



The SKYHOOK



HOLIDAY CITY AMATEUR RADIO CLUB

www.hcarc.us

April 2020

Toms River, NJ

President's Message



I hope this message finds everyone well and practicing self quarantining. I know this is difficult but it, too, shall pass.

This is a good time to work in the shack, fixing up things, planning Spring antenna projects and getting on the air.

It is also a good time to catch up on advancements in the hobby and new technologies.

I am spending time listening to various podcasts on different aspects of the hobby.

I monitor the 449.825 repeater tone 131.8 most of the day, if anyone wants to talk.

I am sure everyone knows there will be no meeting next month.

Please stay safe and wash those hands.

73,
Carl
w2ptz

April Birthdays



Let's say "Happy Birthday" to:

George Icenhower WB2BNB

Bernie Klocko KC3GDY

Debra Klocko

Ruth Ann Liperti

Donna Perry

Grace Puccio

Nancy Roberts

Marjorie Stafiej

Get-Together Meetings Cancelled

Our informal Get-together group's April breakfasts and lunches have been cancelled.

License Exams In The Park

Larry Puccio K2QDY and his Volunteer Examiners are planning to have an exam session in the park, assuming the park will be open. Check with Larry if you're interested. See page 3 column 2.

HCARC CLUB MEETING NOTICE
Because of the Corona Virus situation, the April meeting has been cancelled. The "Get-Together" activities are also cancelled until further notice.
We can, of course, still communicate.

Ocean County ARES® News

– April, 2020

Tim – NJ2N, Paul – KB2RUV, Glen – KD2FFR and several other ARES operators have really been logging contacts with Parks on the Air (POTA), NVIS Testing and Boy Scout activities.



KD2FFR and KB2RUV, Barnegat High School, University of Scouting, March 7, 2020

It has become very apparent that the COVID-19 pandemic is going to interrupt amateur radio meetings and VE sessions for some time to come. No municipal support has been requested so far of Amateur Radio, but operators may be called upon to provide reports to MARS of the status of infrastructure. Now is a good time to ensure your gear is in good working order, should our services be needed. I would expect more participation on weekly nets with so many operators shut in.

One item, recently brought to my attention, is the Ocean County ARES Operating Frequency plan. Some operators are not too happy with the OCTACXX designations because they do not lend a clue to location in the county without a hard copy chart. One suggestion I can make is to save the pdf image off the Ocean County ARES website to your phone and save it under FILES or NOTES for reference.

<http://www.wa2res.com/ARES%20Operating%20Frequencies.pdf>

Another suggestion is to use the frequency in your

radio and not a tactical call sign. The tactical call sign provided as an aid to the operator, should they require it. If you only program the tactical number with no cross reference, you are essentially flying blind. The biggest advantage of amateur radio or municipal communications is that we can operate on any frequency within our license class. Municipal communications are limited to one or two frequencies assigned by the FCC. A final option is to just drop the tactical callsigns all together and let operators decide their own method. We tried to make things easier and just made it harder.

The frequency plan also lists two 2 meter simplex frequencies. The primary is 146.550 MHz and there is always a lot of traffic on this frequency for ARES purposes. The secondary of 145.555 is not in the voice band plan. Both these frequencies are to be evaluated and most likely replaced in the near future.

Additionally, there are no 70 cm simplex frequencies listed and they will be added along with 10 meter digital/voice frequencies, 40 meter digital/voice frequencies and 80 meter digital/voice frequencies.

73 de WX2NJ

Bob Murdock

Ocean County Amateur Radio Emergency Service® EC

Working DX

Working DX is a very good way for some hams to make contacts. I say some hams, as everyone does not like DXing, but rather they like to rag-chew with friends they have been in contact with for many years. Others enjoy net contacts. That's where a group of hams "get together" on a particular frequency at a specified time and also rag chew.

As for me, I enjoy the chase for the rare DX station. The ARRL provides certificates for many ham entities. If you work all the US states, you can get the Worked All

States certificate. If you work 100 DX contacts you will get the DXCC award. There are some hams that are on the list for working up to 300 countries.

