

Telstar



THE NEWSLETTER OF S.T.A.R.S (SOUTH TOWNS AMATEUR RADIO SOCIETY)

AUGUST 2021

VOL 53 ISSUE: 12



STARS

STARS is the South Towns' largest ham radio club, with our clubhouse and tower located at the Town of Hamburg Recreation Center, Lakeview Rd.

To learn more about **STARS**, visit wb2elw.net.

During Covid restrictions, we have remained active with online meetings, collaborative contesting, our two nets, and local UHF chat.

So, warm up those radios and join us ON THE AIR and ONLINE!

Saturdays 10 AM HF net 3.925 MHz;

Mondays 8:30 PM UHF 446 MHz simplex chat for locals - bet you can hear us!

Tuesdays 7:30 PM VHF UHF net 147.090 (107.2) and 442.325 (88.5)

General CLUB meetings: first Thursday of the month at 7 PM (NOW IN PERSON AT THE NIKE BASE!)

Email Joe KB2JDB, club secretary, if you'd like to be invited!

Need help getting on the air? Let us know...

Thanks and 73! joe@joeclaus.com

The Telstar would like to thank all of those who wrote in with notes, suggestions, content submissions, etc.

All ideas are welcomed and encouraged! If there is something you would like included in next month's edition, please email: TELSTAR@WB2ELW.COM or KD2UOE@GMAIL.COM

We are always in search of new and exciting content and feedback from our audience is what keeps the ball rolling.—WHAT DO YOU GUYS WANT TO SEE MORE OF?—

Likewise, if something was published in error—please reach out via email so that corrections can be made, lawyers contacted and settlements reached.

Enjoy & please try to make it a point to pop in to the zoom meeting—new faces keep the hobby exciting and maybe you'll get a participation trophy for the best zoom background! Who knows!?

MONTHLY MEETING INFORMATION ON FOLLOWING PAGE:

ANNOUNCEMENTS:

STARS IS PROUD TO ANNOUNCE ANOTHER IN-PERSON MEETING.

HELP US MAKE IT GREAT! - BY ATTENDING!

WHEN: THURSDAY, AUGUST 5TH 2021 @ 7PM

WHERE: NIKE BASE "CLUBHOUSE" (RAIN OR SHINE)

2982 Lakeview Rd, Hamburg, NY 14075

HOPE TO SEE AS MANY OF YOU AS POSSIBLE!

"ZOOMERS":

(First session) **THURSDAY August 5th** at approximately 7:00pm (Business Meeting) followed by General Meeting after. (ALL ARE WELCOME!)

NO PRESENTATION SCHEDULED

ZOOM CREDENTIALS AND LINK:

[\(CLICK HERE TO JOIN MEETING\)](#)

Meeting ID: 859 544 1881

Passcode: 888888

ANNOUNCEMENTS:

AUGUST PICNIC

SATURDAY, AUGUST 7TH 2PM

AN EMAIL WILL BE SENT OUT TO THE CLUB CONFIRMING THIS DATE AND TIME, AS WELL AS ALLOWING MEMBERS TO GIVE A HEADCOUNT—WE TRULY HOPE TO SEE EVERYONE THERE FOR FOOD, CONVERSATION AND FUN.

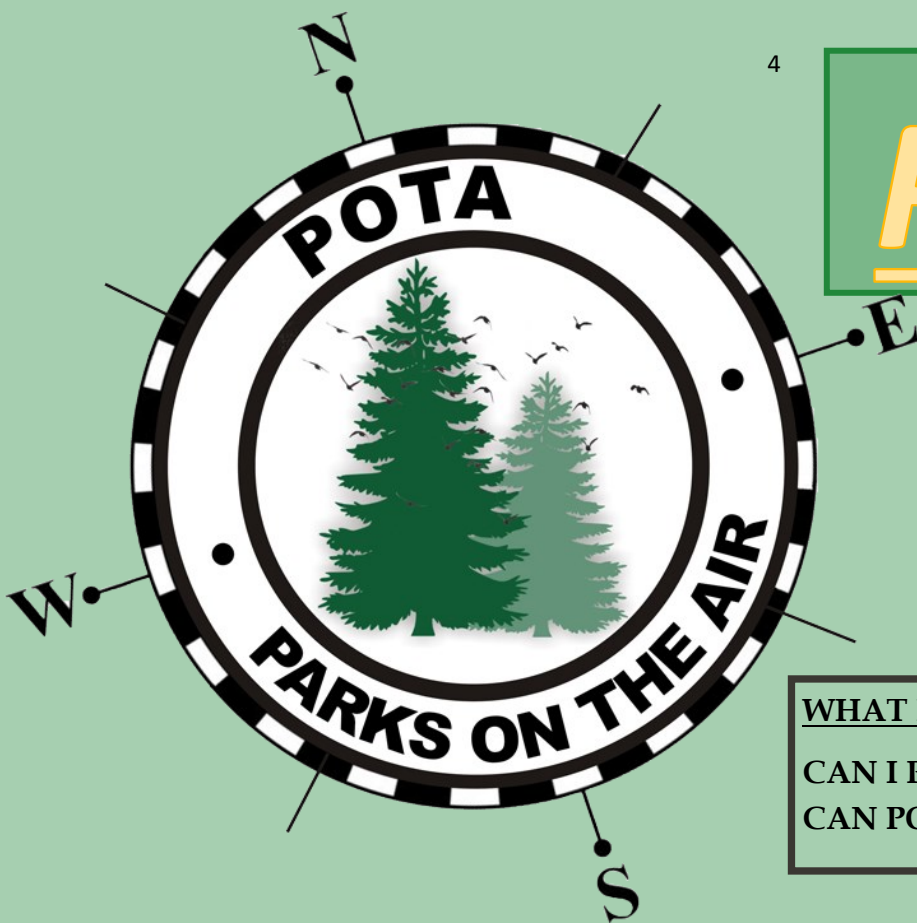
SECURITY CONCERNS AT THE CLUBHOUSE: NEW LOCKS!

THE CLUBHOUSE WILL BE RE-KEYED, THANKS GO TO STARS MEMBER AND LOCKSMITH - SCOTT ZAWIERUCHA (KD2LXE). THE UPGRADE COMES AS AN EFFORT TO BEEF UP SECURITY... (PER AN EMAIL FROM AL WA2TTT)

SEE PHOTOS BELOW OF WHAT APPEARS TO BE AN ATTEMPTED BREAK-IN OF THE BUILDING ADJACENT TO OURS.



3 PICS COMPLIMENTS: (KD2UOE)



P.O.T.A.

WHAT IS PARKS ON THE AIR?

CAN I POTA? CAN YOU POTA? WHO CAN POTA???

Parks on the Air SM

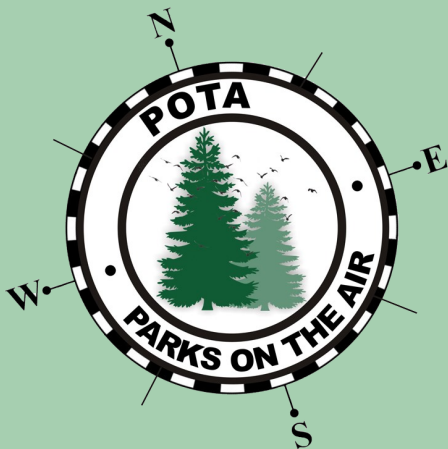
Activator Guide

Summer 2020 Edition

Parks on the Air SM (POTA) is an ongoing program, it encourages amateur radio operators in developing their skills, fostering community and demonstrating the hobby to the public.

