

The SKYHOOK



HOLIDAY CITY AMATEUR RADIO CLUB

www.hcarc.us

August 2023

Toms River, NJ

Our President's Message



Methods of supplying power to amateur radio equipment have taken many forms since the origination of the hobby. In the early days gigantic power supplies were required to supply hundreds of volts with a considerable amount of current to operate a ham radio station. Then the technology moved to using batteries, even though the batteries were heavy and required charging after a certain period of usage. Battery technology evolved to the point where the size was reduced, however, charging was still required. Science did not stand still and the power from the sun became another method of supplying power to charge the batteries in radio equipment. At the August meeting we will watch a video on the development of solar energy used to charge batteries.

Doug Poray, President, HCARC

Chinese Buffet August 16



Join our party for Wednesday noon lunch August 16th at the Fortune Buffet. Let us know you're coming, and we'll save a place for you.

Happy Birthday To:

- Larry Loscalzo WA2VLR
- John Perry KD2NDY
- James Punderson W2QO
- Christine Jackson



Happy Anniversaries To:

- James & Sarah Punderson
- Stan & Marjoie Stafiej



OUR NEXT "REGULAR" MEETING:

Thursday August 3rd at 7:00 PM
Holiday City South Clubhouse A
Santiago Drive at Mule Road
Toms River, NJ

Ocean County ARES® News



August 2023

The next meeting of Ocean County ARES will be **August 16 th at 7:00 PM at the Ocean County EOC**, Robert J. Miller Airport, Berkeley Township. All are invited. There will be no training nets that evening due to the meeting.

The following is a list of Wide or Narrow speed capable VARA FM equipment on 145.010 MHz in Southern New Jersey:

WX2NJ-10, RMS Winlink Gateway, Bayville - Ocean

WA2RES-4, VARA FM Digi/Portable Winlink Express, Location as deployed – Homebase Ocean

WA2RES-5, VARA FM Digi/Portable Winlink Express, Location as deployed – Homebase Ocean

WA2RES-15, VARA FM Digi, Berkeley - Ocean

WA2RES-14, VARA FM Digi, Barnegat - Ocean

AC2NJ-10, RMS Winlink Gateway, Egg Harbor Township, Canale Training Center - Atlantic

AC2NJ-15, VARA FM Digi, Egg Harbor Township, Canale Training Center - Atlantic

KC2QVT-10, RMS Winlink Gateway, Westampton - Burlington

NJ1SP-14, VARA FM Digi, Chatsworth - Burlington

NJ1SP-15, VARA FM Digi, Mt. Laurel – Burlington

All are operated 24/7 with the exception of WA2RES-4 and WA2RES-5, which are used for emergencies and drills.

The following is from the ARES Letter for July 19th, 2023:

ARRL Simulated Emergency Test Ahead: Montgomery County (PA) Prepares for Nuclear Drill.

Every 2 years, the Limerick Nuclear Generating Station (LGS) conducts a drill in coordination with the Montgomery County, Pennsylvania Department of Public Safety. The drill is evaluated by representatives from the Federal Emergency Management Agency (FEMA) and the Pennsylvania Emergency Management Agency (PEMA). Montgomery County activates its Emergency Operations Center (EOC) in Eagleville, Pennsylvania, as well as the 20 Municipal EOCs that lie within the LGS 10 Mile Radius Emergency Protection Zone (EPZ). Since the 1980s, Montgomery County ARES RACES (MCAR) has consistently deployed its operators to the County and Municipal EOCs and provided primary, confirming or *When All Else Fails* communications between the County and Municipal EOCs. The presence of an Amateur Radio operator in each EOC appears to be a “checklist” item for the FEMA and PEMA evaluators.

MCAR contemplates utilizing its AA3E 2-meter and 70-centimeter repeaters and with permission, the Pottstown Amateur Radio Club's 2-meter repeater for FM and digital modes, an evolving local MESH RF and tunnel network as well as HF voice communications. This year's Drill is scheduled to take place on September 26th and will serve as MCAR's Simulated Emergency Test (the ARRL SET).

At MCAR's July meeting, Emergency Coordinator (EC) Chuck Farrell, W3AFV, initiated the drill location assignment process and Assistant EC Rocky Pistilli, N3FKR, conducted a presentation reviewing Fldigi setup and operations. The meeting was conducted in person at the County EOC and via Zoom. Attendees updated and tested MCAR go-kits as well as their own laptops and handhelds. For more information about MCAR, visit AA3E.org.

