

OCTOBER 2021



*High Point  
Amateur Radio  
Club*



## OCTOBER MEETING

My sincerest apologies. This month's newsletter was the last thing on my mind which partly explains its being late. In my defence, I had a really bad head cold last weekend when I should have been working on it.

The program for last month was postponed until the October meeting due to a small number of people attending. We had to switch gears and go totally Zoom because J&S Cafeteria closed for Labor Day. They normally don't close on Labor Day, but the shortage of staff and

this crazy pandemic is causing problems everywhere.

David will give a program on how to figure the RF Exposure

### HPARC Meeting

**6:30 p.m. / Meal: 6:00 p.m.**

**October 4, 2021**

**J&S Cafeteria**

**5835 Samet Drive, HP  
& on the Zoom app**

requirement the FCC has recently instituted.

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).

Please send your club dues directly to Warren Gallemore, HPARC Treasurer. His email address is listed in this newsletter if you need to contact him.

I hope this newsletter finds everyone in good health. Hope to see you all at the October meeting.

## NEXT SPACEX COMMERCIAL CREW TO ISS COMPRISED OF RADIO AMATEURS

Four Radio Amateurs will head to the International Space Station (ISS) aboard a commercial flight, thanks to Amateur Radio on the International Space Station (ARISS). They are Raja Chari, KI5LIU; Tom Marshburn, KE5HOC; Kayla Barron, KI5LAL, and Matthias Maurer, KI5KFH, a European Space Agency (ESA) astronaut. The targeted launch date is no sooner than October 31, from Kennedy Space Center in Florida. The launch will mark the third SpaceX Crew

as part of NASA's Commercial Crew Program, which provides transportation to and from the ISS. The crew is scheduled for a 6-month stay aboard the orbiting laboratory, living and working as part of what's expected to be a seven-member crew.

The launch will be the first spaceflight for Chari, Barron, and Maurer, and the third for Marshburn.

NASA's SpaceX Crew-3 will be the third crew rotation mission to the ISS with astronauts on a US rocket and spacecraft and the fourth flight with astronauts, including the Demo-2

test flight in 2020, the Crew-1 mission in 2020 – 2021, and the ongoing Crew-2 flight as part of the Expedition 65 crew.

Crew-3 astronauts plan to arrive at the station to overlap with NASA Astronauts

*SpaceX continued inside...*

### HPARC/Zoom Meeting October 4, 2021

**J&S Cafeteria,  
5835 Samet Drive, HP  
& on Zoom**

Meal at 6:00 p.m.  
Business meeting at 6:30 p.m.

# TECHNICIAN COURSE

When: October 11 thru November 1.

Four consecutive Monday evenings from 6:30 PM to 9:30 PM eastern

Where: On the Zoom video conferencing platform.

Recommended study guides :

1) The ARRL Ham Radio License Manual, Level 1, Technician.

2) HamTestOnline.

Fee: Free to future Hams of the Piedmont Triad

Contact Richard Weinbaum, KK4RR.

Cell 336 687 8001

Email KK4RR@mac.com

Sponsors: the High Point and Tri-County Amateur Radio Clubs

## NOMINATING COMMITTEE

The HPARC Board met and picked the Nominating Committee to select next year's officers.

Those on the committee are: David Macchiarolo, George

McCormick, Camille Taylor, Terrance Crandall and Peter Kapetanakis.

The Nominating Committee will meet before the November meeting and decide on a slate of

officers for 2022. Their recommendations will be announced at the November meeting as well as in this newsletter before the November meeting as required by HPARC By-Laws.

## WITH CW, IT'S NO SPEED? NO PROBLEM!

The Peel Amateur Radio Group believes there's no business like Slow Business, especially when it comes to CW. The club, based on Mandurah, Western Australia, has been on a mission to get CW to flourish among its newest members and to rekindle the keyers of oldtimers among them. They credit one member, Tony VK6DQ, with leading the charge through his nighttime coaching sessions. The club itself has already run a pair of Slow CW contests on 80 metres

this year for members and non-members alike. The third event, on Saturday September 18th, extends the competition throughout all of the Oceania region.

It's actually not a competition at all. It's about being friendly and.....Taking. Your. Time. In fact, downloadable guidelines on the club's website tell readers "You'll make mistakes and you'll hear others making mistakes while they're learning too – relax, have fun and don't sweat the small stuff!"

It's not that the club is in any big rush to find slow senders—but members DO want to encourage the slowest of the slow to get in on the action. In fact, members David Millett VK6FAAZ and Mark Bosma VK2KI/VK6QI have written in a Facebook post: "Please give it a go, no matter how bad you think you are, it's all about having a go and having some fun."

—Amateur Radio Newsline,  
Report 2290,  
September 17th, 2021

## PASSING OF POCKET CALCULATOR INVENTOR

Pocket calculator inventor and home computing pioneer Sir Clive Sinclair died at his home on September 16 following a long illness. He was 81.

Sinclair may have been best known for popularizing the home computer. Leaving school at 17, he worked for 4 years as a technical journalist

to fund Sinclair Radionics and created the Sinclair Spectrum and the first computer, the Sinclair ZX-81.

Many modern-day titans of the games industry got their start on one of his ZX models. Back in the day, the gamer's computer of choice was either the ZX Spectrum 48K or its

rival, the Commodore 64.

