK6LAP
Jan Diffenderfer, KK6LAT
Catherine Nanz, KK6LBL
August Nanz, KK6LBF
Bruce Koepke, KK6LBN

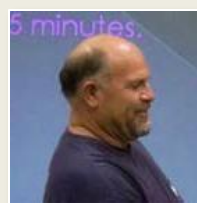
Here's a big EARS welcome to all of you!

Therefore, the current EARS membership as of the Cinco de Mayo, 2014 is:

- Life: 56
- Paid (2014+): 69
- Total: 125

Santee Street Fair

By Dennis Baca, KD6TUJ



Your SANDARC Delegate may not have yet had the chance to advise your club of the following event.

There is an opportunity for Amateurs from across San

Diego County to educate and demonstrate our service and hobby to them.

This opportunity is at the SANTEE STREET FAIR.

This venue is expected to draw ~60,000 visitors. Imagine the chance to interest 60,000 individuals at one location!

All clubs are invited to inform the public about amateur radio and **YOUR** club. Your club is encouraged to bring your club flyer/tri-fold and display information. Story boards similar to Lakeside ARC are also encouraged.

This chance does come with an entry price.

For the amount of \$800, there can be a display area of 10 x 20 feet at a high visibility spot for TWO days.

Already offered is \$150.00 towards this event. If all member clubs of SANDARC support this effort, the cost per club would be less than \$50.00.

SANDARC has done this event in the past and claimed great results. Is this an event that we the members of SANDARC want to miss out on? **Action needs to take place promptly for Amateur Radio's participation.**

Please contact your Club's SANDARC Delegate if your club feels this event is worth participating in to promote Amateur Radio.

The SANTEE STREET FAIR is on Saturday, May 31 – 10 a.m. to 7 p.m., and Sunday, June 1 – 10 a.m. to 6 p.m.

More information at <http://santeestreetfair.com>

Dennis Baca
PARC SANDARC Delegate
Supporter of Amateur Radio education to the public.

3-D Printing

By John McNelly, AF6UA



I noticed there's a new store on Grand Ave. But there's something different about this store: the sign reads "Custom Designs and 3D-printing". The store is at 156 W. Grand Ave

(on the north side, just east of the Maple Street pedestrian plaza):

<http://www.idusclothing.com>

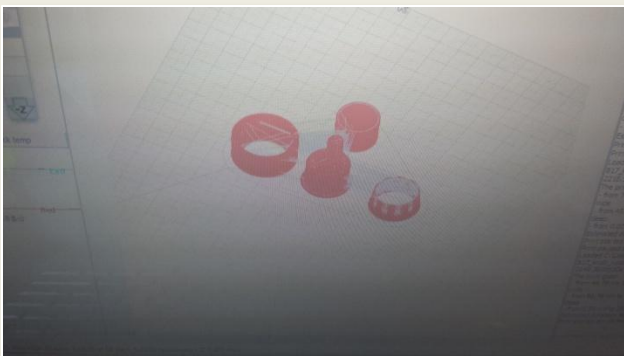
Imagine a printer whose print head extrudes melted plastic instead of ink. The print head can make multiple passes over the printer bed, allowing you to build up a 3-dimensional object.

These printers have been around since the 1980's but prices have been falling dramatically.

Technologists predict that every home will have a 3D printer and you will print various items yourself rather than buying them from a store. To print an item, you either download plans off the internet (many times, the plans are free), or you can use a CAD/CAM program to design the item yourself.

There are many free programs such as Blender (complex) and Google Sketch-up (easy) that let you design your own objects, or to customize a plan you found somewhere else (for example, maybe you found a plan for a pet tag you like, but you need to add your contact info to it). If you do your own sketches, it's best to use millimetres for the units.

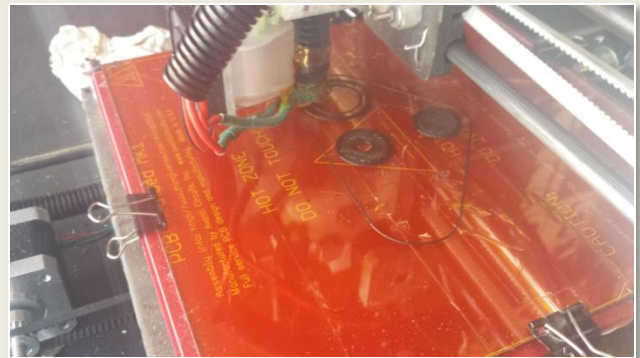
I visited thingiverse.com and found a free 3D sketch for a parametric knob that replaces the standard tuning knob on a Yaesu 817:



