

Charles
County
Amateur Radio
Club

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Smoke Signals



Volume 23
issue 1

January 2020

THE PRESIDENT'S WORKBENCH

Welcome to the third decade of the 21st Century. I'm still waiting for my flying car and other innovations predicted on the old television series, *The 21st Century*. That said, while I'm waiting for those I'm enjoying my home computers, Raspberry Pi mini computers and several types of microcontrollers.

As we plunge into the worst of winter this is a wonderful time to snuggle up to the space heater under your workbench. Make a resolution to spend a couple hours each week learning and experimenting with something new to you. Don't feel like you have to do this alone. There are a number of very experienced people in the club that would be more than happy to help you understand the things that simply don't make sense. If you're shy about asking for help, there are also some outstanding

videos on YouTube that will help you get through the difficult to grasp concepts.

For those that do better with a little bit of a structured instruction approach, we have some good news for you. One of our in-club experts, Charles, AA3WS, is planning to run a class on learning to program and create useful projects with the Arduino microcontroller. Starting with a simple program to write "Hello World" on a screen, in a few short weeks Charles will have you ready to create sensor circuits the Arduino will read and report the data in various ways from warning lights to textual information on a screen. Charles will have more info about this class and a signup sheet in the near future. To save on shipping costs and ensure everyone has the same system we will place a group or-

(Continued on page 4)

CALENDAR

January

03 meeting

04 Kids Day

25-26 Winter Field Day

29 News articles due

February

07 VE session &

Club meeting

15 Regional Robotics

26 News articles due

CCARC Resumes weekly nets

Beginning January 1, 2020; Charles County Amateur Radio Club will start a simplex net on 146.490@ 2030 local time. This will begin our weekly simplex nets each Wednesdays.

Nets will be roundtable type with a question of the week for discussion. All amateur radio operators are welcome; please join in the fun!

**146.490 simplex
Wednesdays**



William Palmer
(Bill, Tugboat)
KE3RE
Silent Key



(February 24, 1944 - December 23, 2019) Bill retired from US Navy in 1983, retiring after 20 years of service. Bill enjoyed rope knot art, woodworking, travelling, firearms, singing, beekeeping, and reading to his grandchildren. Family was everything to Bill. He was a member of the Beekeeper's Association and the Charles County Amateur Radio Club. He started as a novice KA3KJW in the 1980's. When he tested for both his general and advanced at the same test session...he watched ARRL for the calls coming up...when he saw KE prefixes...he jumped and was happy with KE3RE (it's great for cw "-.--- .-. .").

Bill is survived by his wife, Catherine; his sons, William J. Palmer III, James, daughters, Tammy, and Mary; 4 grandchildren and many extended family. He is preceded in death by his parents, his son, Charles and his brother, Paul Edward Palmer, Sr.



In lieu of flowers, memorial donations in Bill's name may be made to The Honeybee Conservancy, 1732 1st Avenue., #28748, New York, NY 10128 or the National Kidney Foundation, 30 East 33rd Street, New York, NY 10016.

See Dec 2018 edition of Smoke signals member column
Condolences can be made at www.brinsfieldfuneral.com



(Continued from page 1)

der for all the parts needed for the class. Stay tuned for more details.

There are a few operating events and radio contests coming up in January. These might give you a chance to try a new mode or blow the cobwebs out of the brain on a mode you haven't used in a long while. As you've heard before, radio contests will really help you improve your operating skills. But the casual operating events based on a theme are great skill builders without the stress of a contest.

Kicking the year off is the ARRL Straight Key Night on January 1. The name is a little misleading as it is a 24 hour long on air event, not just one evening. In their own words, the ARRL says, "Participants are encouraged to get on the air and simply make enjoyable, conversational CW QSOs. The use of straight keys or bugs to send CW is preferred. There are no points scored and all who participate are winners." The event starts at 0000 UTC on January 1 and runs until 2359 UTC. If you're not sure how that converts to local time, it means the event starts at 7:00 PM on December 31, 2019 and ends at 6:59 PM on January 1, 2020. Do you remember what I said last month? New Year's Eve is one of the most fun times to be on the air making contacts.

For the contesters, the ARRL RTTY Roundup kicks off at 1800 UTC (1:00 PM local) on Saturday, January 4, and ends at 2359 UTC (6:59 PM local) on Sunday, January 5. It is restricted to the 80, 40, 20, 15, and 10 meter

bands using digital modes (Baudot RTTY, PSK, FT8/FT4, ASCII, AMTOR and Packet – attended operation only.)

