

Charles
County
Amateur Radio
Club

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Smoke Signals



Volume 24
issue 4

April 2021

Meeting 2nd @ 1900 EST via Zoom &/or
Marbury Baptist Church 4670 Bicknell Rd,
Marbury, MD 20658

THE PRESIDENT'S WORKBENCH

CALENDAR

April

02 meeting

07 Net 2030

14 Net 2030

21 Net 2030

28 Net 2030 &

News articles due

May

05 Net 2030

07 meeting

12 Net 2030

19 Net 2030

26 Net 2030 & News
articles due

Spring brings strong storms, are you radio ready? Do you have a Go-Kit, or at least enough spare equipment to set up an emergency field station? What about backup power for your home station in case the power goes out?

These are just a few of the important questions to ask yourself. It is always good to periodically take stock of what equipment and capabilities you have. If you do a station evaluation just once per year, spring is a good time to do so. Think about what you might need to make your station more flexible and more resilient. Things you might not have considered are a backup antenna and mast system that can be quickly deployed in the event of storm damage to your primary antenna(s) and support structure. High winds can blow down trees and heavy limbs. If your luck runs like mine, they always land on antennas and guy lines. Heavy rains can also wreak havoc on old cables or connectors with inadequate water sealing.

Do you have a list of frequencies to monitor for news, weather and emergency information? What about frequencies where local ARES and WX nets operate? Have you monitored the popular simplex frequencies enough to know who might be listening on various simplex frequencies in case repeaters go down or are overwhelmed with traffic? Have you tried talking to the people you hear on simplex frequencies to determine if your station can be heard? Radios and radio operators that only operate in times of emergency are often rusty. Get on the air often to keep the rust, dust and cobwebs from settling inside the radios, antenna systems and your operating skills.

While you're at it, take the time to make your home and family ready for any emergencies that might arise. To help you with planning visit <https://www.ready.gov/>.

(Continued on page 2)

(Continued from page 1)

Sunday, April 18, is World Amateur Radio Day. On this day, operators around the world take to the airwaves to celebrate. For those on social media, use #InternationalAmateurRadioDay to share your amateur radio activities. The theme for this year is "Amateur Radio: Home but Never Alone". This theme offers the opportunity to tailor meaningful messages to the general public about the values of the global amateur radio community and how hams have adapted to combat the extreme social isolation caused by the pandemic.

If you're looking for a challenge on HF, beginning April 1 and continuing through the end of the year is the Quebec Parks on the Air. This is your chance to pick up some interesting Canadian contacts. These will all be special event stations commemorating public parks in the Quebec Province just like the US Parks on the Air program. How many can you collect?

If you are still in need of some states to get your Worked All States award, these states will be holding QSO Parties in the month of April: Mississippi, Louisiana, Nebraska, New Mexico, North Dakota, Georgia, Texas, Michigan, and Florida. Ontario Province in Canada will also be holding a QSO Party in April.

Our third hybrid meeting will be April 2, at the Marbury Baptist Church and via Zoom. The meeting will start at 7:00 PM.



by Bob, NW3M

CCARC weekly net

Charles County Amateur Radio Club net each Wednesday 2030 local time
147.195 MHz, + 600 offset, PL 156.7 Hz. If repeater fails 146.480 simplex

EchoLink N2OMC-L (when available, watch emails)

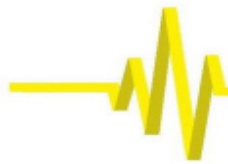
Follow us on Netlogger

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

Sign up for net control at

<https://www.signupgenius.com/go/20F0B48ACAB2CA5F85-ccarc>

Hamfest



Vienna Wireless Society

Hamvention 2021 Amateur Radio Club of the Year

ARRL Virginia Section Convention for 2021

FREE ADMISSION

Virtual Convention and Webinars
Saturday April 24, 2020

9:00AM-2:00PM EDT
(1400-1900 UTC)

Details



<https://viennawireless.net/wp/events/winterfest/>

Three tracks, 18 sessions total - follow one track or mix and match.

- Track 1 - Ham Radio Bootcamp**
 - Informative sessions for new or returning hams
- Track 2 - Hot Topics**
 - Club round table, ARRL forum and more
- Track 3 - Virginia ARES & AUXCOMM**
 - Learn about the Amateur Radio Emergency Service and
 - Auxiliary Emergency Communications

View the Conference Program

https://docs.google.com/spreadsheets/d/e/2PACX-1vQc0utWdcbIHhkplMZwo07hD7QIXBnk6CLbbRTWcugJW7_UPxCTKTbid_nHhcZA50zok4GM8xyGHij4/pubhtml

Raffle Grand Prize ICOM 7300



To purchase tickets to win prizes: <https://viennawireless.net/wp/vws-raffle/>

Condolences to Bob Curran on the loss of his mother

Patricia M. Curran, N3LHI on March 13, 2021, at the age of 95 (Colorado Springs, Colorado)



Patricia "Pat" Curran, N3LHI, earned her license in 1991 in order to keep in touch with family and friends while on frequent long term wilderness trips with her husband of 69 years, Bill Curran, NW3M-SK. She was an avid outdoors person who loved camping, fishing, hiking, canoeing, golfing, archery and gardening. Her indoor pursuits were genealogy, leaded stained glass, ceramics, painting, sewing, stamp collecting and making wrought iron furniture.

Pat was a volunteer for many years at Cosca Regional Park in Clinton, and at Malcolm Grow Hospital on Andrews AFB. After moving to Chambersburg, PA, she volunteered at the Franklin county historical society and the local genealogical library. She was a past member of the Eutaw Forest Archers, the Southern Maryland Amateur Radio Club, the Cumberland Valley Philatelic Society, and the Cumberland Valley Amateur Radio Club.

Pat and Bill loved dancing, particularly waltzes, so it was only fitting that all the music played for her memorial service were waltzes. Pat's children all agree that Pat and Bill are reunited in heaven and waltzing once again in each other's arms.