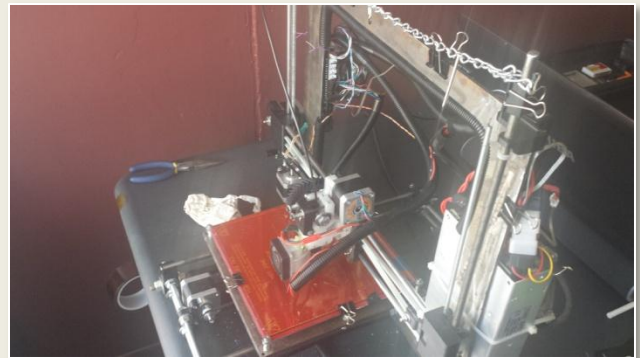
<http://www.thingiverse.com/thing:238413>

Then I visited the store and asked the owner to print it out. I just had to tell him the thingiverse ID for the object (238413), but you can also bring in plans on a USB stick (or email them to contact@idusclothing.com).

He loaded up the plan onto his computer, which calculated the print job would take 2 hours to print. The price is \$3 per cubic inch of plastic used, so it cost me \$5 to print. The plastic is available in about a dozen different bright colors.



He built the printer himself. Currently it prints with a resolution of 0.3 mm, but soon it will be printing at 0.2 mm. He has plans to install a Kraken print head once it's available:



<http://www.brainydeep.com/2013/the-kraken-dual-pinch-wheel-extruder-launches>

This will provide 0.02 mm resolution!

There's a lot of engineering issues with 3D printing. The hobbyist has to calibrate the printer before every run and so on. It's not something for a casual user just yet.

Recently, a couple of guys decided the time was right to develop a consumer-friendly, dead simple

3D printer. It's the kind of idea that banks don't fund because they're not sure consumers will go for it. So the guys turned to a crowd funding platform, kickstarter.com. They posted their idea, and promised to send a 3D printer to any backer who pledges \$299:

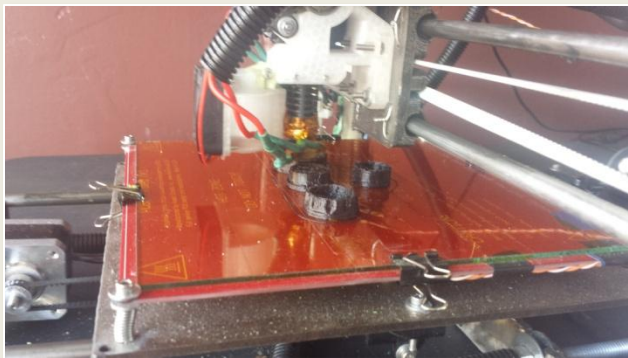
<https://www.kickstarter.com/projects/m3d/the-micro-the-first-truly-consumer-3d-printer?ref=discovery>

If, within a month, they raise their goal of \$50,000, then kickstarter releases the pledge money to them, they'll go off and develop the printer, and eventually the backers receive their pledge rewards.

They reached their \$50K funding goal in the first ****11 minutes****, and raised over \$1 million in the first day.

Including the \$299 they got out of me, they've raised over \$3 million so far.

The 817 knob sketch prints three items: the knob itself, plus a mould that lets you add a soft grip.



I haven't done the grip yet, but I'm going to try using Sugru.



Sugru is like a play-doh for adults, a silicone modelling clay that cures in 24 hours on exposure to

air. It sticks to almost anything, is flexible, electrically insulating, temp resistant from -50°C to +180°C. In Time Magazine's article "The 50 Best Inventions of 2010, Sugru came in at #22 (the iPad came in at #34):

<http://www.sugru.com>

Learn more about 3d printing at the May meeting!

Items For Sale

By Steve Venner, W6TAN



There have been some recent additions to the 'For Sale' & 'Wanted' sections of the EARS website.

The following lists of 'For Sale' items have been copied from the EARS web site.

Click on the links for more details of each item.

