THE SPLITROCK TIMES

The newsletter of the Splitrock Amateur Radio association.

AUGUST 2023 edition.

Welcome to the thirteenth edition of the Splitrock newsletter with its new name.

Editor: Fred Wawra W2ABE. [contact W2ABE@arrl.net]

'The Splitrock Times'.

OFFICERS

President Bruce N2XP

Vice Pres. Bob K2RFH

Treasurer Bruce N2OQX

Secretary Tracey KD2ISX

Trustee Bruce N2XP

Member at Large/'assistant to the President', Fred W2ABE.

Important note: VE testing is on the second Monday of every month. Check with [Find an Amateur Radio License Exam in Your Area (arrl.org] for any possible changes. Testing is at the Mount Arlington Civic Center- Registration is at 7pm. Walk-ins are allowed.

Remember if you are a member of ARRL [and you should be] then subscribe to the weekly email update to keep aware of conditions and activities on the bands and League announcements.

The Club Meets every second Tuesday at 7:30 at the Mount Arlington Civic Center [the log cabin building at the west end of Fern Place]. The Club's mailing address is: S.A.R.A. PO Box 528 Lake Hopatcong, NJ 07849. Contact info: www.splitrockara.org or

membership@splitrockara.org

The repeater is on 146.985, the offset is -600, and the PL is 131.8 Hz.

NOTICE: There will be NO zoom at the meetings for the time being due to WIFI issues

Submissions for the newsletter need to be in word format or an email. Reminder: there is a $35.00 fee paid directly to the FCC for new calls, vanity calls, and renewals. There is no FCC charge for upgrades.

No Member profile was submitted by any member this month.

THE PRESIDENT'S MESSAGE

To Splitrock Members,

This month we'll be having a power point presentation about the electronics of AM radios from 1920's to 1950s.

If anyone has any ideas for topics, videos and guest speakers, send me an email at President@splitrockara.org.

73,

Bruce N2XP SARA President

ECLECTIC TECHNOLOGY

By: Fred Wawra, W2ABE.

This time the subject is wavelength and energy. As the frequency (cycles per second) increases the wave length decreases (you are trying to fit more cycles in the period of time) and the energy increases. This leads to the fact that the amount of energy is directly proportional to the photon's electromagnetic frequency, so the energy of that photon is inversely proportional to the frequency. Simply put, the higher the frequency of the photonic wave, the shorter the wave length and the greater the energy of that wave. The lowest energy waves are at the bottom of the photonic spectrum, and they are RADIO waves, as

you go up in frequency, the frequency of the wave is higher and the wave length is shorter but the energy of that wave increases. Radio waves go up in frequency and the waves get into the micro wave region. After micro waves there is infra-red and the visible light spectrum which we can see. Higher in frequency is ultra violet and then x-rays and finally gamma rays.

With radio waves the low frequency waves have low energy but travel long distances even penetrating the oceans providing the ability for submarines to communicate. Remember that the carrier of electromagnetic energy is photons, even though we generally associate them with the visible light spectrum. As we go up in frequency toward visible light, the photons act more like light does. This is why microwave and above are mostly line of sight even though they have more energy than electromagnetic waves at a lower frequency and longer wave length.

At lower radio frequencies the photons act more like waves of energy which excite the electrons in our antennas and provide a way of communicating using radio. At the visible spectrum, starting with infrared, the photons act more like particles. Photons (electromagnetic energy) because of their duality of behavior they are sometimes called wavicles. Getting back to radio, this is why the best antenna is the one that is cut to the wave length of the signal you want to receive.

We define our radio bands by wave length (the 40-meter band for example) and we use antennas cut for that frequency. The interesting thing is that even though the photonic energy is the same throughout the electromagnetic spectrum, at radio frequencies the photonic energy excites electrons in our metallic antennas, but light does not. This column has only scratched the surface of this interesting topic.

Fred WawraW2ABE, 73. ©2023.

NEWS FLASH!!

Darryl,KD2MNN and LOU K2AN

Activated a park in Morristown NJ, Jockey Hollow National Park on August 5th, Saturday.

Congratulations to both of you!

Do not forget the swap n'shop/tech net on the repeater at 8pm on Sunday nights!

IN A NUTSHELL AUGUST 2023

It has been a crazy summer so far with the heat and storms and all of the maintenance work that needs to be done in the summer. So far, I had to repair a few outdoor electrical problems but not on any of my ham gear. I have been on 3855 at night depending on propagation and storms. I disconnect my antenna and unplug my linear when not in use and turn off my DC supplies. All my gear is on sine wave upss

and they have been a lifesaver. I changed the batteries in my APC upss from lead acid to lithium iron phosphate. This changes life cycles from 200-300 to 1,00 to 2,00 charge discharge cycles. The great thing is that if the ups runs down the batteries just turn off so that they will not discharge to a point where they will not take a charge. I live in an area where power interruptions and surges happen not infrequently. I have upss on everything. You can only use the LiPo4 batteries on APC or Cyberpower upss as they do not have a desulfating pulse. The batteries can also only be used in 1s or 2s. With the prices of lead acid gel cells, it is feasible to switch to the new battery type especially with the life expectancy being at least ten years. Hope this info has been helpful.

Fred Wawra, W2ABE © 2023.

GET ON THE AIR AND TAKE TIME TO TALK TO A FELLOW HAM!

SEE YOU AT THE NEXT MEETING. 73'

REMINDER: NOW is the time to check out all of you antennas and coax cables before the weather cools off.