Silent Keys



Ken LaCapria, KA3POX

March 9, 2021

Patricia Curran, N3LHI

March 13, 2021

Ken LaCapria KA3POX

Silent Key

It is with extraordinarily heavy hearts that we notify you of the death of Ken La Capria – KA3POX. He died on March 9, 2021, due to complications from COVID-



Bill used to talk about things they talked about. Very sad. Katie Palmer

Very sad news indeed... Tom - W3TOM



Ken was a "friend of the club", attended several events, gave some presentations, and he did a lot to help several of our members and our club over the years

Practice questions

What can happen if a lead-acid storage battery is charged or discharged too quickly?

- A. The battery could overheat, give off flammable gas, or explode
- B. The voltage can become reversed
- C. The memory effect will reduce the capacity of the battery
- D. All of these choices are correct

What is normally meant by operating a transceiver in "split" mode?

- A. The radio is operating at half power
- B. The transceiver is operating from an external power source
- C. The transceiver is set to different transmit and receive frequencies
- D. The transmitter is emitting an SSB signal, as opposed to DSB operation

Why is the conductor of the primary winding of many voltage step up transformers larger in diameter than the conductor of the secondary winding?

- A. To improve the coupling between the primary and secondary
- B. To accommodate the higher current of the primary
- C. To prevent parasitic oscillations due to resistive losses in the primary
- D. To insure that the volume of the primary winding is equal to the volume of the secondary winding

Which of the following types of communications may be transmitted to amateur stations in foreign countries?

- A. Business-related messages for non-profit organizations
- B. Messages intended for users of the maritime satellite service
- C. Communications incidental to the purpose of the amateur service and remarks of a personal nature
- D. All these choices are correct

Updated Technician Question Pool

The National Conference of Volunteer Examiner Coordinators (NCVEC -Question Pool Committee <http://www.ncvec.org/page.php?id=333> wants new or modified questions for the 2022 -2026 FCC Element 2 Technician Pool.

Offered guidelines- new questions, changes to current examination topic areas, or changes to existing questions should focus on topics that enhance public interest, understanding, use of amateur radio, or on STEM hands-on learning and education, as well as questions on new technology, digital modes, station setup and operation, antennas, and emergency and non-emergency operation. Questions have no more than two 70-character lines, including spaces. Distractors should be less than 70-character lines long if possible. Each multiple-choice question must be accompanied by four possible distractors and only one correct answer. The answer choices may be in any order, but the correct answer must be indicated by the letters A, B, C, or D at the beginning of the question.

Those submitting suggestions should provide the resource information that supports the correct answer or the FCC Part 97 rule. To submit suggested questions for QPC review, the committee, email QPCinput@ncvec.org through June 30, 2021. This email address is a bulk forwarding mailbox, so no acknowledgement will be sent by return email. The NCVEC QPC will take all comments into consideration as it updates the Technician Question Pool for 2022 - 2026.



ARISS Ham Station in Columbus Module Is Once Again Operational

After 6 weeks off the air, a March 13 spacewalk Mike Hopkins, KF5LJG, and Victor Glover, KI5BKC, completed antenna cabling. Now the Columbus station, NA1SS, is back, and available for school contacts and other activities. While the Columbus ham station was off the air, ARISS school and group contacts used the ham station in the ISS Service Module on the Russian side of the station.

On March 14, ARISS was able to confirm the operation's success when Automatic Packet Reporting System (APRS) signals on 145.825 MHz were heard in California, Utah, and Idaho as the ISS passed overhead. ARISS team member Christy Hunter, KB6LTY, was able to digipeat through NA1SS during the pass. With additional confirmation from stations in South America and the Middle East, ARISS declared the radio system operational again.

CCARC Activities

By Jeff – KB3SPH

2 April 2021 – Monthly CCARC Meeting at **7:00 PM**.

Location: Marbury Baptist Church Hall, 4670 Bicknell Road, Marbury, MD 20658.

Agenda:

*Presentation - “Electronics Lab in a Box” by Bill – W8BL

*Field deployable antennas display. Contributions by those physically present at the church and Zoom participants.

*CHAR ARES Communications Plan Update / discussion, Bob – KB3KOW

*Field Day 2021 (25 -27 June) Planning, Bob – NW3M

Zoom:

We also plan to have the meeting available via Zoom:

Meeting ID: 872 8943 6662

Passcode: 893623

Join the 2 April CCARC Meeting via desktop/laptop/smartphone: <https://us02web.zoom.us/j/87289436662?pwd=RDdiMHk5czFvWlJoMk9yK0JwendYQT09>

Dial in via landline/cell phone and follow voice prompts:
301-715-8592

7 May 2021 – Monthly CCARC Meeting at 7:00 PM – Details TBD.

Special events in March

W4E	10-Apr-21	11-Apr-21	155th anniversary of Auburn University
W1M	16-Apr-21	20-Apr-21	2021 Boston Marathon
W5L	16-Apr-21	24-Apr-21	Commemorating the Louisiana Purchase
W4E	3-Apr-21	4-Apr-21	FL State Parks on the Air
W4H	4-Apr-21	5-Apr-21	FL State Parks on the Air - Hontoon Island
N4G	10-Apr-21	11-Apr-21	GA QSO Party
K4G, N4G, K4A, K4D, K4F, K4M, N4A, N4R, K4N, N4F, K4R, N4L	9-Apr-21	11-Apr-21	Georgia QSO Party
W0W, W2W, W7W, K6B	17-Apr-21	20-Apr-21	IARU 96 year world Amateur radio day
W8M	17-Apr-21	18-Apr-21	Michigan QSO Party
N0W, W0W, K0M, N0H, K0O	2-Apr-21	4-Apr-21	Missouri QSO Party
W4M	16-Apr-21	30-Apr-21	Moonshine Heritage Month, Franklin Co VA
N5Q	3-Apr-21	4-Apr-21	MS QSO Party
N0D	10-Apr-21	11-Apr-21	ND QSO PARTY
K0N	4-Apr-21	10-Apr-21	OZARKCON/4SQRP
W4D	10-Apr-21	10-Apr-21	Spring has Sprung
W4S	13-Apr-21	18-Apr-21	Sun-n-Fun
N5C	14-Apr-21	19-Apr-21	Texas Parks on the Air
N7T	13-Apr-21	17-Apr-21	Titan Missile Museum discone
W3A	1-Apr-21	16-Apr-21	World Autism Awareness Month
W7I	14-Apr-21	26-Apr-21	Yom HaAtzmaut - Israel Independence Day

International Marconi Day

A 24-hour amateur radio event sponsored by the Cornish Radio Amateur Club (**GX4CRC**); to celebrate Italian wireless communications pioneer, Guglielmo Marconi. The event takes place annually on the Saturday closest to his birthday, which was April 25, 1874. It is held this year on Saturday 24 April from 0000-2359 UT. Participating stations are located at historic sites related to Marconi's life and career. Some stations are: The Binghamton Amateur Radio Association (**W2OW**) is managing K2M's participation from Binghamton, New York's historic Marconi Tower. Information about the structure is detailed www.lutins.org/marconi.

