



October 2019

ARCOver

A Community Service Organization Dedicated to Amateur Radio Since 1970

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E-mail: W6SBA@arrl.net



Website: <http://www.w6sba.org>

President's Message

Hi Fellow SBARC Ham's,

It's time for the monthly eating and eyeball QSO. As always it's on the 2nd Saturday of the month, October 12th at high noon. We are returning to Joey's barbeque at 25308 Crenshaw Blvd in Torrance. The council couldn't determine another luncheon location so here we're back at Joey's again. Which seems to be an agreeable location. Please submit to the club your luncheon location request or recommendations.

A couple of club things that come to my mind: We are looking to ham up the raffle prizes with a little more variety of electronics and ham related items. Join us at the meeting for your opportunity to win! And, we have club elections at the end of the year. Now is the time to be thinking about helping your club move forward. All officer positions are open for election consideration. Give some to taking a role in leading the SBARC to succeed in the next year. If you have not been in a club officer role, give it a go.

I finally succeeded in almost finalizing the installation of an Anytone, AT-588, mobile radio on 220 MHz into my truck. I have been driving it around for weeks with the antenna installed. I just finished the DC power wiring. I did a quick VSWR check, 1.2:1, and I think we are good to go. It gets dark earlier so I didn't get the radio mounted. Maybe by next weekend I'll have it all together. The AT-588 can produce 50 watts on the 220 band. Hopefully the radio holds up. It's kind of an experiment in that respect.

Upcoming October activities include, a luncheon on the 12th, the club meeting on the 17th, JOTA on the 19th and the TRW/NGC swap meet on Saturday the 26th. The swap meet proceeds benefit the club. After the swap meet a few of us head over to Denney's on Artesia and Aviation for your choice of a late breakfast or lunch. I want to encourage everyone to attend the monthly club meetings.

See you at the next SBARC event!

73's...

Scott
N6LEM



**MEETING
NOTICE!**



At the age of 13, radio obsessed Herb Kraft, AE6HK, passed the FCC commercial radio examination and over the next decades was a major market and network radio talent, radio station owner and consultant.

Rather than pursue his real dreams of radio stardom, he fulfilled his parent's aspirations in becoming a lawyer.

An Amateur Extra operator and Volunteer Examiner, Herb has been involved in numerous legal matters representing hams and ham radio clubs.

His most recent case involving ham law is an action against Baofeng, which is still pending and is presently attempting to negotiate a refund for purchasers of Baofeng models that the FCC declared to be unlawful last year.



Please join us at the Richard Hoffman Conference Ctr., Torrance Memorial Hospital room 1 on Thursday, October 17th at 1930 hrs. for his exciting presentation.

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FCC Seeks to Streamline its Hearings Process

ARRL 9/13/19

The FCC is asking for public comments on procedural changes that, if adopted, would streamline many administrative hearings under the Communications Act of 1934, as amended.



“Currently, these hearings typically are conducted like trials in civil litigation and include, among other things, live testimony before an administrative law judge, cross-examination of witnesses, and an initial decision by the administrative law judge that is subject to review by the Commission,” the FCC said in a *Notice of Proposed Rulemaking (NPRM)* in EB Docket 19-214. The FCC said its proposals “are designed to supplement the Commission’s current administrative law judge referral process and promote more efficient resolution of hearings.”

If adopted, the proposals would:

- Codify and expand the use of a process that would rely on written testimony and documentary evidence in lieu of live testimony and cross-examination.
- Enable Commission staff to act as a case manager that would supervise development of the written hearing record when the Commission designates itself as the presiding officer at a hearing.
- Dispense with the preparation of an intermediate opinion, whenever the record of a proceeding can be certified to the Commission for final decision.

According to the FCC, the proposed procedures would expedite its hearing processes, consistent with the requirements of the Communications Act and the Administrative Procedure Act (APA) while ensuring transparency and procedural fairness. The FCC’s current hearing rules provide that “any hearing upon an application shall be a full hearing in which the applicant and all other parties in interest shall be permitted to participate.” The FCC noted that it has, on numerous occasions, curtailed the use of oral testimony and cross-examination in particular proceedings, in order to expedite the hearing process.

