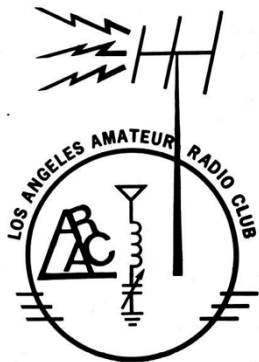


LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015



www.losangelesarc.org

Monthly Meeting

The Los Angeles Amateur Radio Club will meet on March 1, 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.

Applications will be made available for those "Hams" that wish to join this club.

Club Net

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

News Letter & Tech Talk Items Online

<http://www.losangelesarc.org/news-letter>

<http://www.losangelesarc.org/tech-talk>

Health and Welfare

Club members that should stay in our thoughts and prayers:

None at this time

Club Officers

L.A.A.R.C. Officers

Stan Thornton	W6SMT	President
Doug Long	N6PZK	Vice-President
Jess Craig	W6CKC	Secretary
La Verne Carter	KJ6OSV	Secretary
Archie Buchana	KD6OLH	Treasurer
Aaron Jones	KJ6COI	Sgt at Arms

Club Activities

Carlton Edwards KK6GVE and Esther Glaze KJ6OVX are working on getting a count of the equipment and who will bring which pieces of equipment. Club members are ask to let them know what they plan to bring so Carlton and Esther can make a list.

Help Wanted Club Elmers

If you feel 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.

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

LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015



Ham Radio News

Source: ARRL Website

FCC “Paperless” Amateur Radio License Policy Now in Effect

TAGS: [amateur radio](#), [bureau](#), [commission](#), [FCC Wireless Telecommunications](#), [licensees](#), [wt docket](#)

Starting on February 17, the FCC no longer routinely issues paper license documents to Amateur Radio applicants and licensees. The Commission maintains that the official Amateur Radio license authorization is the electronic record that exists in its Universal Licensing System ([ULS](#)), although the FCC had routinely continued to print and mail hard copy licenses until this week.

In mid-December, the FCC [adopted final procedures](#) to provide access to official electronic authorizations, as it had [proposed](#) in WT Docket 14-161 as part of its “process reform” initiatives. Under the new procedures, licensees will access their current official authorization (“Active” status only) via the ULS License Manager. The FCC will continue to provide paper license documents to all licensees who notify the Commission that they prefer to receive one. Licensees will also be able to print out an official authorization — as well as an unofficial “reference copy” — from the ULS License Manager.

“We find this electronic process will improve efficiency by simplifying access to official authorizations in ULS, shortening the time period between grant of an application and access to the official authorization, and reducing regulatory costs,” the FCC Wireless Telecommunications Bureau (WTB) said. According to the WTB, the new procedures will save at least \$304,000 a year, including staff expenses.

The ULS License Manager now permits licensees to change the default setting so that the Bureau will print and mail a license document.

ARRL Foundation Announces Two New Scholarships

TAGS: [amateur radio](#), [Army Signal Corps](#), [arrrl foundation](#), [ARRL Foundation administers](#), [ARRL President Kay](#), [ham radio](#), [higher education](#), [new scholarships](#), [President Craigie](#), [World War](#)

The ARRL Foundation has announced the establishment of two new scholarships — The James Cothran, KD3NI, Scholarship Fund and The Dan Huettl, WZ7U, Memorial Scholarship Fund. The Cothran scholarship, endowed by his daughter, ARRL President Kay Craigie, N3KN, and her husband Carter, N3AO, will award \$2000 annually to a young radio amateur pursuing higher education. President Craigie said her father, a life-long experimenter, had tried unsuccessfully to get her interested in electronics when she was a child, she recounted.

“He came to Amateur Radio late in life but was active in several clubs in the Atlanta area, where he signed N4IQR, before moving to Pennsylvania for the last decade of his life,” President Craigie said. “He packed a lot of fun and many friendships into his few years in Amateur Radio.” Cothran died in 1997 a few days shy of turning 84.

During World War II, Cothran served in the US Army Signal Corps, assembling military radio stations from boxes of components. “That was good preparation for being a radio amateur, President Craigie allowed. “Although he did not graduate from college, he encouraged my doing so, and he paid the bill for it,” she continued. “In the last years of his life, Amateur Radio was a great shared interest in our family. Put it all together, and it just made sense to name our ARRL Foundation scholarship in his memory.”

