



The Transponder



The monthly newsletter of the Hughes Amateur Radio Club, W6HA
- An ARRL affiliated club -

January 17, 2020 Repeater 445.620 – PL 127.3 Web Site: <http://W6HA.com> Vol. XLVII, No. 1

***** CLUB MEETING *****

Where: El Segundo Library - Friends of the Library Conference Room
Location: 111 Mariposa Ave (near Main Street) , El Segundo, CA 90245

Meeting Notice: Date: Tuesday, January 21, 2020;
Time: Gather, 11:30; Meeting: 12 to 1 PM

Featured Presentation:

Suggested Antennas for New Hams

Storage container is GONE!

Up Coming Events:

Saturday, February 8th, 2020 – Sean O’Brien 100K/50mi <http://sob5050.com/>

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Lunch: Pizza: 1 Large Veggie; 1 Lrg Pepperoni; 1 Lrg Special; 1 Lrg Sausage, (\$3.50/slice)
Prices: 2 slices of Pizza w/salad, \$8.00; 1 slice of pizza w/salad \$5.00; Salad only \$4.00
Sodas: Coke, Coke Zero & Ginger Ale (\$1.00) - Water (50 cents)

Nets on the Club’s Repeater: *(See Last page for details)*

Wednesday Evenings at 7:30 PM – Hughes ARC members net, (then Simplex @ 146.55)

Thursdays about Noon (12:05 PM) Raytheon & other Emergency Communication Teams (ECT)

Other nets: Thursdays at 7:30 PM So Bay ARC Net
1st Mondays of the month (7:00 PM) – LAFD CERT

Transponder Deadline for Submittal of Articles: Wednesday, before next meeting

Club News:**Storage Container Status - It's Gone!****Business meeting in December was at the Container to empty it of all important items.****Notes/Action Items from the W6HA Business Meeting November 19, 2019**

Mark to check on condition of emergency power for the club repeater and report what may be needed to ensure it remains up when building power is interrupted.

Brian to send link about nano vector analyzer and link to his ARISS video.

Mike to put the ARISS video link on the club web site as a first step to getting more club participation support in future space station opportunities.

Brian to be the primary speaker at the December club meeting subject being the ARISS experiences. Two additional opportunities for supporting a school are on the horizon.

January meeting topic will be suggested antennas for new Hams HT and continuation of the selection guidance of HT for new hams. The nano vector network analyzer will be part of the discussion of antennas.

January the club will try for another technician class plus a skills day. Mike to arrange for a room.

Judi to confirm the date of the December club meeting and make reservations for the January meeting.

Dale will email the club membership – paid status spreadsheet to Mike and Alice. Mike will update with data provided today by Alice and mail back to Dale and Alice.

Dale will get a few quotes for moving the container from lot T to its new spot.

Club needs to create a MOU for use of the repeater during training and actual emergencies. Actionee is TBD

Mike to further update the HT selection document based on on-going feedback from members.

Mike, N6MDV

Sean O'Brien 100K/50M –

Sean O'Brien 100K/50M - Hughes & Santa Barbara ARCs Comm Team, et al Saturday, February 8th.

Contest for: January – February

There are two great contest this weekend. Follow the links for details. The NA QSO Party is a good old SSB contest.

Jan. 18-19- North American QSO Party, SSB

For the VHF contest, go park up on Mulholund Blvd. Mike, N6MDV and Karen, K6VHY did that and got a certificate.

Jan. 18-20-ARRL VHF Contest (cw, phone, dig)

W1AW will participate in the Winter Field Day and for us in So. Calif. No big deal – No snow!

Jan. 25-26 – Winter Field Day (WFDA),

And if your nostalgic for good old AM, try the 4th Annual AM rally.

Feb 1- 3 - Fourth Annual AM Rally: [Details](#)

Now don't tell me you don't have anything to do!!!

HNLB–Hughes Net Lunch Bunch - 1/7/20

Happy New Year! Can you believe it's 2020?

Eight of us met for lunch on Tuesday to toast in the new year (with iced tea, coffee, and water) and catch up. The eight were: Al - W6IVO, Darryl - W6JII, Alice - KK6MFL, Dick - W1MII, Robert - N6QA, Dick - W6RFI, Elliott - WA6TLA, and Betty - N6VZF.

Most of the usual topics were covered, with the addition of quite a discussion of college days - just to change things up a bit.

Bill - K6MGO: We miss you. Please get well and rejoin us. We send good vibes to you every time you miss a lunch.

Stay happy and healthy,
Betty, N6VZF

Response from: G. N. HITTINGER

Happy New Year from Colorado--snowing hard outside right now--don't you wish you were here?
Gerry--N6HUQ

Ed.Note: The Hughes Net Lunch Bunchers (HNLBers) meet in Westchester, at the Coffee Co. La Tijera Blvd & Sepulveda East way, at 11:30 am. They've meet on the 1st Tuesday of the Month - since the mid 70s - 40 years!

More Than 1 Million Contacts Logged During 2019 ARRL Field Day [Abteviated from Dec, but updates for W6HA & other in LAX-ed]

... nearly 1.1 million contacts were made during the 2019 ARRL Field Day -- the most popular operating event in North America. ... [2019 ARRL Field Day results](#), ... in the December 2019 issue of *QST*. ... more than 36,000 Hams took part in 2019 Field Day across all 83 ARRL/RAC Sections, up slightly from 35,250 reported in 2019.