For Sale Items	Price
Yaesu VX5 Battery. FNB-41	\$ Free
Fiberglass poles	\$0.50 ea
SDR1000 with 2m transverter receive	\$200 (obo)
Alpha Delta 4 position coax switch	\$50
Comet HF/vhf duplexor	20
Kenwood TR-7400A #2 2M 25W Vintage (For Packet)	\$55
MFJ-945D 300W Mobile Tuner	\$60
Rohn Tower 40 ft.	\$75.00

The latest 'Wanted' items are:

1. Manual w/Schematic for a HK5A Ham Keyer Mark, N6NNI - 858-382-8391
N6NNI@Hotmail.com
2. 102/108 inch stainless steel CB type whip Vince, W6CD - 760-889-9395
vsheetz@gmail.com

EARS Elmer List

By Steve Venner, W6TAN



Here is the current list of those kind souls who have volunteered their Elmer services:

1. Harry Hodges, W6YOO
 - *Award programs such as WAC, WAS, DXCC, VUCC, IOTA, etc. to include card checking.*
2. Dick Kalkofen, K6KAL
 - *Software development and hardware interfacing.*
 - *Radio to PC communications.*
 - *Logging Software: WinTest, Writelog, DX4Win, N1MM, Ham Radio Deluxe and many others.*
 - *Digital mode software, link FLdigi, MMTTY for PSK, RTTY, WISPR, JT65 etc.*
 - *Kit building (WinKeyer USB, FA-SM CW/Voice Keyer, Idiom Press Voice Keyer.*
 - *Antenna setup and tuning.*
3. Matt Tucker, N6EAJ
 - *General electronics (analog), power supplies, audio, batteries.*
 - *PSK31 and similar digital modes.*
 - *Operating and setting up the computer/radio interfaces.*
 - *Basic antennas (VHF for home or car), HF dipoles and multi-band doublets / antenna tuners.*
4. Mike Hightower, KF6SJ
 - *HF and in particular, digital modes of PSK31 and JT65.*
5. John Musselman, N6EP
 - *HF, electronics, contesting, "other"...*
6. Marvin Munster, W6MJM
 - *Emergency Power Sources, Batteries, Solar, etc.*
 - *DC Cables and Hook-Up*
 - *Coax Cables and Connector Assembly*
 - *DC Power Distribution*
7. Ron Pollack, K2RP
 - *Antique and tube equipment (boat anchors)*

Opportunity Drawing Update

By Teri Bloom, W6TRB



The next opportunity drawing will have the Fox Delta Antenna Analyzer as the main prize:

This item has been donated to us by EARS member - Bud

AE6BH. He has also offered to build the Antenna

Analyzer for the lucky opportunity drawing winner!



As well as the antenna analyzer, another great kit will also be offered:

The TenTec QRP transceiver kit (13xx series)

Features include:

- Available for 20, 30, 40 or 80 meters.
- 3 watts power output.
- Easy to build and simple to operate.
- Each unit covers a 50 kHz segment determined by you at the time of construction.
- Kit includes all required components and professional silkscreened and painted enclosure.



The single conversion superhet receiver performance is superlative, and QSK is just what you expect from the hams at

TEN-TEC.

The kit will be ordered for the winner once they decide they want the 20, 30, 40 or 80 meter kit.

Opportunity drawing tickets will once again be on sale at May's meeting.

73

Teri, W6TRB

General Information

EARS Club Officers for 2014:



President

Michael Hightower, KF6SJ
(858) 382-4041
mike@hightower.com



Vice President

Matt Tucker, N6EAJ
(760) 839-1205
mail4tucker@gmail.com



Secretary

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



Treasurer

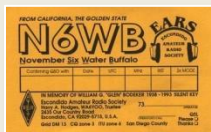
Teri Bloom, W6TRB
(949) 874-9250
w6trb@earsclub.org



Emergency Services Coordinator

John McNelly, AF6UA
(858) 449-3326
ears@mcnelly.org

About ALL EARS:



ALL EARS is 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:

allears@earsclub.org

Permission is given to copy any article contained in ALL EARS when not otherwise copyrighted, and provided proper credit is given.

Note: The deadline to submit material for the bulletin is by the 1st Thursday of the month.

Officers at Large:



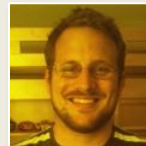
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kj6mlt@earsclub.org



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ae6bm@arrl.net

Non-elective:



Past President

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(760) 622-5346
cozy765@pacbell.net



Historian

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



Webmaster and Newsletter Editor

Steve Venner, W6TAN
+44 1895 636099
w6tan@earsclub.org

General Information cont'd

SUNDAY EVENING NET

EARS Sunday evening net is every Sunday at 8 p.m. local time. You can get the latest information on club activities there.

Just tune in to the club's 2m repeater at 146.88 MHz, negative offset and PL of 107.2, check in and say "Hi!".

