



August 2020

ARCOver

A Community Service Organization Dedicated to Amateur Radio Since 1970

In this issue:

- ◆ President's Message
- ◆ Meeting Info
- ◆ 2020 Club Officers
- ◆ DIY Overhead Camera Rig
- ◆ US Department of Defense to Share
- ◆ Radio Amateur Takes Part in Historic First
- ◆ FCC Fines HobbyKing
- ◆ The K7RA Solar Update
- ◆ 65 Great Things
- ◆ IARU Announces



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President's Message

SBARC members,

I hope everyone has been able to find something radio related to fill the time during all this Covid down time. I have gone back into the office on a part time basis. It has been some adjustment after working from home for four plus months. With all that said the social experience for gathering is still restricted. Looks like no good news for any club or other social groups coming in the near future. I would sure like to see us get past this Covid condition soon or we may not have many restaurants left to visit. This has been a real blow to our community businesses. Let's just keep on checking in with each other on 224.38MHz!

Tom, KI6RC and Bruce, KK6BJ, had a balloon launch from TMMC on August 8th. This one had a different radio setup. This was a CW beacon transmitting on 20m, 14.318MHz. Probably is a lot more uncertain on tracking updates but should make for a good radio experiment. There is no APRS tracking. As of this writing, I have not heard any other reports. Hoping to hear a successful flight reporting signal of at least one lap around the earth.

The August meeting will be held on Zoom. The club leadership will send out a Zoom invite. Click on the link, enter the password, and you should be good to go. This month we will present coax connector assembly on two different coax types. Ed KN6JN, and I will do this presentation live from Ed's QTH. Hopefully there will be no burned fingers!

I would like to see some club members present to our club. Think about some ham radio or electronics project you have done and consider presenting it to the group. For now, Zoom will help abate the stage fright. Let us know and we will schedule you for an upcoming club meeting.

Upcoming monthly club activities include, the SBARC club meeting on August 20th on Zoom, and at the time of writing this time the TRW/NGC swap meet on Saturday August 29th remains cancelled. After the swap meet a few of us headed over to Denney's and this has been suspended until after the COVID shutdown. Then we may be able to head back over to the Denny's at 3060 Sepulveda Blvd in Torrance. (Hopefully it remains in business)

Thanks for your club participation, stay healthy, stay in touch, and see you at the next SBARC virtual meet up on the 20th!

73's...
Scott-N6LEM



Thursday, August 20th at 7:30 p.m.
on Zoom

Expect an email with the invite to the meeting. Click the link in the email and Zoom software launches and you join.

Topic: Coax Connector PL259
Assembly onto RG8X and RG214
Cable Demo with Ed and Scott



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Past Pres:

OPEN

HOW TO: DIY Overhead Camera Rig UNDER \$30

Ed, KN6JN

Ed, KN6JN and Scott, N6LEM will be giving a demo on Zoom Thursday, August 20th at 7:30pm. During this demonstration they will be using a DIY overhead I-Phone holder to show projects via Zoom that Ed made. In case they run out of time to talk about the details of making it, here's the info to anyone interested in making one themselves. (YouTube link <https://youtu.be/kp0tl4cEv4k>)

Ed uses an I-Phone 8 as a camera and a laptop to run the Zoom session. The sound from his I-Phone is fine. He turns the mic off to the laptop and the sound off to the laptop. He also attaches an external battery to the phone for extended run time. It's not necessary, however, the classes run 2 hours and is used as backup. You can also use the rig to hold a small camera as discussed in the video

The PVC set up was the easiest way for him to get on Zoom with an overhead shot oriented correctly with his mom's ceramic classes. With everyone being home, demand is up for streaming and producing videos. Prices have gone up on some of the other options out there. Equipment you may see in other YouTube video may not be available.

Both Grifiti and Ulanzi sell a bunch of accessories for camera setups. You can also use your I-pad as a camera and they have accessories for those too. Grifiti pipe clamp with mount (<https://amzn.to/2GA9Eq8>) and Ulanzi ST-01 or ST-02 Phone Tripod Mount are available on Amazon.