"This year, 3,113 entries were received from local clubs and EOCs, as well as individual portable, mobile, and home stations," Most entries were in Class A -- club or non-club groups of three or more. ... approximately 46% were phone, 456,000 (42%) were CW, ... 138,000+ (12%) were digital modes, such as FT8 and RTTY. ... up from just over 56,000," in 2018.

Top 10 scores ranged between W3AO's Class 14A entry from Maryland-DC, with 32,356 points, to W1NVT's 14,876-point Class 2A entry from Vermont. ...

LAX Section: So how did we do in the LAX section. (Not all LAX entries are listed, but here is a sample. All listed below ran 150 watts or less.) - ed

Clubs/Grps	Call	Class	QSOs	Prts	Score	PPP
S.Psdna, Psdna, JPL & CalTech	W6KA	3A	1975	117	7978	68
United	K6AA	4A	1272	30	6182	206
W6TRW	W6TRW	7A	1096	35	5486	157
PV ARC	K6PV	2A	1295	38	5284	139
Hughes	W6HA	3A	869	28	3674	131
Sn.Frndo	W6SD	3A	367	12	1616	135
LAFD	N6ACS	2A	518	15	2180	145
W.Side	W6RC	3A	144	3	1362	454
Scan/Rd Ant Aniltrs	AD6HK	1A	435	5	1300	260
S.P, P, JPL & CaTch Rngds	W6SPR	1A	175	117	1000	9
So.Bay	W6SBA	1A	90	17	970	57
AE Assn	W6AGO	1A	18	6	686	114

As usual, United RAC, K6AA, in 4A was near the top scorer across all classes with 1272 QSOs (Qs), 30 participants (parts) and Scored 6182 points (pts), that's 209 Points Per Participant (PPP).

But four clubs in the Pasadena area (South Pasadena, Pasadena, JPL and CalTech, W6KA) ganged up on us all to make the top score in LAX of 7978 Points. However if you want to know who the top operators are, check the last column for Points Per Participant and scan down to, Yes, the Westside ARC where each participant averaged 454 points. -ed

[Soapbox comments](#) for Field Day 2019 are available on the ARRL website. ARRL Field Day 2020 will take place June 27 - 28.

ARRL Letter – Excerpts of possible interest

Puerto Rico Earthquake Relief Effort Continues, with Help from Ham Radio

In Puerto Rico, Amateur Radio Emergency Service (ARES) volunteers

continue to operate from the American Red Cross distribution center in Yauco -- one of the towns hit the hardest by the recent earthquakes and ongoing aftershocks on the island. The Red Cross requested assistance last week to identify undeclared



Volunteers Eduardo Hernandez, WP4RAF (left), and Herb Perez, WP4ZZ. [Photo courtesy of Oscar Resto, KP4RF]

refugee camps and to report on closed or damaged roadways and bridges. ARES District 5

Emergency Coordinator Herb Perez, WP4ZZ, who is among those volunteering for the Red Cross at Yauco, reported on January 14 that he, Melvin Velazquez, WP4RAP, and Yolanda Garcia, WP4QZF, were on duty there.

"Today, we were able to occupy our space with no major incident other than the usual shaking of the entire structure. More than 10 per hour," Perez said. "One of our members, Jared Martinez, KP4LCO, was able to search near his hometown of Lajas and was able to locate more than 10 unidentified campsites around the area." Perez said such reports enable the Red Cross to provide necessary assistance to those left homeless as a result of the earthquakes.

Perez said volunteers were able to collect food from a church-run food pantry in Sabana Grande for isolated communities in the mountain region.

He said local members of the General Mobile Radio Service (GMRS) and Citizens Band radio communities have been pitching in.

Operations from Yauco have been on VHF and UHF, although commercial telecommunication services remain in operation for the most part. Another station has been established at the Red Cross Headquarters in the capital of San Juan, which is not in the earthquake zone. Puerto Rico Section Manager Oscar Resto, KP4RF, said the stations are operating as a backbone, in the event of new or stronger earthquakes. HF equipment has been safely stowed if communications fail, Resto said. Most of Puerto Rico now has power and water.

ARRL is shipping six VHF/UHF base/repeater antennas and six 50-foot rolls of LMR-400 coax through the [Ham Aid Fund](#). Resto said a new Red Cross warehouse will be placed in Mayagüez, where he will install a third station for backbone communication.



Puerto Rico Section Manager Oscar Resto, KP4RF, installs an antenna at Red Cross Headquarters in San Juan.

"That is the reason for the new antennas," he said. "We already have the radios.

In case we need to escalate to HF, we are ready with ARRL go-kits from Hurricane Maria."

A lot of seismic activity was reported on January 15. "Many more or less 3.1 quakes were felt during the day," Perez said. That included a magnitude 5.1 temblor that shook the facilities.

The ARES team in Yauco has also been handling health-and-welfare traffic from the earthquake zone. Operations are running from 9 AM until 5 PM each day.

A magnitude 6.4 earthquake struck the southwestern part of Puerto Rico on January 7, fast on the heels of a magnitude 5.8 tremor the day before. The worst-impacted cities were Guayanilla,

Peñuelas, Yauco, and Guánica, where most homes are no longer habitable.