“In our experience, disputes in Commission

Amateur Radio CubeSats among 15 Set to Launch on October 21 from Wallops Island

ARRL 9/17/19

AMSAT reports that an Antares II launch vehicle will carry 15 CubeSats into orbit on October 21 as part of NASA Educational Launch of Nanosatellites (**ELaNa**) Mission 25. Some will carry Amateur Radio payloads.



TJ REVERB, developed by students at Thomas Jefferson High School in Alexandria, Virginia, will carry a 145.825 MHz APRS digipeater.

HuskySat, a University of Washington – Seattle project, will be boosted into a 500-kilometer (approximately 310-mile) orbit via the Cygnus external deployment device. HuskySat will carry a V/U linear transponder provided in cooperation with AMSAT.

Other satellites announced for the ELaNa 25 launch include Argus (St. Louis University), 437 MHz telemetry; AzTechSat-1 (NASA Ames Research Center) 437 MHz telemetry; CySat (Iowa State University) 436 MHz telemetry; Phoenix (Arizona State University) 437 and 2400 MHz telemetry; RadSat-U (Montana State University) 437 MHz telemetry; SPOC (University of Georgia) 437 and 2400 MHz telemetry, and SwampSat II (University of Florida) 437 and 2400 MHz telemetry. — *Thanks to AMSAT News Service*

proceedings typically involve criticisms by one party of the evidence proffered by another party or the legal significance of that evidence, not actual conflicts in testimony between two witnesses concerning outcome-determinative facts,” the FCC said.

“We contemplate codifying and expanding the use of a written hearing process that can be used in most adjudicative proceedings, including those conducted by an administrative law judge. In particular, we propose to authorize the presiding officer to conduct a written hearing whenever factual disputes can be adequately resolved on a written record.”

Among other proposed changes, the FCC would prohibit staff members who have taken an active part in investigating, prosecuting, or advocating in a case from serving as a case manager and from advising or assisting the case manager in the same case.

Amateur Radio Digital Communications Announces Grant to ARISS

ARRL 9/13/19

[UPDATED: 2019-09-17 @ 1450 UTC to provide additional detail and clarity.] Amateur Radio Digital Communications (**ARDC**) has announced what's being called "a very generous grant" to Amateur Radio on the International Space Station (**ARISS**) to help fund its next-generation Interoperable Radio System (IORS) and associated infrastructure improvements and enhancements. ARISS said the IORS will replace the aging amateur stations on the ISS to ensure the continuation of its primary program that lets students speak to ISS crew members via Amateur Radio. ARDC said it believes ARISS helps to engage students with Amateur Radio and science, technology, engineering, and mathematics (STEM) in general "by providing exciting capabilities that don't exist" on cell phones or the internet. A dollar figure was not made public.

"This was fantastic news!" said ARISS International Chair Frank Bauer, KA3HDO, who expressed appreciation for ARDC's generosity. Bauer said the ARDC gift would go a long way toward covering the considerable cost of making the IORS a reality.

ARISS said its next-generation IORS will "enable new, exciting capabilities for hams, students, and the general public." It also plans additional enhancements, which would include:

New Amateur Radio communication and experimentation capabilities, including an enhanced voice repeater and updated digital packet radio

+ APRS capability

+ Two-way slow-scan television (SSTV) in both the US and Russian ISS segments

+ HamTV-2

+ A new multi-voltage power supply that will support present and future Amateur Radio capabilities and enable wireless experimentation

The ARISS International team has already begun planning for an Amateur Radio role for NASA's Lunar Gateway initiative. Some ARDC board members have expressed an interest in ARISS's future plans involving the Lunar Gateway program, ARISS said.



AMATEUR RADIO DIGITAL COMMUNICATIONS

In late July, ARDC announced the sale of some 4 million consecutive **AMPRNet** internet addresses to establish a program of grants and scholarships program in support of communications and networking research with a strong emphasis on Amateur Radio. ARDC, which manages AMPRNet, said it planned to provide monetary grants to organizations, groups, projects, and scholarships that have significant potential to advance the state of the art of Amateur Radio and of digital communications.

ARISS pointed out that it will build 10 next-generation radio systems to provide interoperability in any ISS module. Two systems will be installed on the ISS, two will serve as flight backups, and one will undergo flight certification testing. The remaining systems will be used for training astronauts and cosmonauts and for the engineering team to conduct further station-enhancement development and firmware tests.

