

The SKYHOOK



HOLIDAY CITY AMATEUR RADIO CLUB

www.hcarc.us

January 2025

Toms River, NJ

Our President's Message



Well, it has finally arrived, 2025! A great time to make resolutions (and break them). So, we don't fall into the "make and break" syndrome, let us concentrate on only focusing on a few of our good intentions. One way to do this is to pare down the number of resolutions in the first place. A short list of resolutions is certainly an easier list to complete than our usual extended wish list. With the modified list in hand, prioritization becomes easier. And believe it or not satisfaction is obtained at the completion of each individual resolution.

My objective is to focus on the resolutions relating to our amateur radio hobby. There are so many facets to this past time, one can be buried with trying to delve into too many interests. Select a few of the interests from the many and concentrate on the ones which will give you the most satisfaction. A good method

of completing the resolutions you choose is to set deadlines for the conclusion of each resolution. Some examples might be to make one QSO daily for one month, construct a simple antenna and test it, learn about radio beacons, and familiarize yourself with the art of contesting. The list can go on and on.

At our February meeting our presentation will feature a speaker who has worked in the circus. He will share many of the good times and maybe some of the bad ones he has experienced on this journey.

I hope to see everyone at the Holiday Party and until then:

HAPPY NEW YEAR!

Doug Poray KC2TZC

JANUARY MEETING NOTICE

The regular January HCARC meeting has been cancelled, but the HCARC Holiday Party that was normally in December is now scheduled for Noon on January 2. Reservations via Larry Puccio are needed.

OUR NEXT REGULAR MEETING:
Thursday February 6th
at 7:00 PM
Holiday City South Clubhouse A
Santiago Drive at Mule Road

Ocean County ARES® News

On December 18th Ocean County ARES conducted the last meeting of 2024 and the annual Holiday Party. WX2NJ gave a presentation on the Linux operating system installed on two VARA FM go-boxes and demonstrated on how easy it is to use Linux.

Jim, W2YG, is working on a document to proceduralize the installation of Linux and I anticipate it will be released by the end of January 2025.



Also at the meeting, Tom – N2XW presented WB2ALJ with an ARRL award for outstanding performance as Section Emergency Coordinator (SEC) for SNJ. Both N2XW and WB2ALJ are vacating their ARRL positions as SM and SEC the end of December 2024.



As part of the holiday party, Ocean County ARES had a cake made up for N2XW and WB2ALJ thanking them for their dedication to service in SNJ ARES.

Go-Box Expo 2025

Saturday, January 11, 2025. Go Box Expo in Monmouth County at the Tinton Falls Red Cross Headquarters.

Bring and display your favorite Go Box setup for ARES or just show up to observe all the displays. 2:30 to 4:30 PM.

American Red Cross

1540 West Park Ave.

Ocean Township, NJ 07712

Ocean County ARES will have a dedicated table at the expo if you want to demo any setup(s).

There will be no Ocean County ARES training nets on January 1.

Wishing everyone a Happy and Joyous Holiday Season and a prosperous New Year!

73 de WX2NJ

Bob Murdock

Ocean County Amateur Radio Emergency Service® EC

Ocean County ARES Training Nets And Meetings

Training Nets are suspended during emergencies and disaster relief efforts

Net Schedule A: 1st, 3rd, and 5th (if needed) Wednesday every month except during meetings (see "Meetings", below):

7:30pm 145.170 MHz, 8:30pm 449.825MHz

Net Schedule B: 2nd and 4th Wednesday of every month:

7:30pm 449.825 MHz, 8:30pm 145.170 MHz

Meetings:

7:00 am on 3rd Wednesdays of even-numbered months (Feb, Apr, Jun, Aug, Oct, & Dec).

Our Volunteer Examiner Crew

Larry [K2QDY](#) (Liaison) 732-349-2950,
John [KQ4WR](#), Steve [N2WLH](#), Michael [WA2CWX](#),
Larry [WA2VLR](#), Ed [WB2QWC](#)

*License exams are given by appointment at 6:45pm 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
Program Chair	Carl Lee	W2PTZ	732-575-7558
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, 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
<mailto:johnkq4wr@gmail.com>

A RADIO ENGINEER'S ALPHABET

“ **A** ” is for **ampere** the **unit** of electrical **current** Each “amp” represents a flow rate of about 6,241,510 electrons per picosecond. See “I”.

“ **Bd** ” is for **bauds**, a **unit** of **data rate**, in changes per second. It is the reciprocal of the duration (in seconds) of the shortest bit. It is not the same as bit rate or byte rate. Perfect Morse code at 12 words per minute is 10 Bd.