If you are a DXer you need to practice listening. You need to know when that part of the world is open to where you are located. Propagation is a study of sun spots. Generally the higher the sun spot number is, the better chance you have to work the DX station. The ARRL, WWV, and many hams provide daily reports of sun spot activity.

There are many hams that provide real live DX information 24 hours a day. These are called Packet Cluster. In order to use Packet Cluster you'll need to download the PuTTY program. Once you download the PuTTY program, you then can install various programs that will print the live DX spots. K1TTT, K2LS and K3RL are just a few of the hams that provide packet cluster information. The cluster will operate 24 hours per day and provides up to the minute reports of DX contacts being made all over the world. You can filter these reports to only show contacts made in the US or from any specific geographical location.

Another aid in working DX are the many DX Beacons that are installed in many countries throughout the world. W6WY California, KH6RS Hawaii, YV5B Venesuela, LU4AA Argentina, OH2B Finland, JA2IGY Japan, VK6RBD Australia, and ZS6DN in South Africa, are but a few of the beacons you can tune in to determine if there is propagation to that part of the world from your location. By going on the internet and putting into your browser "International Beacon Project Transmission Schedule" you will find the listing of stations and frequencies of all the beacons throughout the world. Each beacon puts out a CW signal for 10 seconds on the frequency they are transmitting on at that time. The beacon sending at that time changes every 10 seconds from county to country.

I hope this brief discussion on working DX will stir your interest in this aspect of ham radio. We can discuss this at one of our club meetings.

Larry Puccio K2QDY

Our VE Crew

Larry [K2QDY](#) (Liaison) 732-349-2950,
Urb [W1UL](#), John [KQ4WR](#), Stan [KB2P](#), Steve [N2WLH](#),
Larry [WA2VLR](#), Tony [KD2GSO](#), Matt [K3MR](#)

License exams are given by appointment at 7:00pm on the second Wednesday of each month at Holiday City South Clubhouse, Bldg A, which is at the corner of Mule Rd. and Santiago Dr. Call Larry Puccio, K2QDY, at 732-349-2950 for an appointment.

Directions: From either Route 37 W or Davenport Road, take Mule Road to Santiago Drive. Clubhouse A is the building nearest the street corner.

CLUB COMMITTEES

Refreshments: Marge [KD2LNT](#) pearl1122@comcast.net
Webmaster: Steve [N2WLH](#) N2WLH@yahoo.com
Programs: (open)
Sunshine: Dave [WA2DJN](#) WA2DJN3@verizon.net
Field Day: Larry [K2QDY](#) 732-349-2950
VE Sessions: Larry [K2QDY](#) 732-349-2950
Membership: Doug [KC2TZC](#) 732-928-2316

Holiday City Amateur Radio Club

Toms River, New Jersey
Web Site www.hcarc.us

President	Carl Lee	W2PTZ	732 575-7558
Vice President	Billy Locke	KD2MHA	732 281-0151
Secretary	John Perry	KD2NDY	732-349-2705
Treasurer	Larry Puccio	K2QDY	732-349-2950
Executive Board	Doug Poray	KC2TZC	732-928-2316
Executive Board	John Roberts	KQ4WR	732-966 4665
W2HC Trustee	Larry Puccio	K2QDY	732-349-2950

Membership is open to all interested persons. Ham license is not required. Dues are \$25.00 per year; payable Jan 1st. Members joining during the year will have the dues prorated. Family membership \$30.00 per family.

Meetings are held on the first Thursday of every month, at 7:00 pm, except December.

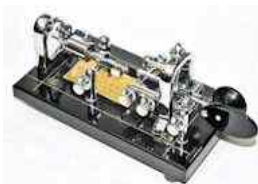
Location: Meeting Room #1 in Holiday City South Clubhouse A.

Directions: From either Route 37 W or Davenport Road, take Mule Road to Santiago Drive. Turn into the parking lot from Santiago Drive and park near the pool. Enter the building nearest the street corner.