Ulanzi ST-01 or ST-02
Phone Tripod Mount



Grifiti pipe clamp



US Department of Defense to Share 3450 – 3550 MHz with 5G Commercial Operations

ARRL.com 08/12/2020

The FCC will auction sharing rights to the upper 50 MHz of the 3300 – 3500 MHz secondary amateur radio allocation to commercial 5G interests in the wake of the Department of Defense (DoD) agreement to share spectrum at 3450 – 3550 MHz. The entire band currently supports a variety of military operations, and amateur radio has a long history of peaceful coexistence with the Department of Defense as a secondary user of this spectrum.



Late last year, the FCC proposed to delete the amateur secondary 3300 – 3500 MHz secondary allocation as well as the amateur-satellite allocation at 3400 – 3410 MHz. The FCC could auction the 100 MHz of spectrum in early 2022. This latest move makes a contiguous band of spectrum from 3450 – 3980 MHz available for commercial 5G networks.

“For a number of years, the National Telecommunications and Information Administration (NTIA) and FCC have focused on the 3450 – 3550 MHz band as the spectrum most conducive to sharing with commercial users,” said ARRL Washington Counsel David Siddall, K3ZJ. “Monday’s statements announced that a framework for sharing has been worked out.” In December 2019, the FCC adopted a *Notice of Proposed Rulemaking (NPRM)* in WT Docket 19-348 proposing to delete the 3300 – 3500 MHz secondary amateur band. ARRL strongly opposed the move in its comments on the *NPRM*, which put forward the FCC’s plans to remove “existing non-federal secondary radiolocation and amateur allocations” in the 3300 – 3500 MHz band and to consider options for relocating incumbent non-federal operations.

Siddall said the spectrum below 3450 MHz presents a more difficult government/commercial sharing scenario, and that future sharing there remains uncertain. “We continue to argue that the amateur secondary allocation should not be deleted in this band,” he said. “We recognize that our access is secondary, and ask only to be given a chance to use our considerable technical skills to work around whatever future uses may be implemented in this spectrum.”

The spectrum repurposing is in response to the MOBILE NOW [Making Opportunities for Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless] Act, enacted in 2018 to make new spectrum available for mobile and fixed wireless broadband use.

“Together with the spectrum being made available for 5G in the C-band as well as the 3.5 GHz band, we are now on track to have a 530-megahertz swath of mid-band spectrum available for 5G from 3.45 to 3.98 GHz,” FCC Chairman Ajit Pai said in a statement. “The FCC looks forward to moving quickly to adopt service rules for the 3.45 GHz band and then hold an auction to bring this prime mid-band spectrum to market.”

Radio Amateur Takes Part in Historic First Commercial Human Spaceflight to ISS

ARR.com 08/05/2020

Bob Behnken, KE5GGX, was one of two NASA astronauts who made spaceflight history over the weekend. Behnken and Doug Hurley were the first astronauts since the 1970s to make a water landing, after their Crew Dragon capsule splashed down in the Gulf of Mexico on Sunday. On May 30, the pair made history as the first live crew to be launched into space in a commercial vehicle, for a stay on the International Space Station (ISS), marking the return of human spaceflight to US soil for the first time in nearly a decade.



Bob Behnken, KE5GGX (left), and Doug Hurley after splashdown.

A SpaceX Falcon 9 vehicle carried the crew into orbit from Cape Canaveral. The so-called "Demo-2" was the last major test for SpaceX's human spaceflight system, to be certified by NASA for operational crew missions to and from the ISS. Four huge parachutes carried the Crew Dragon capsule to a safe splashdown near Pensacola, Florida, on Sunday, August 1.

"On behalf of the SpaceX and NASA teams, welcome back to planet Earth," SpaceX Engineer Michael Heiman radioed to the crew after their landing. "And thanks for flying SpaceX."

NASA Administrator Jim Bridenstine proclaimed that the US was entering a new era of human spaceflight, noting that NASA was no longer the only option for US space travel. "We are going to be a customer," he said. NASA has contracted with two companies — SpaceX and Boeing — to ferry astronaut crews to and from the ISS.

While part of the space station crew for 2 months, Behnken and Astronaut Chris Cassidy, KF5KDR, the sole American on board when their *Endeavour* capsule docked, carried out four spacewalks to install new batteries on the ISS.

The SpaceX Crew Dragon vehicle was designed for short-term missions, and Behnken and Hurley's mission had only been expected to last a week. As a result, Behnken did not receive Amateur Radio on the International Space Station (ARISS) training on the radio gear in the Russian sector. NASA subsequently decided to monitor the mission and make a decision on how long the Crew Dragon would stay.