Among his other inventions was a coin-sized radio. Despite his computer background, Sinclair declined to use the internet, email, or even computers.

—The ARRL Letter,  
September 30, 2021  
Rick Lindquist, WW1ME,  
Editor

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.

*...SpaceX continued from cover*

Shane Kimbrough, KE5HOD, and Megan McArthur; Japan Aerospace Exploration Agency (JAXA) Astronaut Akihiko Hoshide, KE5DNI, and ESA Astronaut Thomas Pesquet, KG5FYG, who flew to the station as part of the agency's SpaceX Crew-2 mission in April 2021.

Mission teams have a target launch date of no earlier

than April 15, 2022, for the launch of the SpaceX Crew-4 mission. "NASA's Commercial Crew Program is working with industry through a public-private partnership to provide safe, reliable, and cost-effective transportation to and from the International Space Station, which will allow for additional research time and will increase the opportunity for discovery

aboard humanity's testbed for exploration," NASA said. "The space station remains the springboard to space exploration, including future missions to the moon and Mars."

For launch coverage and more information about the mission, visit the NASA website.

—*The ARRL Letter*,

September 16, 2021

Rick Lindquist, WW1ME, Ed.

## SSB WAS SLOW TO CATCH ON AS HAM RADIO MODE

Hams are often early adopters of new technology, such as FT8, but this was not the case with single sideband (SSB) amplitude modulation. First referenced in Major General George Squier's 1911 patent that had nothing to do with RF applications, SSB didn't really catch on as a popular Ham Radio phone mode until the 1960s.

Antique Wireless Association (AWA) museum curator Ed Gable, K2MP, recounted "The History of Single Sideband" as part of the inaugural "AWA Shares" program, presented on August 19. Gable described Squier as an "early idea man" in the history of SSB at a time when Hams had hardly adopted AM in any form.

As Gable explained, John Renshaw Carson built on Squier's patents to define the principles of SSB radio transmission theory, using a balanced modulator and filters.

Gable credited Robert M. Moore, W6DEI, with introducing SSB to the Ham Radio community, through an article in R9 Magazine in the early 1930s. The technology remained more of a curiosity, however, in part because of the

Great Depression, cost, and technical difficulty. Besides, Hams of that era saw no real advantage to narrowband modes, since bands were not that crowded.

The mood began to change after World War II, though. In 1948, Oswald Villard, W6QIT, engineered the airing of SSB signals via Stanford University's W6YX, re-introducing the mode to a burgeoning and more technically savvy post-war Ham community that included a lot of veterans. A 1950 GE Ham News article by Don Norgaard, W2KUJ, described plans for a 5 W, three-tube SSB transmitter he dubbed "The SSB Jr."

Expanding on this, Central Electronics' Wes Schum, W9DYV, built the first SSB exciter, the 10A, in 1952, and it became the company's first product, spawning a series of successor products that included a VFO based on a modified BC-458 military surplus transmitter, an "SSB slicer" for receiving, and even a linear. SSB equipment was neither inexpensive nor accessible, however.

"Cheap and Easy S.S.B." by Anthony Vitale, W2EWL,

which appeared in QST in 1956, spoke to Hams' attitudes, helping to advance the adoption of SSB among Radio Amateurs. Byron Goodman, W1DX, addressed receiver improvements with his QST article, "The Product Detector."

In the same decade, General Curtis LeMay, K3JUY/K4RFA, promoted the advantages of SSB to the military, heralding a phase-out of AM as the dominant voice technology. Many Hams were not convinced of SSB's advantages, deriding the signals as sounding like Donald Duck. Adoption didn't really take off until the Collins KWM-1 came along in 1957. It was the first SSB transceiver to share receiver and transmitter circuitry. Heathkit, Viking, and B&W produced SSB adapters for use with current AM gear.

Other manufacturers including National and Swan came along to further boost adoption of the mode, and it wasn't that many years before SSB eclipsed AM as the predominant voice mode on the HF bands.

—*The ARRL Letter*,

September 23, 2021

Rick Lindquist, WW1ME, Editor



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

## HPARC OCTOBER CALENDAR

- 2 — Rock Hill, SC Hamfest
- 4 — HPARC Club Meeting**
- 9 — Greensboro VE Session, Hinshaw United Methodist Church
- 11 — COLUMBUS DAY**
- 13 — Navy Day
- 15 — National Boss Day
- 16 — Winston-Salem W4NC Hamfest
- 16-20 — High Point Furniture Market
- 18-22 — School Club Roundup
- 23-24 — EME — 2.3 GHz & up
- 24 — HPARC Newsletter deadline

- 30 — W4VEC High Point session (Hickory Chapel Wesleyan Church, Fellowship Bldg)
- 31 — HALLOWEEN**

### BIRTHDAYS

- Phillip Mansfield — October 13
- Gordon Sanders — October 23
- Lon Cecil — October 30
- Lacey Armistead — October 31

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

### 2021 HPARC OFFICERS

- Mark McMahan — President — 336-887-3039 — kb4mfp@arrl.net
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- HPARC — [www.w4ua.org](http://www.w4ua.org) — w4ua@arrl.net — 147.165 (67 Hz Tone) — 443.900

**Breakfast  
every Saturday**  
—  
**8:00 a.m.**  
—  
**Biscuitville,  
2709 S. Main St.**