W2RTM the amateur radio station of the Radio technology Museum one of the Official Award Stations, will be on the air from the Museum 7PM 23 April to 7PM 24 April 2021 EST. New Jersey Antique Radio Club for more information <http://www.njarc.org/>

K2M Please direct all QSL requests to KC2KLC. ALLEN LUTINS 297 Dimmock Hill Rd Binghamton, NY 13905 Note that this is for the 24 April 2021 special event only; we do not manage QSLs for any prior or subsequent events.



Guglielmo Giovanni Maria Marconi,

1st Marquis of Marconi was born in Palazzo Marescalchi in Bologna Italy. He was the great grandson of the inventor of Jameson whiskey. He is credited as the inventor of radio, and shared the 1909 Nobel Prize in Physics with Karl Ferdinand Braun "in recognition of their contributions to the development of wireless telegraphy". In his Nobel Prize acceptance speech, freely admitted he didn't understand how his invention worked.

Marconi was also an entrepreneur, businessman, and founder of The Wireless Telegraph & Signal Company in the United Kingdom in 1897 He succeeded in making an engineering and commercial success of radio by innovating and building on the work of previous experimenters and physicists.

Marconi learned chemistry, mathematics, and physics at home from a series of private tutors – an important mentor was Vincenzo Rosa, who taught 17-year-old Marconi the basics of physical phenomena & new theories on electricity. Marconi became acquainted with & attended lectures by Augusto Righi, who had done research on Heinrich Hertz's work. He was allowed use of the university laboratory and library

In the early 1890s, he began working on the idea of transmission of telegraph messages without connecting wires ("wireless telegraphy"). Many investigators had been exploring wireless telegraph technologies, systems of electric conduction, electromagnetic induction, and optical (light) signaling > 50 years, but none had proven technically and commercially successful. Hertz in 1888, demonstrated one could produce/detect electromagnetic radiation, based on the work of James Clerk Maxwell. This radiation was called "Hertzian" waves, now called radio waves.

There was a great deal of interest in radio waves in the physics community, but this interest was in the scientific phenomenon, not in its potential as a communication method. Physicists looked at radio waves as invisible light only along a line of sight path. Published articles after Hertz's 1894 death renewed Marconi's interest in developing a wireless telegraphy system based on radio waves.

At the age of 20, Marconi began to conduct experiments in radio waves, building his own equipment in the attic with the help of his butler, Mignani. Marconi built on Hertz's experiments, & (as suggested by Righi), using a coherer. Édouard Branly's detector that changed

(Continued on page 11)

resistance when exposed to radio waves. In the summer of 1894, he built a storm alarm made up of a battery, a coherer, and an electric bell, which went off when it picked up the radio waves generated by lightning.

December 1894, Marconi demonstrated a radio transmitter and receiver to his mother, that made a bell ring on the other side of the room by pushing a telegraphic button on a bench. He developed devices, such as portable transmitters and receiver systems, that could work over long distances. Marconi came up with a functional system with many components: Simple oscillator or spark-producing radio transmitter; A wire or metal sheet capacity area suspended at a height above the ground; coherer receiver, (modified Branly's device) with refinements to increase sensitivity and reliability. A telegraph key to operate the transmitter to send short and long pulses, corresponding to the dots-and-dashes of Morse code; and A telegraph register activated by the coherer which recorded the received Morse code dots and dashes onto a roll of paper tape.

In 1895, Marconi moved his experiments outdoors tried different arrangements and shapes of antenna but was able to transmit signals only up to one half-mile, a distance Oliver Lodge had predicted as the maximum transmission distance for radio waves. Marconi found that much greater range could be achieved after he raised the height of his antenna and, borrowing from a technique used in wired telegraphy, grounded his transmitter and receiver. With these improvements, the system was capable of transmitting signals up to 2 miles & over hills. The monopole antenna reduced the frequency of the waves compared to the dipole antennas used by Hertz, and radiated vertically polarized radio waves which could travel longer distances. Marconi's experimental apparatus proved to be the first engineering-complete, commercially successful radio transmission system.

Ambassador Ferrero advised them to get a patent (2 June 1896, British Patent number 12039 titled "Improvements in Transmitting Electrical impulses and Signals, and in Apparatus therefor", first patent for a radio wave-based communication system). Marconi went England to find funds (William Preece Chief Electrical Engineer of the General Post Office).



Marconi watching

raise the kite Baden-Powell lift the antenna



Newfoundland, December 1901

British Post Office engineers inspect Marconi's radio equipment during a demonstration on Flat Holm Island, 13 May 1897. The transmitter center, the coherer receiver below it, pole supporting wire antenna top.

March 1897, Marconi transmitted Morse code signals over a distance of 3.7 mi across Salisbury Plain. On 13 May 1897, Marconi sent the first ever wireless communication over open sea – "Are you ready" was transmitted over the Bristol Channel from Flat Holm Island to Lavernock Point near Cardiff, 3.7 mi. Impressed by these and other demonstrations, Preece introduced Marconi's ongoing work to the general public at two important London lectures: "Telegraphy without Wires", at the Toynbee Hall on 11 December 1896; and "Signaling through Space without Wires", given to the Royal Institution on 4 June 1897.