FCC Fines HobbyKing Nearly \$3 Million for Marketing Unauthorized Drone Transmitters

ARRL.com 07/27/2020

The FCC has issued a *Forfeiture Order (FO)* calling for HobbyKing to pay a fine of \$2,861,128 for marketing drone transmitters that do not comply with FCC rules. An FCC Enforcement Bureau investigation stemmed in part from a 2017 ARRL **complaint** that HobbyKing was selling drone transmitters that operated on amateur and non-amateur frequencies, in some instances marketing them as amateur radio equipment. The fine affirms the monetary penalty sought in a June 2018 FCC *Notice of Apparent Liability (NAL)*. The FCC said its investigation found that dozens of devices marketed by the company transmitted in unauthorized radio frequency bands and, in some cases, operated at excessive power levels. "Such unlawful transmissions could interfere with key government and public safety services, like aviation systems," the FCC said. "We have fully considered HobbyKing's response to the *NAL*, which does not contest any facts and includes only a variety of legal arguments, none of which we find persuasive," the FCC said in the *FO*. "We therefore adopt the \$2,861,128 forfeiture penalty proposed in the *NAL*."



The FCC pointed out in the *FO* that it has previously made clear that "[d]evices used in the Amateur Radio Service do not require authorization prior to being imported into the United States, but devices for other services, including the CB service, require Commission approval." The FCC investigation found that 65 models of devices marketed by HobbyKing should have had FCC certification.

Responding to the *NAL*, HobbyKing claimed to have ceased marketing the 65 models the FCC identified, but promised only to make "best efforts" not to market other noncompliant RF devices. "HobbyKing has a continuing obligation to market only radio frequency equipment that is properly authorized," the FCC said. "We therefore remind HobbyKing that continuing to market noncompliant radio frequency devices could result in further significant forfeitures."

HobbyKing has 30 days to pay the fine. If it fails to do so, the matter will be referred to the Department of Justice for collection.

The K7RA Solar Update

ARRL.com 08/14/2020

Tad Cook, K7RA, Seattle, reports: New Sunspot Cycle 25 continues to make a strong showing. Sunspots have appeared on every day for more than 3 weeks. Average daily sunspot numbers for the week slipped a bit from 19.6 to 14.3 this week, but average daily solar flux increased from 72.8 to 73.8. Geomagnetic indicators remain quiet. Both the average daily planetary and mid-latitude A index were 3.7.

Predicted solar flux for the next 6 weeks is 72 on August 14 – 15; 70 on August 16 – 21; 72 on August 22 – 27; 73 on August 28 – 29; 75 on August 30 through September 9; 73 on September 10 – 11; 72 on September 12 – 23; 73 on September 24 – 25, and 75 on September 26 – 27. This is a welcome change from recent forecasts, which saw predicted solar flux consistently below 70.

Predicted planetary A index forecasts continued quiet geomagnetic conditions; at 5 on August 14 – 23; 8 on August 24 – 25; 5 on August 26 – 28; then 8; 16 and 8 on August 29 – 31; 5 on September 1 – 19; 8 on September 20 – 21; 5 on September 22 – 24, then 8, 16, and 8 on September 25 – 27.

Geomagnetic activity forecast for the period August 14 – September 9 from F.K. Janda, OK1HH. The geomagnetic field will be:

- quiet on August 15 – 16, September 5 – 7
- quiet to unsettled on August 14, 17 – 19, 22, (23,) 24 – 25, (26 – 29,) September 2 – 4, 8 – 9
- quiet to active on (August 20 – 21, 30 – 31, September 1)
- unsettled to active not expected
- active to disturbed not expected
- Solar wind will intensify on August (22 – 23,) 24 – 25, September 1 – 2 (4 – 6)

Note: Parentheses mean lower probability of activity enhancement.

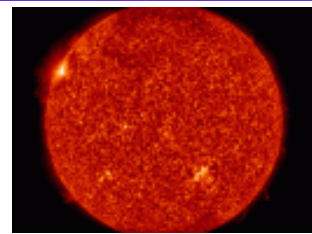
Jon Jones, N0JK (EM28 in Kansas), offered this comment about the mention of 6-meter sporadic E in last week's bulletin. "Many of the reports I have received for July (including long-time 6-meter operator N0LL) reported great conditions on 50 MHz Es. On July 13, N0LL had his FT8 screen full of stations from Japan calling him on 50.313 MHz. Today, August 9, I had sporadic E on 6 meters to Florida, Texas, Mexico, and Arizona from Kansas."