SECTION NEWS

The latest happenings around San Diego are available at the official website of the ARRL San Diego Section:

<http://www.arrl.org/Groups/view/san-diego>

EARS PINS

EARS 2010 Board had EARS lapel pins made. They are yellow 1" circles with the EARS Logo in the middle.

They are only \$5.00 each, so get yours today by contacting: Robert Kitson; ki6sbl@earsclub.org

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.

Note: 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:

LDS Church
2255 Felicita Road
Escondido,
CA 92026

For more details, see:

http://www.earsclub.org/ears_ve_sessions.html

Contact Harry, W6YOO, at (760) 743-4212 or w6yoo@amsat.org to schedule an appointment.

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.net

CLUB REPEATERS

"EARS" operates three repeaters in the Escondido area.

- 146.88 MHz, minus offset, PL 107.2
- 224.14 MHz (AE6GM repeater), minus offset, PL 156.7
- 449.24 MHz, minus offset, PL 127.3

The 2m and 70cm repeaters are local in nature and primarily serve the immediate Escondido area.

ECHOLINK

The 2m repeater is tied to the EchoLink system as node 2846.

See the Club website, www.earsclub.org for information on EchoLink.

There is also a listing of local EchoLink codes in the members section of the website.

General Information cont'd

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 REFLECTORS

These are free services that keep members up-to-date via e-mail.

To subscribe to either one of the reflectors, go to the EARS website and click on the Yahoo or Google Group links at the bottom of the main page.

We are also on Facebook!

CHANGE OF ADDRESS OR CALLSIGN

Please let us know if you change your address, call-sign, telephone, license class, e-mail, etc.

We want to keep our records up to date, so please contact any club officer with the updated information.

CLUB BADGES

Let everyone know that you are a member of EARS, and avoid having them guess what your name is.

Get your Club Badge from:

Glaser Bailey,
2015 S. Escondido Blvd,
Escondido,
CA 92027
(760) 743-5551

MONTHLY BREAKFAST

EARS members meet socially on the third Saturday of each month at 08:30, at:

J and M's Family Restaurant,

1215 East Valley Parkway
CA 92027

(760) 745-3710
www.jandmsrestaurant.com

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.

EARS HATS, SHIRTS AND JACKETS

Hats, shirts and jackets are available with the EARS logo.

Order them directly from:

Print World,
107 S. Andreasen Dr.,
Escondido,
CA. 92029
(760) 747-6443

Just let them know you are a member of EARS.

Emergency Services

MONTHLY ARES® MEETING

The San Diego section ARES® meets on the second Saturday of each month at 8:00 a.m. at:

Scripps Memorial Hospital,
Nobel Room,
Schaetzel Building,
9890 Genesee Ave,
La Jolla,
CA 92037.

Parking is available in the first lot to the right after the guard shack. The parking fee is \$4.00 and is antenna friendly.

If interested, go to www.sdgares.net or contact Steve Early, Section Manager, (619) 461-2818, or via e-mail at ad6vi@arrl.org.

EMERGENCY SERVICE NETS

Amateur Radio Emergency Service (ARES) San Diego

Sunday, 08:30 146.730 (-) 107.2

Community Emergency Response Team (CERT) Escondido

Tuesday, 19:00 146.880 (-) 107.2

Followed by 146.445 SIMPLEX, as directed

Community Emergency Response Team (CERT) North County and Back Country

Wednesday, 19:00 147.030 (+) 103.5

Followed by 146.445 SIMPLEX, as directed (on 2nd & 4th Wednesdays)

Radio Amateur Civil Emergency Services (RACES) San Diego County

Monday, 7:30 PM 147.195 (+) 114.8

Escondido Amateur Radio Society

Membership Application and Renewal Form

*Call _____

*Last Name _____

*First Name _____

*Street Address _____

*City _____ *State _____ *Zip _____

Home Phone _____

Cell Phone _____

*Email _____

License Expires _____

EARS Family Members _____

License Class _____

First Licensed _____

Old Calls _____

Date of Birth _____

ARRL Member (Y/N) _____ Life Member (Y/N) _____

Amateur Related Interests _____

ARRL, RACES, ARES, SATERN, Red Flag, HF, VHF, UHF, Packet, EchoLink, D-Star, T-Hunt, ATV, Field - Day, Contests, Antenna Design, Equipment Building

Are you willing to run for a club office (Y/N)? _____

Note: Fields marked with a (*) are required.

A Telephone number is requested, but may be unlisted in the roster if you prefer.

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.

Checks please, it is safer than cash, and you have a record!

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.