Additional demonstrations led to international attention, allowing a series of tests in Italy, Ireland and across the English Channel (on 27 March 1899, France to South Foreland Lighthouse, England). Marconi set up an experimental base at the Haven Hotel, Sandbanks, Poole Harbor, Dorset, where he erected a 100-foot-high mast. He became friends with the van Raaltes, (owners of Brownsea Island) was often moored on Brownsea or at the Haven Hotel. Marconi purchased his steam yacht, *Elettra*, converted to a seaborne laboratory from where he conducted many of his experiments. Among the crew was Adelman Landini, his personal radio operator, also an inventor. In December 1898, the British lightship service authorized the establishment of wireless communication between South Foreland lighthouse Dover and the East Goodwin lightship, (12 miles). 17 March 1899, the East Goodwin lightship sent the first SOS message, a signal on behalf of vessel *Elbe* which had run aground on Goodwin

Sands. The message was received by the radio operator of the South Foreland lighthouse, who summoned the aid Ramsgate lifeboat

In the autumn of 1899, the first demonstrations in the United States took place. Marconi had sailed to the U.S. at the invitation of the New York Herald newspaper to cover the America's Cup international yacht races off Sandy Hook, New Jersey. The transmission was done aboard the SS *Ponce*, a passenger ship of the *Porto Rico Line*. Marconi left for England on 8 November 1899 on the American Line's SS *Saint Paul*, and he and his assistants installed wireless equipment aboard during the voyage. On 15 November *Saint Paul* became the first ocean liner to report her imminent return to Great Britain by wireless when Marconi's Royal Needles Hotel radio station contacted her 66 nautical miles off the English coast. In 1900 he took out his famous patent No. 7777 for "tuned or syntonic telegraphy".

Marconi competed with the transatlantic telegraph cables to signal across the Atlantic. A transmitting station at Marconi House, in Wexford, (1901) to a link between Cornwall, England and Galway, Ireland. Message was received at St John's, Newfoundland 12 December 1901, a 500-foot kite-supported antenna for reception—signals transmitted by the company's new high-power station at Poldhu, Cornwall (2,200 miles). There is considerable skepticism about this claim—wavelength not known, but thought to be 350 meters (frequency \approx 850 kHz) & took place at a time of day during which the entire transatlantic path was in daylight. Worst possible time (heavy absorption of the skywave in the ionosphere), not a blind test; (knew to listen for three clicks, (S). ,heard faintly /sporadically, with no independent confirmation of the reported reception, and the transmissions were difficult to distinguish from atmospheric noise. A detailed technical review of Marconi's early transatlantic work appears in John S. Belrose's work of 1995.

first long-distance radio transmissions in the 1890s. transmitter right, the receiver paper tape recorder left.



Challenged by sceptics, Marconi prepared a better organized and documented test. In February 1902, the SS *Philadelphia* sailed west from Great Britain with Marconi aboard, carefully recording signals sent daily from the Poldhu station. The test results produced coherent-tape reception up to 1,550 miles, audio reception up to 2,100 miles achieved at night, and these tests were the first to show that radio signals for medium wave and longwave transmissions travel much farther at night than in the day. During the daytime, signals had been received up to only about 700 miles less than half of the distance claimed earlier at Newfoundland, where the transmissions had also taken place during the day. Because of this, Marconi had not fully confirmed the Newfoundland claims, although he did prove that radio signals could be sent for hundreds of kilometers, despite some scientists' belief that they were limited essentially to line-of-sight distances. Between 1902 and 1912 he patented several new inventions. In 1902, during a voyage in the American liner "Philadelphia", he first demonstrated "daylight effect" relative to wireless communication and in the same year patented his magnetic detector which then became the standard wireless receiver for many years. In December 1902 he transmitted the first complete messages to Poldhu from stations at Glace Bay, Nova Scotia, and later Cape Cod, Massachusetts, these early tests culminating in 1907 in the opening of the first transatlantic commercial service between Glace Bay and Clifden, Ireland, after the first shorter-distance public service of wireless telegraphy had been established between Bari in Italy and Avidari in Montenegro. In 1905 he patented his horizontal directional aerial and in 1912 a "timed spark" system for generating continuous waves.

On 17 December 1902, a transmission from the Marconi station in Glace Bay, Nova Scotia, Canada became the world's first radio message to cross the Atlantic from North America. In

1901, Marconi built a station near South Wellfleet, Massachusetts that sent a message of greetings on 18 January 1903 from United States President Theodore Roosevelt to King Edward VII of the United Kingdom. However, consistent transatlantic signalling was difficult to establish.

Marconi began to build high-powered stations on both sides of the Atlantic to communicate with ships at sea, in competition with other inventors. In 1904, he established a commercial service to transmit nightly news summaries to subscribing ships, which could incorporate them into their on-board newspapers. A regular transatlantic radio-telegraph service was finally begun on 17 October 1907 between Clifden, Ireland and Glace Bay, but even after this the company struggled for many years to provide reliable communication to others. He erected permanent wireless stations at The Needles, Isle of Wight, at Bournemouth and later at the Haven Hotel, Poole, Dorset.

The role of Marconi wireless in maritime rescues raised public awareness of the value of radio particularly the sinking of the RMS *Titanic* and the RMS *Lusitania*. On 18 June 1912, Marconi gave evidence to the Court of Inquiry into the loss of *Titanic* regarding the marine telegraphy's functions and the procedures for emergencies at sea. Britain's postmaster-general summed up, referring to the *Titanic* disaster: "Those who have been saved, have been saved through one man, Mr. Marconi ... and his marvellous invention." (Marconi was offered free passage on *Titanic* before she sank but had taken *Lusitania* three days earlier. he had paperwork to do and preferred the public stenographer aboard that vessel).

Marconi companies gained a reputation for being technically conservative, by continuing to use inefficient spark-transmitter technology, which could be used only for radio-telegraph operations, long after it was apparent that the future of radio communication lay with continuous-wave transmissions which were more efficient and could be used for audio transmissions. Somewhat belatedly, the company did begin significant work with continuous-wave equipment beginning in 1915, after the introduction of the oscillating vacuum tube (valve). The New Street Works factory in Chelmsford was the location for the first entertainment radio broadcasts in the United Kingdom in 1920, employing a vacuum tube transmitter and featuring Dame Nellie Melba. In 1922, regular entertainment broadcasts commenced from the Marconi Research Centre at Great Baddow, forming the prelude to the BBC, and he spoke of the close association of aviation & wireless telephony & possibly interplanetary wireless communication. "Have I done the world good, or have I added a menace?" "I reclaim the honor of being the first fascist in the field of radiotelegraphy, the first who acknowledged the utility of joining the electric rays in a bundle, as Mussolini was the first in the political field who acknowledged the necessity of merging all the healthy energies of the country into a bundle, for the greater greatness of Italy".