ARISS said the IORS successfully completed a battery of rigorous testing that NASA requires as part of final pre-launch and operation hardware certification. Final flight safety certification in preparation for launch is now under way, and ARISS hopes to have the IORS ready to send to the station by year's end.

The donation to ARISS is the first since ARDC announced its grant program earlier this summer. ARISS **invites contributions** via its website.



FCC Proposes to Make All Universal Licensing System Filings Electronic

ARRL 9/9/19

The FCC is seeking comment on a *Notice of Proposed Rulemaking (NPRM)* that is part of an overall plan to transition completely to electronic filing, licenses, authorizations, and correspondence. The notice proposes to make all filings to the Universal Licensing System (ULS) completely electronic, expand electronic filing and correspondence elements for related systems, and require applicants to provide an email address on the FCC Forms related to these systems. Although much of the FCC's ULS filings are already electronic, the changes suggested in the *NPRM* (in WT Docket No. 19-212) would require all Amateur Radio Service applications to be filed electronically. Under current rules, Amateur Radio applications may still be filed manually, with the exception of those filed by Volunteer Examiner Coordinators (VECs).

"Given the drastic changes that have occurred with regard to the ubiquity of the internet and increased personal computer access, we find it unlikely that electronic filing remains infeasible or cost-prohibitive for the previously exempted types of filers, or that they lack resources to file electronically," the FCC said in the *NPRM*, which was released on September 6. "We therefore propose to eliminate Section 1.913's exemptions to mandatory electronic filing."

The FCC said that while the vast majority of ULS applications today are submitted electronically, some are still manually filed, largely from exempted filers, such as radio amateurs. Last year, the FCC received some 5,000 manually filed applications out of a total of some 425,000 applications. Among other aspects, the FCC is seeking comment on whether its underlying assumptions about the ease of electronic filing for previously exempted filers are valid.

This *NPRM* also seeks comment on additional rule changes that would further expand the use of electronic filing and electronic service.

"Together, these proposals will facilitate the remaining steps to transition these systems from paper to electronic, reducing regulatory burdens and environmental waste, and making interaction with these systems more accessible and efficient for those who rely on them," the FCC said.

Comments are due within 30 days of the *NPRM*'s release.



Software Defined Radio (SDR)

Submitted by Scott, N6LEM

A software defined radio (SDR) is likely not new too many hams these days. How about a web based SDR system that you can tune all the common HF ham bands. This system can be used for self-propagation checks and band activity. Below is a description of the KFS WebSDR system. This system has some phenomenal antennas attached. But it look like those are not user selectable.

History of KFS:

The KFS story begins with the Beach Station (Ocean Beach), which was put into operation in July 1910 by the Poulsen Wireless Telephone and Telegraph Company. The Beach Station was located just north of the San Francisco zoo at 48th Avenue and Noriega Street.

The Dollar Steamship company formed DOLLARADIO in 1929 (in 1930 becoming Globe Wireless) to handle their ship-to-shore communications. Dollar's first shore station was constructed at Mussel Rock about 15 miles south of San Francisco near the north end of Pacifica. Eventually, Globe opened their facilities to the public and to communicate with ships of any line.

The 200 acre Half Moon Bay facility on the coast near Lobitos Creek, "LO", was constructed in 1932 by the Mackay Radio and Telegraph Co. as the receive site for maritime radio station KFS and point-to-point station KTK. (The transmit site for KFS and KTK, "MX", was established in the Palo Alto bayland marsh.) Operations from Ocean Beach and Mussel Rock were all moved to the new facilities. The International Telephone and Telegraph Company (ITT) subsequently purchased the stations and operated them for many years. Eventually, in the early 1990s, ITT sold KFS (KTK had ceased operations) to a group of local investors. These investors also obtained, from the Tropical Radio and Telegraph Company (TRT), station WNU near Slidell, Louisiana and, from the United States government, the former Voice of America sites near Dixon, California. This was the beginning of a modernized HF network, reusing the name Globe Wireless.