FCC Amending Amateur Radio RF Exposure Safety Rules [Repeated from December issue]

The FCC is amending its Part 97 Amateur Service rules relating to RF exposure safety. In a [lengthy document](#) in ET Docket 19-226 released on December 4 and addressing a broad range of RF safety issues, the FCC said current amateur radio RF exposure safety limits will remain unchanged, but that the amateur-specific exemption from having to conduct an RF exposure evaluation will be replaced by the FCC's general exemption criteria. Radio amateurs have always had to comply with RF exposure limits, but certain stations have been exempt from having to conduct evaluations based only upon power and frequency. The Commission indicated that, by and large, if an RF source was "categorically excluded" from routine evaluation under the old rules, it will most likely still be exempt under the new rules, which are expected to take effect in the next couple of months.

... [\[more Detail in December issue\]](#)

The FCC did not single out amateur radio in drafting its latest RF exposure rules. The rules affect multiple services, and exemptions for many other services were also deleted as part of a broader policy driven by a proliferation of RF devices, some resulting in situations where gain antennas are sited much closer to people than was expected in 1996 when the rules were last revised.



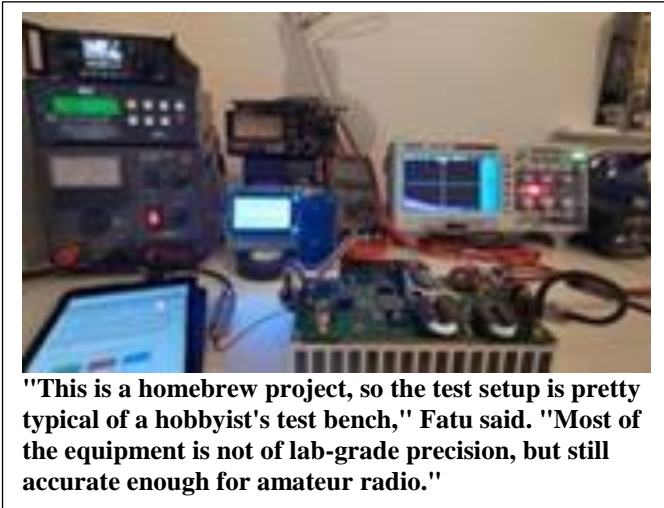
A 600 W Broadband HF Amplifier Using Economically Priced LDMOS Devices

Razvan Fatu, M0HZH/YO9IRF, has designed and built a [600 W broadband HF amateur radio amplifier](#) that uses a pair of low-cost MRF300 [LDMOS](#) (laterally diffused metal-oxide semiconductor) MOSFET devices. LDMOS devices are widely used in RF power amplifiers. Fatu's model A600, now at version 1.2, was designed to demonstrate the capabilities of MRF300s as linear broadband devices in the 2 - 50 MHz range.

"The announcement of the MRF300 and MRF101 transistors by NXP in 2018 has generated quite a spark of interest in the amateur radio community, and as soon as I learned about them, I wanted to get some on my workbench," Fatu said. He has entered his project in the NXP Homebrew RF Design Challenge 2019.

"To achieve the target of 600 W output while also minimizing the level of even-number harmonics, a push-pull configuration of two transistors is used," he explains. "Luckily, there are two versions -- the

MRF300AN and MRF300BN -- that have mirrored pinouts." The individual transistors are specified at 330 W output and come in a TO-247 package, with the source connected to the tab. The recommended supply range is 30 - 50 V dc. "By studying the specifications... we can get close to 600 W output at a voltage of around 45 V with a large bandwidth; 1.8 to 54 MHz," Fatu said. ... As the TO-247 is not a package specifically designed for high-power RF, there are some challenges with thermal design and PCB layout as well."



"This is a homebrew project, so the test setup is pretty typical of a hobbyist's test bench," Fatu said. "Most of the equipment is not of lab-grade precision, but still accurate enough for amateur radio."

The circuit uses a 4:1 transformer at the input. He used surface-mount devices wherever possible, to minimize stray inductance, and designed the circuit board power traces to be thick enough to support the high current. ... During testing, he found that the amplifier will put out about 580 W at 3.7 MHz and works most efficiently in the higher bands. "The highest output power I've measured was 840 W in the 10-meter band, but the wave was distorted and the harmonic levels were high," Fatu said. He has posted a [video](#) in addition to an online article.

NOAA/NASA Panel Concur that Solar Cycle 25 will Peak in July 2025 [Repeated from Dec.'19]

The NOAA/NASA-co-chaired international Solar Cycle Prediction Panel has released its [latest forecast](#) for the coming Solar Cycle 25. The panel's consensus calls for a peak in July 2025 (±8 months), with a smoothed sunspot number of 115. The panel agreed that Cycle 25 will be of average intensity and similar to Cycle 24. The panel additionally concurred that the solar minimum between Cycles 24 and 25 will occur in April 2020 (±6 months). If the solar minimum prediction is correct, this would make Solar Cycle 24 the seventh longest on record at 11.4 years. In its preliminary forecast released last April, the scientists on the panel forecast that Solar Cycle 25 would likely be weak, much like the current Cycle 24. . . . [See Dec for more details.- ed]

The Solar Cycle Prediction Panel forecasts the number of sunspots expected for solar maximum, along with the timing of the peak and minimum solar activity levels for the cycle. It is comprised of scientists representing NOAA, NASA, the International Space Environment Services, and other US and international scientists.

In Brief...

