www.losangelesarc.org

Monthly Meeting

The Los Angeles Amateur Radio Club will meet December 6, 2015 at the Audrey & Sydney Irmas Youth Activity Center located at 11911 Vermont Ave., in Los Angeles Ca. 90044. This is on 120th and Vermont across from the Ralphs Market parking lot.

Club Net

The LAARC holds a radio net on 144.430 FM simplex at 8 PM pacific time every Saturday nite.

Health and Welfare

None reported at this time.

Club Officers

L.A.A.R.C. Officers

Stan Thornton	W6SMT	President
Doug Long	N6PZK	Vice-President
Jess Craig	W6CKC	Secretary
Laverne Carter	KJ6OSV	Secretary
Archie Buchanan	KD6OLH	Treasurer
Aaron Jones	KJ6COI	SGT at Arms

Club Activities

At the November 2016 meeting club members nominated new officers for the 2016. The selection of new officers will be conducted at the December 2015 meeting. These selectees will be accepted by the club and placed in office at the start of 2016. All present members should be at this meeting to support their choice of officers. Club members also discussed some of the digital/VOIP technologies such as Echolink, Yaesu's Wires-X, All-Star, Icom's D-Star. These modes appear to be gaining steaming in the ham community and are of great interest to club members.

2016 Christmas Party

The Los Angeles Amateur Radio Club invites you and your family to our annual Christmas party on December 6, 2015 at 2:00 PM. Our party will be held at the Audrey & Irmas' Youth Activity Center located at 11911 Vermont Ave, Los Angeles Ca, 90044, upstairs. Current members eat for free, non-members donate $ 15.00 to the secretary. Hope to see all members at our function.

LAARC Simplex Links

These are the 4 remotes we have that allow our members to talk into the Los Angeles area and beyond:

The L A link is 432:300 pl 186:2
The Rancho Cucamonga is on 432:320 pl 186:2
Moreno Valley is 432:400 pl 186:2

These will work if you want to go in on 440 and come out on our simplex frequency. 144:430

There are times when you can reverse duplex meaning you can go in 144.430 and be in on one of the 440 remote frequencies. This works well on the Moreno Valley system.
Please remember to turn on your tone. There is no positive or negative shift needed for any remote.

Future Events

December Special Event W1Q Will Mark QST Centennial

Special Event station W1Q will be on the air December 1-15 to celebrate *QST*'s 100th anniversary. The first *QST* was published in December 1915.ARRL COO Harold Kramer, WJ1B, and volunteer operators will be on the air. This is *not* an official ARRL operation, and Kramer will handle all details, QSL cards, and LoTW entries.

160 Meter Event

Starts 2200 UTC Friday, ends 1600 UTC Sunday (**December 4-6, 2015**). This is a forty-two hour period with no time limitation.

The objective is for amateurs worldwide to exchange information with W/VE amateurs on 160-meter CW. DX-to-DX QSOs do not count for contest credit. Stations located in overseas and non-contiguous U.S. Territories may be worked by DX stations. This includes Alaska KL7, the Caribbean US possessions KP1-KP5, and all of the Pacific Ocean territories KH0-KH9, including Hawaii KH6. These stations can work BOTH domestic stations (US and VE) as well as DX stations around the world. Check your software before the contest to be sure it will accept these QSOs.

10 Meter Event

Starts 0000 UTC Saturday; ends 2359 UTC Sunday (**December 12-13, 2015**)

The objective is for amateurs worldwide to exchange QSO information with as many stations as possible on the 10 meter band. This event is conducted on the second full weekend of December. All stations operate no more than 36 hours out of the 48-hour period. All off-times must be a minimum of 30 consecutive minutes. Listening time counts as operating time.

Straight Key Night

Straight Key Night is held every **January 1** from 0000 UTC through 2359 UTC. This 24-hour event is not a contest; rather it is a day dedicated to celebrating our CW heritage. Participants are encouraged to get on the air and simply make enjoyable, conversational CW QSOs. The use of straight keys or bugs to send CW is preferred. There are no points scored and all who participate are winners.