-- Robert Alan Griffiths, NE3I, MCAR PIO

It's interesting to note that MCAR is using digital communications for nuclear exercises, specifically FLDIGI, which can be easily sent over conventional voice repeaters. This is definitely an improvement over using voice message handling especially in the case of confusing nuclear vocabulary. I don't know what the future will bring to the decommissioned Oyster Creek site, but if it is another nuclear generating station,

Amateur Radio will once again be involved for backup communications. There is a big push towards nuclear energy given the effects of climate change.

Congratulations to Glen, KD2FFR, for a fine ARRL article on Page 59 of the August 2023 QST.

The article is about Portable Operation at the Navesink Twin Lights during International Lighthouse and Lightship Weekend. A photo of the Twin Lights also made the cover photo for that issue of QST. Bravo Zulu, Glen!

73 de WX2NJ Bob Murdock

Ocean County Amateur Radio Emergency Service® EC

Ocean County ARES® Net Schedule

The 1st, 3rd* & 5th (if exists) Wednesdays of the month:

* There are no training nets on the third Wednesdays of even-numbered months, because of the ARES in-person or Zoom meetings.

7:30 PM Digital Training Net, 145.170 MHz
WA2RES/R, No Echolink.

8:30 PM ARES Voice Training Net, 449.825 MHz
WA2RES/R, Echolink WA2RES-R Toms River.

The 2nd & 4th Wednesdays of the month:

7:30 PM Digital Training Net, 449.825 MHz
WA2RES/R, Echolink WA2RES-R Toms River.

8:00 PM Second Wednesday of the month only, Ocean County Skywarn Training Net, 145.170 MHz,
WA2RES/R, No Echolink.

8:30 PM ARES Voice Training Net, 145.170 MHz
WA2RES/R, No Echolink.

The Repeaters:

The 449.825 MHz repeater has a PL of 131.8 Hz, -5 MHz shift (444.825 MHz).

The 145.170 MHz repeater has a PL of 131.8 Hz, -600 kHz shift (144.570 MHz).

Digital nets use FLDIGI/FLMSG(MT63-2KL) over the repeater or a designated simplex frequency and/or VARA FM Winlink on 145.010 MHz.

HCARC License Exam Sessions



If you know someone who wants to be a “ham”, or you want to upgrade your ham license, we can help.

See “Our Volunteer Examiner Crew” (below) for information.

Our Volunteer Examiner Crew

Larry [K2QDY](#) (Liaison) 732-349-2950,

John [KQ4WR](#), Stan [KB2PD](#),

Steve [N2WLH](#), Michael [WA2CWX](#)

*License exams are given by appointment at 7:00pm on the first Wednesday after each HCARC meeting 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.

Holiday City Amateur Radio Club

Toms River, New Jersey

Web Site www.hcArc.us

President	Doug Poray	KC2TZC	732-928-2316
Vice President	Steve Jackson	N2WLH	732-255-7916
Secretary	John Perry	KD2NDY	732-349-2705
Treasurer	Larry Puccio	K2QDY	732-349-2950
Executive Board	Carl Lee	W2PTZ	732-575-7558
Executive Board	John Roberts	KQ4WR	732-350-1162
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 at 7:00 pm on the first Thursday of every month except December.

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

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 Building A (the building nearest the street intersection).

Newsletter: The SKYHOOK is the HCARC's official newsletter, circulation about 75. Original articles and photos are appreciated. Editor is John Roberts, [KQ4WR](#), 732-350-1162.



Propagation

The sun emits electromagnetic radiation and matter as a consequence of the nuclear fusion process. Electromagnetic radiation at wavelengths of 100 to 1000 Angstroms (ultraviolet) ionizes the F region, radiation at 10 to 100 Angstroms (soft X-rays) ionizes the E region, and radiation at 1 to 10 Angstroms (hard X-rays) ionizes the D region. Solar matter (which includes charged particles--electrons and protons) is ejected from the sun on a regular basis, and this comprises the solar wind. On a "quiet" solar day the speed of this solar wind heading toward Earth averages about 400 km per second.