There are thousands of parks available in the program and each will present a unique experience. Operating styles and seasons will also affect the nature of your experience.

Good luck!



ALL YOU NEED TO KNOW TO START HUNTING OR ACTIVATING IS EASILY ACCESSIBLE ON THE POTA WEBSITE: <https://parksontheair.com/>

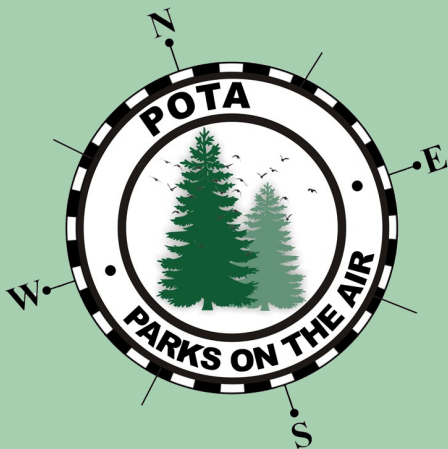
A LINK FOLLOWS THE “ACTIVATION GUIDE” BELOW—CLICK IT TO SKIM THROUGH THE RULES AND REGULATIONS...



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https://stats.parksontheair.com/info/activator_guide.pdf



P.O.T.A.

PARKS ON THE AIR OFFERS A FUN AND EXCITING EXCURSION INTO THE OUTDOORS, AND ALLOWS AMATEUR RADIO OPERATORS TO ESCAPE THE SHACK, DESK AND OFFICE CHAIR AND GET OUTDOORS AND SHARE THE EXPERIENCE OF RADIO WITH OTHERS AS WELL...

HERE WE HAVE MATT (K2EAG), KEN (K2BNY) AND ANGELA (N3ARB) ON SOME OF THEIR FIRST ACTIVATIONS.



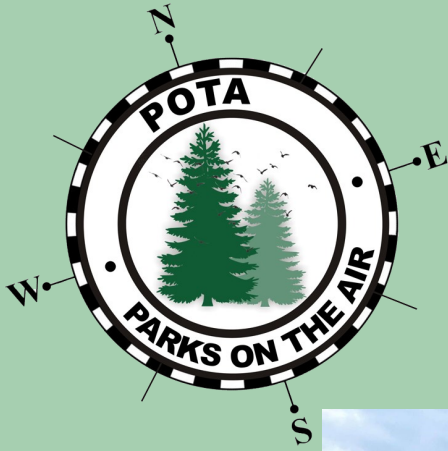
GETTING OUT IN THE PARK WITH YOUR GEAR IS A PERFECT WAY TO PRACTICE AND HONE YOUR SKILLS AS AN OPERATOR...

IT ALLOWS YOU TO FIGURE OUT WHAT WORKS BEST FOR TRANSPORT, SAFETY, POWER, ANTENNA, FEED-LINE OPTIONS, PORTABLE LOGGING AND MORE.

HERE (LIGHTNING BOLT) WE HAVE WHAT APPEARS TO BE A WOLF RIVER COIL WITH A STAINLESS WHIP AND TRIPOD BEING USED ON 20/40 METERS.....

CQ POTA CQ POTA CQ POTA





P.O.T.A.



☰ Park List 📶 K2EAG
🌐 New York (US-... 🔍 Empire

Sort by ▾

Reference	K-8098
Name	Empire State State Trail
Attempts	47
Activations	46
QSOs	1624
My Activations	0
My Hunted QSOs	0

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☰ Park List 📶 K2EAG
🌐 New York (US-... 🔍 Heritage

Sort by ▾

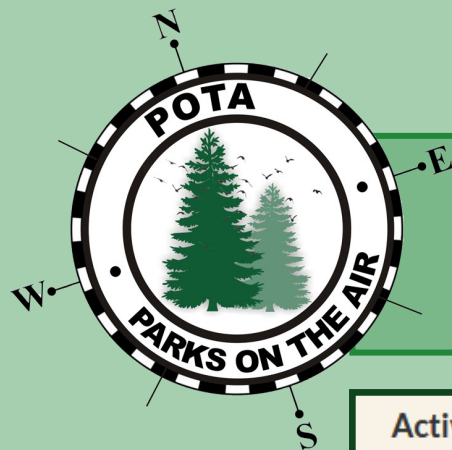
Reference	K-6532
Name	Erie Canalway Heritage Corridor National Park Reserve
Attempts	163
Activations	143
QSOs	4435
My Activations	0
My Hunted QSOs	0

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K2BNY @ K-6532 ✔

📍 [K-6532, Erie Canalway Heritage Corridor National Park Reserve](#)
🏠 US-NY
📡 14318 kHz
👤 K2EAG
📄 Ken's first activation, recent general upgrade.
🕒 Last heard 0 mins ago at 16:15 UTC

RE-SPOT HISTORY



P.O.T.A. AWARDS

Activators

1. **Bronze Award:** work from **10** different reference areas.
2. **Silver Award:** work from **20** different reference areas.
3. **Gold Award:** work from **30** different reference areas.
4. **Platinum Award:** work from **40** different reference areas.
5. **Diamond Award:** work from **50** different reference areas.
6. **Sapphire Award:** work from **75** different reference areas.

Hunters

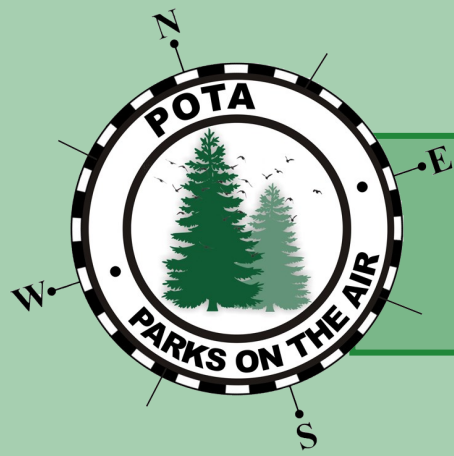
1. **Bronze Award:** work **10** different reference areas.
2. **Silver Award:** work **20** different reference areas.
3. **Gold Award:** work **30** different reference areas.
4. **Platinum Award:** work **40** different reference areas.
5. **Diamond Award:** work **50** different reference areas.
6. **Sapphire Award:** work **75** different reference areas.

IF YOU ENJOY SOME FRIENDLY SELF COMPETITION, THE POTA WEBSITE AUTOMATICALLY KEEPS A LOG OF ALL YOUR ACTIVATED AND HUNTED PARKS AND ISSUES YOU THESE "SUITABLE FOR FRAMING" AWARDS WHEN YOU HAVE EARNED THEM.

A NEAT LITTLE PERK TO KEEP YOU IN THAT PILE-UP JUST A LITTLE LONGER....

HAPPY HUNTING!





P.O.T.A.

