



Di-Dah-Dit

Official Newsletter of the Parkersburg Radio Klub
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Arecibo Observatory Instrument Platform Falls into Iconic Dish

[UPDATED 2020-12-02 @1609 UTC] The 900-ton instrument platform of the 305-meter radio telescope at Arecibo Observatory in Puerto Rico fell some 400 feet Tuesday morning, crashing into the huge, already-damaged dish below, the National Science Foundation (NSF) reported in a December 1 Tweet. "No injuries were reported," NSF said, adding that it is still assessing the situation. "Our top priority is maintaining safety." The calamity not only was a final and fatal blow for the observatory but for the people of Puerto Rico.

Head of Telescope Operations Angel Vazquez, WP3R, called December 1 "indeed a sad day." Vazquez was in the Observatory's control room at the time, salvaging important instruments when he heard a loud noise.

"At around 7:55 AM, the platform collapsed due to the extra stress on the existing cables because of the main cable failure in November. Strands were starting to pop all weekend long, and it was just a matter of time," he told ARRL. "It came off the easternmost tower (T4) and took about 15 seconds. The azimuth arm that housed the dome came off the track, fell into the dish a little north of center and the triangle was pulled by the other existing cables to the northwestern part of the dish. The tops of the towers broke as well. This was a 900-ton platform, and the dome was



smashed like an eggshell."

The towers supported the massive instrument platform, which was suspended on cables above the dish. On August 10, an auxiliary cable that helped to support the platform snapped and fell, causing a 100-foot gash in the reflector dish. After an extensive evaluation, NSF announced on November 19 that the damaged radio telescope — in service for nearly 60 years — was beyond

repair and would be decommissioned due to safety concerns. Arecibo, which, among other accomplishments had contributed to the observation of black holes, was the second-largest radio telescope in the world.

The iconic dish has served as a backdrop for several science fiction movies. The Arecibo Observatory Amateur Radio Club, KP4AO, is headquartered at the research facility, and several other radio amateurs are employed there in addition to Vazquez. Operations at the world-famous observatory have been managed by the University of Central Florida (UCF).

Engineers were ready to implement emergency structural stabilization of the auxiliary cable system, but while arranging delivery of two replacement cables and two temporary cables, a main cable broke on the same tower on November 6. Based on the stresses borne by the second broken cable, engineers concluded that the remaining cables were likely weaker than originally projected.

Antenna designer and electrical engineer Jim Breakall, WA3FET, who conducted research at the world-famous facility over more than 45 years, told ARRL that his experience with Arecibo began in 1974 when he was a student, and he worked on the first HF ionospheric heating design and calibration of the dish for ionospheric research. He also conducted amateur radio moonbounce experiments there. Later, he designed feeds for radio astronomy and designed and built the HF ionosphere modification facility that fed the dish with a dipole array at the bottom of the huge dish, after Hurricane Georges destroyed the first HF facility some 10 miles away in 1998.

"I built a super contest station on my farm there about 2 miles away using Angel's call sign, WP3R. It got destroyed in Hurricane Maria in 2017," Breakall recounted. "I also was on the team for KP4AO in 2010 for EME [moonbounce] and my photo was on the cover of QST with Joe Taylor, K1JT."

"I was prepared for this, but still never wanted to hear it," Breakall told ARRL. "It is like losing a

loved one when you know they are dying. Wow. Who would have ever believed it."

NSF said it was saddened by the latest development regarding the aging radio telescope. "As we move forward, we will be looking for ways to assist the scientific community and maintain our strong relationship with the people of Puerto Rico."

ARRL Asks FCC to Allow 3.4-GHz Operation until Spectrum is Occupied

In comments to the FCC, ARRL has argued that radio amateurs be allowed to continue shared operation in the 3.4 GHz band until 5G licensees who purchase the spectrum when the FCC puts it up for auction initiate incompatible operations. In its Further Notice of Proposed Rulemaking (FNPRM) in WT Docket 19-348, the FCC had proposed to sunset the band for amateur radio in two phases, governed by when new licenses are issued rather than when the new licensees begin to use the spectrum. In the FNPRM, the FCC solicited comments on whether alternatives exist to its proposal.

"Amateur activities further the public interest and should be permitted to continue on a secondary basis unless and until a new primary licensee is ready to occupy the spectrum in a preclusive manner," ARRL told the FCC. "At a minimum, amateur operations should be permitted to continue indefinitely in the 3.3 - 3.45 GHz spectrum, where no new flexible licenses are under immediate consideration. The Commission could consider whether a registration or other mechanism similar to that found in Section 97.303(g) would facilitate avoiding interference." Section 97.303(g) contains specific frequency-sharing requirements for the 2200- and 630-meter amateur bands.