Preference will be given to Cothran scholarship applicants who live in the ARRL Atlantic, Roanoke, or Southeastern divisions.

The Huettl Scholarship, which will award \$1000 annually to a radio amateur pursuing higher education, was established by the radio amateurs in his family. Huettl died earlier this year. His niece, Connie Mah, NR4CB, said Huettl got interested in

LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015

ham radio as a teenager, when another ham relative — as an impromptu demonstration — brought a radio to Huettl's house, threw a wire out over a fence, and began making contacts.

"Fascinated by what his Elmer helped him experience, he learned Morse code and passed his license exams," Mah said. Huettl attended Arizona State University, earning an electrical engineering degree and going on to work in the semiconductor industry for 33 years until his death at age 55. While working in Czech Republic, he held call sign OK8DX.

"Dan was a member of ARRL for 37 years, making contacts with hams locally and internationally as a way to relax. Amateur Radio was one way Dan pursued what he was passionate about — electronics, technology, and, most of all, connecting with people around the world," Mah said.

The Huettl scholarship will give preference to applicants attending Arizona State who are pursuing a degree in science, technology, engineering or mathematics.

The ARRL Foundation will administer both scholarships. [Descriptions](#) of all scholarships The ARRL Foundation administers are available on the Foundation's web pages.

Source:

The ARRL Letter

2015 ARRL Scholarship Program Now Accepting Applications

The ARRL Foundation is currently accepting applications from eligible radio amateurs pursuing higher education. More than 80 scholarships ranging from \$500 to \$5,000 will be awarded in 2015. In addition, one applicant may be selected for the prestigious William R. Goldfarb Memorial Scholarship, awarded to a high school senior pursuing a degree in business, computers, medical, nursing, engineering or science.

All applicants must submit a completed online application. Applicants must also forward a pdf of their academic transcript from their most recently completed school year to foundation@arrl.org. *Note: Only a pdf or other format of the transcript is acceptable – no 'photos.'* Applications without accompanying transcripts will not be considered.

Students submitting applications for the 2015 process should read the [ARRL Scholarship Descriptions](#) carefully and apply only for those scholarships for which they are eligible - some scholarships have [geographic criteria or other requirements](#).

Applications must be received between *midnight, October 1, 2015 and 11:59PM Eastern Standard Time January 31, 2016. Transcripts must be received by February 13, 2016.* Awards are typically notified by mid-May by USPS mail and email.

Upcoming events for March

7-8 [International DX- Phone](#)

Objective: To encourage W/VE stations to expand knowledge of DX propagation on the HF and MF bands, improve operating skills, and improve station capability by creating a competition in which DX stations may only contact W/VE stations. W/VE amateurs work as many DX stations in as many DXCC entities as possible on the 160, 80, 40, 20, 15, and 10 meter bands. DX stations work as many W/VE stations in as many of the 48 contiguous states and provinces as possible.

Hamfest / Conventions

03/07/2015 | [SANTA CLARA VALLEY SECTION CONVENTION \(RADIOFEST\)](#)

Location: Del Rey Oaks, CA

Type: ARRL Convention

Sponsor: Naval Postgraduate School Amateur Radio Club (NPSARC)

Website: <http://www.radiofest.org>

03/14/2015 | [PALM SPRINGS HAMFEST](#)

Location: Palm Springs, CA

Type: ARRL Hamfest

Sponsor: Desert Radio Amateur Transmitting Society

Website: <http://palmspringshamfest.com>

LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015

Hamfest/Convention

03/14/2015 | [SFARC HAMFEST](#)

Location: Loomis, CA

Type: ARRL Hamfest

Sponsor: Sierra Foothills ARC

Website: <http://www.w6ek.org>

Future Events

ARRL Field Day

The single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June beginning at 1800 UTC Saturday and running through 2059 UTC Sunday. Field Day 2015 is June 27-28.

Objective - To work as many stations as possible on any and all amateur bands (excluding the 60, 30, 17, and 12-meter bands) and to learn to operate in abnormal situations in less than optimal conditions. Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and countries within IARU Region 2. DX stations residing in other regions may be contacted for credit, but are not eligible to submit entries.