January also holds a contest that Technician licensees can participate in with just a standard 2-meter radio. I'm referring to the ARRL VHF Contest which happens three times per year. Even if you don't make an incredible number of contacts you'll be pleasantly surprised at how far your signal can be heard on FM simplex. Recent rules changes now allow contesting on the National Calling Frequency, 146.520 MHz. Give it a try, there will likely be many people listening and ready to make a contact.

I hope you will make the commitment to spend the cold winter months learning about and experimenting with an aspect of electronics or communications that you are currently not familiar with. I also hope to see all of you at the meeting on Friday, January 3, at 7:00 PM.



by Bob, NW3M

New Licensees

The CCARC Volunteer Examiners Team provided testing at the SantaFest on Saturday morning in Cheltenham, MD. We had three people show up to take exams and I am happy to report that all three were successful.

We have two new Technician licensees ready to get on the air. Brooke Shambley, now known as KC3ONT, and Christopher Bauer, now known as KC3ONU.

We also have a new Extra class licensee, James Shambley, KK4JJL.

If you hear any of these fine folks on the air, please remember to congratulate them on their success.

The next exam session is
February 7

CCARC VE Team Report

By Bob, NW3M

The CCARC VE Team has had another successful year of providing license exams. It is interesting to note that we had much lower overall numbers of people taking tests this year. Thank you to all of the dedicated volunteers of our team who make each exam session a success. Our last exam session of 2019 was held at the SantaFest in Cheltenham, MD. The breakdown of successful license exams is in the table below.

License Class YTD Totals

Technician 4

General 2

Extra 2

Total licenses earned: 8 Total exams administered: 18

The last number reflects the total number of exams provided and graded. This number is usually higher because some applicants will take multiple exams such as their Technician and General at the same exam session. Others fail an exam the first time by one or two questions and opt to try again at the same test session. (People taking a retest are provided a different version of the test. We have 10 different versions for each license class.) Whether they pass or fail an exam, it is counted by the LARC VEC as an exam element administered by the team.

We will continue with our schedule of holding an exam session prior to our club meetings on the even numbered months. The next exam session on our schedule is February 7, 2020, at 5:30 PM.

N3V special event station commemorate first voice transmission.

December 23, 1900 Reginald Fessenden using a spark gap transmitter sent the first voice transmission "hello, 1, 2, 3, 4 is it snowing where you are Mr Theissan? If so telegraph back and let me know ". You will find the historical marker on Cobb Island in Charles County Maryland where this was transmitted and received 1 mile away.

N3V on the air December 20 to Jan 2



Look for these other special event stations (plus too many for winter field day to list)

K3Y	1/21	2/1	Straight Key Century Club birthday
W4G	1/18	2/1	Gasparilla Pirate Invasion
K4C	1/17	1/18	Battle of Cowpens commemoration
N4T	1/12	1/25	POTUS INAUGURATION ANNIVERSARY
K5S	1/11	1/12	119th Anniversary of the Lucas Gusher
W1M	1/11	1/11	WHOA Weekend/SCOTA
K7B	1/8	1/12	London Bridge Lake Havasu City Balloon Festival
W0E	1/4	1/5	Lake of the Ozarks Eagle Days
K5C	1/31	2/3	Shuttle Columbia Memorial Event

Practice questions

Which of the following is true when installing grounding conductors used for lightning protection?

- A. Only non-insulated wire must be used
- B. Wires must be carefully routed with precise right-angle bends
- C. Sharp bends must be avoided
- D. Common grounds must be avoided

Which of the following could you use to cure distorted audio caused by RF current on the shield of a microphone cable?

- A. Band-pass filter
- B. Low-pass filter
- C. Preamplifier
- D. Ferrite choke

When may the FCC restrict normal frequency operations of amateur stations participating in RACES?

- A. When they declare a temporary state of communication emergency
- B. When they seize your equipment for use in disaster communications
- C. Only when all amateur stations are instructed to stop transmitting
- D. When the President's War Emergency Powers have been invoked

What is the primary advantage of tri-state logic?

- A. Low power consumption
- B. Ability to connect many device outputs to a common bus
- C. High speed operation
- D. More efficient arithmetic operations

CCARC Activities

Mark your calendars! Here is a list of CCARC activities coming up in the next few months. By Jeff – KB3SPH

3 January 2020 - Monthly CCARC meeting at 7:00 PM. Presentation: “Home Automation” by Guest Speaker, Ken – KA3POX.

24 – 26 January 2020 - Winter Field Day - Nanjemoy Creek Environmental Education Center – See article by Pam – KB3SWS, for details.