"Amateurs often select the 3.4-GHz spectrum precisely because other spectrum choices are sub-optimum or simply not available. Amateurs also are only secondary users on most of the other spectrum suitable for similar purposes," ARRL said. "Links must be carefully engineered because of that secondary status, which applies to most of the 2.4- and all of the 5.8-GHz bands available to amateurs. ARRL emphasized the



importance of allowing amateurs to continue to use the 3.4 - 3.45 GHz portion in particular.

ARRL pointed out that in

many geographic areas it could be years before the 3 GHz spectrum is actually put into use by commercial users, and argued that amateur radio should be allowed to continue to operations on a secondary, non-interference basis as it has done for decades with federal primary users, until new uses actually begin, rather than when licenses are issued.

Nathan Simington Confirmed as Newest FCC Member

On a 49 - 46 vote, the US Senate on December 9 confirmed Nathan Simington to be a Commissioner at the FCC. Simington previously served as a senior advisor at the US Department of Commerce. Earlier, he was a legal associate at various law firms, often specializing in finance. Upon being sworn in, he will take the seat of Commissioner Michael O'Rielly, whose renomination was pulled by President Donald Trump last summer, shortly before it was to go to the Senate floor.



FCC Chairman Ajit Pai has announced that he will step down on January 20, opening a seat for incoming President Joe Biden to

appoint a new commissioner to form a new 3 - 2 Democratic majority. Biden then could either designate that new commissioner as chairman, or select one of the two sitting Democrats already on the Commission, Jessica Rosenworcel and Geoffrey Starks. Biden could also designate one of the two sitting Democrats as Acting Chairman to manage the FCC until his new pick has been confirmed by the Senate and sworn in. Until that happens, the FCC will have a 2 - 2 party split.

FCC to Require Email Addresses on Applications

Amateur radio licensees and candidates will have to provide the FCC with an email address on applications, effective in mid-2021. If no email address is included, the FCC may dismiss the application as defective. The FCC is fully transitioning to electronic correspondence and will no longer print or provide wireless licensees

with hard-copy authorizations or registrations by mail. A Report and Order (R&O) on "Completing the Transition to Electronic Filing, Licenses and Authorizations, and Correspondence in the Wireless Radio Services" in WT Docket 19-212 was adopted on September 16. The new rules will go into effect 6 months after publication in the Federal Register, which hasn't happened yet, but the FCC is already strongly encouraging applicants to provide an email address. When an email address is provided, licensees will receive an official electronic copy of their licenses when the application is granted.

Under Section 97.21 of the new rules, a person holding a valid amateur station license "must apply to the FCC for a modification of the license grant as necessary to show the correct mailing and email address, licensee name, club name, license trustee name, or license custodian name." For a club or military recreation station license, the application must be presented in document form to a club station call sign administrator who must submit the information to the FCC in an electronic batch file.

Under new Section 97.23, each license will have to show the grantee's correct name, mailing address, and email address. "The email address



must be an address where the grantee can receive electronic correspondence," the amended rule will state. "Revocation of the station license or suspension of the operator license may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct email address."

ARRL Learning Network Webinars

Visit the ARRL Learning Network web page to register for upcoming sessions and to view previously recorded session. The schedule is subject to change.

Amateur Radio's Role at the Boston Marathon Bombing: Steve Schwarm, W3EVE

Amateur radio has played a significant role in public service communications for the Boston Marathon for several decades. That role was put to the test in 2013 when two bombs were exploded near the finish line. This presentation will describe the role that ham radio played at the Marathon and how that role changed due to the bombing.

Tuesday, December 8, 2020, 10 AM PST / 1 PM EST (1800 UTC)

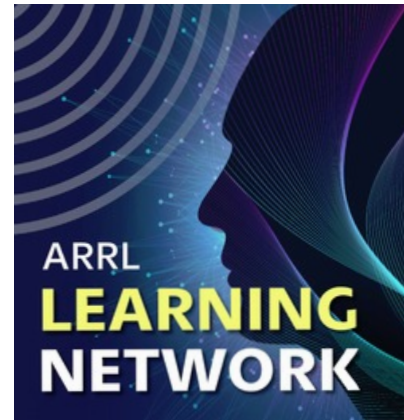
Learn and Have Fun with Morse Code: Howard Bernstein, WB2UZE, and Jim Crites, W6JIM

Morse code or "CW" is a popular ham radio operating mode. Learning CW does not have to be an arduous or lonely experience. Learn, practice, and enjoy CW with the methods used by the Long Island CW Club.

