MARCH 2021

HPARC NEWSLETTER

High Point Amateur Radio Club

MARCH MEETING

David will give us a program on lightning for the March meeting.

At the February meeting, Keith Thomas, KA4JAH, gave a program on his successful attempt to contact the International Space Station.

Rick Weinbaum, KK4RR, has agreed to accept chairmanship of the Education Committee. He is also offering a course on obtaining your Technician Class license (see article inside).

David Macchiarolo is in charge of sending out Zoom email invitations to the club meeting. If you are planning to attend the meeting via Zoom and have not gotten an invitation, please contact David and let him know (email under Officers in this newsletter).

HPARC Meeting
6:00 p.m.
Meal: 5:00 p.m.
March 1, 2021
J&S Cafeteria
5835 Samet Drive, HP
& on the Zoom app

I encourage our members to frequent J&S Cafeteria as much as you are able. J&S has been a great place for the HPARC to meet, and the manager and staff have been very helpful to the club. They have a drive-through now if you wish to order to go. I know they will appreciate your business.

I look forward to seeing all of you at the meeting–in-person or on Zoom. 73.

ARRL TO EXTEND FIELD DAY RULE WAIVERS FROM 2020; ADD CLASS D AND E POWER LIMIT

The COVID-19 pandemic-modified ARRL Field Day rules from 2020 will continue this June with the addition of a power limit imposed on Class D (Home Stations) and Class E (Home Stations-Emergency Power) participants. The news from the ARRL Board's Programs and Services Committee comes as many clubs and groups are starting preparations for Field Day in earnest. Field Day 2021 will take place June 26 – 27.

"This early decision should alleviate any hesitancy that radio clubs and individual Field Day participants may have with their planning for the event," said ARRL Contest Program Manager Paul Bourque, N1SFE.

For Field Day 2021, Class D stations may work all other Field Day stations, including other Class D stations, for points. This year, however, Class D and Class E stations will be limited to 150 W PEP output.

For Field Day 2021, an aggregate club score will be published — just as it was done last year. The aggregate score will be a sum of all individual entries that attributed their score to that of a specific club.

ARRL Field Day is one of the biggest events on the Amateur Radio calendar. Last summer, a record 10,213 entries were received.

"With the greater flexibility afforded by the rules waivers, individuals and groups will still be able to participate in Field

Fee continued inside...

HPARC/Zoom Meeting
March 1, 2021
J&S Cafeteria,
5835 Samet Drive, HP
& on Zoom
Meal at 5:30 p.m.
Business meeting at 6:00 p.m.

2021 HPARC COMMITTEE CHAIRMEN

List of HPARC Committees for 2021 along with the members of that committee (chairmen listed first).

Education: Rick Weinbaum, Mike Cumbo, David Macchiarolo

Finance: Warren Gallemore, KA4LOQ; Lacey Armistead; Art Johnson

Membership: Keith Thomas, KA4JAH; Lon Cecil; Mike Cumbo; Art Johnson

House: Bob Witt, KN4LMH; Lacey Armistead; George McCormick

Program: David Macchiarolo, AJ4TF; Derek Brown; Gordon Saunders

Publicity: George McCormick, KN4JPB; Bob Witt; Lacey Armistead

Repeater: Lon Cecil, AA4LC; David Macchiarolo; Mark McMahan

Special Activities: David Macchiarolo, AJ4TF; Mark Pegram; Camille Taylor

TECHNICIAN CLASS COURSE

Richard Weinbaum, KK4RR is offering a Technician Class Course for those wanting to get their Technician Class license. The course will run March 23, 2021 thru April 13, 2021, Tuesdays from 6:30 PM to 9:30 PM Eastern Daylight Time.

The course will be conducted using the Zoom video conferencing platform.

It is recommended that you get the study guide: The ARRL Ham Radio License Manual, item #0826, $32.95.

The best part of all this is the fee – free to future Hams of the Piedmont Triad. What a deal!

For more information, contact Richard Weinbaum, KK4RR, cell 336-687-8001, email KK4RR@mac.com

Sponsored by High Point and Tri-County Amateur Radio Clubs.

RESTORATION BEGINS ON WORLD WAR II ENIGMA MACHINES

It looks like restoration experts at Germany's State Archaeological Museum in Schleswig-Holstein are looking at additional work.

After starting the one years desalination and restoration work on a World War II enigma machine found in the Baltic Sea off the north east coast of Germany in December last year, another six units have been found. Unfortunately many of this find had been made unusable before they were thrown into the sea from German Warships at the end of the second world war.

The machines, which resemble old typewriters, have inner workings that include three interchangeable rotors used to scramble messages. These messages were then sent using Morse code to another ship or land station that had another enigma machine to decode the message.

Restored enigma machines have been shown and operation demonstrated both at Friedrichshafen and Dayton Hamfests.

—*Amateur Radio Newsline*,
Report 2258,
February 5 2021

ADDITIONAL VE COORDINATORS NOT NEEDED

ARRL has told the FCC that no additional Volunteer Examiner Coordinators (VEC) are needed to oversee the administration of Amateur Radio exams by Volunteer Examiners (VEs). ARRL's comments on February 4 were in response to a January 5 FCC Public Notice in WT Docket 21-2 seeking input on possible expansion of the VEC pool.

ARRL said, "Increasing the number of VECs would expand the complexity of VEC coordination and management, increase demand on FCC resources to interface with additional organizations, and raise the potential for abuse and fraud."