The sun's solar wind significantly impacts Earth's magnetic field. Instead of being a simple bar magnet, Earth's magnetic field is compressed by the solar wind on the side facing the sun and is stretched out on the side away from the sun (the magnetotail, which extends tens of earth radii downwind). While the sun's electromagnetic radiation can impact the entire ionosphere that is in daylight, charged particles ejected by the sun are guided into the ionosphere along magnetic field lines and thus can only impact high latitudes where the magnetic field lines go into the Earth.

Additionally, when electromagnetic radiation from the sun strips an electron off a neutral constituent in the atmosphere, the resulting electron can spiral along a magnetic field line (it spirals around the magnetic field line at the electron gyrofrequency). Thus Earth's magnetic field plays an important and critical role in propagation.

Variations in Earth's magnetic field are measured by magnetometers. There are two measurements readily available from magnetometer data--the daily A index

and the three-hour K index. The A index is an average of the eight 3-hour K indices, and uses a linear scale and goes from 0 (quiet) to 400 (severe storm). The K index uses a quasi-logarithmic scale (which essentially is a compressed version of the A index) and goes from 0 to 9 (with 0 being quiet and 9 being severe storm). Generally an A index at or below 15 or a K index at or below 3 is best for propagation.

Sunspots are areas on the sun associated with ultraviolet radiation. Thus they are tied to ionization of the F region. The daily sunspot number, when plotted over a month time frame, is very spiky. Averaging the daily sunspot numbers over a month results in the monthly average sunspot number, but it is also rather spiky when plotted. Thus a more averaged, or smoothed, measurement is needed to measure solar cycles. This is the smoothed sunspot number (SSN). The SSN is calculated using six months of data before and six months of data after the desired month, plus the data for the desired month. Because of this amount of smoothing, the official SSN is one-half year behind the current month. Unfortunately this amount of smoothing may mask any short-term unusual solar activity that may enhance propagation.

Sunspots come and go in an approximate 11-year cycle. The rise to maximum (4 to 5 years) is usually faster than the descent to minimum (6 to 7 years). At and near the maximum of a solar cycle, the increased number of sunspots causes more ultraviolet radiation to impinge on the atmosphere. This results in significantly more F region ionization, allowing the ionosphere to refract higher frequencies (15, 12, 10, and even 6 meters) back to Earth for DX contacts. At and near the minimum between solar cycles, the number of sunspots is so low that higher frequencies go through the ionosphere into space. Commensurate with solar minimum, though, is less absorption and a more stable ionosphere, resulting in the best propagation on the lower frequencies (160 and 80 meters). Thus, in general, high SSNs are best for high-frequency propagation, and low SSNs are best for low-frequency propagation.

[We thank the ARRL for this article from the ARRL website]

From The Shack Of W2PTZ



There is a very interesting interview with David Minter, the ARRL CEO conducted by W1DED on youtube. I found it very interesting.

If you are interested in contesting there are two interesting interviews again by W1DED:
The first is with Tim Duffy founder of DX Engineering on the WRTC Contest on its origins, structure and the hams that compete.

The second is with Randy Thompson K5ZD who with a partner competed in WRTC 23 in Bologna, Italy.

I hope the club members look at the QRZ web site on a regular basis. They always have interesting articles and everyday they have an interesting 10 question quiz.

And of course Youtube always has some interesting videos on ham radio. You just have to look out for the quality of the videos. Some are better at doing good presentations than others.