RTTY Roundup

The RTTY Roundup begins the first full weekend of January, but never on January 1. Begins 1800 UTC Saturday, ends 2400 UTC Sunday (**January 2-3, 2016**). Amateurs worldwide contact and exchange QSO information with other amateurs using digital modes (Baudot RTTY, ASCII, AMTOR, PSK31, PSK63, and Packet—attended operation only) on 80, 40, 20, 15, and 10 meter

bands. Any station may work any other station. Stations may be worked once per band, regardless of mode.

Kids Day

2016: Sunday, January 3 & Saturday, June 18 Kids Day always runs from 1800 UTC through 2359 UTC. Operate as much or as little as you like. Twice a year, ARRL offers an event designed to promote Amateur Radio to our youth. Share the excitement with your kids or grandkids, a Scout troop, a church or the general public! Kids Day is designed to give on-the-air experience to young people and hopefully foster interest in getting a license of their own. It is also intended to give older hams a chance to share their station and love for Amateur Radio with their children.

Amateur Radio Roundtable (Repeat)

Barry Fitchew N6VOH

Amateur Radio Roundtable is a live weekly amateur radio webcast, held every Tuesday night at 8 PM CDT (0100 UTC Wednesday) at W5KUB.com

Amateur Radio News

Senate Committee Endorses Ham Radio Bill

The Senate Commerce, Science and Transportation committee endorsed a bill that would give ham radio operators who live in deed-restricted communities reasonable accommodations to erect antennas.

On Nov. 18, the committee approved the Amateur Radio Parity Act of 2015. It would direct the Federal Communications Commission to extend the rule relating to reasonable accommodation of amateur service communications to private land use restrictions. Two senators — Bill Nelson (D-Fla.) and Brian Schatz (D-Hawaii) — voted no but it

passed on a voice vote. The bill is expected to be sent to the Senate floor. It is sponsored by Sens. Roger Wicker (R-Miss.), Richard Blumenthal (D-Conn.) and Al Franken (D-Minn.).

A twin bill was introduced in March in the House by Rep. Adam Kinzinger (R-Ill.), where it was referred to the House Energy and Commerce Committee. The measure is being considered by that panel's Communications and Technology Subcommittee

The act would require the FCC to amend its Part 97 Amateur Service rules to apply the three-part test of the federal pre-emption policy known as PRB-1 to now include homeowners association regulations and deed restrictions, often referred to as covenants, conditions and restrictions (CC&Rs). Currently, PRB-1 only applies to state and local zoning laws and ordinances.

According to the American Radio Relay League, the FCC has been reluctant to extend the same legal protections to private land-use agreements without direction from Congress. "Our work is not finished on the Senate side of Capitol Hill, although this is a huge step forward," ARRL President Kay Craigie said in a statement as the bill advanced.

The bill recognizes the interest the government has in the effective performance of amateur radio stations established at the residences of licensees.

"Amateur radio, at no cost to taxpayers, provides a fertile ground for technical self-training in modern telecommunications, electronics technology and emergency communications techniques and protocols," the bill states. "Such stations have been shown to be frequently and increasingly precluded by unreasonable private land use restrictions, including restrictive covenants."

Revamped FCC Website Expected to Debut on December 10:

The FCC has announced that its large-scale website redesign will be completed by December 10. The switch to the new site is set to begin on December 10 at 0100 UTC and will be completed about 4 hours later.

"While the transition to the revamped site is expected to be completed almost instantaneously, there will be an ongoing process following this transition that will continue to involve user feedback, fixes by the FCC's Information Technology team, and content updates by policy bureaus and offices," the FCC said in a November 24 Public Notice.

The FCC said the new website has been designed to provide "better functionality, an improved design, and better searchability and navigability."

When the new site comes online, the familiar current FCC website will no longer be available. The FCC said web pages and files on transition.fcc.gov that have not already migrated to the new site will remain available, and existing bookmarks will be redirected to the appropriate content on the new site. While the Commission has already upgraded some of its interactive systems, including the Consumer Help Center, and is working toward improvements on similar systems, including the Electronic Comment Filing System (ECFS), these systems will not be directly impacted by the December 10 migration.

