

B-PLUS

Albany Amateur Radio Association – AARA

April 2024

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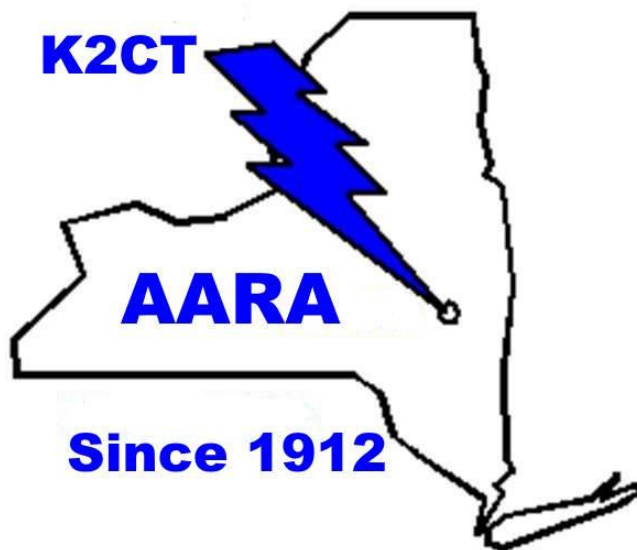
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AARA Next Meeting:
April 3rd, 2024 @ 7:30 PM
Slingerlands Fire Dept.

Topic:
60 Years of Amateur Radio
Bruce - WA3AFS

PLEASE Pay Your Dues
Dues are \$20
Checks can be sent to:

Saul Abrams, K2XA
307 Maple Rd.
Slingerlands, NY 12159

March 2024 Meeting

Presentation was a video on the proposed Adventure Radio Protocol
By George Zafiropoulos, KJ6VU.



The Adventure Radio Protocol provides a common radio frequency and signaling standard to make it easier for radio operators in the field to find and communicate with each other. The signaling protocol that uses CTCSS sub audible tones allows operators to signal the type of traffic on the adventure radio frequency and enable 24/7 monitoring without the need to listen to all traffic on the channel.

Details at: <http://www.sierraradio.net/adventure-radio.html>

Fred's Sandbox: An Invisible Antenna

Many years ago the April issue of the QST magazine had an article about an invisible antenna. The concept was that if you painted an antenna with special paint that reflected no light, your eye and brain would subconsciously fill in the specially painted area in a way that resembled the background: causing the antenna to be invisible. Of course, the April fool's article was obvious because a paint that reflected no light was simply black.

Let's muse for a moment and suppose that invisible paint actually existed. If you opened a can of invisible paint, what would you see? If you saw the bottom of the paint can, it would simply be clear paint, not invisible. True invisible paint would make the bottom of the can disappear, but what would you see instead? If you dipped your paintbrush into the invisible paint, would the tip of your brush disappear? If you wanted to know how much invisible paint was left in the can, how could you tell? I guess that you would have to weigh the paint can, to know for sure.

None of these invisibility factors matter to me. I just want to hide my backyard wire from the other residences of my Condo association's HOA. My first thinking was that a thin wire would blend with the sky. I tried #17 aluminum fence wire. Unfortunately, it had an obvious metallic glint whenever the sun was out. Next, I tried #18 copperweld, but as expected, the wire was easily seen against a cloudy background. In order to disguise my antenna, I was going to have to get creative!

My first thought was to get a white wire as it would not create a mirror effect with the sun and also match the background on a cloudy day. That worked well; except for whenever there were clear blue skies the white wire became visible again. The thought went through my mind, do I need an antenna that changes colors depending on the weather? If I could figure out how to do it, the antenna would be like a chameleon,

white when it's cloudy and blue when it's sunny. So, how would an antenna know what the weather is? Then I remembered the winter mittens that Renee got for my son Ed when he was 9 years old. They were called Freaky Freezies. The logo on the back of the mittens turned blue when it was cold outside. Ed was mesmerized by those mittens. All I had to do was figure out how Freaky Freezies worked. These days when you need an answer to a complicated question you don't use Google plus YouTube is useless, so I went to Chat GPT and asked "What technology is used to make the color changing gloves for children called Freaky Freezies?" The answer was thermochromic ink. Here's what I found:

Thermochromic Pigments, Dyes & Liquid Crystal Ink

Interactive Color Change for Print & Promotion



This ink is amazing! It just so happens that the colder it gets outside, the clouds will clear up, leaving blue skies. So far, I successfully made a stealth antenna that worked on both cloudy days and cold winters.

The next problem was how to camouflage the antenna on a sunny day in the summer. Then I recalled that blue LEDs are really an ultraviolet LED with blue phosphor on the inside of the clear shell. Once again, I turned to OpenAI and asked “What type of phosphor is used to capture ultraviolet light and turn in into visible blue light?” The answer was accurate and true to form; “Zinc sulfide phosphors are commonly used to capture ultraviolet light and emit visible light blue light through a process called florescence.” Here's the source that I found on line.



244627 ▶ Sigma-Aldrich.



Zinc sulfide

★★★★★ (0) [Write a review](#) [Ask a question](#)

powder, 10 μ m, 99.99% trace metals basis

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Select a Size

25 G

\$40.60

100 G

\$126.00

I didn't really want to spend \$40 on an untested experiment, but what the heck, I did it anyway.

Now my antenna glows blue whenever the sun is out, is white when its cloudy and turns blue again when its very cold outside.



This is a picture of my invisible antenna. It's a 40-10 meter EFHW fed at my deck and running up to the tree in the middle of the picture. In order to keep the antenna inconspicuous, I had to use the inductor frequency compensation instead of the capacitive method as the inductor is over my deck and the capacitor would have been floating in the middle of the back yard.

As always, if you have any questions or suggestions for future sandbox articles, please email me at felasstic@yahoo.com.

Warren County Radio Club *Ham Radio Swapmeet* April 13th 2024 8am until noon



Inside the common area
at the Aviation Mall
Queensbury, NY Exit 19 off I-87
Entrance near
99 Restaurant/Planet Fitness

Entry is FREE
\$10 fee per table to sell
Raffle tickets
will be available
for purchase



www.w2wcr.org

Would you like to learn more
about amateur radio?
Check out our public info table
or discover more at
www.w2wcr.org

Flea at RPI 2024

Saturday, March 30th Rensselaer Union McNeil Room
Seller setup – 8 AM Opening - 9 AM Admission is \$6.
Details at W2SZ.org

Swap Shop

Have radio gear you want to buy, sell, trade, or give away?

Please send your item descriptions to wa3afs@arrl.net or dgherring@hotmail.com

Important Links:

Find a license class in your area: www.arrl.org/class

Find a license exam in your area: www.arrl.org/exam

The Eastern Iowa DX Bulletin:

<http://www.eidxa.org/EIDXBulletin.html>