73,
Carl
W2PTZ

July 2023 VE Session Report

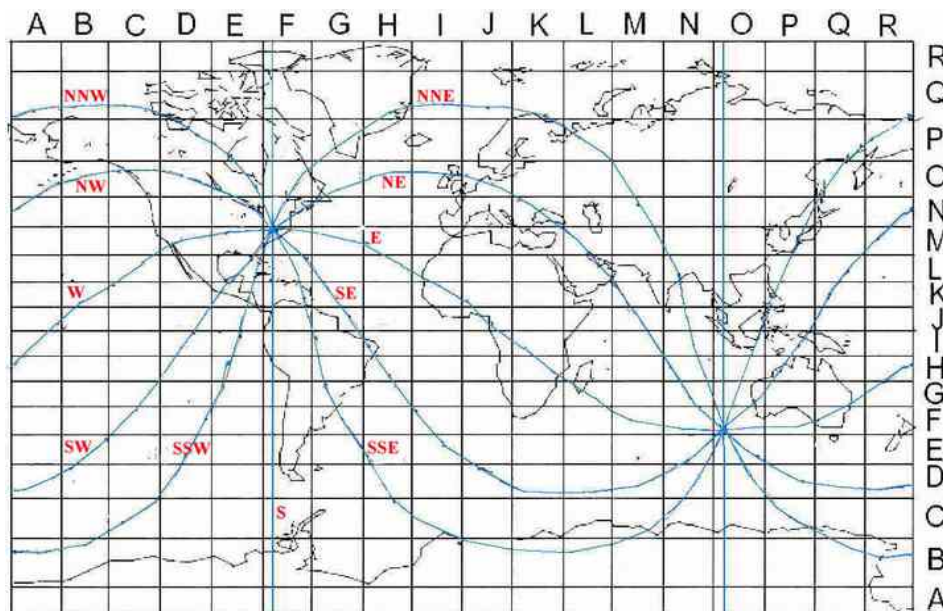


At our July 12th VE session we had two candidates. One took and passed the Technician grade test and indicated he would be back to take the General class test. The second candidate had a General class license and took the Extra class test but did not pass.

The VEs in attendance were John Roberts, Steve Jackson, Michael Larkins, Kevin Wagner and Larry Puccio.

Our next VE session is scheduled for Wednesday, August 9th in the Holiday City South Clubhouse, Building A, Conference room 1 6:30 - 7:00 PM. Call Larry for an appointment (required). See page 3 for details.

Larry Puccio K2QDY Worked:



DATE	TIME	F(MHz)	MODE	CALLSIGN	ENTITY	LOC
Jul22	17:21	21.028	CW	NP4Z	Puerto Rico	FK68xg 1577 SSE
Jul09	17:47	21.017	CW	IK3VUT	Italy	JN65fs 4189 NE
Jul09	17:29	28.030	CW	9Q1AA	Congo, Dem Rep of	JJ175pp 6391 E
Jul09	03:13	14.009	CW	OE0HQ	Austria	JN67xi 4200 NE
Jul09	03:09	14.008	CW	TM0HQ	France	JN18eu 3671 NE
Jul09	03:04	14.048	CW	HK9HQ	Colombia	??
Jul09	00:56	14.048	CW	SK9HQ	Sweden	J099bh 3981 NE
Jul09	00:51	14.043	CW	PX2A	Brazil	GG66se 4758 SSE
Jul09	00:50	14.043	CW	Z30HQ	Macedonia	KN02qa 4703 NE
Jul09	00:47	14.015	CW	HB9TOC	Switzerland	JN46vv 4040 NE
Jul09	00:38	14.033	CW	DJ4MK	Germany, FedRep of	JN59mn 4011 NE
Jul09	00:34	14.033	CW	I43K	Italy	JN62ks 4309 NE
Jul09	00:32	14.015	CW	HA5JI	Hungary	JN96sk 4459 NE
Jul09	00:10	14.022	CW	I50HQ	Italy	??
Jul08	17:55	21.009	CW	YT3D	Serbia	KN04ev 4550 NE
Jul08	17:52	21.015	CW	9A0HQ	Croatia	JN85et 4352 NE
Jul08	17:48	21.021	CW	I47C	Italy	JN62ks 4309 NE
Jul08	17:39	21.001	CW	YT3D	Serbia	KN04ev 4550 NE
Jul08	17:32	14.041	CW	I42A	Italy	JN62ks 4309 NE
Jul08	17:27	14.001	CW	I42M	Italy	JN62ks 4309 NE
Jul08	17:23	14.017	CW	RN3BL	Russia, European	K085vr 4726 NE
Jul07	18:47	14.042	CW	K2M	<u>13 Colonies PA</u>	FN22bc 0171 NNW
Jul05	22:10	14.005	CW	TC100TC	Turkey	KM69kw 5265 NE
Jul01	16:58	21.027	CW	VE1RAC	Canada	FN84fp 0635 NE
Jul01	16:50	14.034	CW	CJ9RR	Canada	??
Jul01	16:44	14.027	CW	CK3KG	Canada	FN24av 0352 NNW
Jun21	02:26	14.021	CW	HA8WZ	Hungary	KN06mq 4510 NE
Jun21	02:17	14.021	CW	LZ3XT	Bulgaria	KN22oc 4860 NE

Some DX Opportunities

Callsigns shown in alphanumeric order

Italics if DX > 6000mi

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

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

Many thanks to Bill Feidt NG3K for ADXO. Also to Wikipedia, Google Maps, the ARRL, the RSGB, DX World, The Daily DX & QRZ.com for the data.