Thursday, December 17, 2020, 5 PM PST / 8 PM EST (0100 UTC on Friday, December 18)

QSLing in an Online World: Anthony Luscre, K8ZT

Learn all about the changing methods of QSLing in Amateur Radio, including traditional paper QSL cards, and electronic QSLing, such as Logbook of The World and eQSL.



Tuesday, January 5, 2021, 10 AM PST / 1 PM EST (1800 UTC)

PARK Minutes

October 12, 2020

The meeting was called to order by Conard Richardson in the absence of the president.

Introduction s were made by the members

The 50/50 raffle of \$19.00 was won by Earl Hulce .

The minutes of the September meeting were read by Jerry Wharton.

The treasurer's report was given by Jane Hulce. The balance is \$6,691.07

Lynn Palmer gave a report on the shirts the club is considering ordering. We will use the same club logo. There will be a minimum order of 12 shirts. The shirts come in many colors. A form will be sent out to order a shirt. The order forms will be due by the next meeting.

Earl Hulce reported on the new cavities that were given to the club by Greg Gano. Earl suggested that the club send a thank you note to him. Earl has installed these at the repeater site, and they are working well.

The club has an old Onin generator that we would like to sell. It will be offered to club members first. If it doesn't sell, it would be advertised outside the club.

Earl suggested we consider buying a new fusion repeater and controller. Earl will research this and report back to the club at the next meeting.

Kenny Harris mentioned that the 146.39 repeater needs some maintenance.

Kenny Harris explained the Aredn mesh system that he is working on. The meeting was adjourned.

November 9, 2020

Meeting was called order by Mike Richards about 630. There were 21 members and guests attending at Western Sizzlin.

A computerized presentation was presented by Conard Richardson on the

WiFi Mesh network he is establishing with Kenny Harris.

This network allows amateur radio operators to use Wi-Fi frequencies to transmit data.

After the presentation the meeting was called to order by Mike Richards.

Minutes of the last meeting we read and approved.

Treasures report was given by Jane Hulce and approved.

Old business:
Blane W8IOE passed on the information that the books had been audited by Libby and all checked out.

Blane Also reminded members that we have an old generator that is now just excess property due to the fact that we have two newer models.

He suggested we offer it to klub members first and he said he would buy it for \$100 if nobody else wanted it. We are going to ask on the net tonight (November 10) if anyone's interested. That suggestion was moved and seconded and approved.

Lynn Palmer reported that we had 20 T-shirt orders ready to go. We are going to ask on the 2 meter net tonight, November 10th. if anybody else wants to put an order in they need to do it now. It was discussed and vote on for the club to pay taxes on new shirts as it had been oversight in the order forms.M/Earl & S/Jane

New business:
Because of the increase in COVID-19 restrictions we must forgo our normal Christmas dinner entertainment. It was suggested we just plan a regular meeting to be held at Western Sizzlin on December 14.

Depending on the regulations in place at that time the meeting may have to be canceled. We will let the members know by email and net announcements.

Bob KBADFB motion to adjourn at about 730 and it was seconded by Jane.

Minutes taken by Mary Wharton's

December 14, 2020

In consideration of the continuing Covid-19 pandemic, the Parkersburg Amateur Radio Klub met on the N8NBL repeater (146.97) for the December meeting.

The meeting was called to order at 6:33 pm by acting president Jerry KA8NJW. Checkins were made by 13 operators. Minutes of the November 9 meeting were read by Secretary John W8IDW - approved as read.

Treasurers report was delivered by Jane N8MOW and approved as offered. No 50-50 drawing was conducted.

UNFINISHED BUSINESS:

Future meeting – Western Sizzlin management was notified of Park KLUK absence for Dec 14.

The next scheduled meeting will be on January 11, and is hoped to be in-person as usual. Final decision will be made depending on ongoing Covid situation. The larger generator which is no longer needed and considered surplus by the

Klub was offered to members at a \$100 price. Since no members expressed interest, Blaine WA8IOE will purchase at that price. Thanks to Blaine for storing the gen for the Klub.

The Klub T-shirt order has been received – Contact Earl KB8HRG to arrange pickup.

NEW BUSINESS:

Matt Doyle ,KC8FSI was voted into Klub membership, there being no objection. Jane N8MOW proposed the Klub send fruit baskets to shut-in members. Maximum of 5 baskets will be prepared and sent. Motion moved by Earl, second by Bob – passed.

MISC:

The motion was made by Bob KB8EFB to adjourn the meeting at 6:58 pm.

Minutes by John W8IDW, secretary
List of attendees recorded