During World War I, Lieutenant Marconi was placed in charge of the Italian military's radio service. Post war, Marconi began research into the propagation of still shorter waves, resulting in the opening in 1932 of the world's first microwave radiotelephone link between the Vatican City and the Pope's summer residence at Castel Gandolfo. Two years later at he demonstrated microwave radio beacon for ship navigation and in 1935, gave a practical demonstration of the principles of radar which he had first foretold in New York in 1922. Marconi wanted to personally introduce in 1931 the first radio broadcast of a Pope, Pius XI, and did announce at the "With the help of God, who places so many mysterious forces of nature at man's disposal, I have been able to prepare this instrument which will give to the faithful of the entire world the joy of listening to the voice of the Holy Father"

While helping to develop microwave technology, Marconi suffered nine heart attacks in the span of three years preceding his death. Marconi died in Rome on 20 July 1937 at age 63, following the ninth, fatal, heart attack, and Italy held a state funeral for him. As a tribute, shops on the street where he lived were "Closed for national mourning". In addition, at 6 pm the next day, the time designated for the funeral, transmitters around the world observed two minutes of silence in his honor. He had three daughters, a son from his first marriage, a daughter, from his second wife.

History of Heathkit

The Southern Maryland Amateur Radio Club (SMARC) will be hosting a ZOOM presentation by Paul Topolski, W1SEX. Mr. Topolski is the ARRL Western Massachusetts Section Technical Specialist. He has an interesting presentation on the history of Heathkit and brings exceptional knowledge to the table on this most interesting subject. SMARC invites the CCARC membership to join and enjoy this ZOOM presentation. It will be held on Friday, 09April2021

Heathkit is the brand name of kits and other electronic products produced and marketed by the Heath Company. They manufactured electronic kits from 1947 until 1992 that including Amateur Radio equipment. They were sold in kit form for assembly by the purchaser. Many novice enthusiast gained a solid understanding of electronics with them

The Zoom teleconference is scheduled at 1900 (7:00 PM ET), 09 April 2021

Early check-ins/communications checks will be available starting at 6:45 PM.

Meeting ID: 869 7734 2653
Passcode: 995729

Join the 9 April 2021 Zoom Meeting via desktop/laptop/smartphone:

<https://us02web.zoom.us/j/86977342653?pwd=ckh2K2RPc0pMMXVIQkpNbXRCSDI1QT09> <<https://us02web.zoom.us/j/86977342653?pwd=ckh2K2RPc0pMMXVIQkpNbXRCSDI1QT09>>

Dial in via landline/cell phone and follow voice prompts: 301-715-8592

Hope to see you there

JD

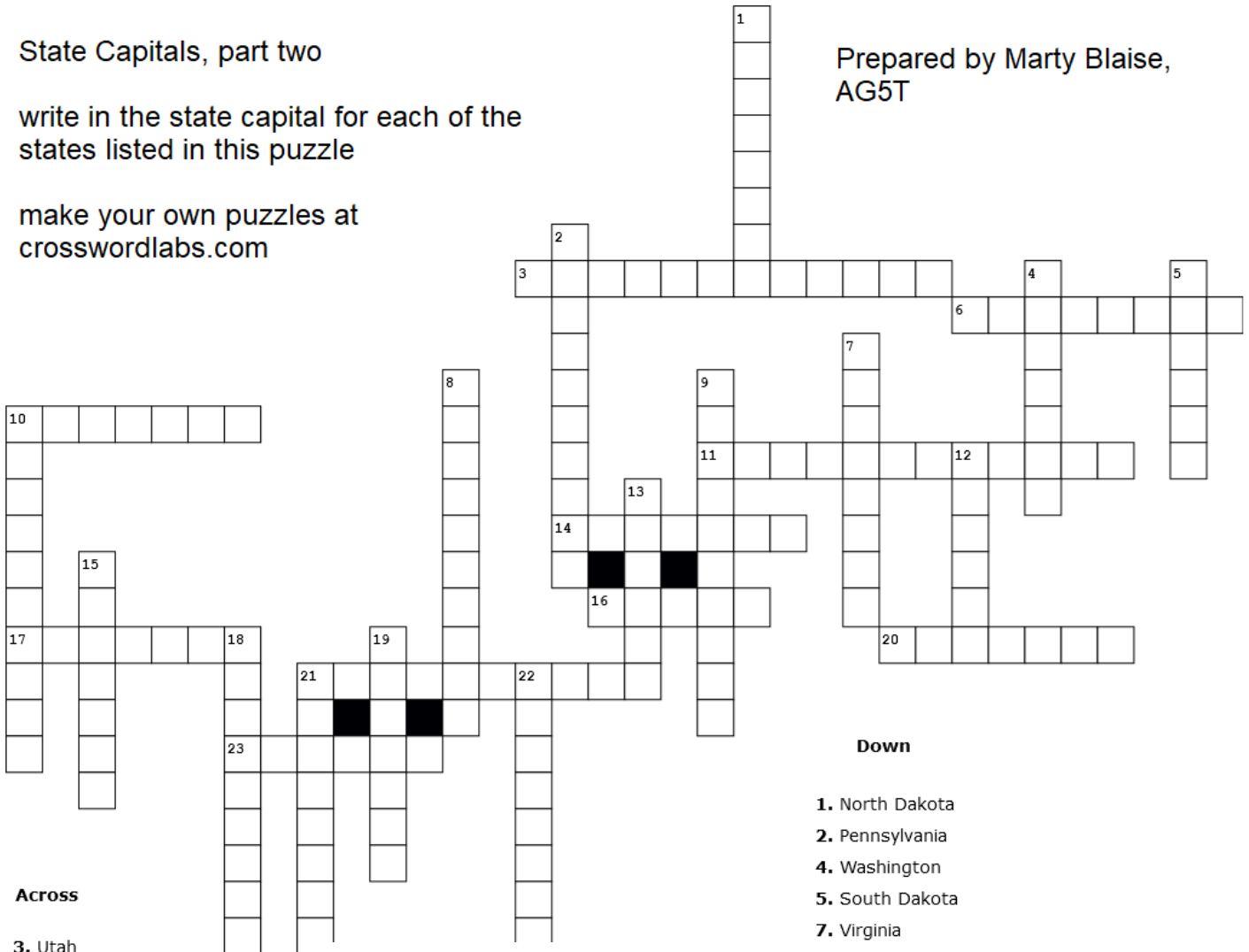


State Capitals, part two

write in the state capital for each of the states listed in this puzzle

make your own puzzles at crosswordlabs.com

Prepared by Marty Blaise, AG5T



Across

- 3. Utah
- 6. South Carolina
- 10. Wisconsin
- 11. Oklahoma
- 14. North Carolina
- 16. Oregon
- 17. Nebraska
- 20. New Mexico
- 21. Nevada
- 23. Montana