—*The ARRL Letter*,
February 11, 2021
Rick Lindquist, WW1ME, Ed.

The HPARC Newsletter is published monthly by the High Point Amateur Radio Club (HPARC) for its members. The HPARC Newsletter serves as a source of information about Club activities, and general news items of interest to Amateur Radio. Opinions expressed herein are not necessarily those of the HPARC or its officers. Material in this newsletter may be reproduced provided the HPARC is properly credited.

Complimentary issues of the HPARC Newsletter are available by writing to the HPARC Newsletter at PO Box 4941, High Point, NC 27263 or emailing your request to w4ua@arrl.net. Subscriptions are available to non-members for $12.00 a year. Contributions and letters/emails to the editor are welcome.

Membership is open in the HPARC to all licensed Amateur Radio operators. Membership is $24.00 a year. Associate membership is also available to those who are interested in Amateur Radio but who do not currently hold a license. Associate membership is $12.00 a year. Student membership is also available for $12.00 a year.

The High Point Amateur Radio Club meets the first Monday of each month (except for holidays) at 5:00 p.m. at a local restaurant announced in the newsletter. The business meeting starts at 6:00 p.m. followed by a short program of interest. Family and visitors are welcome to attend. For more information, please call or email one of the HPARC officers listed in this newsletter.

...Fee continued from cover
Day, while still staying within any public health recommendations and/or requirements," Bourque said.

The ARRL Field Day web page contains complete rules and entry forms, as well as any updated information as it becomes available. Join the ARRL Field Day Facebook group.

—*The ARRL Letter*,
February 11, 2021
Rick Lindquist, WW1ME, Ed.

A "PERFECT CORONAL MASS EJECTION" COULD BE A NIGHTMARE

A new study in the research journal Space Weather considers what might happen if a worst-case coronal mass ejection (CME) hit Earth — a "perfect solar storm," if you will.

In 2014, Bruce Tsurutani of Jet Propulsion Laboratory (JPL) and Gurbax Lakhina of the Indian Institute of Geomagnetism introduced the "perfect CME." It could create a magnetic storm with intensity up to the saturation limit, a value greater than the Carrington Event of 1859, the researchers said. The interplanetary shock would arrive at Earth within about 12 hours, the shock impingement onto the magnetosphere would create a sudden impulse of around 234 nanoteslas (nT), and the magnetic pulse duration in the magnetosphere would be about 22 seconds. Orbiting satellites would be exposed to "extreme levels of flare and interplanetary CME (ICME) shock-accelerated particle radiation," they said. The event would follow an initial CME that would "clear the path in front of it, allowing the storm cloud to hit Earth with maximum force."

The CME's 12-hour travel time would allow little margin for preparation. The CME would hit Earth's magnetosphere at 45 times the local speed of sound, and the resulting geomagnetic storm could be as much as twice as strong as the Carrington Event. Power grids, GPS, and other services could experience significant outages.

More recent research led by physicist Dan Welling of the University of Texas at Arlington took a fresh look at Tsurutani and Lakhina's "perfect CME," and given improvements in spaceweather modeling, he was able to reach new conclusions.

Welling's team found that geomagnetic disturbances in response to a perfect CME could be 10 times stronger than Tsurutani and Lakhina had calculated, especially at latitudes above 45 to 50°.

—*The ARRL Letter*,
February 11, 2021
Rick Lindquist, WW1ME, Ed.

REVIVED ANTENNA RECONNECTS WITH VOYAGER 2

If you've ever been off the air for a year or so, you know that your first contact has got to be a good one. Especially if it's serious DX like this one.

The completion of a complicated upgrade of an aging antenna at the Deep Space Network in Canberra, Australia has restored full contact between Earth and the Voyager 2 probe. The trailblazing spacecraft, which was launched 44 years ago by NASA, had been crossing the heavens in relative silence after a 70-meter dish there known as DSS 43 was shut down and dismantled for a needed refreshing. In space as on Earth, however, few things are immune to the impact of the global pandemic. The ordinarily large team of experts NASA would have sent to Canberra for the makeover was limited to four for safety reasons, and the reduced size of the team delayed the upgrade's progress. With DSS 43 being the only antenna capable of communicating with Voyager 2, the probe had few options for communicating: It could only transmit to the smaller dishes in Canberra but was unable to receive any commands, especially those that could have fixed problems if any had been detected on board.

After a test message was sent last October when DSS 43 was partially reassembled, NASA and other experts were optimistic.

Now with DSS 43 back in business, the long silence is over but two-way contact still requires something of a wait: Round-trip communication between Earth and the far-away Voyager 2 takes 35 hours.

—*Amateur Radio Newsline*,
Report 2260,
February 19. 2021

High Point Amateur Radio Club
PO Box 4941
High Point, NC 27263

HPARC MARCH CALENDAR

1 — HPARC Club Meeting
6-7 — ARRL International DX Contest, phone
14 — Daylight Savings Time begins
17 — St. Patrick's Day
20 — First Day of Spring
27 — W4VEC High Point session (Hickory Chapel Wesleyan Church, Fellowship Bldg)
28 — HPARC Newsletter Deadline

BIRTHDAYS
Justin Sayres — March 14
Art Johnson — March 27

For W4VEC Test information, call or email David Macchiarolo, AJ4TF, (336) 420-9424, aj4tf@arrl.net

2021 HPARC OFFICERS

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Saturday Breakfast
—
8:00 a.m.
—
Mrs Winners, 2713 S. Main St.