The last commercial radiotelegraph transmission in North America was keyed from LO and transmitted from MX at 2359 UTC on July 12, 1999. The final words transmitted by KFS? *Con't Pg 6*

Software Defined Radio (SDR) Continued

"What hath God wrought". By the turn of the century, the Half Moon Bay facility had become the central control, database server farm, and west coast receive site for the Globe Wireless HF data and email network providing GlobeEmail and GlobeData services to 40,000 commercial shipping vessels from stations at 23 worldwide sites. When Inmarsat purchased Globe Wireless in December 2013, the HF portion of the operation was retained as Globe Wireless Radio Services.

Craig, W6DRZ, a former Globe Wireless executive installed a WebSDR system at the KFS LO site in February 2016, initially named LO WebSDR and renamed to KFS WebSDR in January 2017. The system is on its second set of computer and receiver hardware and enjoys support from the HF listening community. Currently, the KFS site is also in use by radio providers serving the aeronautical, cellphone, emergency response, Internet data and military communities. The February 2018 edition of Electric Radio magazine published an article entitled The KFS Story on page 2 with a nice cover picture of the building. It was authored by Gary, K6GLH, with help from Craig, W6DRZ, and adds more detail and pictures to the above brief account.

Technical Details of the System:

The KFS WebSDR HF radio server system is located near the mouth of Lobitos Creek on the Pacific coast, six miles south of Half Moon Bay, California, USA. This RF quiet location, on a 150 foot cliff overlooking the Pacific Ocean, is in maidenhead grid square CM87tj02; the geographic coordinates are 37° 23' 6" North, 122° 24' 45" West. You can easily locate the site using Google Maps or Google Earth by searching for "KFS WebSDR". The individual band receivers are FiFi SDR receivers with internal sound card chips, mounted in a custom rack mount chassis (thanks to KO6AQ). The 160 meter receiver is preceded by a bandpass filter and a KD9SV Products SV-160 160 Meter Preamp, modified for rack mount, to compensate for the 3-30 MHz antenna response. All but one of the WebSDR receivers are fed from the Omni antenna, a TCI Model 530 Log-Periodic. The receiver for the 40ph band is switched, on a schedule, between the usual Omni and the SE Sector antenna, a TCI Model 527B Log-Periodic. The other two TCI 532 LP antennas (NW Sector and NE Sector) are not in use by the KFS WebSDR at this time. See below for more antenna details. The server computer uses an ASUS Z170 motherboard with an Intel i5-7400 CPU in an ARK rack mount case with 8 GB of RAM, and an ADATA SP580 120 GB solid state drive. Three Startech PEXUSB3S44V 4-port USB cards are installed; they can connect up to 12 receivers. Version 9 of the Debian Linux operating system provides file system support. The Internet service provider is Coastside.net in Half Moon Bay. WebSDR server software was written and is maintained by Dr. Pieter-Tjerk de Boer, PA3FWM. Pieter maintains a list of active WebSDR servers and a FAQ page.