The screenshot shows the 'Active Spots' section of the P.O.T.A. Spotter App. It features a search bar and filters for Band, Mode, Program, QRT, Hunted, and Sort. Six active spots are displayed in a grid:

- N2BTD @ K-2132**: K-2132_Rockland Lake State Park, US-NY, 7290 kHz, N4CWB, 59 SC THX. Last heard 2 mins ago at 03:37 UTC.
- W0W @ K-8503**: K-8503_Union Ridge State Conservation Area, US-MO, 7044.8 kHz (CW), N6TV, RBN 14 dB 28 WPM via N6TV#. Last heard 2 mins ago at 03:37 UTC.
- K9ZIE @ K-4298**: K-4298_Killsnake State Wildlife Area, US-WI, 10140 kHz (FT4), N6ZIE, FT4. Last heard 6 mins ago at 03:33 UTC.
- W4OPS @ K-2341**: K-2341_Kaw River State Park, US-KS, 7254 kHz, N4TFT, 59 KY. Last heard 22 mins ago at 03:17 UTC.
- W0W/P @ K-8503**: K-8503_Union Ridge State Conservation Area, US-MO, 7208 kHz, N4XTL. No spot information. Last heard 25 mins ago at 03:14 UTC.
- KB2FMH @ K-2038**: K-2038_Cold Spring Harbor State Park, US-NY, 7222 kHz, KB2FMH, QRT for the night: 73. Last heard 16 mins ago at 03:21 UTC.

RATHER THAN JUST TUNE AROUND THE BANDS HOPPING AND HUNTING— YOU CAN UTILIZE THE SPOTTER APP SITE SHOWN ABOVE—SEE HOW MANY PILE-UPS YOU CAN BREAK... MANY OPERATORS ARE USING COMPROMISED SET-UPS... CAN YOU GET THE PARK?

The screenshot shows the 'My Awards' section of the P.O.T.A. Spotter App. It includes a search bar and a list of awards with progress indicators:

- Parks Activated**: 0/10 unique parks. Next award at 10 unique parks.
- Parks Hunted**: 34/40 unique parks. Next award at 40 unique parks.
- Late Shift Activations**: 0/10 late shift activations. Next award at 10 late shift activations.
- Late Shifts Hunted**: 6/50 late shift GSOs. Next award at 50 late shift GSOs.
- Park 2 Park**: 0/25 park-to-park GSOs. Next award at 25 park-to-park GSOs.

Below the awards are two state grids:

- Activated US States**: A grid of 50 states (AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY). DC is a wildcard.
- Hunted US States**: A grid of 50 states (AK, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY). DC is a wildcard.



Citizens Band Going FM? FCC Considering Part 95 Rule Change

([WEB LINK TO KOLWC ARTICLE](#))

Posted on July 24, 2021 by KOLWC

July 15, 2021

FCC FACT SHEET*

Petitions for Reconsideration of Part 95 Personal Radio Services Rules Report and Order

Memorandum Opinion and Order on Reconsideration – WT Docket No. 10-119

Background: In the May 2017 *Part 95 Personal Radio Services Rules Report and Order*, the Commission reorganized and amended Part 95 of its rules governing various short-range, low-power radio services generally for personal use, including the CB Radio Service, General Mobile Radio Service (GMRS), and Family Radio Service (FRS). Uses of these services include, among other applications, voice and data communications by families and other groups during outdoor recreational activities like hiking, skiing, and hunting, and during emergencies and natural disasters. In this *Memorandum Opinion and Order on Reconsideration*, the Commission would grant three petitions for reconsideration of the *Part 95 Personal Radio Services Rules Report and Order* filed by Cobra Electronics Corporation (Cobra), Motorola Solutions, Inc. (Motorola), and Medtronic, Inc. (Medtronic).

What the Memorandum Opinion and Order on Reconsideration Would Do:

- Grant Cobra’s Petition requesting that the Commission allow FM as an optional modulation scheme for all existing 40 CB Radio Service channels (with AM remaining mandatory).
 - Dual modulation would improve the user experience since FM provides benefits for some types of communications.

FCC signals FM CB will be permitted on 27 MHz

63 years after the introduction of Class D 27 MHz AM CB Radio the FCC has agreed to permit FM to be used

From FCC Memorandum Opinion and Order on Reconsideration WT Docket No. 10-119, issued July 15, 2021:

What the Memorandum Opinion and Order on Reconsideration Would Do:

- Grant Cobra's Petition requesting that the Commission allow FM as an optional modulation scheme for all existing 40 CB Radio Service channels (with AM remaining mandatory).
- Grant Motorola's Petition requesting that the Commission allow automatic or periodic location and data transmissions in the GMRS and FRS. The Commission's rules currently permit the transmission of location information and brief text messages initiated by a manual action and automatic responses of location information.
- Grant Medtronic's Petition requesting the correction of typographical errors and rule changes in the Part 95 Personal Radio Services Rules Report and Order that inadvertently altered the substance of the Medical Device Radiocommunications Service (MedRadio) rules

The FCC say:

After considering this additional information, we conclude that allowing manufacturers to add FM as an optional modulation scheme will not substantially change the fundamental nature of the CB Radio Service and will improve the user experience, as described by Cobra and President. How people use the service will not materially change or be expanded. Further, Cobra states that AM is a "well established" operating mode that is unlikely to disappear, even if we permit operations in FM mode.

Continuing to mandate AM capability while permitting dual modulation will provide benefits to CB radio users who will have an additional modulation option, while maintaining the basic character of the service.

The addition of FM as a permitted mode will not result in additional interference because users who hear unintelligible audio on a particular channel can simply select another channel or switch modes.

[\(WEB LINK TO ARTICLE\)](#)



#sevenFortyOne #cbradio #gmrs
▶ FCC Part 95 Rule Changes! FM LEGALIZED For CB Radio & Automatic Position Reporting for GMRS/FRS

[\(YOUTUBE VIDEO LINK—QUICK AND DIRTY VERSION\)](#)



#CBRadio #Radio #HamRadio
CB Radio is Going FM! Why is the FCC Doing It?
17,736 views · Jul 29, 2021

880 20 SHARE SAVE ...

K0LWC 10.5K subscribers

SUBSCRIBE

[\(YOUTUBE VIDEO LINK—QUICK AND DIRTY VERSION\)](#)

The Contour ShuttleXpress Device



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Contour ShuttleXpress Input Device,Black

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- The Shuttle Xpress has five (5) programmable buttons
- The Shuttle device software allows you to manage a specific configuration of your Shuttle device for every application you have on your computer
- The software will automatically select the appropriate configuration according to the current active application
- Jog & Shuttle can also be used for scrolling, volume control, sequencing & more!
- The Contour Shuttle Xpress have been designed to enhance the productivity of multimedia content creators, but they also increase productivity in many other types of applications, including: Graphics and photo editing, Word processing, Spreadsheet manipulation, Internet operations, Medical imaging, Any application that uses key commands. The Xpress consist of two (2) components: the ergonomically designed device itself and the software that allows you to manage it

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ADD TO THAT THE FUNCTIONALITY OF A CUSTOMIZABLE "VFO" KNOB AND SPRING LOADED JOG WHEEL AND YOU ARE SET TO RELIABLY AND COMFORTABLY CONTROL YOUR SDR OR PANADAPTER SOFTWARE.