The theme for the 2020 [Dayton Hamvention](#)® will be "Amateur Radio, The Future." [held over Dec. '19 - ed]

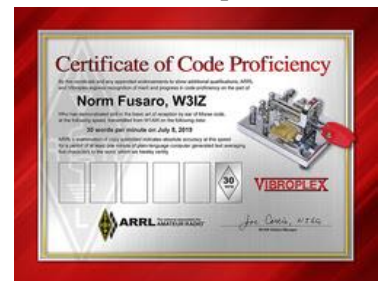
Hamvention General Chair Jack Gerbs, WB8SCT, invited Hamvention attendees to celebrate amateur radio's



past, present, and future. "As amateur radio operators, we enjoy many modes of operating," Gerbs said. "We also enjoy challenges such as satellite communications, moonbounce, meteor scatter, and more. What truly excites me about our hobby is the diversity of these modes and the fact that, as we move to the future, we still enjoy the technologies of the past." . . . Hamvention 2020 takes place May 15 - 17 at the Greene County Fairgrounds and Expo Center in Xenia, Ohio.

Starting with the August issue, *QST* will list the recipients of [W1AW Code Proficiency certificates.](#) (repeat from July)

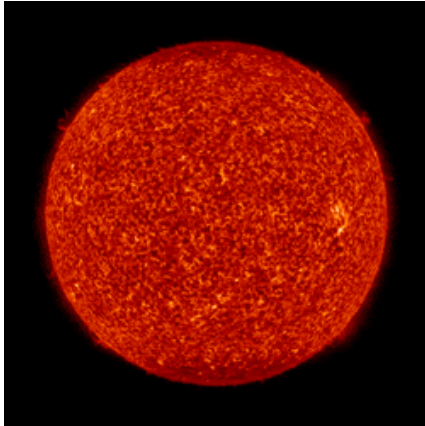
Key manufacturer [Vibroplex](#) is now sponsoring the certificates, which have been redesigned. The Code Proficiency program has been an ARRL staple for decades. Participants who copy a [W1AW qualifying run](#) and submit 1 minute of legible solid copy and the \$10 certificate fee can qualify. Send submissions to W1AW Qualifying Run, 225



Main St., Newington, CT USA 06111. These are checked directly against the official W1AW text, and those demonstrating solid copy will receive an initial Code Proficiency certificate. Endorsement stickers, which cost \$7.50, are issued for speeds up to 40 WPM. Those seeking to attain a Code Proficiency certificate can listen to W1AW daily code practice sessions, in which the text is taken directly from *QST*, as announced before each practice run. **Starting in December, W1AW will transmit up to 16 Qualifying runs per month.**

The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: Solar Cycle 25 sunspots persisted on January 9 - 10, with daily sunspot numbers of 14 and 11, respectively. This brought the weekly average daily sunspot number from 8.4 last week to 3.6 this week. Average daily solar flux edged up from 71.8 to 72.5.



The average daily planetary A index declined from 6.3 to 5.6, and the average middle latitude A index went from 5.3 to 3.7.

Predicted solar flux for the next 45 days is 71 on January 16 - 18; 70 on January 19 - 23; 72 on January 24 - 25; 70 on January 26 - February 7; 72 on February 8 - 22, and 70 on February 23 - 29.

Predicted planetary A index is 5 on January 16 - 18; 8 on January 19 - 20; 5 on January 21 - 31; 8 on February 1 - 2; 5 on February 3; 10 on February 4 - 6; 5 on February 7 - 9; 10 on February 10 - 11; 5 on February 12 - 22; 8 on February 23 - 24; 5 on February 25 - 27, and 8 on February 28 - 29.

Sunspot numbers for January 9 - 15 were 14, 11, 0, 0, 0, 0, and 0, with a mean of 3.6. The 10.7-centimeter flux was 74.4, 72.8, 73.5, 71.9, 71.5, 71.9, and 71.2, with a mean of 72.5. Estimated planetary A indices were 12, 7, 6, 4, 3, 3, and 4, with a mean of 5.6. The middle latitude A index was 8, 6, 4, 2, 2, 2, and 2, with a mean of 3.7.

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, [visit](#) the ARRL Technical Information Service, [read](#) "What the Numbers Mean....," and [check out](#) K9LA's Propagation Page.

A propagation bulletin [archive](#) is available. [Monthly charts](#) offer propagation projections between the US and a dozen DX locations

ARRL Section, State and Division Conventions / Hamfest in the West or near members everywhere:

January 19 - 25 -- [Quartzfest](#), Quartzsite, Arizona

February 7 - 9 -- [Northern Florida Section Convention](#), Orlando, Florida

February 14 - 15 -- [Southwest Division Convention](#), Yuma, Arizona

Find conventions and hamfests [in your area](#).

Just Ahead in Radiosports

Jan. 17 -- LZ Open Contest (CW)

Jan. 18 -- RSGB AFS Contest, SSB

Jan. 18 -- WAB 1.8 MHz Phone/CW

Jan. 18 - 19 -- Hungarian DX Contest (CW, phone)

Jan. 18-19-North American QSO Party, SSB

Jan. 18 - 19 -- NA Collegiate Championship, SSB

January 18 - 19 -- Feld Hell Sprint

Jan. 18-20 ARRL Jan VHF Contest (cw, phone, dig)

Jan. 20 -- Run for the Bacon QRP Contest (CW)

Jan. 22 -- SKCC Sprint (CW)

Jan. 23 -- NAQCC CW Sprint

Jan. 25-26 -- Winter Field Day ([WFDA](#)),

Feb 1- 3 - Fourth Annual AM Rally (AM): [Details](#)

See the [ARRL Contest Calendar](#) for more information. For in-depth reporting on Amateur Radio contesting, subscribe to [The ARRL Contest Update](#) via your ARRL member profile email preferences.