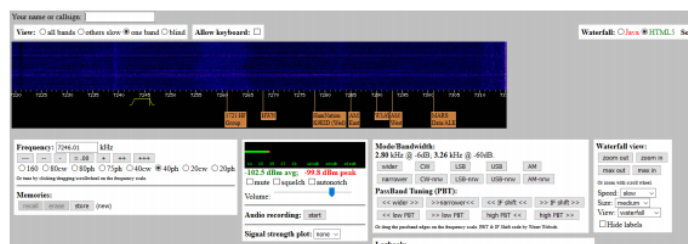
KFS Antenna Details: There are four TCI receive-only HF antennas at the KFS site. The antennas feed lines entering the building are connected to a house RF distribution system that provides signals to all co-located HF tenants. Five Redifon MCU100 Antenna Multi-coupler units feed the second-floor tenants including the WebSDR receivers. Pictures of the antennas, courtesy of Hal, KK6HY, are here. Each antenna has a friendly name - Omni, NW Sector, SW Sector, or SE Sector - as described below: "Omni" is a TCI 530 Short and Medium Range Log-Periodic Antenna (Model 530-4-02). Its dimensions are 217 feet long by 217 feet wide. It is supported by a single aluminum tower 92 feet high. The frequency coverage is 3 to 30 MHz. The pattern is omnidirectional with circular, horizontal, polarization. The nominal gain is 6 dBi. "NW Sector" is a TCI 532 Medium Range Log Periodic Antenna (Model 532-4-02). Its dimensions are 330 feet long by 410 feet wide. It is supported by a single aluminum tower 149 feet high. The frequency coverage is 3 to 30 MHz, horizontally polarized, nominal 12 dBi gain, 13 dB F/B ratio. The take-off angle varies from 20 degrees at 30 MHz to 37 degrees at 3 MHz. A beamwidth of 55 degrees, at a bearing of 278 degrees true provides coverage from 251 to 306 degrees; this includes Japan, Indonesia, Western Australia, Hawaii, and the Western Pacific Ocean. "SW Sector" is a TCI 532 Medium Range Log Periodic Antenna (Model 532-4-02). Its dimensions are 330 feet long by 410 feet wide. It is supported by a single aluminum tower 149 feet high. The frequency coverage is 3 to 30 MHz, horizontally polarized, nominal 12 dBi gain, 11 dB F/B ratio. The take-off angle varies from 20 degrees at 30 MHz to 37 degrees at 3 MHz. A beamwidth of 55 degrees at a bearing of 222 degrees true provides coverage from 195 to 250 degrees; this includes Hawaii, Eastern Australia, New Zealand, and the South Pacific Ocean. "SE Sector" is a TCI 527B Super High Gain Log-Periodic Antenna (Model 527B-8-02). Its dimensions are 357 feet long by 450 feet wide. Two aluminum towers, each 151 feet high spaced 150 feet apart support this antenna. The frequency coverage is 6.2 to 30 MHz, horizontally

polarized, nominal 15 dBi gain, 13 dB F/B ratio. The take-off angle varies from 13 degrees at 30 MHz to 20 degrees at 6.2 MHz. The beamwidth of 64 degrees at a bearing of 135 degrees true, provides coverage from 103 to 167 degrees; this includes the Southwest USA, Western Caribbean, Mexico, Central and South America and the Eastern Pacific Ocean.

Give the system a listen sometime.

The URL is: <http://69.27.184.62:8901/>

(A sample waterfall display on 40m band)



SPOT the T INFORMATION

Joe, WB6MYD



1. **Attendance drawing:** The winner at our September meeting was Scott-KN6BLB-one of our new members. Scott was not present, therefore, the kitty for our October meeting will be \$ 30.00 since no winner was in attendance at the July meeting either. Be sure to join us this October 17th meeting. Remember you must be a member in good standing and be present at the time of the drawing.

2. **Thank you:** We thank Paul-KK6BY for his excellent and informative presentation on Arduino micro- processors, Rasberry Pi's and even talked about the digital hotspot. So many new applications have come out for so many different applications in our amateur radio world; It's mind staggering. So thank you Paul for great and enlightening presentation.

3. **New members:** A special invitation will be sent out to our 5 new members having passed a test at our Aug VE session. If someone takes a test at our regularly scheduled VE sessions or Special session they're offered a 1 year free membership with the South Bay ARC. Reason is that we would like to welcome them to our hobby and offer our assistance into becoming active ham's with us. We all need to do our share because we too once were there to as a newbie. So please help us welcome them into our club and offer your assistance to the path of proficiency as an amateur radio operator. The September Arc Over lists their names and call signs and to add to this process we will provide them when they attend our meeting with a temporary name tag for introduction and recognition as well. The awareness about our new members, especially those just having received their new licenses, warrants extra attention. We all agree on needing new members to carry on-most of us are getting pretty old. So please stay tuned and watch for more information coming your way.

4. **JOTA:** Please consider helping us at this event. This is about the only public Community Service event we participate in this year. JOTA (Jamboree On The Air) is for boys, girls and cub scouts to provide them the opportunity to talk to other scouts. This is an international event with thousands of scouts participation in this event all over the world. (please check the ARRL website or Google JOTA for details). This is a fun event that we try to do once a year. While we have been doing this now for 5-6 years, starting out at the USS Iowa in the LA Harbor. We now do this at the Cabrillo Beach Youth Camp in San Pedro. We set up demonstrating amateur radio to these young potential future hams in our community. A lot depends on your participation, as to our involvement at this event. Since the club meeting is on the 17th of October, only 2 days prior, we hope you will read this sooner and offer your participation for that day.