I RECENTLY ORDERED, AND FELL IN LOVE WITH THIS DEVICE. I USE BUTTON 1 AS PTT, #2 NARROW FILTER, #3 TO TUNE, #4 WIDE FILTER, AND #5 TO MUTE ALL AUDIO (THE XYL'S FAVORITE).
 -KD2UOE

FCC Investigating Alleged “Jamming” on 40 Meters

07/22/2021

Reports suggest that jamming stations have been deployed on the lower portion of 40 meters. The jamming appears to be coming from Cuba. The signals, spaced at regular intervals, exhibit a squishy, popping noise. The apparent jamming showed up after anti-government protesters took to the streets in Cuba, followed by a government crackdown. So far, there’s no proven connection between the jamming and the protests, as evidence has been circumstantial. DX spots suggest that Cuban hams are on the air on SSB but do appear rare on 40 meters. A lot of Cuban spots point to FT8 activity. The jamming issue has drawn the attention of the FCC, which is looking into the matter, according to one tech publication.

“Too many people around the world are fighting uphill battles to be able to use technology to expand economic opportunity, express themselves, and organize without fear of reprisal,” an FCC spokesperson [told Motherboard](#). “The FCC is committed to supporting the free flow of information and ensuring that the internet remains open for everyone. We are assessing these reports in conjunction with our field agents and communicating with the Department of State as this issue develops.”

Outside of ham radio, the ability to connect with some social media sites and even with the internet inside Cuba has been reportedly tricky. Connecting to the Federación de Radioaficionados de Cuba ([FRC](#)) website (Cuba’s IARU member-society) from outside of Cuba has been unreliable. This week, users attempting to do so – at least those in the US – got a shrugging cartoon character and the legend, “Acceso Denagado” – access denied. The FRC Facebook page is accessible, but links to the FRC website are blocked. FRC had warned of “possible outages” a week ago, attributing the problem to maintenance being done in the data center where FRC is housed.

Well-known amateur radio contester and DXer Fred Laun, K3ZO, pointed out in a July 17 post to the Potomac Valley Radio Club reflector that typical ham radio contacts with Cuba “are not normally about politics, though I suppose in the wake of recent events they may have become so.” Josh Nass, KI6NAZ, of the YouTube channel, *Ham Radio Crash Course* (HRCC), is calling the interference “The Cuban Rum Runner,” an oblique reference to the “Russian Woodpecker” of yesteryear. And Matthew Kaskavitch, K0LWC, recorded an [“emergency broadcast message”](#) on his YouTube channel, to advise viewers of the purported jamming. International Amateur Radio Union (IARU) Region 2 (the Americas) President Ramón Santoyo, XE1KK, said no complaints had been received by July 20.

<http://www.arrl.org/news/fcc-investigating-alleged-jamming-on-40-meters>

KØLWC

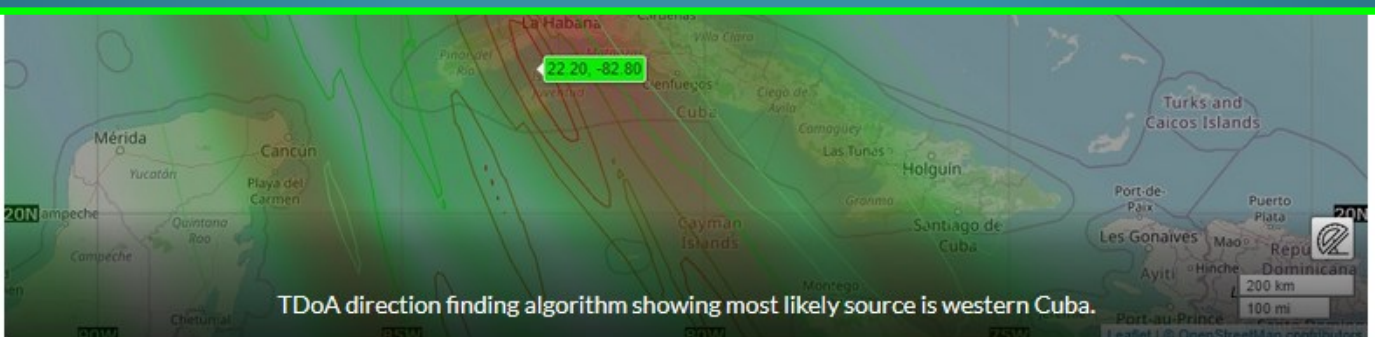


Direction Finding Points To Cuba Jamming Ham Radio Frequencies

Posted on July 16, 2021 by KØLWC

Since I [published my video](#) in support of Alex, W7HU, I've received a lot of comments claiming what's occurring on 40M is not jamming. It's not the Cuban regime doing it. When you compare the signal to what regularly jams Radio Marti, it was obvious then. Others need a bit more convincing.

Using [KiwiSDR](#), I used six different receivers around the United States to sample the jamming signal. It's then put into an algorithm and predicts the most probable location of the transmitter. Let me also say, I tested this with a friend (KB0TDW) and it's amazingly accurate when used correctly. It pinpointed him within 50 miles no problem. So what did we find with the jamming signal on 40M?



Well, it's no surprise. Western Cuba, around the Havana area, is the most likely area for this jamming transmitter based on algorithmic direction finding. For those questioning whether Cuba is jamming to shut down communications during the uprising. The answer is **overwhelmingly – YES!**

([HERE](#))

FEATURED HAM SITE OF THE MONTH:



<http://www.astrosurf.com/luxorion/menu-qs1.htm>

This month Telstar would like to feature the website of LX4SKY—**Thierry LOMBRY** (Luxembourg). I stumbled upon this website while reading through mounds of articles on HF verticals and researching radials... however, not only did I find what I was looking for—I was pleasantly distracted with an old interest—

RADIO ASTRONOMY!

EVER SINCE I WAS A YOUNG TEEN I'VE BEEN INTERESTED IN THE USE OF RADIO TELESCOPES TO PROBE THE FARTHEST REACHES OF SPACE. I RECALL A CLIMBING TRIP WITH MY GRANDFATHER AND A VISIT TO THE VERY LARGE ARRAY IN SO-CORRO, NM...AND ALWAYS WONDERING WHAT SPACE SOUNDED LIKE...

THIERRY DOES A GOOD JOB LAYING OUT A WEALTH OF KNOWLEDGE AND INFORMATION FROM BOTH AMATEUR RADIO & RADIO ASTRONOMY... SEE THE LINK ON THE NEXT PAGE FOR A **LIVE WEB-CAM FEED OF THE VERY LARGE ARRAY** ALONG WITH SOME CLUES TO WHAT YOU'LL FIND WHEN YOU VISIT THE FEATURED WEBSITE OF THE MONTH.



FEATURED HAM SITE OF THE MONTH:



<http://www.astrosurf.com/luxorion/audiofiles.htm>

Audio and sound files

Scientific recordings

Here are some 143 audio files related to astronomical or meteorological events like the sound of pulsars, solar flares, Jupiter and Saturn hisses and bursts, interstellar plasma, meteors, auroras, lightnings whistles in the Earth magnetosphere, including the song of whales and other marine mammals.