All dates & times are UTC.

In Brief...

Brief...

W1AW will be on the air for Winter Field Day.

Members of the Warren County (New York) Amateur Radio Club ([W2WCR](#)) will activate Maxim Memorial Station W1AW for [Winter Field Day](#) 2020 over the January 25 - 26 weekend. Winter Field Day is sponsored by

the Winter Field Day Association ([WFDA](#)), which believes that emergency communication is important throughout the year. Winter Field Day is open to radio amateurs worldwide. The WFDA's



goal is to help enhance operating skills and to prepare participants for all environmental conditions. Winter Field Day runs for 24 hours. Station set-up may start no earlier than 1900 UTC on the day before the event and may not take any longer than 12 hours in total. Expect activity on all amateur bands except 12, 17, 30, and 60 meters. All modes that can handle the required exchange are welcome; this does not include FT8. Entry categories include indoor, outdoor, and home. [Full details](#) are on the Winter Field Day website.

The fourth annual [AM Rally](#) operating event will take place February 1 - 3 (UTC). The annual AM Rally encourages

all operators to explore amateur radio's original voice mode by showcasing the various types of AM equipment in use today, ranging from early vacuum-tube rigs to the newest SDR-based transceivers. "Both new and experienced ops are discovering that AM can sound quite good, enhancing the enjoyment of contacts," said Clark Burgard, N1BCG, an enthusiastic promoter of the event. "The AM Rally provides a great reason to give it a try." The AM Rally is open to all radio amateurs capable of running full-carrier, amplitude modulation (standard AM) using any type of radio equipment - modern, vintage, tube, solid-state, software-defined, military, boat anchor, broadcast, homebrew, or commercially manufactured -- are encouraged to join in the AM fun on 160, 80, 40, 20, 15, 10, and 6 meters. [Details](#) are on the AM Rally website or [contact](#) Burgard via email. The AM Rally is sponsored by ARRL, Radio Engineering Associates, and iNetRadio.

An international team of 10 operators will be active as [W8S](#) from Swains Island from March 10 to March 25.

The DXpedition team will be active on all HF bands on CW, SSB, FT8, and RTTY.

Operation will be from two separate camps on the island -- a Red Camp and a Blue Camp -- each with two stations. The four stations will be on the air 24/7. The station equipment complements are identical. Two stations



will be dedicated for 160 and 80 meters. A WiFi network will link the Red and Blue camps to network all logging laptops. Hans Griessl, DL6JGN, and Ronald Stuy, PA3EWP, are co-leaders. Swains Island (Olohega) is an atoll in the Tokelau chain. Swains is a US territory and considered part of American Samoa. Swains Island is the 34th most-wanted DXCC entity.

[Selected DX News](#) (QRV = Ready! or Are you Ready?)

ARLD003 DX news

This week's bulletin was made possible with information provided by LU4AAO, The Daily DX, the OPDX Bulletin, 425 DX News, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

SRI LANKA, 4S. Peter, DC0KK is QRV as 4S7KKG **until March 30**. Activity is on the HF bands using CW and various digital modes. QSL to home call.

WEST MALAYSIA, 9M2. Safri Bin, 9M2SAF will be QRV from Pulau Lalang Perak, IOTA AS-072, from **January 21 to 27**. Activity will be on 160 to 10 meters using CW, SSB and various digital modes. QSL direct to home call.

QATAR, A7. Rasto, OM6AA is QRV as A75GR **until April 2020**. Activity of late has been on 80 meters. QSL via M0OXO.

FEDERAL REPUBLIC OF GERMANY, DA. Members of the DARC club of Pulheim are QRV with special event call sign DL40PUL during 2020 to celebrate the club's 40th anniversary. QSL via bureau.

GUADELOUPE, FG. Jean-Pierre, F6ITD is QRV as FG/F6ITD from Desirade Island, IOTA NA-102, **until March 9**. Activity is on the HF bands using SSB and various digital modes. QSL #1

HONDURAS, HR. Dirk, WA4DT will be QRV as WA4DT/HR9 from Roatan Island, IOTA NA-057, **until February 2**. Activity will be on 40 and 30 meters using CW & FT8. QSL direct to home call.

ITALY, I. Operators S50X, S51V, S52P, S54W, S56DX, S56N, S57DX and S59A will be QRV as IG9/home calls from Lampedusa, IOTA AF-019, from **January 21 to 27**. Activity will be on the HF bands. They will be active as IG9/S59A in the upcoming CQ World Wide 160 Meter CW contest. QSL to home calls.

ARGENTINA, LU. AMSAT Argentina station LU7AA will be QRV **from January 18 to 26** to celebrate the 30th anniversary of Satellite LO-19, or LUSAT. Activity will be on the HF bands using QRS CW, SSB and FT8. QSL direct to LU7AA.

WESTERN SAHARA, S0. Station S01WS has been active

on 17 meters using CW around 1600z. [listed **Jan.-2020** – ed] QSL direct.

SOMALIA, T5. Ali, EP3CQ is QRV as 6O100 from Mogadishu **until February 5**. Activity is on 160 to 6 meters using CW, SSB and FT8. QSL via operator's instructions.

PALAU, T8. Operators JI3DNN, JH3LSS, JA3HJI, JA3IVU, JA3ARJ and JA3AVO are QRV as T88CZ, T88DK, T88DN, T88ED, T88EF and T88MD, respectively, from Koror, IOTA OC-009, **until January 23**. QSL to home calls.