The SKYHOOK is published monthly as the HCARC's official newsletter.
Editor and Publisher:

John Roberts [KQ4WR](#) 7 Lincoln Ct. Whiting, NJ 08759-1505
e-mail KQ4WR@arrl.net 732 966 4665

Larry, K2QDY Worked:



100th Anniversary Original Bug



Date	Time	Freq	Mode	Call Sign	Entity	Loc	Miles	Dir
3/1/2020	14:59	14.016	CW	S090PZK	Poland	K002mg	4307	NE
3/1/2020	15:03	14.019	CW	HA9FM	Hungary	JN97nm	4403	NE
3/1/2020	16:17	14.203	SSB	IW3IBK	Italy	JN55vd	4181	NE
3/1/2020	16:24	14.237	SSB	IK0ETA	Italy	JN62ks	4309	NE
3/1/2020	22:05	7.025	CW	EA3KE	Spain	JN00ir	3820	ENE
3/3/2020	21:11	10.108	CW	PJ4/K5KG	Bonaire	FK52vd	1958	SSE
3/7/2020	00:02	7.165	SSB	9A1A	Croatia	JN85ao	4345	NE
3/7/2020	00:09	7.187	SSB	DL6FBL	Germany	J031cq	3757	NE
3/7/2020	00:19	7.189	SSB	CR6T	Portugal	IM59wo	3427	ENE
3/7/2020	00:47	7.151	SSB	EA5Z	Spain	IM98qh	3830	ENE
3/7/2020	13:57	14.187	SSB	SN8K	Poland	K010bb	4426	NE
3/7/2020	14:00	14.175	SSB	YT1A	Serbia	KN03ir	4608	NE
3/7/2020	14:02	14.164	SSB	VP5M	Turks & Caicos Is.	FL41ct	1263	S
3/7/2020	14:10	14.182	SSB	IZ5EBL	Italy	JN53kt	4186	NE
3/7/2020	14:14	14.218	SSB	S50R	Slovenia	JN76fc	4262	NE
3/8/2020	17:46	14.201	SSB	OZ7X	Denmark	J056gh	3805	NE
3/8/2020	17:48	14.205	SSB	OM2VL	Slovak Republic	JN87tx	4327	NE
3/8/2020	17:50	14.215	SSB	DF2BO	Germany	J031aa	3768	NE
3/8/2020	17:52	14.221	SSB	F6KOP	France	JN18pn	3717	NE
3/8/2020	17:54	14.235	SSB	TM6M	France	IN78rj	3383	NE
3/8/2020	17:55	14.246	SSB	YT1A	Serbia	KN03ir	4608	NE
3/8/2020	17:55	14.247	SSB	M6T	England	J002rf	3554	NE
3/8/2020	17:57	14.253	SSB	ED3X	Spain	JN01ur	3837	ENE
3/8/2020	17:58	14.255	SSB	VP5M	Turks & Caicos Is.	FL41ct	1263	S
3/8/2020	17:59	14.258	SSB	EC7K	Spain	IN80dj	3619	ENE
3/8/2020	18:05	14.273	SSB	I0IJ	Italy	JN52wa	4290	ENE
3/8/2020	19:45	14.164	SSB	HA8JV	Hungary	KN06nq	4513	NE
3/8/2020	19:47	14.174	SSB	CT1EOD	Portugal	IM58jo	3400	ENE
3/8/2020	19:49	14.166	SSB	IA2EGL	Italy	JN62ma	4342	ENE
3/8/2020	19:50	14.162	SSB	404T	Montenegro	JN92gk	4566	NE
3/8/2020	22:47	14.174	SSB	PY2CP	Brazil	GG66pk	4736	SSE
3/8/2020	22:49	14.16	SSB	FY5FY	French Guiana	GJ34uv	2783	SE
3/8/2020	23:01	14.182	SSB	PY1VOY	Brazil	GG87ic	4781	SSE
3/8/2020	23:20	14.19	SSB	PY1ZV	Brazil	GG87ko	4754	SSE

A Single Pulse Into A Cable?