Amateur Radio Parity Act Passes Senate Committee, Gains Cosponsors:

The Amateur Radio Parity Act S. 1685 took an essential step forward on November 18, when the US Senate Committee on Commerce, Science, and Transportation voted to report the bill favorably and without amendment. It was one of a half-dozen bills that were approved by the committee in a brief markup session. S. 1685 was approved on a voice vote, with two Senators -- Bill Nelson (D-FL) and Brian Schatz (D-HI) -- asked to be recorded as voting "no."

"Our work is not finished on the Senate side of Capitol Hill, although this is a huge step forward," said ARRL President Kay Craigie, N3KN. She urged ARRL members to continue to write, call and e-mail their Senators about S. 1685 to build up its support for the future, saying, "We know that members' response to the call for a communications blast last week made all the difference for some Senators on the committee."

S. 1685 picked up another Senate cosponsor on November 18, when Senator Jerry Moran (R-KS), who sits on the Commerce Committee, signed aboard the bill. "ARRL members in Kansas should contact his office to say thanks," President Craigie said. "Having an additional cosponsor who's on the Committee is especially good news."

On hand to observe the Committee mark-up session were ARRL Hudson Division Director Mike Lisenco, N2YBB; ARRL CEO David Sumner, K1ZZ, and ARRL General Counsel Chris Imlay, W3KD.

President Craigie encouraged ARRL members in Florida and Hawaii to keep contacting Senators Schatz and Nelson, urging them to change their minds about the legislation. "Don't be harsh or angry," she advised. "Keep it factual and courteous, and don't give up."

On November 5, US Senator Al Franken (D-MN) signed on as the second cosponsor of S. 1685. That legislation and its US House twin, H.R. 1301, call on the FCC to extend the limited federal pre-emption of PRB-1 to cover private land-use restrictions such as deed covenants, conditions, and restrictions (CC&Rs).

H.R. 1301 has 114 cosponsors as of November 18. President Craigie said ARRL members should continue to urge their Representatives to cosponsor H.R. 1301 and to thank those who already have signed on.

The Amateur Radio Parity Act of 2015 page http://www.arrl.org/amateur-radio-parity-act on the ARRL website has more information on how you can become involved

Classes & VEC Testing

None scheduled

Ham Radio License Exam Practice
The ARRL has launched a new online resource that allows users to take randomly generated practice exams using questions from the actual examination question pool. **ARRL Exam Review for Ham Radio**™ is *free*, and users do *not* need to be ARRL members. The only requirement is that users must first set up a site login (this is a different and separate login from your ARRL website user registration).

http://arrlexamreview.appspot.com

Free Amateur Radio Practice Testing is available on the Web

Practice exams are for those people who would like to study for a new US amateur radio license class. The questions contained within are provided by the

Federal Communications Commission and are selected from the same sub-elements that would be used for an official license examination.

http://www.qrz.com/hamtest/

http://www.eham.net/exams/

http://arrlexamreview.appspot.com

Find and Exam in Your Area

You can find an Amateur License Exam In your area at ARRL.ORG

http://www.arrl.org/find-an-amateur-radio-license-exam-session/

Electronics Refresher

Capacitors

A **capacitor** (formerly known as a **condenser**, and prior to that known as a **permittor**) [1] is a passive two-terminal electrical component that stores electric energy in an electric field. The forms, styles, and materials of practical capacitors vary widely, but all contain at least two electrical conductors (called "plates") separated by an insulating layer (called the dielectric). Capacitors are widely used as parts of electrical circuits in many common electrical devices.

Capacitors, together with resistors, inductors, and memristors, belong to the group of "passive components" used in electronic equipment. Although, in absolute figures, the most common capacitors are integrated capacitors (e.g. in DRAMs or flash memory structures), this article is concentrated on the various styles of capacitors as discrete components.