COSTA RICA, TI. Rich, W4GKR is QRV as TI5/W4GKR **until February 4**. Activity is on 160 to 6 meters using mainly various digital modes and QRS CW. QSL to home call.

CANADA, VE. Operators VE3FU, VE9CB and VO1HP will be QRV as VO2AC, VO2AAA and VO1HP/VO2, respectively, from the Lighthouse Point Amour/Labrador from **January 20 to 26**. They plan to be active as VO2AC in the upcoming CQ World Wide 160 Meter CW contest. QSL to home calls.

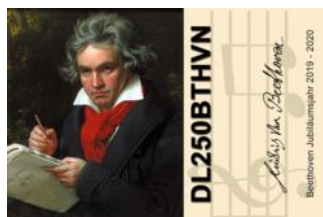
NORFOLK ISLAND, VK9N. Janusz, SP9FIH is QRV as VK9NK **until April 12**. Activity is on 160 to 10 meters using SSB, RTTY and FT8. QSL#1

CHATHAM ISLANDS, ZL7. Chris, ZL7DX is currently QRV on 20 and 6 meters using mostly digital modes. He plans to be active on other bands soon. [Listed **Jan 2020** – ed] QSL #1

Long Term: (longer than 1 month)

A year-long special event will honor Beethoven.

German special event station [DL250BTHVN](#) will be active between **December 16, 2019, and December 17, 2020**, to honor the 250th anniversary of the birth of famed composer Ludwig van Beethoven. The Beethoven anniversary year will take place under the auspices of Germany's Federal President Frank-Walter Steinmeier. Beethoven was born in December 1770 in Bonn, Germany, and lived there for the first 22 years of his life. QSL via direct or by the bureau.



ANTARCTICA. Roman, HB9HCF will be QRV as DPOGVN from the Neumayer III station from **December 15 to February 29, 2020**. Activity will be on 160 to 10 meters. QSL via DL5EBE.

CANARY ISLANDS, EA8. Erich, HB9FIH is QRV as EA8/HB9FIH from El Hierro, IOTA AF-004, until the end of **March 2020**. Activity is on the HF bands using CW, SSB and various digital modes. This includes various SOTA and IOTA activations. QSL to home call.

ANTARCTICA. Seba, SQ1SGB is QRV as VP8HAL from

the Halley VI Research Station until **February 8, 2020**. Activity is in his spare time on 40 and 20 meters using JT65 and FT8. QSL via EB7DX.

INDIA, VU. Members of the Repeater Society of Calicut and the Malabar Amateur Radio Society will be QRV with special event call sign AT1RS from Kappad Beach **from December 8 to February 22, 2020** in celebration of the 250th session of Rajya Sabha, the Upper House of the Indian Parliament, and the 70th Constitution Day. QSL #2.

MYANMAR, XZ. Martti, OH2BH is QRV as XZ2D **until April 17, 2020**. Activity is generally on 15 and 10 meters. QSL #1

GHANA, 9G. Emil, ZS6EGB is QRV as 9G5ZS until **February 2020**. Activity is on the HF bands using FT8. QSL #4.

NETHERLANDS, PA. Special event station PA75LIMBURG is QRV until **March 2020** to commemorate the liberation of the province Limburg 75 years ago. QSL via PC8DB.

ZAMBIA, 9J. Mario, IK1MYT is QRV as 9J2MYT from Lusaka until **June 2020**. Activity is on 40, 20, 15 and 10 meters. QSL #1

Until 2021

SOUTH SUDAN, Z8. James, Z81C is QRV from Juba while working for a non-governmental organization for the **next 18 months. [until March 2021-ed]** Activity is mostly on SSB. QSL #2

Notes:

1. QSL direct to home call.
2. QSL via operators' instructions.
3. QSL via bureau
4. QSL via LoTW
5. QSL via Instruction on QRZ.com

Lunch Financials – for Nov. 19, 2019

Attendance: 19

	Starting Lunch Kitty:	\$154.00
Expenses: Pizza(4) & Salads		\$102.00
Drinks: Soda: 10 @ 0.35 =		\$3.50
Water 1 @ 0.25 =		<u>\$0.25</u>
	Food Total:	\$105.75 \$48.25
Income: Lunch:	\$112.50	\$160.75
Room Rent-To General Funds:	<u>\$0.00</u>	<u>\$160.75</u>
Starting - Kitty for Dec 17, 2019 Mtg:		\$160.75
[Gain of \$6.75 - \$20.00 for room rent = <u>Loss of \$13.25</u>]		

Lunch Financials – for Dec., 2019

Attendance: 23

	Starting Lunch Kitty:	\$160.75
Expenses: Pizza(1) & Salads		\$102.00
Drinks: Soda: 10 @ 0.35 =		\$3.50
Water 2 @ 0.25 =		<u>\$0.50</u>
	Food Total:	\$106.00 \$54.75
Income: Lunch:	\$103.25	\$158.00
Room Rent-To General Funds:	<u>\$00.00</u>	<u>\$158.00</u>
Starting - Kitty for Nov. 19, 2019 Mtg:		\$158.00
[Loss of \$2.75 - \$20.00 for room rent = <u>Loss of 22.75</u>]		

AMATEUR RADIO LICENSING EXAMS:

TRW Swap meet at the corner of Aviation Blvd and Marine Avenue in Redondo Beach. 10AM in the Northrop cafeteria. Always the last Saturday of the month – no reservation is required.