7 February 2020 - Test Session at 5:30 PM followed by Monthly CCARC Meeting at 7:00 PM.

6 March 2020 - Monthly CCARC meeting at 7:00 PM.

HAMFESTS

January 26, 2020 Post Holiday Hamfest

Odenton Volunteer Fire Company

1425 Annapolis Road Odenton, MD 21113

<https://sites.google.com/site/marylandmobileers/hamfests-1/hamfest-2>

Maryland Mobileers Amateur Radio Club **Talk-In:** 146.805 (-) (PL 107.2)

And from some of the local youth groups

4H

Our Regional Robotics Day is **February 15, 2020** if you want to put that in your calendar as well. This will be a day of learning (no real commitment on your part) for Lego and VEX. We will also use SuGO Bots if you are familiar. This will be all day at Charles County Extension.

April 4, 2020 as the 4-H Robotics & REC In-Service. Denise and I attended this a few years back and it was an interactive presentation of both challenges that will be used at State Fair. More details to come. Time and location TBD

Aerial View

Across

- 1. 10 kilogauss
- 6. UA parliament
- 10. Kludge
- 14. Kind of socket or tube
- 15. Ancient OA-lander
- 16. Competent
- 17. Improbable dream VHF/UHF antenna
- 20. Achy, as after an antenna project
- 21. Transceiver knob label
- 22. Part connections
- 23. Ckt.between IF and AF
- 24. Suffix with bio- or proto-
- 26. Loud speaker
- 30. Eye part
- 31. US hams do it every 10 years, usually
- 32. "That's great, friend", on CW
- 33. Be next to
- 37. What rural hams fancy themselves?
- 40. Feedline badness
- 41. Baseball stats
- 42. Symbol in coax specs
- 43. Go out of your cell area
- 44. Unidirectional dipole
- 45. Where all good signals go, eventually?
- 48. Late summer contest
- 49. Tribander parts
- 50. Kind of FET
- 51. They have replaced tuning dials in modern rigs, often.
- 55. Improbable dream HF antenna
- 59. K, on phone
- 60. Elser-Mathes Cup target
- 61. Look of disdain
- 62. One meaning of V
- 63. Switch type
- 64. They deliver power

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49								50				51	52	53	54
55						56	57					58			
59						60						61			
62						63						64			

Down

- 1. Narrowest tower sections, often
- 2. EME signal
- 3. Sirius, for one
- 4. Emit coherent light
- 5. Draft pick
- 6. One's self, on CW
- 7. Ampere, for one
- 8. Lots and lots of Hz in the old days
- 9. Word to a doctor
- 10. Bugs, Roger, Peter, et. al.
- 11. Garfield's middle name
- 12. Copper often does it
- 13. Enables, as a transmitter
- 18. Kind of hunter, in radio
- 19. Word of regret

- 23. "See you ____ the log"
- 24. Univ. teachers
- 25. Kilo follower
- 26. Not written
- 27. W7-land city
- 28. What this puzzle is about, for short
- 29. Connectors named for their shape
- 30. Italian yagi?
- 32. One C per V
- 33. BBs, e.g.
- 34. E, to a non-ham?
- 35. Encourage
- 36. Bygone UA leader
- 38. It glows amber
- 39. Part
- 43. Sometimes causes antenna failure

- 44. Window part, where the feedline might come in
- 45. Group of trees
- 46. 5 wpm, 70 mph, etc.
- 47. Eyeball benders
- 48. Least good
- 49. Gait faster than a walk
- 50. QSLs often go via them (abbr.)
- 51. Lead-ins to P
- 52. Future ham, sometimes
- 53. Became SK
- 54. Switching semiconductors
- 56. RX spec.
- 57. Break, during a long contest, say
- 58. Sig. src.

Field Day Winter 2020 General Information Article for CCARC Newsletter

Hello from Pam - KB3SWS. The 2020 Winter Field Day is fast approaching, and will be held on Saturday, January 25 through Sunday, January 26, 2020. Once again, the Fort Washington Amateur Radio Club (FWARC) will host a Field Day event at the Nanjemoy Creek Environmental Education Center (NCEEC), 5300 Turkey Tayac Place, Nanjemoy, MD 20662 (Charles County). For directions to NCEEC, which also includes the Nanjemoy Creek Observatory, go to the link on the Southern Maryland Astronomical Society (SMAS) website: http://www.smas.us/html/directions_to_smas.html.

NOTE: NCEEC is a working school site, with students and faculty on location on weekdays. It is also a gated facility. Please do not try to visit the site before Field Day by yourself, because you will not have access.