Many years ago, I wanted to see what happens to a single pulse in a coaxial cable.

I had some fine equipment available:

- a fast 50 ohm pulse generator,
- a 6.5 foot 50 ohm coaxial cable,
- a 50 ohm UHF dummy load, and
- a really fast oscilloscope.

First, I put a 50 ohm dummy load at the "far" end of a 6.5 foot 50 ohm cable, and sent a single one-volt 2 nanosecond pulse into the "near" end.

As expected, the pulse going in drew 20 milliamps, and it appeared 10 nanoseconds later at the dummy load, apparently unchanged. (It takes 10ns for a signal to travel 6.5 feet in the 50 ohm cable, which is why I had cables made that length).

For the second experiment, I disconnected the dummy load and did it again.

As before, the pulse going in drew 20 milliamps, and appeared at the "far" end 10 nanoseconds later.

In another 10 nanoseconds, it re-appeared at the "near" end, where it was absorbed by the pulse generator.

For the third experiment, I shorted the "far" end.

This time, the pulse entered the cable, drawing 20 milliamps as before, but appeared 20 nanoseconds later at the "near" end as a negative one-volt pulse, where it was absorbed by the pulse generator.

After thinking it over, I realized that at the start of each case, the cable had completely accepted the pulse as if it were a 50 ohm load, because it had no energy still in it.

In the first case, the voltage-to-current ratio was correct for the load to completely absorb it.

In the second case, no output current could flow, so the energy reflected back to the "near" end.

In the third case, there could be no voltage at the shorted end, so again the energy was reflected.

The DC part of the voltage at the "near" end had to be

zero, so the pulse was negative.

This principle, called Time Domain Reflectometry, is used to find the locations of opens and shorts in underground power lines, telephone cables, and even within PC boards.

-John Roberts KQ4WR

The 80 Meter Band Is Alive

A look at page 71 of QST showed me that April must be a good month to work the 80 meter band. A long wire antenna and a good RF ground, an antenna tuner and an HF transceiver, plus a mike or a key, are what you need. That and some patience, of course. The experts say "Listen, listen, listen".

Don't bother calling CQ. Hardly any DXer still needs to work Southern New Jersey for an award. But answering a CQ or getting in line in a pile-up can be rewarding.

On the other hand, you might have success working toward your Worked All States certificate, as there are several "QSO parties" in April.

But there are also lots of rag-chew opportunities also. If one sounds interesting, try calling a station that's just finishing a QSO.

Your first time on HF? Well, it should be fun. Most hams are very friendly, and patient, and will slow down for you if necessary. Every DXer remembers what his first HF contact was like.