(www.W6TRW.com)

ARRL Announces Free Exam Review Website

The ARRL has launched a web site 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).

Other Free Exam Practice Sites:

<http://aa9pw.com/radio/technician/>

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

This Practice Exam site Requires Registration

<https://www.qrz.com/hamtest/>

ARRL LAX Section Officers:

Section Manager: Diana Feinberg, AI6DF

PO Box 4678

Palos Verdes Peninsula. Ca 90274-9618

AI6DF@arrl.org or 310-544-2917

LAX SEC : JIM STOKER AG6EF

4555 ENCINAS DR

LA CANADA FLINTRIDGE CA 9101

818 790 2832

LAX Section Traffic Mngr: Kate Hutton, K6HTN

For Radiogram formatting instructions go to

www.ARRLLAX.org .

RF Safety – Power Density Web site:

http://hintlink.com/power_density.htm

Links: TRW license test

<http://w6trw.com/index.php/amateur-radio-license-testing/>

PodCast – Amateur Radio News

(The above is a link to an MP3 audio feed)

On-Line Stores / suppliers:

<http://www.impulseelectronics.com/> PowerPole

<https://elkantennas.com> - LPA VHF/UHF Ant.

<http://hamcity.com> - Local – Conn, cables, ants.

<http://www.aesham.com/> - Ham Radio Outlet

<http://www.dxengineering.com>

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

<http://www.AllElectronics.com> – Parts

<http://TheWireman.com> – Ant. Coax, UV Dacron

ARRL <http://arrl.org>

CQ Mag [http://store.cq-amateur-](http://store.cq-amateur-radio.com/product-category/books/)

[radio.com/product-category/books/](http://store.cq-amateur-radio.com/product-category/books/)

BGMicro <https://www.bgmicro.com/>

HARC Past & Current Presidents

1973 Doug Erny, AK7E (former W6NPD)

1974 Orson Just, K6JGV, sk

1975, 76 Tom Rothwell, K6ZT, sk

1977 Tom McInnis, WB6ZEB, sk

1978,79 Sam Weise, W6LXR

1980 Bob Poole, AJ6F

1981 Russ Sanford, WA6NQO, sk

1982, 83 Chuck, KN6H

1984 John Bennett, WD6BAI

1985 Scott Fraser, KN6F

1986, 87 Ed, K6GQV

1988 John, WA6LOD

1989, 90 John, KJ6AW

1992 Bruce, WB6ARE

1993 Rick, KD6DYN

1994

1995,6,7,8,9 Brian, AB6UI

2000,1,2 Bruce, W6BLS

2004,5,6 Ed, N6EG

2007 - 2014 Barry, KG6NWJ

2015, 16, 17 – Dale Birmingham, WB6MMQ

2018-19 Mike, N6MDV (Current President)

Southern California Band Plans:

Tasma – 2 Meters

<http://www.tasma.org/TASMA-2m-Band-Plan.pdf>

220 MHz Spectrum Mngmnt Assoc. of So. Ca

220SMA BAND PLAN

<http://www.220sma.org/bandplan.htm>

SCRRBA (Southern California Repeater and Remote Base Assoc.) – 440 mHz (70 cm) and up

<http://www.scrba.org/BandPlans/BandPlans.htm>

W1AW Operating Schedule (Edited - Note: Local time stays the same, UTC varies w/DST)

Morning Schedule:

Winter	Summer	Local	Mode	Days
1400 UTC	1300 UTC	(6 AM PDT)	CWs	Wed, Fri
1400 "	1300 UTC	(6 AM PDT)	CWf	Tue, Thu

Afternoon/Evening Schedule:

2100 UTC	2000 UTC	(1 PM PDT)	CWf	Mon, Wed, Fri
2100 "	2000 "	"	CWs	Tue, Thu
2200 "	2100 "	(2 PM PDT)	CWb	Daily, CW Bulletin, 18 WPM
2300 "	2200 "	(3 PM PDT)	DIGITAL	Daily, Digital Bulletin
0000 "	2300 "	(4 PM PDT)	CWs	Mon, Wed, Fri
0000 "	2300 "	"	CWf	Tue, Thu
0100 "	0000 "	(5 PM PDT)	CWb	Daily, CW Bulletin, 18 WPM
0200 "	0100 "	(6 PM PDT)	DIGITAL	Daily, Digital Bulletin
0245 "	0145 "	(6:45 PM PDT)	VOICE	Daily, Voice Bulletin
0300 "	0200 "	(7 PM PDT)	CWf	Mon, Wed, Fri
0300 "	0200 "	"	CWs	Tue, Thu
0400 "	0300 "	(8 PM PDT)	CWb	Daily, CW Bulletin, 18 WPM

Frequencies (MHz)

CW:	1.8025	3.5815	7.0475	14.0475	18.0975	21.0675	28.0675	50.350	147.555
DIGITAL:	-	3.5975	7.095	14.095	18.1025	21.095	28.095	50.350	147.555
VOICE:	1.855	3.990	7.290	14.290	18.160	21.390	28.590	50.350	147.555

Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM
 CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM
 CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.
 DIGITAL = BAUDOT (45.45 baud) BPSK31 and MFSK16 in a revolving Schedule.
 Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and alternate speeds.