The Field Day invitation will be extended to other hams in Southern Maryland, so feel free to forward this information to the hams on your list.

Operations/Set up:

Winter Field Day operations officially begin on Saturday, January 25, 2020 at 1900 UTC or 2:00 PM EST and end on Sunday, January 26, 2020 at 1900 UTC or 2:00 PM EST.

Please note that we might end our operations earlier than 2:00 PM on Sunday, January 26, based on weather conditions, the number of participants, etc.

Field Day participants may arrive at NCEEC on Friday, January 24, 2020, for early set up. I will open the gate in the afternoon or early evening, at a time TBD. On Saturday, January 25, I will open the gate by 9:00 AM, but you may arrive later in the day and depart at a time that fits your schedule. The gate will be open again by 9:00 AM on Sunday, January 26, if you are not staying overnight, but participating in the second day of operations.

Radio set up locations will include the pavilion and the cabin areas. The pavilion has central heat. The cabins have space heaters.

Food/Beverages:

Meal plans are TBD for supper on Friday, January 24, based on the number of participants who stay overnight.

Please provide your own lunch for yourself, for Saturday, January 25. We are planning a Potluck Supper on Saturday, January 25 and Potluck Breakfast on Sunday, January 26. Potluck mealtimes are TBD. Also, you should provide your own non-alcoholic beverages for all meals.

I will coordinate the potluck meals, so let me know if you are planning to join us. Once we determine how many people will be attending the potluck meals, we will fine tune the details of the food item(s) that each will provide.

NOTE: NCEEC has a full kitchen, so you can keep food and beverage items in the refrigerator and/or freezer, and cook with the stove top, oven and microwave.

Accommodations:

For those planning to stay at NCEEC all weekend, there are six rustic cabins on site. As of this writing, two cabins have been reserved, so there are four cabins remaining. Each cabin has three bunk beds, with basic mattresses, plus an electric space heater. You will have to provide your own sleeping bag or bedding and pillow. Restrooms with showers are indoors, in a separate building adjacent to the cabins. You will have to provide your own towels. If you are staying overnight on Friday, January 24 and/or Saturday, January 25, let me know, and I will reserve a cabin for you.

NOTES: The use of the cabins and facility is free.

NCEEC is a facility of the Charles County School District, therefore, it is a smoke free, alcohol free and drug free zone.

Weather:

We may choose to postpone or cancel set ups and operations, if driving is deemed dangerous, due to winter weather.

For general Winter Field Day information, visit: <https://www.winterfieldday.com/>

If you have questions or you want to reserve a cabin, please contact me, Pamela Humbert, at humbertpj@gmail.com. If you plan to participate and attend any of the potluck meals, please let me know. We hope to see you for Winter Field Day 2020.

The Federal Communications Commission (**FCC**) has approved using the 3-digit number **988** as a [suicide](#) prevention hotline number.

Calls to the number will be directed to the National Suicide Prevention Lifeline, which includes 163 crisis centers. The lifeline is available by calling 800-273-TALK (800-273-8255) and through online chats. .

The agency says that in studying the issue, it found that the 3-digit number "would likely make it easier for Americans in crisis to access potentially life-saving resources." Suicide rates increased in 49 of 50 states from 1999 to 2016, with an increase greater than 20% in more than half of those states, the FCC says. Rates are higher across several at-risk populations, including veterans and LGBT communities.

The agency is seeking public comment on the proposal, which could take up to 18 months to fully put into effect.

"Suicide and attendant mental health challenges have received far too little attention for far too long. That is now changing," FCC Commissioner Brendan Carr says in a statement. "Anything we can do to break down barriers, to make it easier for conversations about mental health and counseling to feel within reach, is something we should do."

The CDC says suicide is the 10th leading cause of death in the United States, with more 47,000 deaths in 2017. And millions of people think about it or attempt suicide. In 2017, 10.6 million American adults seriously thought about suicide, 3.2 million made a plan, and 1.4 million attempted it.

You can reach the National Suicide Prevention Lifeline at 800-273-TALK (800-273-8255) or by [online chat](#).