You will find on [this page](#) 35 recordings related to astronautic events, transmissions from satellite and other spacecrafts, as well as reports from astronauts and cosmonauts on orbit.

You will find on [this page](#) 220 records of QSOs worked by radio amateurs and sound of different transmission modes and interferences that you can hear on shortwaves, as well as and recordings of historical events.

You will find on [this page](#) 24 commentaries extracted from films, sounds and music samples used on this site to illustrate some subjects.

Check also my [animations](#) for 314 other videos and films.

These files can be read using WinAmp, RealOne, Windows Multimedia Player, etc. You can also use an oscilloscope or easier, a spectrographic program to view the audio like the excellent DL4YHF's freeware [Spectrum Laboratory](#), as well as [Spectran](#), [Spectrogram](#) or [Raven](#) to name a few.

To edit or convert your audio files, a good and very cheap program is [AVS Audio Utilities](#) also available free for demonstration.

482 sounds



Make your choice:

[Meteor Showers](#) (12) - [Aurora and related activity](#) (13) - [Geomagnetosphere activity](#) (30)
[Solar activity](#) (21) - [Jupiter, its satellites, Saturn](#) (53) - [Pulsars](#) (11) - [Miscellaneous Natural](#) (63)

IN THIS SECTION OF THE WEBSITE YOU CAN SAMPLE ALMOST 500 DIFFERENT RECORDINGS

<https://public.nrao.edu/vla-webcam/>

What do you see?

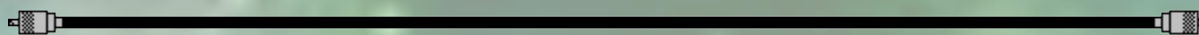
- How many dishes are in view?
- Which configuration do you think the VLA is in? You can find out here.
- Are any of the dishes in maintenance mode?

NRAO EVLA 2021-08-01 20:35:03



The Karl G. Jansky Very Large Array is a centimeter-wavelength radio astronomy observatory located in central New Mexico on the Plains of San Agustin, between the towns of Magdalena and Datil, ~50 miles west of Socorro.

FEATURED HAM SITE OF THE MONTH:



<http://www.astrosurf.com/luxorion/qs1-radials.htm>

OKAY—BACK TO HAM RADIO...

AS STATED, I WANDERED UPON THIS SITE WHILE TRYING TO FIND THE ANSWER TO SEVERAL AGEOLD QUESTIONS; DO I NEED RADIALS FOR MY HF VERTICAL ANTENNA? HOW MANY? HOW LONG? WHAT SIZE AND COMPOSITION OF WIRE... AND SO ON!

Definitions

Before going further it is time to define the word "radial", often associated to another one, "counterpoise". Both terms are equivalent but you will find below their accurate definition by ARRL.

Ground plane : A system of conductors placed beneath an elevated antenna to serve as an earth ground. Also see counterpoise.

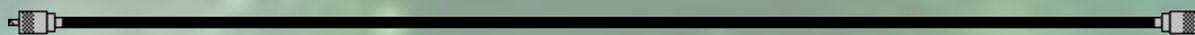
Counterpoise : A wire or group of wires mounted close to the ground, but insulated from ground, to form a low-impedance, high capacitance path to ground. Used at MF and HF to provide an RF ground for an antenna. Also see ground plane.

This is maybe not clearer... In fact both definitions are correct. But most of the time, we speak of radials when the wires are laid evenly on the ground, and of counterpoise when the antenna is erected a few meter above the ground and surrounded by an artificial ground plane made of thin tubing. Of course it will be never false to say that a ground plane antenna is surrounded with a system of radials.



A network of 60 radials 10m long (1/41) is installed over 360° at the base of the four verticals used by Dana Roode, [K6NR](#). Working from the desert of California, this network improves and replaces the poor conductivity of the soil. It has a good size to work from 7 MHz and above and constitutes thus a perfect ground plane. A dedicated vertical is used to work on the 75/80 band where radials are only 1/81 long, but thanks to their large number, this kind of network work very well on this low band too.

FEATURED HAM SITE OF THE MONTH:



<http://www.astrosurf.com/luxorion/qsl-radials.htm>

Good to know about radials

- Try to use at least sixteen $1/4\lambda$ radials.
- If you don't have the space for $1/4\lambda$ radials, lay down a larger number of shorter ones (up to $1/10\lambda$).
- More than 16 radials will help but give only a fraction of a dB over average or better soils.
- The shorter your antenna, the more you need a good ground system.
- The poorer your soil the more you need a good ground system.
- A surface-radial ground system will affect the resonant frequency and you may have to adjust the vertical height for that.
- Work hard at making the antenna itself more efficient. In other words, use high-Q loading coils, use top loading to minimize the size of loading coils, minimize conductor loss, and so on.
- Modeling and calculations seem to be in reasonable agreement with measurements and, with some caution, can usefully be used to estimate the magnitude of improvement when adding to a ground system.

For more details read this [QEX PDF document](#).

Rudy Severns, N6LF

PO Box 589, Cottage Grove, OR 97424; n6lf@arrl.net

Experimental Determination of Ground System Performance for HF Verticals Part 4 How Many Radials Does My Vertical Really Need?

Experimental results to answer an often-asked question.

[\(CLICK HERE\)](#) - TO READ THIS PDF DOCUMENT! - [\(CLICK HERE\)](#)

The mystery of radials Erecting the antenna above ground (II)

For more information

[Basics of antennas](#) (on this site)

[SWR, the radiation resistance](#) (on this site)

[All about transmission lines](#) (on this site)

[From dB to S-point : Learn to play with power units](#) (on this site)

[The ARRL Antenna Book 1998](#), (PDF), QRZ.ru

[How Many Radials Does My Vertical really Need?](#), Rudy Severns, N6LF, QEX, May/June 2008 (PDF, 700 KB)

[ARRL Antenna Book](#), ARRL, specially chapter 16 about the efficiency, also available on CD-ROM

[Vertical Antenna Classics](#), ARRL

[RADIAL 3 EXE](#), Reg Edwards, G4FGQ, calculates the efficiency of any system of radials

[Degree-amperes and field strenght](#), by Edmund A. Laport (about antenna currents).

[Another Look At Reflections](#), by Walter Maxwell, W2DU (sk), QST magazine, 1973-1976 (PDF on K6MHE website)

In [QEX](#) magazine, May/June 2011, p39, Alan Payne, G3RBJ wrote an interesting article about the coil theory.

In [QST](#) magazine, 1973-1976, Walter Maxwell, W2DU (sk) wrote articles dealing with antennas, SWR and line losses titled [Another Look At Reflections](#) (PDF)

In [QST](#) magazine, September 2006 issue, pp56-57, VE2CV explains how to use an antenna analyzer and EZNEC to calculate the antenna efficiency (in this case of a mobile antenna). Page 56 also describes SWR.

Technical notes about antennas are also available in PDF format on the website of major manufacturers and portals :

[Butternut](#), [Cushcraft](#), [eHam](#).

<http://www.astrosurf.com/luxorion/qsl-radials2.htm>

8-Meter Experimental Station on the Air from the US 07/29/2021

[WL2XUP](#) is an FCC Part 5 Experimental station operated by Lin Holcomb, NI4Y, in Georgia. It's licensed to operate with up to 400 W effective radiated power (ERP) between 40.660 MHz to 40.700 MHz.