OMIK 63rd Anniversary Convention
Oklahoma, City, OK July 16 – 18, 2015

2015 OMIK Scholarship

High school seniors and presently enrolled college students, including those related to OMIK members, are eligible to apply for the OMIK scholarship. The OMIK scholarship program supports students who have proved to be academically able and are, or will be, majoring in electronics, mathematics, science, or communications. All parts of the scholarship application, the essay, transcript, and two letters of recommendations must be complete and received by the committee on or before May 1, 2015.

Western Amateur Radio Association (WARFA)



Retreat May 14 -16 2015

Location: Valencia Travel Village

VE Testing Saturday May 16th 8:00 am

For additional information go to:

www.warfa.org

or Listen to the net

Tune to 3808mhz 8:00 pm Mon, Tue & Thur.



Classes & VEC Testing

None scheduled for January

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

http://www.arrl.org/exam_sessions/search

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://aa9pw.com>

<http://www.qrz.com/exams>

<http://hamexam.org>

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

LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015

Tech Tips

(This information was copied from the ARRL Website)

Selecting a Good Antenna

While selecting your transceiver will largely depend on how much you want to spend and what you hope to do. What is equally important is the antenna. As most hams know if you want to explore long-distance contacts on the HF bands, you'll need an HF transceiver. If you are interested in chatting with local friends on the VHF or UHF bands and explore long-distance contacts, look for a Digital UHF/VHF+ FM transceiver. Yes selecting the right transceiver is important but what is equally important is the antenna. Here's some information I found on the ARRL web site that I feel might be useful in helping you select your next antenna.

The Antenna

Antennas for the VHF and UHF bands are similar in many ways to HF antennas. The main differences are that VHF/UHF antennas are smaller and the losses caused by poor feed lines and elevated SWRs (or both) are more critical.

Omnidirectional Antennas

This type of VHF antenna transmits and receives in all directions at once (the same is true of the dipoles, loops and vertical antennas for HF use). All commonly used mobile antennas are omnidirectional. This makes sense because it is impractical to stop and point your car in the direction of the station you want to contact. Instead, the omnidirectional mobile antenna blasts your signal in all directions so that you'll stand a decent chance of communicating no matter where you are driving.

Omnidirectional antennas are also found in base stations where the goal is to transmit and receive from any direction with minimal hassle and expense. Common omnidirectional antenna designs for base stations include *ground planes*, *loops* and *J-poles*, but there are others.

An omnidirectional antenna spreads your signal over a broad area, depending on how high you install it. Height is critical to the performance of all antennas at VHF and UHF frequencies. Higher is always better, whether that means putting the antenna on a flagpole, tower or a rooftop. If you are fortunate enough to operate from the summit of a hill or mountain where Mother Earth provides the altitude, that works, too.

If the advantage of an omni is that it radiates in all directions, that can be its *disadvantage* as well. An omnidirectional antenna can't focus your reception or transmission. Once you put it in place, what you get is...well...what you get. There is little you can do to change it. If the station you're talking to is west of your location, for example, all the power you are sending north, south and east is wasted. You will also receive signals--possibly interfering signals--from the same useless directions.

Directional Antennas

As the name implies, directional "beam" antennas focus your power and reception in a single direction. Just like HF antennas, directional VHF designs work by canceling the energy that radiates toward the back of the antenna and reinforcing the energy going toward the front. The result is a beam of RF power (and concentrated receive sensitivity) not unlike a searchlight or a magnifying glass. Directional antennas are ideal at VHF and UHF when you want maximum distance and minimum interference. They are almost mandatory for VHF DX work and satellite operating. Directional antennas also help tremendously on VHF FM when you're trying to communicate with a distant station. Common directional antenna designs include the *Yagi*, *quad* and *Moxon*. *Parabolic dish* antennas—the kind you've likely seen for satellite TV reception—are also directional antennas. So what is the downside? Directional antennas tend to be more complex and difficult to assemble. They can also be quite large in some configurations. For instance, a highly directional Yagi antenna for the 6-meter band, a model with 11 sections known as *elements*, can include a boom assembly that's nearly 70 feet in length. And what happens if your antenna is pointing north and the station you want to talk to is south? Unless you can turn your antenna, communication will be difficult or impossible. This is where the *antenna rotator* comes into play, just as it did for HF beam antennas. You may recall that a rotator is an electric motor that you install below your directional antenna. Its job is to turn your antenna to the direction you require. Rotators add to the cost and complexity of a directional antenna system. A light duty rotator can cost about \$100. If you need a heavy duty rotator to turn a bigger antenna (or more than one antenna), the cost can reach \$500 or more. In addition to the hassle of stringing your feed line from the antenna back to your radio, you must also string a cable for the rotator. More wires equal more work, although the reward can be considerable!

LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015

Antennas for the HF Bands

The most powerful antennas for the HF bands or any band is the *directional* antenna, often referred to as the *beam* antenna.

When hams speak of beam antennas, they usually mean the venerable Yagi and quad designs. These antennas focus your signal in a particular direction (like a flashlight). Not only do they concentrate your transmitted signal, they allow you to focus your *receive* pattern as well. For example, if your beam is aimed west you won't hear many signals from the east (off the "back" of the beam).

The problems with beam antenna systems are size and cost. HF beams for the lower bands are *big* antennas. At about 43 feet in width, the longest element of a 40-meter coil-loaded Yagi is wider than the wingspan of a Piper Cherokee airplane.

In terms of cost, a sizeable beam antenna and 75-foot crank-up tower will set you back *at least* \$2,500. Then add about \$500 for the antenna rotator, an electric motor that allows you to turn the antenna by remote control. On top of that, add the cost of cables, contractor fees (to plant the tower in the ground) and so on. In the end, you'll rack up about \$5,000.

If you have that much cash burning a hole in your pocket, by all means throw it at a beam antenna and tower. The rewards will be tremendous and you'll never regret the investment. Between the signal-concentrating ability of the beam and the height advantage of the tower, you'll have the world at your fingertips. Even a beam antenna mounted on a roof tripod can make your signal an RF juggernaut.

But do you *need* a beam and a tower to enjoy Amateur Radio? The issue isn't whether they're worthwhile (they are). The question is: Are they absolutely necessary? The answer, thankfully, is *no*.

Click the links on the upper left portion of this page to see some simple HF antenna designs.

Safety Tip

Safety begins with a proper attitude. Make it a habit to plan your work carefully and always consider the safety aspects of your Ham Radio activities. It is also important to learn as much as possible about what could go wrong so we can avoid factors that might result in accidents. Amateur Radio

activities are not inherently hazardous, but like many things in modern life, it pays to be informed. Stated another way, while we long to be creative and innovative, there is the need to act responsibly. A good attitude toward safety also requires us to be knowledgeable about common safety guidelines and follow them faithfully. There is no substitute for common sense.

Digital Technologies

The United Digital Amateur Radio Club has XRF748 reflector up and running. If you are a D-Star user and would like to use it, feel free. Contact Frank at k6fed@yahoo.com he will provide you with the information. The information Dashboard is located <https://104.167.104.58>.

New Radio

CS7000 Multiprotocol Radio



CS7000 Made by Connect Systems Inc. Agoura Hills, CA – USA – This radio is defined for the Amateur Market and will have an introductory price of \$249. – Capable of doing DMR, NXDN, dPMR, P25, ANALOG, D-STAR, AND FUSION Protocols.



CSI CS7000 Expected Delivery is April 2015 or before

The first version will ship with ANALOG, Digital Mobile Radio (DMR – TDMA), and D-STAR protocols with future firmware updates allowing other protocols – CSI web-page 10/2/2015: *Expected Delivery is April 2015*.

LOS ANGELES AMATEUR RADIO CLUB 40/S9

March 2015



Connect Systems Inc. (CSI) CS7000 Specimen

CS7000 Preliminary information, by first Withe Paper from Jerry Wanger CEO – The primary microprocessor is a STM32F405VGT6. – This is an ARM Cortex M4 32 bit high speed microprocessor – The second microprocessor is a DVSI 3000R. This microprocessor uses a TMS320F2811 core and is dedicated to executing the AMBE and AMBE +2 Vocoder formats and other algorithms.

On the CS7000 the (firmware) software is open source, that Hams will evolve the kernel to make it increasingly more powerful to add industry standard protocols.

The primary microprocessor is a STM32F405VGT6. This is an ARM Cortex M4 32 bit high speed microprocessor – The second microprocessor is a DVSI 3000R. This microprocessor uses a TMS320F2811 core and is dedicated to executing the AMBE and AMBE +2 Vocoder formats and other algorithms.

For Sale or SWAP

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