Contests in January

ARRL Kids Day Jan 4, 2020 <http://www.arrl.org/kids-day>

A good way to get kids on the air and inspire interest in amateur radio:

11th North American QSO Party, CW <http://www.ncjweb.com/NAQP-Rules.pdf>

18th North American QSO Party, SSB

and Hungarian DX <http://ha-dx.com/en/contest-rules>

25th Winter field day see article page 10

ANSWERS

T	E	S	L	A		D	U	M	A		H	A	C	K	
O	C	T	A	L		I	N	C	A		A	B	L	E	
P	H	A	S	E	D	D	I	S	H	A	R	R	A	Y	
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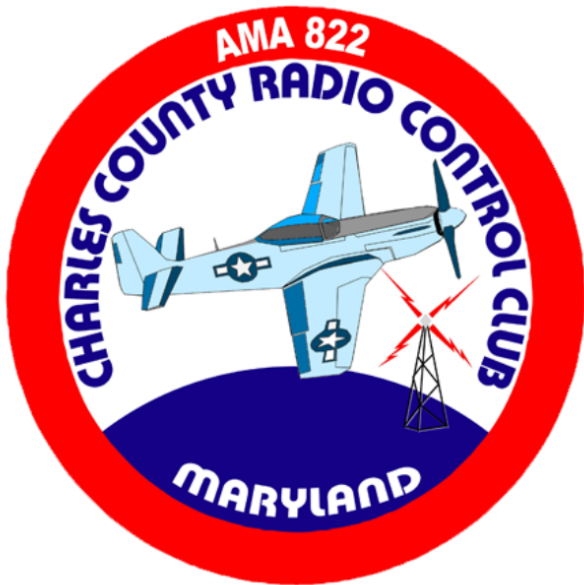
Answers to practice questions
1C 2D 3D 4B

CCARC Christmas party at Golden Corral Dec 6, 2019
Pictures from Fancy Hat photography





WANT ADS, FOR SALE, &
PUBLIC SERVICE ANNOUNCEMENTS:



Interested in joining
the fascinating hobby
of RC airplanes?

The Charles County
Radio Control Club
is ready to help you
get started.

Visit us on the web:
charlescountyrc.com



**Southern Maryland
Astronomical Society**

Explore the night sky with
us at our observatory, or
use your own telescope.

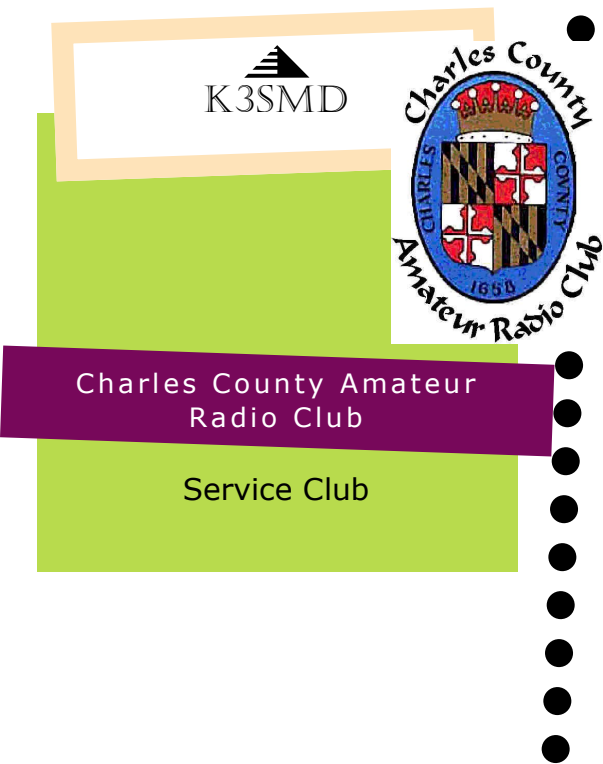
New to astronomy? We'll
help you learn.

For information, visit us at
<http://smas.us>

We're on
the web

[http://
k3smd.net](http://k3smd.net)

This is where I will post want ads, for sale or trade items, & Public service announcements: Just send the info to Michelle (editor) msack@verizon.net Or PO Box 1182 Waldorf, MD 20604



Meetings, nets, & contacts

First Friday- Monthly meeting @ 7 PM/1900 Charles County Rescue Squad 2 Calvert Street, LaPlata, MD

Net-Wednesdays 8:30 PM local: 146.490 Simplex

PO BOX 169, La Plata, MD 20646

President: Bob Curran NW3M flyingham@verizon.net

Vice-president: Tom Abernethy W3TOM w3tom@arrl.org

Secretary: Charles Hallock AA3WS selbynet@hotmail.com

Treasure/member Bob Davidson r davidson@aceweb.com

Activities Jeff Humbert KB3SPH humbert1js@gmail.com

Newsletter Michelle Sack N3YRZ msack@verizon.net

VE Coordinator Bob Curran NW3M

Leave laughing

Didja hear the one about the Ham Radio Operator's kids who didit and didit because their dahdah didit?