John Desmond, EI7GL, reports that as of mid-July, WL2XUP was intermittently transmitting on Weak-Signal Propagation Reporter (WSPR) on 40.662 MHz (1500 Hz) for 2 minutes out of every 10, with an output power of 20 W ERP into an omnidirectional antenna. For FT8 check-ins and tests, an ERP of 100 W may be used. The band is affected by several propagation modes, including tropospheric ducting, sporadic E, transequatorial propagation (TEP), and F2 propagation. As Desmond notes, the 40 MHz band will open a lot earlier than 50 MHz and could be a useful resource for stations monitoring the transatlantic path.

A 2019 *Petition for Rulemaking* ([RM-11843](#)) asked the FCC to create a new 8-meter amateur radio allocation on a secondary basis. The *Petition* suggests the new band could be centered on an industrial-scientific-medical (ISM) segment somewhere between 40.51 and 40.70 MHz. The spectrum between 40 and 41 MHz is currently allocated to the federal government and, as such, within the purview of the National Telecommunications and Information Administration ([NTIA](#)). ARRL member Michelle Bradley, KU3N, of Maryland, filed the petition on behalf of REC Networks, which she founded and described in the *Petition* as “a leading advocate for a citizen’s access to spectrum,” including amateur radio spectrum.

HAMFESTS & HAPPENINGS:

KNOW OF A HIDDEN GEM? HEARD OF A CANCELLATION THAT ISN'T LISTED? PLEASE KEEP THE CLUB INFORMED AT: TELSTAR@GMAIL.COM.



HAMFEST/CONVENTION

08/21/2021 - Keuka Lake Amateur Radio Association Hamfest

Location: Avoca, NY

Type: ARRL Hamfest

Sponsor: Keuka Lake Amateur Radio Association

Website: <https://www.klara.us>

Learn More



HAMFEST/CONVENTION

08/21/2021 - East Greenbush Amateur Radio Association Hamfest

Location: Rensselaer, NY

Type: ARRL Hamfest

Sponsor: East Greenbush Amateur Radio Association

Website: <http://www.egara.club>

Learn More



HAMFEST/CONVENTION

08/28/2021 - ROC City Net Hamfest

Location: Macedon, NY

Type: ARRL Hamfest

Sponsor: ROC City Net, The Log Cabin

Website: <https://www.facebook.com/groups/roccitynet/>

Learn More



HAMFEST/CONVENTION

09/11/2021 - Lancaster Hamfest

Location: Lockport, NY

Type: ARRL Hamfest

Sponsor: Lancaster Amateur Radio Club

Website: <http://w2so.org>

Learn More

CONTEST CALENDAR

August 2021		
+ SARL HF Phone Contest		1400Z-1700Z, Aug 1
+ ARS Spartan Sprint		0100Z-0300Z, Aug 3
+ Batavia FT8 Contest		0000Z, Aug 7 to 2359Z, Aug 8
+ 10-10 Int. Summer Contest, SSB		0001Z, Aug 7 to 2359Z, Aug 8
+ SKCC Weekend Sprintathon		1200Z, Aug 7 to 2359Z, Aug 8
+ European HF Championship		1200Z-2359Z, Aug 7
+ North American QSO Party, CW		1800Z, Aug 7 to 0559Z, Aug 8
+ ARRL 222 MHz and Up Distance Contest		1800Z, Aug 7 to 1800Z, Aug 8
+ 4 States QRP Group Second Sunday Sprint		0000Z-0200Z, Aug 9
+ WAE DX Contest, CW		0000Z, Aug 14 to 2359Z, Aug 15
+ QRP ARCI European Sprint		0800Z-1100Z, Aug 14
+ Maryland-DC QSO Party		1400Z, Aug 14 to 0400Z, Aug 15
+ NJQRP Skeeter Hunt		1700Z-2100Z, Aug 15
+ Run for the Bacon QRP Contest		2300Z, Aug 15 to 0100Z, Aug 16
+ SARTG WW RTTY Contest		0000Z, Aug 21 to 1600Z, Aug 22
+ ARRL 10 GHz and Up Contest		0600 local, Aug 21 to 2359 local, Aug 22
+ North American QSO Party, SSB		1800Z, Aug 21 to 0559Z, Aug 22
+ CVA DX Contest, CW		2100Z, Aug 21 to 2100Z, Aug 22
+ ARRL Rookie Roundup, RTTY		1800Z-2359Z, Aug 22
+ SKCC Sprint		0000Z-0200Z, Aug 25
+ Hawaii QSO Party		0400Z, Aug 28 to 0400Z, Aug 30
+ ALARA Contest		0600Z, Aug 28 to 0559Z, Aug 29
+ World Wide Digi DX Contest		1200Z, Aug 28 to 1200Z, Aug 29
+ YO DX HF Contest		1200Z, Aug 28 to 1200Z, Aug 29
+ W/VE Islands QSO Party		1200Z, Aug 28 to 0300Z, Aug 29
+ Kansas QSO Party		1400Z, Aug 28 to 2000Z, Aug 29
+ Ohio QSO Party		1600Z, Aug 28 to 0400Z, Aug 29
+ CVA DX Contest, SSB		2100Z, Aug 28 to 2100Z, Aug 29
+ SARL HF CW Contest		1400Z-1700Z, Aug 29

<https://www.contestcalendar.com/perpetualcal.php>

August		
Maryland	+ Maryland-DC QSO Party	1400Z, Aug 14 to 0400Z, Aug 15, 2021
Hawaii	+ Hawaii QSO Party	0400Z, Aug 28 to 0400Z, Aug 30, 2021
Kansas	+ Kansas QSO Party	1400Z, Aug 28 to 0200Z, Aug 29, 2021 and 1400Z-2000Z, Aug 29, 2021
Ohio	+ Ohio QSO Party	1600Z, Aug 28 to 0400Z, Aug 29, 2021

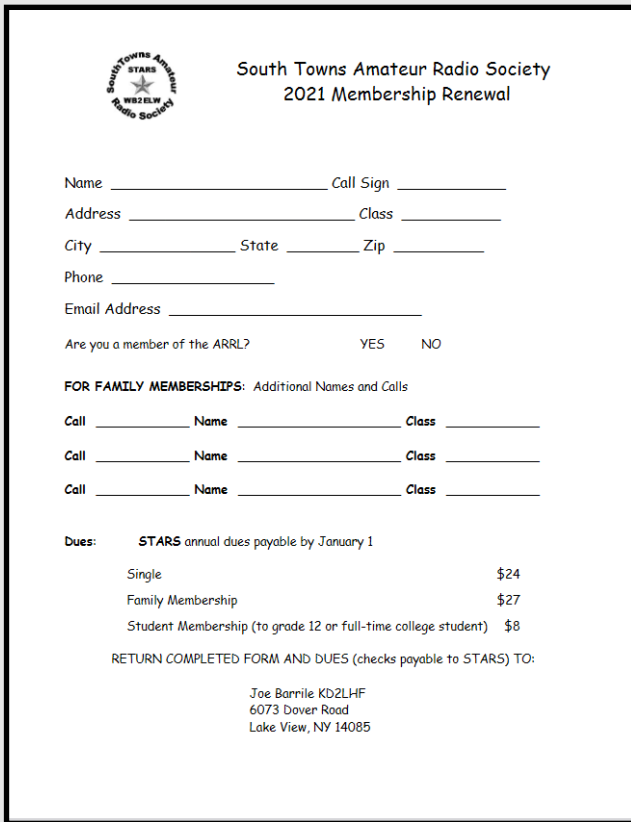
THIS PAGE WILL NOT CHANGE:

BELOW PLEASE FIND A COPY OF THE MEMBERSHIP RENEWAL FORM AS WELL AS THE NEW MEMBER APPLICATION FORM.