Small capacitors are used in electronic devices to couple signals between stages of amplifiers, as components of electric filters and tuned circuits, or as parts of power supply systems to smooth rectified current. Larger capacitors are used for energy storage in such applications as strobe lights, as parts of some types of electric motors, or for power factor correction in AC power distribution systems. Standard capacitors have a fixed value of capacitance, but adjustable capacitors are frequently used in tuned circuits. Different types are used depending on required capacitance, working voltage, current handling capacity, and other properties.

Safety Tip

Capacitor Safety

The hazards posed by a capacitor are usually determined, foremost, by the amount of energy stored, which is the cause of things like electrical burns or heart fibrillation. Factors such as voltage and chassis material are of secondary consideration, which are more related to how easily a shock can be initiated rather than how much damage can occur.[33]

Capacitors may retain a charge long after power is removed from a circuit; this charge can cause dangerous or even potentially fatal shocks or damage connected equipment. For example, even a seemingly innocuous device such as a disposable-camera flash unit, powered by a 1.5 volt AA battery, has a capacitor which may contain over 15 joules of energy and be charged to over 300 volts. This is easily capable of delivering a shock. Service procedures for electronic devices usually include instructions to discharge large or high-voltage capacitors, for instance using a Brinkley stick. Capacitors may also have built-in discharge resistors to dissipate stored energy to a safe level within a few seconds after power is removed. High-voltage capacitors are stored with the terminals shorted, as protection from potentially dangerous voltages due to dielectric absorption or from transient voltages the capacitor may pick up from static charges or passing weather events.

Some old, large oil-filled paper or plastic film capacitors contain polychlorinated biphenyls (PCBs). It is known that waste PCBs can leak into groundwater under landfills. Capacitors containing PCB were labelled as containing "Askarel" and several other trade names. PCB-filled paper capacitors are found in very old (pre-1975) fluorescent lamp ballasts, and other applications.

Capacitors may catastrophically fail when subjected to voltages or currents beyond their rating, or as they reach their normal end of life. Dielectric or metal interconnection failures may create arcing that vaporizes the dielectric fluid, resulting in case bulging, rupture, or even an explosion. Capacitors used in RF or sustained high-current applications can overheat, especially in the center of the capacitor rolls. Capacitors used within high-energy capacitor banks can violently explode when a short in one capacitor causes sudden dumping of energy stored in the rest of the bank into the failing unit. High voltage vacuum capacitors can generate soft X-rays even during normal operation. Proper containment, fusing, and preventive maintenance can help to minimize these hazards.

High-voltage capacitors can benefit from a pre-charge to limit in-rush currents at power-up of high voltage direct current (HVDC) circuits. This will extend the life of the component and may mitigate high-voltage hazards.

Tech Talk

Crossband Repeating

Range Extender Crossband Repeat
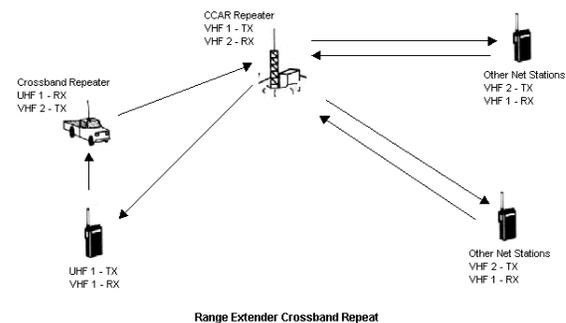
Crossband (**cross-band**, **cross band**) operation is a method of telecommunication in which a radio station receives signals on one frequency and simultaneously transmits on another for the purpose of full duplex communication or signal relay. To avoid interference within the equipment at the station, the two frequencies used need to be separated, and ideally on different 'bands'. An unattended station working in this way is a radio repeater. It re-transmits the same information that it receives. This principle is used by telecommunications satellites and terrestrial mobile radio systems.

Crossband operation is sometimes used by amateur radio operators. Rather than taking it in turns to transmit on the same frequency, both operators can transmit at the same time but on different bands, each one listening to the frequency that the other is using to transmit. A variation on this procedure includes establishing contact on one frequency and then changing to a pair of other frequencies to exchange messages.