START	FINISH	ENTITY & Ranking	PFX	CALLSIGN	IOTA	BANDS	MODES	QSL via	LOC	MILES	DIR	INFO by
2023 Jul26	2023 Aug02	SVO Malta	1A0	1A0C				EA5RM	JN61fv	4321	ENE	TDDX
	2023 Aug15	Equatorial Guinea	3C	3C3CA	AF-010	80-6m	8	TA30M	JJ43ir	5683	E	DXW.Net
2023 Aug20	2023 Sep09	Congo, Dem Rep of	9Q	9Q2WX		80-10m	C S D	IZ8CCW	JJ75pq?	6389	E	DXW.Net
	2023 Sep30	United Arab Em.	A6	A65CW		80-6m	C 8	LoTW DL2RMC	LL74uc	6967	NE	DXNews
2022 Decem	2023 Dec15	Antarctica	AT4	AT42I				VU2CRS	<i>JB52uf</i>	8852	SSE	DXNews
	2032 Dec31	Taiwan	BV	BM0QSO	AS-020	80-10m	8 d	BM2JCC	PL04nf	7897	NNW	QRZ.com
2023 Jul16	2023 Aug16	Morocco	CN	CN2DX		40-6m	S C	F5LRL (B/d)	IM64qf	3660	ENE	TDDX
2022 Jan01	2023 Sep30	Germany	DA	DR45HAAN				DL7DT	J040ic	3901	NE	ARLD039
2023 Aug06	2023 Aug08	St Barthelemy	FJ	FJ/FG80J		10-6m		FG80J	FK87nv	1670	SSE	TDDX
	2023 Aug15	St Barthelemy	FJ	FJ4WEB	NA-146	40-10m	S	K2LIO	FK87ov	1672	SSE	ARLD002
	2023 Oct25	French Polynesia	FO	FO/F6BCW	OC-067	40-6m	C S	F6EXV	BH43mg	6286	WSW	ARLD020
2023 Aug11	2023 Aug16	St Martin	FS	FS/FG80J	NA-102	10-6m		FG80J	FK881c	1652	SSE	TDDX
	2023 Dec31	Wallis & Fortuna	FW	FW1JG	OC-054			LoTW F4CIX	AH16vq	7439	W	ARLD003
2023 Jul17	2023 Aug16	South Korea	HL	HL4/PB1WL				PN1WL	PM35hr	7045	NNW	ARLD029
2023 Jul20	2023 Oct17	Minami Torishima	JD1	JG8NQJ/JD1	OC-073	17-10m	C 8	LoTW	QL64xg	7026	NW	ARLD029
2023 Aug19	2023 Aug22	Bermuda	VP9	K5BLS/VP9		20-17m	S	K5BLS Direct	FM72nh	743	SE	TDDX
2023 Aug31	2023 Sep14	Mariana Is	KH0	KH0/DL2AH	OC-086	80-6m	S 8	LoTW	QK25vf	7841	NW	DL2AH
	2023 Dec31	Luxembourg	LX	LX90RTL		80-10m+sat	C S D	LoTW	JN29vw	3786	NE	ARLD026
	2023 Dec31	Czech Republic	OK	OL300SANTINI				per opr instr	FA20tb	8980	S	ARLD029
2023 Aug07	2023 Aug09	Faroe Is	OY	OY/PF3X	EU-018	160-6m	S D	LoTW	IP62pb	3125	NE	TDDX
2023 Jul17	2023 Aug11	Bonaire	PJ4	PJ4/PD2V	SA-006	40 & 20m	S 8	LoTW	FK52uc	1960	SSE	ARLD029
2023 Aug08	2023 Aug11	Saba & St. Eust.	PJ6	PJ6/FG80J		10-6m		FG80J	FK87cm	1672	SSE	TDDX
	2024 March	Antarctica	*RN*	RN10N	AN-016		C S D	RI1ANC	<i>OB31km</i>	9782	S	ARLD052
	2023 Dec31	Turkey	TC	TC100TA				borough	KM69kv	5267	NE	ARLD003
	2023 Dec31	Turkey	TC	TC100TC				borough	KM69kw	5265	NE	ARLD003
	2023 Dec31	Turkey	TC	TC100TR				borough	KM69kv	5267	NE	ARLD003
	2023 Dec31	Turkey	TC	TC100YEAR				borough	KM69kv	5267	NE	ARLD003
2023 Aug11	2023 Aug25	Iceland	TF	TF/PF3X		160-6m	S D	LoTW	IP14ej	2794	NE	TDDX
2023 Jul27	2023 Aug17	Iceland	TF	TF/SP7VC	EU-021	20,6&2m		LoTW	IP15mu	2830	NNE	DXW.Net
2023 Jul27	2023 Aug17	Iceland	TF	TF/SQ7OYL	EU-021	20,6&2m		LoTW	IP15mu	2830	NNE	DXW.Net
2023 Jul23	2023 Aug04	Guatemala	TG4	TG4/KT8X		40-6m	C 8 s	LoTW	EK45ka	2003	SW	KT8X
	2023 Aug12	Gabon	TR	TR8CR		80-10m	C	F6AJA	JJ40rj	5871	E	ARLD023
2023 Aug28	2023 Sep12	St Kitts	V4	V47JA	NA-104	160-6m	8 S	dir or LoTW	FK87pg	1714	SSE	ARLD027
	2025?	Brunei	V8	V85NPV	OC-088		C	LoTW	<i>OJ74fi</i>	9331	NNW	F5NPV
	2023 Dec31	Australia	VK	VK100ZL				borough	<i>QF21ev</i>	10382	W	ARLD016
2023 Jul31	2023 Aug14	Turks & Caicos	VP5	VP5/KISUBT	NA-002	40-2m	S 8	KISUBT	FL41ct	1263	S	TDDX
2023 Jul31	2023 Aug14	Turks & Caicos	VP5	VP5/N5VOF	NA-002	40-2m	S 8	N5DVF	FL41ct	1263	S	TDDX
	2023 Sep30	Myanmar (Burma)	XZ	XZ2B		15-6m	C	JH3SIF	<i>NK86bu</i>	8467	N	ARLD029
	2023 Dec31	Indonesia	YB	YB8QT	OC-210	80-10m	D S	IK2DUW	<i>PJ21ib</i>	9366	NNW	ARLD048
	2023 Dec31	Servia	YU	YU75SRV				oper instr	KN05cj	4525	NE	ARLD041
2022 Decem	2023 Dec15	Albania	ZA	ZA15K		40, 20m		oper instr	JN90sr	4675	NE	ARLD050