THE LINKS ABOVE EACH WILL TAKE YOU TO THE CORRESPONDING FILE ON THE WB2ELW WEBSITE AND ALLOW YOU TO PRINT THEM.

[RENEWAL FORM \(CLICK HERE\)](#)

[APPLICATION FORM \(CLICK HERE\)](#)



South Towns Amateur Radio Society
2021 Membership Renewal

Name _____ Call Sign _____
 Address _____ Class _____
 City _____ State _____ Zip _____
 Phone _____
 Email Address _____

Are you a member of the ARRL? YES NO

FOR FAMILY MEMBERSHIPS: Additional Names and Calls

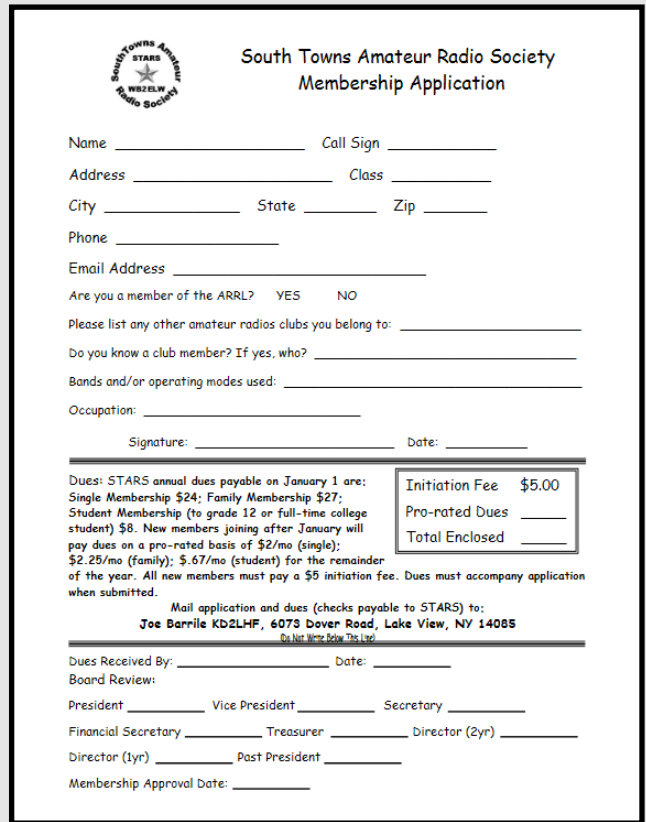
Call _____ Name _____ Class _____
 Call _____ Name _____ Class _____
 Call _____ Name _____ Class _____

Dues: STARS annual dues payable by January 1

Single	\$24
Family Membership	\$27
Student Membership (to grade 12 or full-time college student)	\$8

RETURN COMPLETED FORM AND DUES (checks payable to STARS) TO:

Joe Barrille KD2LHF
 6073 Dover Road
 Lake View, NY 14085



South Towns Amateur Radio Society
Membership Application

Name _____ Call Sign _____
 Address _____ Class _____
 City _____ State _____ Zip _____
 Phone _____
 Email Address _____

Are you a member of the ARRL? YES NO

Please list any other amateur radios clubs you belong to: _____

Do you know a club member? If yes, who? _____

Bands and/or operating modes used: _____

Occupation: _____

Signature: _____ Date: _____

Initiation Fee	\$5.00
Pro-rated Dues	_____
Total Enclosed	_____

Dues: STARS annual dues payable on January 1 are:
 Single Membership \$24; Family Membership \$27;
 Student Membership (to grade 12 or full-time college student) \$8. New members joining after January will pay dues on a pro-rated basis of \$2/mo (single); \$2.25/mo (family); \$.67/mo (student) for the remainder of the year. All new members must pay a \$5 initiation fee. Dues must accompany application when submitted.

Mail application and dues (checks payable to STARS) to:
Joe Barrille KD2LHF, 6073 Dover Road, Lake View, NY 14085
Do Not Sign Below This Line

Dues Received By: _____ Date: _____
 Board Review:
 President _____ Vice President _____ Secretary _____
 Financial Secretary _____ Treasurer _____ Director (2yr) _____
 Director (1yr) _____ Past President _____
 Membership Approval Date: _____

IF YOU ARE UNSURE IF YOUR MEMBERSHIP IS UP TO DATE, PLEASE CONFIRM WITH MEMBERSHIP CHAIR, JOE BARRILLE (KD2LHF), TO ENSURE YOU ARE KEPT UP TO DATE WITH THE LATEST TELSTAR PUBLICATION, CLUB EVENTS, PROMOTIONS, ETC.

Just a friendly reminder of the STARS Amateur Radio Society Facebook Page...

If you are on Facebook—stop by, like and share!

Here is a link: <https://www.facebook.com/WB2ELW>

The screenshot shows the Facebook profile for the STARS Amateur Radio Society. At the top, there are navigation icons for home, notifications (with a '2' badge), friends, and a page icon. Below this is a large photo of six men standing in a row. The profile section includes a circular logo with the text 'South Towns Amateur Radio Society STARS WB2ELW' and a star. The name 'STARS Amateur Radio Society' is displayed in large bold letters, followed by '@WB2ELW · Nonprofit Organization'. A blue 'Learn More' button is present, along with the website 'wb2elw.net'. The navigation bar includes 'Home', 'Community', 'Events', 'Photos', and 'More'. Below the navigation bar are buttons for 'Liked', 'Message', and search. The 'About' section features a map showing the location at '2982 Lakeview Rd Hamburg, NY 14075' and a text description: 'STARS is an Amateur Radio group based out of Hamburg, NY. We have a range of radio interests from HF contesting to community service and are always open to interested people. Feel free to check into our nets: Tues. 7:30pm 147.090+ 88.5, Sat. 10am 3.925 +-'. The 'Pinned Post' section shows a post from 'STARS Amateur Radio Society' dated June 15, 2017, with the text 'Check out our Community tab to see all the great posts from people who like our page!' and a link to 'www.facebook.com'. The post has '1 Comment' and is liked by 'You and 2 others'.



BLUE & UNDERLINED:

WHEN YOU SEE SOMETHING IN TELSTAR IN BLUE LETTERS AND UNDERLINED, IT MEANS IT IS AN INTERNET LINK. CLICK ON IT TO OPEN THE ASSOCIATED LINK IN A BROWSER.