Digital Voice Access Point (DVAP)

Internet Labs Digital Voice Access Point Dongles connect to your PC or Intel-based Mac via a USB port and provide a 2 meter or 70 cm Access Point for use with a D-STAR radio. So, if your D-STAR radio can't reach a D-STAR repeater from your QTH, you can create your own "hotspot"! One of these 10 mW digital transceivers units will work with your D-STAR radio all around the house with the included stub antenna. Attachment to a better antenna will yield extended coverage.

Using a DV Access Point Dongle, an Internet connection and their D-STAR transceiver, a user may connect to, and communicate with, D-STAR gateways and reflectors around the world . The DVAPTool application used with the DV Access Point Dongle may be installed and run on Microsoft Windows, Mac, or many flavors of Linux.

The DVAP can be used with the Raspberry Pi.

Yaesu HRI-200
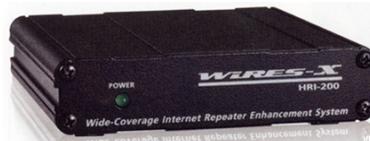
The Yaesu HRI-200 Internet Linking System uses the WIRES™ - Wide-Coverage Internet Repeater Enhancement System. Since WIRES™ was announced at the *2002 Dayton Hamvention*, the system has evolved into a much more versatile system, known as WIRES™-II. The third generation WiRES-X technology was introduced in 2014, supports *both* Analog and the new C4FM Digital radio communications mode. The HRI-200 is the inexpensive path into WIRES-X.

Systems features include:

- WIRES-X supports both Analog and the new C4FM Digital radio communications mode.

- WIRES-X allows communications between both C4FM digital stations and conventional FM stations via WIRES-X

- High quality voice communication is achieved by repeating C4FM digital data as it is via the Internet.

- WIRES ID: Adopted a simple user ID system using alphanumeric characters.

- Smart Access: WIRES-X automatically connects to nodes and rooms by utilizing the Smart Access function. (Digital node station only)

- Preset Search: User can find local node station and receive their frequency setting data for automatic setup. (Digital node station only)

- Activity Monitor: IDs of active nodes and rooms can be searched from the C4FM transceiver via a local node. (Digital node station only)

- News Station: Stores and reads digital data such as text, images and audio data. (Digital node station only)

- WIRES-X provides everything that is needed to maintain a node or room for use by members only.

- Easy setup: Opening ports on the router also can be accomplished by using uPnP standards on uPnP capable routers.

- HRI-200 supports Analog FM mobile transceiver for Analog node station as well as Digital node station with FTM-400D.

- DR-1X repeater support will be available in early 2015 with a DR-1X firmware update.

We need help with the monthly newsletter anyone interested contact. k6fed@yahoo.com

Help Wanted and Offered Club Elmers

If you are interested in getting into the Digital Modes (Dstar or Fusion) contact Frank K6FED. If you have knowledge of a specific amateur related subject and you would like to share it with others send your contact information to K6fed@yahoo.com. We'll add your name to our Club Elmer Listing.

For Sale or SWAP

For Sale:

DV Mega D-star WIFI Hotspot

If you are using D-Star and your QTH is located miles from a local D-Star repeater your D-Star transceiver coverage is going to be spotty and there may also be gaps in the mobile coverage around town. This hotspot in conjunction with a internet connection could eliminate these coverage problems. It could also make D-Star reflectors, available without forcing the rest of the local repeater users to hear them too.

This hotspot consist of the following:

Raspberry PI 2 with Case, Single Band DV-Mega (UHF), AC power supply, Wi-fi Card and 5 ft. Ethernet cable. $275.00

DVAP D-star WIFI Hotspot

Raspberry PI with Case, Single Band DVAP (VHF), AC power supply, Wifi Card. $250.00

Frank K6fed

K6FED@yahoo.com

This space is reserved for anything amateur related you want to sale, swap trade, buy or get rid of. Send your list to K6FED@yahoo.com. Items are listed for one month. Additional time can be requested by email.