Down

- 1. North Dakota
- 2. Pennsylvania
- 4. Washington
- 5. South Dakota
- 7. Virginia
- 8. West Virginia
- 9. Rhode Island
- 10. Vermont
- 12. Texas
- 13. New York
- 15. New Hampshire
- 18. Tennessee
- 19. New Jersey
- 21. Ohio
- 22. Wyoming



Thanks to Martin Blaise AG5T for the new puzzle for the newsletter.

CWops Mini-CWT Test	1	NAQCC CW Sprint	14
RTTYOPS Weeksprint	1	Phone Weekly Test - Fray	14
SARL 80m QSO Party	1	VHF-UHF FT8 Activity Contest	14
NRAU 10m Activity Contest	1	CWops Mini-CWT Test	14 to 15
SKCC Sprint Europe	1	RTTYOPS Weeksprint	15
QRP Fox Hunt	2	NCCC Sprint	16
NCCC Sprint	2	K1USN Slow Speed Test	16
K1USN Slow Speed Test	2	Holyland DX Contest	16 to 17
PODXS 070 Club PSK 31 Flavors Contest	3to 4	ES Open HF Championship	17
Florida State Parks on the Air	3to 4	VERON PACCdigi Contest	17
Mississippi QSO Party	3to 4	Feld Hell Sprint	17
Louisiana QSO Party	3to 4	Worked All Provinces of China DX Contest	17 to 18
SP DX Contest	3to 4	YU DX Contest	17 to 18
EA RTTY Contest	3to 4	CQMM DX Contest	17 to 18
North American SSB Sprint Contest	4	Texas State Parks on the Air	17 to 18
DARC Easter Contest	4	Michigan QSO Party	17 to 18
K1USN Slow Speed Test	5	EA-QRP CW Contest	17 to 18
OK1WC Memorial	5	Ontario QSO Party	17 to 18
144 MHz Spring Sprint	5	ARRL Rookie Roundup, SSB	18
Worldwide Sideband Activity Contest	6	Run for the Bacon QRP Contest	18 to 19
ARS Spartan Sprint	6	K1USN Slow Speed Test	19
RTTYOPS Weeksprint	6	OK1WC Memorial	19
Phone Weekly Test - Fray	7	Worldwide Sideband Activity Contest	20
VHF-UHF FT8 Activity Contest	7	RTTYOPS Weeksprint	20
RSGB FT4 Contest Series	7	Phone Weekly Test - Fray	21
UKEICC 80m Contest	7	432 MHz Spring Sprint	21
CWops Mini-CWT Test	7 to 8	RSGB 80m Club Championship, SSB	21
RTTYOPS Weeksprint	8	CWops Mini-CWT Test	21 to22
NCCC Sprint	9	RTTYOPS Weeksprint	22
K1USN Slow Speed Test	9	NCCC Sprint	23
QRP ARCI Spring QSO Party	10	K1USN Slow Speed Test	23
JIDX CW Contest	10 to 11	QRP to the Field	24
DIG QSO Party, CW	10 to 11	10-10 Int. Spring Contest, Digital	24 to 25
IG-RY World Wide RTTY Contest	10 to 11	SP DX RTTY Contest	24 to 25
SKCC Weekend Sprintathon	10 to 11	Helvetia Contest	24 to 25
OK/OM DX Contest, SSB	10 to 11	Florida QSO Party	24 to 25
FTn DX Contest	10 to 11	International Vintage Contest HF	25
Nebraska QSO Party	10 to 11	BARTG Sprint 75	25
Yuri Gagarin International DX Contest	10 to 11	K1USN Slow Speed Test	26
New Mexico QSO Party	10 to 11	QCX Challenge	26
North Dakota QSO Party	10 to 11	OK1WC Memorial	26
Georgia QSO Party	10 to 11	QCX Challenge	26 to 27
WAB 3.5/7/14 MHz Data Modes	11	Worldwide Sideband Activity Contest	27
Hungarian Straight Key Contest	11	RTTYOPS Weeksprint	27
RSGB RoLo SSB	11	SKCC Sprint	28
K1USN Slow Speed Test	12	Phone Weekly Test - Fray	28
4 States QRP Group Second Sunday Sprint	12	UKEICC 80m Contest	28
OK1WC Memorial	12	CWops Mini-CWT Test	28 to 29
RSGB 80m Club Championship, CW	12	RTTYOPS Weeksprint	29
Worldwide Sideband Activity Contest	13	RSGB 80m Club Championship, Data	29
RTTYOPS Weeksprint	13	NCCC Sprint	30
222 MHz Spring Sprint	13	K1USN Slow Speed Test	30

Contests April



The National Electronics Museum is sponsoring its well-received Operating Course again starting April 15, 2021 and running each Thursday for 11 weeks from 6:30 to 9:30 EDST on Zoom. There is no charge for participation. The purpose of these classes is to provide information to help licensed radio amateurs to participate in the many on-the-air activities available in the hobby. The presenters are very experienced in their topics—many are nationally known experts—and they will be available to answer your questions following the presentations.