Jon is editor of the monthly "World above 50 MHz" column in *QST*.

Here's a [recent video](#) from Space Weather Woman Tamitha Skov, WX6SWW.

Carl Luetzelschwab, K9LA, recently posted a [survey](#) of various Solar Cycle 25 predictions. He also did a [presentation](#) at on the same subject at the recent QSO Today Virtual Ham Expo. The material from that event will be up until September 9. Carl's [Basic Concepts](#) resource is always good for a review.

Personally, I like the prediction that promises a repeat of the epic Cycle 19 of the late 1950s. I was a small child then, but my father had a low-band FM 2-way radio mounted in his company car, probably operating somewhere between 30 and 40 MHz judging from my hazy memory of the length of the bumper-mounted whip antenna.



We were in Reedley, California, in the San Joaquin Valley. He sold agricultural chemicals to farmers and would use the radio to contact the office in Fresno. But at the peak of Cycle 19, local communications were often interrupted by skip from Texas and various midwestern states.

From correspondence I've received from readers, I know there were many new teen-aged hams at that time, and a lot of them likely assumed that the fantastic propagation of the day was normal. Many were disappointed by Cycle 20, which was when I got my Novice ticket.

So, I'd like to think we are due for another big cycle, but I try to avoid the gambler's fallacy. That is the name of the logical fallacy in which, when observing a random series of events such as spinning a roulette wheel, we keep seeing the ball land on red, and conclude we are due for black to come up. But with independent random events, one result cannot predict the next.

Sunspot numbers for August 6 – 12, 2020 were 14, 14, 11, 13, 12, 12, and 24, with a mean of 14.3. The 10.7-centimeter flux was 73.1, 74, 74.7, 73.9, 74.2, 73.5, and 73.1, with a mean of 73.8. Estimated planetary A indices were 5, 4, 5, 3, 3, 3, and 3, with a mean of 3.7. Middle latitude A index was 4, 5, 5, 3, 3, 3, and 3, with a mean of 3.7.

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 are no longer be updated on this page. For customizable propagation charts, visit the [VOACAP Online for Ham Radio](#) website.

[Instructions](#) for starting or ending email distribution of ARRL bulletins are on the ARRL website.

[Share](#) your reports and observations.



65 Great Things About Ham Radio

On CQ's 60th anniversary, they ran a feature throughout the year titled "60 Great Things About Ham Radio," in which they listed five "great things" each month. The series was quite popular. Here's the entire list of "Great Things About Ham Radio."

1. It works when nothing else does
2. It makes you part of a worldwide community
3. The opportunity to help neighbors by providing public service and emergency communications
4. Some of the nicest people you'll ever meet
5. Some of the smartest people you'll ever meet
6. Some of the most interesting people you'll ever meet
7. Some of the most generous people you'll ever meet (along with some of the cheapest!)
8. Lifelong friendships
9. Friends around the world (including those you haven't met yet)
10. The opportunity to go interesting places you might not otherwise go to
11. The opportunity to do interesting things you might not otherwise get to do
12. The opportunity to expand your knowledge of geography
13. The opportunity to expand your knowledge of earth and space science
14. Practical uses for high school math
15. Practical uses for high school physics
16. A good way to practice a foreign language
17. A good way to keep in touch with faraway friends and relatives
18. A good way to get driving directions when visiting someplace new (with or without GPS)
19. A good way to find the best places to eat when visiting someplace new (with or without GPS)
20. Finding "non-touristy" off-the-beaten-path places to stay, eat, visit, etc.
21. A good way to learn about virtually any topic
22. A good way to bridge the generation gap
23. A good way to keep tabs on elderly/infirm people
24. People named Joe (Walsh, Rudi, Taylor)
25. How many of your non-ham friends have actually talked to someone in some remote place such as Cape Verde or the Seychelles?
26. How many of your non-ham friends might have talked to an astronaut aboard the space station?
27. How many of your non-ham neighbors might have a satellite uplink station in their basements—or in the palms of their hands?
28. How many of your non-ham neighbors might have a TV studio in their garage?
29. What other hobby group has designed, built, and had launched its own fleet of communication satellites?
30. Where else can you play with meteors?
31. Moonbounce
32. Informal way to improve technical skills
33. Informal way to improve communication skills
34. Introduces a variety of career paths
35. Offers unparalleled opportunities for career networking
36. Opportunities for competition in contesting and foxhunting
37. A good way to collect really cool postcards from around the world (despite the growth of electronic confirmations)
38. Nearly endless variety of different things to do, on and off the air
39. Hamfests
40. Dayton
41. Field Day