W1AW Qualifying Runs: [for more info: www.arrl.org/qualifying-run-schedule]

Starting in Dec. W1AW will transmit Qualifying Runs up to 16 times per month.

For January- Time is PST: [10 – 35 wpm – **Bold 35 – 10 wpm**]

Month	6am	1PM	4PM	7PM	6am	1PM	4PM	7PM	6am	1PM	4PM	7PM	6am
Jan.				1/17	1/21			1/22			1/23		
Jan.		1/24		1/27	1/29	1/30				2/3	2/4	2/6	2/7
Feb.		2/11	2/12		2/13			2/14	2/18			2/19	
Feb.			2/20			2/21		2/24	2/26	2/27	2/28		

West Coast Qualifying Runs: – on CW Frequencies listed above

Wed. Jan 29 @ 9 PM (0500 UTC Jan. 30) on 3590, 7047.5 kHz 40 -10 wpm

Wed. Feb 26 @ 8 PM (0400 UTC Feb. 27) on 7047.5 & 14047.5 kHz by KH6TU – 10 – 40 wpm

Earn your Code Proficiency certificate by legibly coping at least 1 minute of text by hand and mailing the sheet to: W1AW Qualifying Runs, 225 Main St., Newington, CT 06111. Include \$10 (check or money order) if this is a submission for your initial Code Proficiency certificate; \$7.50 if you are applying for an endorsement (available for speeds up to 40 wpm). Your test will be checked against the actual transmissions to determine if you have qualified.

Audio from W1AW's CW code practices, CW/digital bulletins and phone bulletin is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here, also. The audio (real-time) runs concurrently with W1AW's regular transmission schedule.

The Straight Key Century Club (SKCC):

http://www.skccgroup.com/member_services/beginners_corner/

SKCC Beginner's Corner (Headings from the above Web site)

Monthly Straight Key Night (SKN) is on the 1st of each month. It is not a contest. No logs are submitted. The event, was inspired by the ARRL's annual SKN. The SKCC's founders wanted to have SKN monthly. The tradition continues!

The Elmer frequency is 7114 KHz. It's a safe haven for CW new- comers. Elmers are encouraged to monitor the frequency and work the CW beginners, some of whom may have had a license for many years.

2018 – 2019 CLUB OFFICERS**Elected Officers:**

PRESIDENT:	Mike, N6MDV	President at W6HA.com
VICE PRESIDENT:	Raul, KM6NRL	W6HA_VicePresident at W6HA.com
SECRETARY:	Judi, KI6TKT	W6HA at W6HA.com
TREASURER:	Alice, KK6MFL	Treasurer at W6HA.com
STATION MANAGER:	Brian, AB6UI	W6HASTationMgr at W6HA.com
Immediate PAST PRES.:	Dale, WB6MMQ	W6HA at W6HA.com

Committees:

NEWSLETTER EDITOR:	Dale, WB6MMQ	W6HA_Editor at W6HA.com
WEB MASTER:	Mike, N6MDV	W6HA at W6HA.com
MEMBERSHIP:	Dale, WB6MMQ	W6HA at W6HA.com
SCRRBA REP:	Ray, WA6NVL	WA6NVL at ARRL.net
MEETING HOST:	Dale, WB6MMQ	W6HA at W6HA
Asst. Host:	Howard, KE6MAK	W6HA at W6HA
FIELD DAY :	Mike, Dale, Raul, Richard	Fieldday at W6HA.com
MEMBERSHIP:	Dale, WB6MMQ	W6HA at W6HA.com
NET COORDINATOR:	Raul, WA6NVL	W6HA at W6HA.com
YAHOO GROUPS MOD:	Richard KM6FP	W6HA at W6HA.com (http://groups.yahoo.com/w6ha)
CLASS MODERATOR:	Mike, N6MDV	W6HAClass at W6HA.com
RAYTHEON SAS ECT:	Ken, KI6YDN,	KSIMP1022 at AOL.com
CLUB REPEATER: W6HA/R	445.620 MHz (-) PL 127.3 Hz	Location: Bldg. R1 roof
	Packet (node :hughes) 145.61s W6HA	

HARC Repeater Nets: Wednesdays, 7:30 PM (0200 UTC Thursdays) (Just Started Sept. 2018)
Thursdays, 12:05PM (1900 UTC) RTN ECT – All are welcome

South Bay ARC Net: Thursdays at 7:30 PM on W6SBA/R, 224.38, PL 192.8

LAFD CERT Net: 1st Monday of the month, 7:00 PM (0200 UTC Tuesday)

HAC HF NET: HARC & Retired 14.233 Mhz, Tuesdays, 13:00 PDT – Currently Inactive

Club Shack: The club shack is in E1, Lobby D. There is a Kenwood TS-520 HF radio connected to an 40 –10 meter antenna. This station is open to all club members. (I would be happy to give a tour of the HF station in "Lobby D" to club members. Brian, AB6UI, Station Manager)

Club Newsletter: If you have items that would be of interest to the club, any comments, letters, or items for sale or trade please email it to Dale, WB6MMQ W6HA at W6HA.com. If anyone needs a club application, please contact Dale, WB6MMQ and one will be sent to you.

Club Roster: Hardcopy available at meeting or contact the club membership chairman Dale, WB6MMQ

Web Site: <http://W6HA.com> or W6HA.com

The Hughes Amateur Radio Club is an ARRL affiliated club for FCC-licensed amateur radio operators and their family members. Membership is open to all Amateur Radio Operators and those who are aspiring Amateur Radio operators.