Some DX Opportunities

Callsigns shown in alphanumeric order

Italics if over 6000 miles

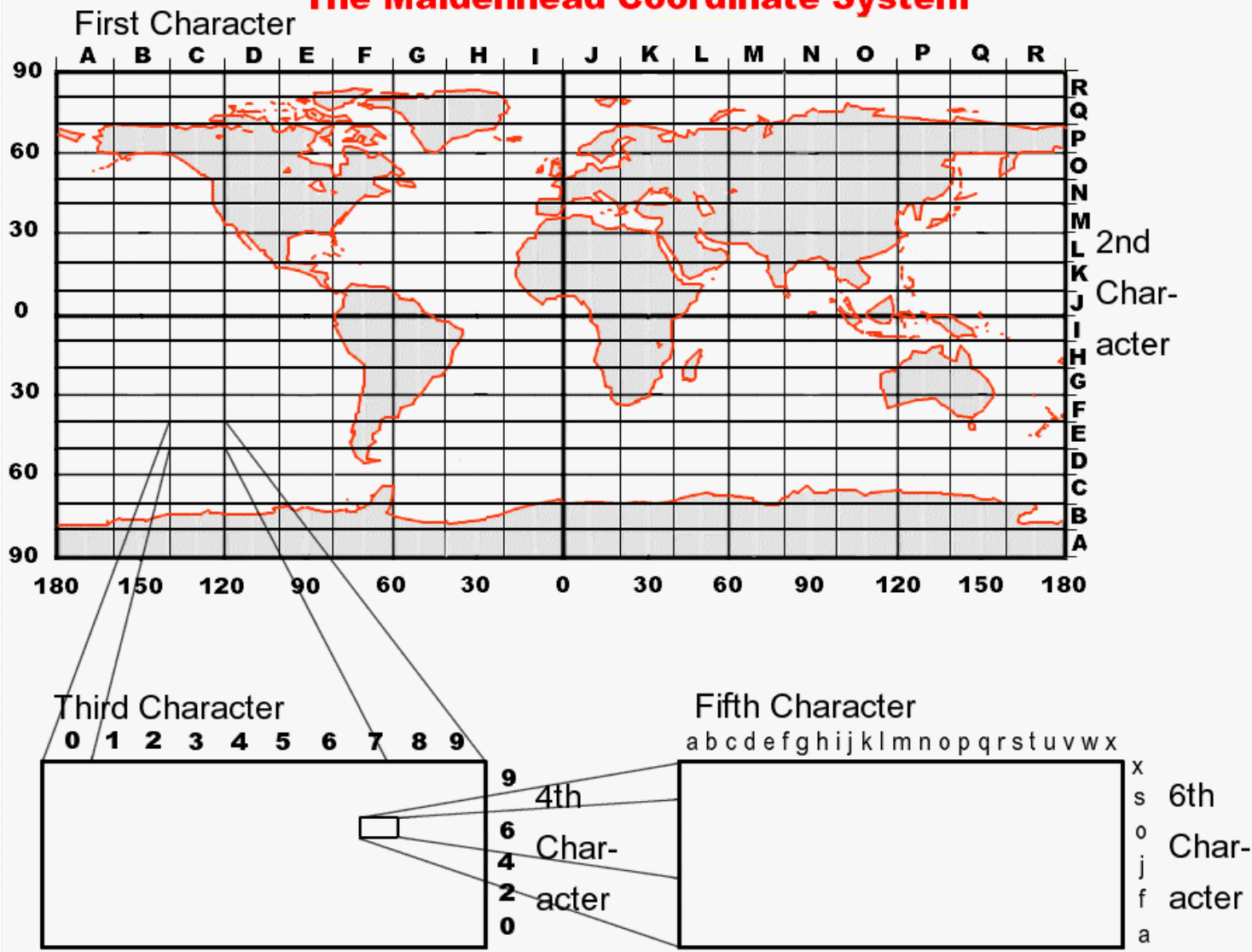
Mode codes: 8 = JT8, c = QRS CW, C = CW, D = Digital, J = JP4, P = PSK31, R = RTTY, S = SSB, T = SSTV.

Bands: "Low" usually means 160, 80 & 40m.

Many thanks to NG3K, Wikipedia, Google Maps, the ARRL, the RSGB, DXW, TDDX & QRZ.com for the data.

START	FINISH	ENTITY	CALLSIGN	IOTA	BANDS	MODES	QSL via	LOC	Miles	Dir	Info by
Mar 08	Apr 09	Barbados	8P6DR	NA-021	80-10m	C	LoTW	GF03fe	2055	SSE	TDDX
Mar 25	Apr 06	Bolivia	CP6/R7AL		160-10m	C S 8	LoTW	FH82ig	4050	SSE	DXNews
Mar 25	Apr 06	Bolivia	CP6/RK8A		160-10m	C S 8	LoTW	FH82ig	4050	SSE	DXNews
Mar 25	Apr 06	Bolivia	CP6/RW9JZ		160-10m	C S 8	LoTW	FH82ig	4050	SSE	DXNews
Mar 25	Apr 06	Bolivia	CP6/RZ3K		160-10m	C S 8	LoTW	FH82ig	4050	SSE	DXNews
Mar 06	Apr 01	Madeira	CT9/DL3KWF	AF-014	80-10m		eQSL	IM12mr	3174	E	DXNews
Mar 06	Apr 01	Madeira	CT9/DL3KWR	AF-014	80-10m		eQSL	IM12mr	3174	E	DXNews
Apr 17	Apr 25	<i>Philippines</i>	<i>DU2/SP5APW</i>	<i>OC-092</i>	<i>80-10m</i>	<i>S 8 4</i>	<i>LoTW</i>	<i>PK09rh</i>	<i>8223</i>	<i>NNW</i>	<i>425DXN</i>
Apr 10	Apr 13	Svalbard	JW/DC8TM	EU-026	80-10M	S 8	DC8TM Buro	JQ75tf	3566	NNE	DXW.Net