Continued on page 7



65 Great Things About Ham Radio Continued

42. Working DX
43. Being DX
44. DXpeditions
45. Contesting
46. Award-chasing
47. Double-hop sporadic-E
48. Worldwide DX on 6 meters (once or twice every 11 years)

[The current extended sunspot minimum has shown that mechanisms

other than F2 propagation can offer intercontinental DX on the "magic band" at any point in the solar cycle.]

49. Tropospheric ducting
50. Gray-line propagation
51. TEP, chordal hops, etc.
52. Getting through on CW when nothing else will
53. Unexpected band openings
54. Building your own gear
55. Using gear you've built yourself
56. Operating QRP from some remote location
57. Experimenting with antennas
58. Working DX while mobile or while hiking
59. Experimenting with new modes and new technology
60. The opportunity to help build an internet that doesn't rely on the internet
61. DXing on your HT via IRLP and Echolink
62. Contributing to scientific knowledge about propagation
63. Keeping track of other people's GPS units via APRS
64. Ham radio balloon launches to the edge of space, and as always...
65. Reading CQ!

Permission is hereby granted to reprint this list in amateur radio club newsletters, provided credit is given to CQ magazine. Online editions must include a link to the CQ website, <http://www.cq-amateur->



IARU Announces HF Digital Mode Band Plan Review

ARRL.com 08/14/2020



An International Amateur Radio Union (IARU) working group has been formed to develop solutions to reduce congestion within very popular mode segments while preventing mutual interference between “incompatible modes” as much as possible. The working group includes representatives of the three regional band-planning committees, marking the first time the IARU three regions have joined together to directly coordinate band planning efforts.

“Because frequency allocations and amateur radio operating interests vary in different parts of the world, the development of band plans — voluntary guidelines on the use of the spectrum that is available to radio amateurs — is a responsibility of the three IARU regional organizations,” the IARU explained in announcing the working group. “Each of the three regions has a band-planning committee to focus on this work.”

The IARU says this approach to band planning has generally kept pace with the evolution of amateur radio operating, but the explosive growth in HF digital modes, particularly FT8, has led to perceived overcrowding of HF digital-mode band segments.

The new working group has already had fruitful discussions with the *WSJT* Development Group led by Joe Taylor, K1JT. Additional discussions, including with other HF stakeholders, will be held as part of a fundamental review of the different HF digital modes, and how they can be best categorized and arranged to share the limited spectrum available.

In recent years, moves have been made to bring the regional band plans into alignment wherever possible. Final approval of any band plan revisions typically occurs during regional conferences of IARU member-societies, held every 3 years on a rotating basis.

While the proposed band plan revisions will have to be approved by member-societies in each region, recent administrative changes mean that revisions can be implemented without having to wait for the regional conferences.

Amateurs can follow the working group’s progress through their IARU member-societies and their respective **IARU websites** (all are accessible via the main IARU page).

CALENDAR

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

Club Meeting - 3rd Thursday of the month
August 20, 2020 - 7:30 p.m.

**Via Zoom
(look for email)**

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 **Cancelled Until Further Notice**

VE Sessions - **Scheduled on Saturday of even months**
Contact Betty, N6VZF, 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

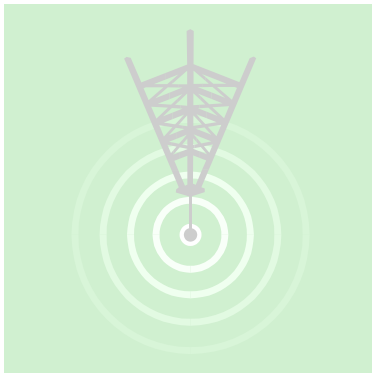
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South Bay Amateur Radio Club Repeater
224.38 MHz · PL - 192.8 Hz Offset -1.6 MHz
(See Calendar for Weekly Net Times)

NEWSLETTER SUBMISSION

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