The exact order of presentations will be determined and published in the next few weeks. These are independent presentations, and participants are free to participate in any or all of the evenings. Feel free to pass this announcement along to others, but we request that all prospective attendees register by emailing Tom Christovich at tom.christovich@gmail.com. You will receive confirmation of enrollment and the Zoom link for attendance by reply email. Here is a tentative list of topics:

All About Operating-an Introduction

Amateur Radio Organizations: Local, National, and International clubs, societies and groups devoted to specific aspects of amateur radio

Ham Radio Operating Award Hunting—from working Lighthouses to the DXCC Challenge

DXing

QSLing

VHF/UHF Weak Signal Work

Remote Station Control Over Internet

CW in the No-code Era

Digital modes

Imaging Operating

Contesting

Logging Software

HF Propagation

Amateur Satellite Comms

Portable (backpacking) Operation, including Park and Summits

Setting Up an HF Station

Emergency and Public Service Communications (ARES and RACES)

Traffic Handling

Lightning Protection and Grounding

Hope to see you there! 73, Rol Anders, K3RA



Charles County Amateur Radio Club Meeting Minutes

March 5, 2021

Officers Present:

President – Bob Curran NW3M
Vice President – Bob Davison KB3KOW
Treasurer – Pamela Humbert KB3SWS
Activities – Jeff Humbert KB3SPH
Secretary – Charles Hallock AA3WS

Members Present:

Joe Boswell – KB3HNP
Patrick Hinman KB3UYZ (Zoom)
Tom Abernathy W3TOM (Zoom)
John Kohansby (Zoom)
Bob Denny N3BD (Zoom)

Visitors:

Erich Donnell (Zoom)
Nathan Daetwzler (Zoom)

Meeting opened 1840 Hours.

President Bob Curran NW3M opened the Meeting at the Marbury Baptist Church Social Hall. The meeting was also displayed on Zoom. Bob welcomed the guest and members. Jeff Humbert KB3SPH gave a demonstration on rope mounted antennas. Jeff's talk included mounting dipole, beam and vertical antennas. Air Launchers, Bag Launchers, Slingshots and Bow & Arrow units were shown and methods of use described.

New Business

President Bob Curran NW3M advised the members and guest that the next meeting would be at the Marbury Baptist Church Social Hall on April 2, at 1900 Hours.

Treasurer:

Pamela Humbert KB3SWS, gave the March Treasurer's Report. The March's Treasurer Report was approved. Activities Manager:

Jeff KB3SPH reported on the following upcoming activities:

5 April 2021 – Monthly CCARC Meeting at 7:00 PM at Marbury Baptist Church Social Hall

June 2021 – Summer Field Day

Secretary:

Minutes for the February's Meeting are published in the Monthly New Letter. The February Minutes were approved.

Old Business

None.

New Business

President, Bob Curran NW3M advised the Club Members the Club is preparing a survey to request suggestions for the Club future activities.

Members Comments

Tom Abernathy W3TOM advised the ARRL SSB contest is this weekend. Additionally, the Huntsville Hamfest is a "GO" this year.

Closing:

A motion was made and seconded to close the meeting. The motion passed at 2045 Hours.

Charles Hallock AA3WS

Secretary



The Wide Area Ragchew Session

The Saint Mary's County Amateur Radio Association is hosting a monthly, informal ragchew session via Zoom for hams in the surrounding counties. The idea is to just get together to chat about what's going on, activities, etc. 2nd Thursday of every month 7:30 PM Eastern Time

AGENDA:

- Everyone is invited and welcomed from anywhere in the MDC area (southern Maryland, Northern Neck, eastern shore of Maryland, etc.)
- - Open chat – who is doing what, club news from all areas, how can we work together better to keep ham radio a growing, viable hobby, sharing of news about upcoming ham events, meet new people!
- Please keep all discussions related to ham radio activities!

JOINING THE GROUP (there are 3 different ways to join in on the meeting):

1 – Click on this QUICK LINK:

<https://us02web.zoom.us/j/8673965998?pwd=Q2IUL05PTVB3RnEvUkZPNmlKUFJ3QT09>

2 – Open up the ZOOM app on your computer or device and: Select 'Join Meeting' button and type in the meeting ID and password:
Meeting ID: 867 396 5998 Meeting Password: 1460464

3 – Use your regular telephone (no computer needed, voice only, no video):

Dial 1-301-715-8592 (US) – Follow the voice prompts... enter the Meeting ID followed by the # (pound) symbol; then enter your participant ID (if applicable) followed by #; then enter the meeting password followed by #

Contact information: Rob Hoyt, N2OMC – SMCARA President/ host rob-hoyt32@yahoo.com

License Testing

Our VEC sessions will resume soon. Precautions will be in place including social distancing, outdoor testing as possible, sanitizing, and mask use while in buildings.

In the meantime, check with the Fort Washington ARC (contact Jeff or Pam Humbert) or check out the remote test from the article below:

REMOTE TESTING

Fully-Remote Amateur Radio License Exam Administration capability DOES exist. The Anchorage Amateur Radio Club Volunteer Examiner Coordinator (AARC VEC), the Greater Los Angeles Amateur Radio Group VEC, W5YI-VEC, and the Las Vegas ARRL VE Team are a few of the VEC's offering Remote license testing. The Federal Communications Commission (FCC) clarified that there is nothing in its rules that prohibits remote amateur radio testing, and no prior approval is needed to conduct remote exam sessions. The FCC provides flexibility to volunteer examiners and coordinators "who wish to develop remote testing methods or to increase remote testing programs already in place," the FCC said in an April 30, 2020 news release. All of this stems from a request from the Anchorage ARC VEC for a very minor change to Part 97 back in 2014 which effectively allowed for "remote" testing. The Anchorage ARC VEC made the request due to the challenges of administering license examinations in the many remote areas of Alaska. Hence, they've been administering remote examinations since 2014, albeit not to the scale they are now, and all over the country and even the world

Basically, here's what you need to know:

First, you need to have a good internet connection capable of doing video conferencing via Zoom or Skype (you'll need to be able to install the video conferencing software chosen by the VEC). You will need to have a good webcam on your computer — you may be asked to use a cell phone or similar as a second camera to be able to prove your test area is "clean" with nothing around that could be hiding cheat methods and one where nobody will be entering the room unexpectedly (which would probably void the exam). If you don't have that capability, the AARC VEC can use an on-site proctor so long as the proctor, selected by the examinee, meets the stringent qualifications requirements as specified by the AARC VEC. Proctors are carefully vetted before being approved.