You say, well what is it you want us to do? I think it is more important to realize the purpose of this. This event is to provide the opportunity for young minds to experience what you and I have enjoyed all this time. Think back on the days you first got licensed-what interested you to become a ham? Did you just jump in or had been forced by your dad or friends? I like this one to-were you that cocky that you just picked up a mike and started talking and got so excited when someone came back to you from the other side of the world? The excitement we all must have felt is hopefully still with you and we are asking you now to help us with that as well. As I said before, this is a fun event worthy of your participation. You do not have to be scout because all we're looking for are your experiences that we need you to show these youngsters. None of us grew up with a mike in our crib, rather someone helped you to get here and now we would like you to help us with that as well. Maybe you would rather stay at home? We can do that to, have you act as a link to have the scouts talk to you. The only thing we have to realize is that we need to realize the location is somewhat shielded. We can't access the W6SBA repeater from that location. We will certainly look for other ways to connect to you. Let us know what kind of gear you have before hand and well see if we can have you use that with us. Also time you would be available to answer some questions these scouts might have for you-it is all about communicating something showing what this is all about. Please help us out. Of course we also need a few good bodies to help us. New members especially allow us to have you participate in some of these things we as a club do. This is good practice and hopefully we can make this a good experience for all involved. Joe, WB6MYD jmlanphen@gmail.com

2019 CLUB OFFICERS

President: Scott -N6LEM, 310-530-9889 scottsimpson126@gmail.com

Vice President: OPEN

Secretary: Joe -WB6MYD, 310-328-0817 jmlanphen@gmail.com

Treasurer: Joe -WB6MYD, 310-328-0817 jmlanphen@gmail.com

Council: Chuck - K6CSH, 310-941-5679 chuchohn@gmail.com

Council: Paul - KK6BY, 310-676-0212 kk6by@arrl.net

Council: Mark - KM6HQG, 310-612-0835 markvberbue@gmail.com

Past Pres: OPEN

CALENDAR

Council Meeting - 4th Tuesday of the month
Call Joe - WB6MYD (310) 328-0817

Club Meeting - 3rd Thursday of the month
October 17, 2019 - 7:30 p.m.
Room 1 in the Richard Hoffman
Educational Center at Torrance
Memorial Medical Center

Club Nets - **W6SBA WEEKLY NET**
Every Thursday @7:30pm
(except the night of club meetings)
PVUSD EMERGENCY NET
1st Tuesday of the month
09:30 Hours on the W6SBA repeater

TRW Swap Meet Saturday,
October 26, 2019, 7-11 a.m.

VE Sessions - Scheduled on Saturday of even months
Contact Joe, WB6MYD with questions
(All VE sessions are scheduled for Room 4 in the Health
Conference Center)

Social Event - Contact: Joe WB6MYD
Phone: (310) 328-0817
jmlanphen@gmail.com

CLUB SERVICES

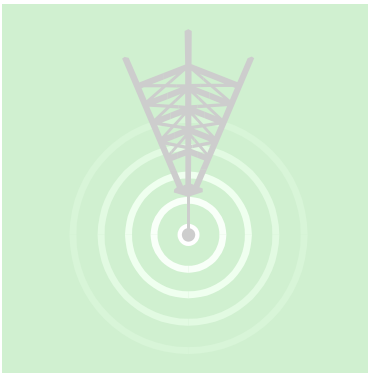
Awards Manager (HF/VHF)	Cliff - K6LH
Health & Welfare	Joe - WB6MYD
Swap Meet Chair	Tom-KI6RC, Chuck- K6CSH., Bill-KQ6Z
VE Test Liaison & Sessions	Betty Barch-N6VZF N6VZF@arrl.net (310) 545-6422
Webmaster	TBD
Editor	Glenda - KF6QFE Glenda.simpson@hotmail.com
Proofreader	Scott - N6LEM

South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz
(See Calendar for Weekly Net Times)

NEWSLETTER SUBMISSION

South Bay Amateur Radio Club
P.O. Box 536
Torrance, CA 90508
W6SBA@arrl.net
Website: <http://www.w6sba.org>

TO:



Address Correction Requested

A COMMUNITY SERVICE ORGANIZATION

W6SBA

South Bay Amateur Radio Club
Post Office Box 536
Torrance, CA 90508-0536