August						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 7:30pmARES digi net 145.170MHz; 8:30pmARES voice net 449.825MHz	3 7pm HCARC MEETING See page 3	4	5 N Amer CW QSO Party (2 days)
6 N Amer CW QSO Party continues	7	8 VE SESSION tomorrow by appointment See page 3	9 7:30pmARES digi net 449.825MHz; 8:30pmARES voice net 145.870MHz	10	11	12 MD & DC QSO Party (2 days)
13 MD & DC QSO Party continues	14	15 Chinese Buffet Noon Tomorrow see page 1	16 7:00 ARES MEETING at Ocean County OES	17	18	19 N Amer SSB QSO Party (2 days)
20 N Amer SSB QSO Party continues	21	22	23 7:30pmARES digi net 449.825MHz; 8:30pmARES voice net 145.870MHz	24	25	26 HI, KS, OH, & Islands QSO Parties (2 days)
27 HI, KS, OH, & Islands QSO Partys continue	28	29 HCARC Board Mtg Tomorrow	30 7:30pmARES digi net 449.825MHz; 8:30pmARES voice net 145.870MHz	31		

August QSO Parties

We Thank The Following For Our News

A QSO Party is a friendly way to work the HF Bands and achieve a Worked All States certificate. In August there are:

Doug Poray KC2TZC, Bob Murdock WX2NJ, Larry Puccio K2QDY, John Perry KD2NDY, Carl Lee W2PTZ, Steve Jackson N2WLH, Bill Feidt NG3K, and the ARRL.

North American QSO Party

see ncjweb.com/NAQP-Rules

Maryland-DC

see w3vpr.org/mdcqsop

Hawaii

see hawaiiqsoparty.org

Kansas

see ksqsoparty.org

Ohio

see www.ohqp.org

US Islands

see usislands.org

See August issue of QST Page 72 for details.