If you decide you'd like to test with the AARC VEC, simply visit [_https://kl7aa.org/vec/remote-testing/](https://kl7aa.org/vec/remote-testing/)

[<https://kl7aa.org/vec/remote-testing/>](https://kl7aa.org/vec/remote-testing/) to get started. That page describes Fully Remote Testing (proctorless) and Proctored testing. At the bottom of that page is the link to start the registration process. It will take you to the page that lists available exam sessions where you can register on the examination platform. After that, you'll be directed to another page to pay for your session seat and to complete the administrative registration. On exam day, you should expect a call from the Lead VE on your session to do a quick dry run to make sure any technical issues are resolved.

(provided by JD but not a contact.. **use the link in the article**)



ANSWERS

State Capitals 2 Crossword

Across

- 3 UT Salt Lake City
- 6 SC Columbia
- 10 WI Madison
- 11 OK Oklahoma City
- 14 NC Raleigh
- 16 OR Salem
- 17 NE Lincoln
- 20 NM Santa Fe
- 21 NV Carson City
- 23 MT Helena

Down

- 7 VA Richmond
- 8 WV Charleston
- 9 RI Providence
- 10 VT Montpelier
- 12 TX Austin
- 13 NY Albany
- 15 NH Concord
- 18 TN Nashville
- 19 NJ Trenton
- 21D OH Columbus
- 22 WY Cheyenne



www.timvandevall.com | US States and Capitals Map created by Tim van de Vail
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Answers to
practice questions

1 A 2 C 3 B 4 C

WANT ADS, FOR SALE, &
PUBLIC SERVICE ANNOUNCEMENTS:

FOR YOU WHO ALSO GAZE AT THE NIGHT SKY... AMATEUR RADIO ASTRONOMY DIGITAL VOICE NET - every Wednesday on the Quadnet Array at 9:00pm ET (02:00 UTC) except when falling on a holiday. - Sorry, NO Echolink.

We are continuing our series called THE VIRTUAL TOUR OF THE NIGHT SKY. Each week we select a section of the night sky and discuss the observations of what you see in that area. This week's discussion will be: The Spring Galaxy Hunting Season for us in the north.

TO ACCESS THE QUADNET ARRAY:

**D-STAR Smart Groups (recommended way to access the Array on D-STAR)
DSTAR1 or DSTAR2
D-STAR Reflectors XRF757A, XRF735A, XLX307D and XLX049D
Brandmeister DMR Talkgroup 31012
DMR Plus talkgroup 320 (on the IPSC2-QuadNet Server)
Yaesu System Fusion 35947 (XLX307)
Wires X - Room 45058**



**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>

Smallwood Camera Club



Open to all skill levels and photographic interests.



email: SmallwoodCameraClub@gmail.com



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: charlescountyrcc.com

FCC Not Yet Collecting \$35 Application Fee

Most of the FCC's revised Part 97 rules (adopted in December 2020) establishing new application fees become effective on April 19, but the new amateur radio application fees will *not* become effective on April 19. The FCC announced on March 19 that the amateur radio application fees, including those associated with Form 605 filings, would not become effective until the "requisite notice has been provided to Congress, the FCC's information technology systems and internal procedures have been updated, and the Commission publishes notice(s) in the *Federal Register* announcing the effective date of such rules."

The \$35 fee, when it becomes effective, would apply to new, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications, as well as applications for a special temporary authority (STA) or a rule waiver. All fees will be per application. Administrative updates, such as a change of mailing, email address, or name, are exempt.

It is expected that such fees will not become effective before summer 2021. The FCC has stated that amateurs will have advance warning of the actual effective date, because it will publish such date in the *Federal Register*.

Partial Reprieve on 3.5 GHz

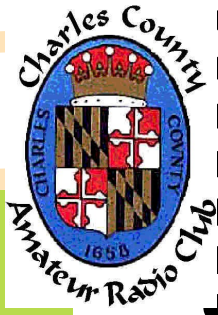
Pending future FCC action, amateur radio secondary use of the 3.3 - 3.45 GHz band segment may continue indefinitely. The FCC, *Report and Order* for commercial licensing of 3.45 - 3.55 GHz adopted on March 17, access by amateur radio to 3.3 - 3.45 GHz should be allowed until consideration of the 3.1 - 3.45 GHz spectrum in a later proceeding. Amateur secondary operation in the 3.45 - 3.50 GHz band must cease 90 days after public notice that the spectrum auction has closed and licensing has begun. That is expected to happen early in 2022. The FCC announced the opening of 3.45 - 3.55 GHz for auction to commercial 5G interests on March 17.

The FCC stated that "While we adopt our proposal to bifurcate the band, we adjust our proposal and set 3450 MHz as the frequency at which the band will be split."

This allows "amateur operations to continue in the lower portion of the

"We therefore allow secondary amateur operations to continue in the 3.4 - 3.45 GHz portion of the band," the FCC said. "We emphasize, however, that amateur licensees remain secondary users, and those that operate on frequencies close to the 3450 MHz band edge must do so with particular caution to avoid causing harmful interference to flexible-use licensees in the 3.45 GHz Service, which hold primary status. In light of these considerations, while amateur operations between 3450 MHz and 3500 MHz must cease within 90 days of the public notice announcing the close of the auction for the 3.45 GHz Service, as specified in the *Report and Order*, amateur operations may continue between 3300 MHz and 3450 MHz while the Commission, NTIA, and the DoD continue to analyze whether that spectrum can be reallocated for commercial wireless use."

K3SMD



Charles County Amateur
Radio Club

Service Club

We're on
the web

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

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: 147.195 MHz, + 600 off-set, PL 156.7 Hz.
- PO BOX 169, La Plata, MD 20646
- President: Bob Curran NW3M flyingham@verizon.net
- Vice-president: Bob Davidson rdavidson@aceweb.com
- Secretary: Charles Hallock AA3WS selbynet@hotmail.com
- Treasurer: Pam Humbert KB3SWS humbertpj@gmail.com
- Activities: Jeff Humbert KB3SPH humbert1js@gmail.com
- Newsletter Michelle Sack N3YRZ msack@verizon.net
- VE Coordinator Bob Curran NW3M

Leave laughing



DANGER

A HAM WITH AN IDEA,

SOME WIRE....

AND A BOW AND ARROW IN
HIS HAND!