HERE, TRY THIS!..... [\(CLICK HERE\)](#)



THANK-YOU TO OUR BOARD OF DIRECTORS FOR ALL THAT YOU DO TO KEEP THE CLUB IN ORDER AND FUNCTIONING (BOTH LOCALLY AND FROM AFAR)....

THANKS RICK (W2RLN) FOR RUNNING THE TUESDAY NIGHT NET AND ALWAYS BEING PROMPT AND PRESENT,. AND THANKS TO BOB (WA2YSJ) FOR YOUR COMMITMENT WITH THE HF NET ON SATURDAY MORNINGS!

THANKS ESPECIALLY TO MIKE (KB2FX) AND KEN (KC2AYK) FOR HANDLING THE TECHNICAL SIDE OF THINGS, BEHIND THE SCENES.... IT'S A LOT OF WORK AND WE ALL APPRECIATE YOU!
-STARS MEMBERS

CLUB OFFICERS 2021

President Ken Pokigo KC2AYK
 V. President Al Mitzo WA2TTT
 Treasurer John Leitten KA2RFT
 Recording Sec'y Joe Claus KB2JDB
 Financial Sec'y Joe Barille KD2LHF
 Membership Chair Joe Barille KD2LHF
 Director 1yr Bob Koster KA2WYE
 Director 2yr Jon Hall AA2CC
 Clubhouse Chair Al Mitzo WA2TTT
 Fundraising Chair Jon Hall AA2CC
 Hospitality Chair Bill Donovan KD2QLF

CLUB OFFICERS 2021

Net Control Stations Rick Neubeck W2RLN (VHF)
 Bob Lehning WA2YSJ (HF)
 NYQP Chair John Leitten KA2RFT
 Photographer Gerry Maira KA2MGE
 Program Chair Larry Plumb WA2TLY
 Repeater Chairs Mike Fetto KB2FX
 Ken Pokigo KC2AYK
 Special Events Chairs Joe Claus KB2JDB
 Bob Koster KA2WYE
 Telstar Editor Matt Ovitt KD2UOE
 VE Team Liason Bob Koster KA2WYE
 Webmaster
 Field Day Chair Gerry Maira KA2MGE

GIZMOS, GADGETS AND WHAT-HAVE-YOU!?

LOOKING FOR SOMETHING? GOT SOMETHING TO SELL OR TRADE?
THAT'S WHAT YOU'LL FIND HERE!

FEEL FREE TO SUBMIT YOUR I.S.O. (IN SEARCH OF) OR WANTED TO
SELL AD TO THE TELSTAR AT:

TELSTAR@WB2ELW.COM

IN HOPES TO FIND OLDER LAPTOP (XP). MUST HAVE RJ45 JACK FOR NET
CABLE AND SERIAL (DB9) PORT... PLEASE CONTACT JOE IF YOU HAVE
SOMETHING - HE IS DESPERATE AND WILLING TO BARTER OR BUY IN A
SELLERS MARKET.

-JOE KB2JDB

HAVE MANY HP DESKTOP P.C. TOWERS, OPERATIONAL, CLEAN W/ FRESH
INSTALL OF WINDOWS 7 OR 10. MAKE FOR GREAT SHACK COMPUTERS,
SOME COULD USE RAM OR EXTRA HARD DRIVE. MANY ARE I5 OR I7.

ASKING \$30.00/EACH—OR TRADE FOR HAM GEAR.

-MATT KD2UOE

Kenwood TS-520 Transceiver (see full description below)

Asking \$300.00 or best offer.

Features:

- 80-10 meters, Noise Blanker, RF Attenuator
- 25 kHz Marker, RITWWV/JJY Receive
- Accurate Analog Dial 120 VAC Operation

The Kenwood TS-520 is designed for SSB and CW modes in the 80 through 10 meter ham bands. It also features receive of WWV at 10 MHz. The TS-520 features a very accurate linear analog display dial. Power input is 120W PEP SSB and 100W DC CW. (This transceiver does not have general coverage receive). The hybrid circuit includes three 6146A and two 12BY7A tubes plus 1 IC, 17 FETS, 45 transistors and 84 diodes. In working Condition, as is.

GIZMOS, GADGETS AND WHAT-HAVE-YOU!?

Gear from James Blosser KC2QG (SK)

Radio Shack TRC-495 Base Station Transceiver 40C
 Ham-Key
 MFJ Econo Keyer II MFJ-401C
 Qty 2 Audio & Video Selector VSW81
 MFJ-260C 300W Dry Dummy Load
 Radio Shack Stereo Speaker Selector
 Pyramid 13.8V Power supply 6A 8A Surge
 Mirage BD-35 144/440 Amplifier -- 45W on VHF, 35W on UHF
 ARRL Small Antennas for Small Spaces 2ED (Book)
 Arrl Operation Manual for Amateurs 11th edition
 The ARRL Handbook for radio communications Volumes 1-6 (2021)
 MFJ Deluxe Versa Tuner II
 Uniden Speaker BC7
 Tenway UV5R PRO
 Radio Shack 100 Channel Programmable Scanner 800MHz Hyperscan
 Radio Shack Pro 2066 150 channel Trunking Scanner
 GT-3TP Dual Band Handheld (Baofeng 8W)
 Ideaworks mini digital multiband receiver with alarm clock
 CCRANE shortwave reel antenna
 Cannon Battery Charger only for Cannon Battery
 Comet Duplexer CF-706
 World radio tv handbook (2020)
 ARRL Repeater Directory 2020
 Radio Shack DX-399 Portable SW Receiver

Gear listed here is to be offered to STARS members only for the time being

Interested parties are asked to contact Jon AA2CC (716)361-8757

- Jon AA2CC



GIZMOS, GADGETS AND WHAT-HAVE-YOU!?

(4) LINKSYS SPA941 VOIP PHONES W/ POWER ADAPTER
(READY TO USE WITH HAMSHACK HOTLINE) - \$20/EA

-MATT KD2UOE

Cushcraft #10-4CD 4 element 10 Meter yagi on a 16' boom (new-still in the box) \$175.00

Cushcraft #A503S 3 element 6 Meter yagi on a 6" boom (new -still in the box) \$130.00

Alliance #HD-73 heavy duty antenna rotator w/control box and length of control cable (like new) \$150.00

Midland #23-126 field strength indicator/standing wave bridge (vintage) \$15.00

Heathkit #GD-1B grid dip meter w/coils (vintage) \$15.00

Vibroplex keyer paddle (vintage) s/n 260796 \$20.00

Heathkit #DX-35 (vintage) 50 watt xtal controlled cw/am transmitter \$50.00

Drake #2-NT (vintage) 70 watt xtal controlled cw transmitter \$50.00

Bird #25-T-MN 25 watt RF load (new) \$20.00

Microwave Assoc. #44004 100 watt RF load (used) \$50.00

Antenna mount kit (chimney) up to 1-1/2" mast \$15.00

1 pr heavy duty galvanized mount brackets wall or pole to antenna mast \$20.00

1 pr heavy duty galvanized mount brackets pole to antenna mast \$30.00

1 pr heavy duty galvanized mount brackets telephone pole to antenna mast \$50.00

Anyone interested in any of the above can contact me by e-mail or telephone (WA2YSJ@roadrunner.com or 716-947-4974 there is an answering machine)