The Maidenhead Coordinate System



1950's Ham Radio Parts And Tools

If you built a lot of your own ham radio equipment in the 1950's, you probably used many of the following parts and tools available at "Radio Row" stores. (Some of those stores even had merchandise on the sidewalk. One had a barrel of tubes marked "GUARANTEED TO LIGHT".) Here's a partial list of what they sold, other than war surplus and complete radios:

Aerovox capacitors, Allen-Bradley potentiometers, Alpha Wire & cable, American Beauty Soldering Iron, Amphenol connectors, Atlas mike stands, Barker & Williamson coils, Belden wire & cable, Bliley crystals, Brush headphones, Bud (MiniBox & cabinets), Cannon connectors, Chicago Miniature Lamps, Cinch-Jones connectors, Centralab switches, Cornell Dubilier capacitors, Cutler-Hammer toggle switches, Dow Key RF relay, Electrovoice mikes, Erson Multicore solder, General Cement (glue, paint, etc), Greenlee hole punches, Hammerlund variable capacitors, IRC resistors, James Millen transmitter parts, EF Johnson connectors & low pass filter, Kester Solder, Klein and Krauter pliers and wire cutters, Littelfuse fuses and fuseholders, Micro Switch, JW Miller IF transformers, Mueller alligator clips, National Union tubes, Ohmite resistors, Par Metal cabinets, Peterson crystals, Philmore (test leads & small parts), Potter Brumfield relays, Quam speaker, RCA tubes, Sangamo capacitors, Simpson multi-meter, Shure microphone, HH Smith (solder lugs, etc), Sprague capacitors, Stancor transformers, Switchcraft, Thordarson and Triad transformers, Triplett meters, Turner mike, Ungar soldering iron, UTC transformers & audio filters, Walsco (nuts & bolts, etc), Weller soldering gun, Xcelite nut drivers.

Or, you may have built kits from companies like Heathkit, Eico, Meissner, or modified war surplus.

Sadly, the majority of those manufacturers are no longer in business, and New York's Radio Row was demolished to become the site of the World Trade Center.

A Hobby For The Blind

Back in the 1950's, I built all my own ham equipment. One day, the fellow ahead of me at the parts counter had a number of little envelopes labelled in Braille.

As he bought each part on his Braille parts list, he carefully placed it in the corresponding envelope to identify it.

I spoke with him briefly afterward, and found that he was also an amateur radio operator.

I think his last name was Gunderson, I don't remember his callsign.

He said he was building a field strength meter that gave readings he could hear.

He said he had the glass removed from the meter on his transmitter so he could feel the pointer. I was impressed that he could touch such a delicate thing without damaging it.

He said he had learned to solder by touch, which surprised me.

Many years later, I met another blind ham. He was the Treasurer of the Huntsville Alabama Amateur Radio Club, of which I was a member. He held that position for several years, and was still Treasurer when I left for New Jersey.

I wonder if his accounts were written in Braille.

There's an amateur radio group called Courage Kenny Handiham Program for people who have various disabilities.

The members are called Handihams.

See www.handiham.org for information.

April

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 HCARC Meeting cancelled	3	4
5 Palm Sunday	6 Get-Together cancelled	7	8 VE session in the park if it's open	9 Passover	10 Good Friday	11
12 Easter Sunday	13 Get-Together cancelled	14	15	16	17	18
19	20 Get-Together cancelled	21	22	23	24	25
26	27 Get-Together cancelled	28	29	30		