“ **C** ” is the **math symbol** for **capacitance**, the "size" of

a capacitor. Capacitors store electrons. The current drawn by a capacitor as it charges or discharges tends to resist changes in voltage. The unit of capacitance is the farad.

“**dB**” is for **decibel, a logarithmic unit of ratio**. Every 10 dB multiplies the power level by 10, and every 3 dB doubles the power level. So 36 dB is a power gain of $10 \times 10 \times 10 \times 2 \times 2 = 4000$. Each S-unit on an S-meter equals 6dB.

“**E**” is the **math symbol** for the electromotive force (EMF), commonly called **voltage**, that causes current to flow. Positive voltage attracts electrons, negative voltage repels them. Although current is measured at a single point in the circuit, voltage is measured as the difference between two points. For DC, $E = I \times R$ For AC & RF, $E = I \times Z$.

When used as part of a number, “E” means “times ten to the”, so 14.217E6 Hz is the same as 14.217 MHz. Likewise, 25E-3 A means 25 mA.

“**F**” is for **farad, the unit of capacitance**. It's the amount of current needed to change the voltage across the capacitor at the rate of one volt per second. Therefore, for a sine wave, the AC voltage wave lags the AC current by a quarter cycle (90 degrees). The peak current equals the capacitance times the peak rate of voltage change.

“**f**” is **math symbol for frequency, the number of cycles per second**. Frequency in MHz = 300 divided by the wavelength in meters. $f(\text{MHz}) = 300 / \lambda(\text{m})$

“**G**” is for **giga, the metric prefix for billion**. 1 GHz = 1000 MHz. See appendix about metric system units and multiplier prefixes.

“**H**” is for **henry, the unit of inductance, the electrical "size" of a coil**. It's the amount of voltage (across the coil) resulting from a rate of change of one ampere per second. Therefore, for a sine wave, the AC current wave lags the voltage wave by a quarter cycle (90 degrees). The peak voltage equals the inductance times the peak rate of current change.

“**Hz**” is for **hertz, the unit of frequency, in cycles per**

second. 1 MHz = 1000kHz. On antique equipment, you'll see “KC” and “MC” instead of “kHz” and “MHz”.

“**I**” is the **math symbol** for the amount of electrical **current, in amperes**.

“**j**” is the **math symbol** that marks the **quadrature** part of a complex number. Impedance, for example, is a complex quantity, representing both resistance and reactance. $Z = R + jX$.

“**k**” is for **kilo, the metric prefix for thousand**. For example, 2 kV = 2000 V.

“**K**” was formerly used to mean thousand, or thousand ohms.

“**L**” is the **math symbol for inductance**. That's the "size" of an inductor, such as a coil, in henrys. The voltage across an inductance tends to smooth out the current by responding to the rate of change of current.

“**λ**” (lambda, Greek lower case "L") is the **math symbol for wavelength**. That's the distance a signal travels in one cycle.

“**M**” is for **meg or mega, the metric prefix for a million**. 7 MHz means 7,000,000 Hz

“**MMF**” was used to mean “micromicrofarads” until “picofarads” became standard.

“**m**” is for **meters, the metric unit of distance**. Wavelength in meters, equals 300 divided by the frequency in megahertz. (299.792458 be exact)

“**m**” is also for **milli, the metric prefix for thousandths**, so 25.4mm = 0.0254m.

μ (lower case Greek for "m") stands for **micro, the metric prefix for millionths**. So 1,000,000 microfarads = 1 F.

“**n**” is the **abbreviation for "nano", the metric prefix for billionths**. 5 nF equals 0.005 microfarads.

“**W**” (Greek capital Omega) is for **ohms. It's the unit of resistance, of reactance, and of impedance**. The Symbol type font has this symbol for capital “W”.

“ **P** ” is the **math symbol** for **power**, in watts.

“ **PEP** ” means **Peak Envelope Power**. When using AM or SSB, for example, the RF power level is not steady. The PEP is the **RF power of the greatest RF cycles**. The term "Envelope" comes from the outline of the oscilloscope display.

“ **p** ” is the **abbreviation** for **pico**, the metric **prefix** for **trillionths**, so 1,000,000 pF = 1 mF.

“ **Q** ” is for **quality factor**, the ratio of the energy resonating in a tuned circuit to the energy lost per cycle. The Q of an inductor equals the reactance divided by its effective series resistance. It is therefore defines the sharpness of a resonant peak. It is equal to the ratio of resonant frequency to the "3 dB bandwidth".

“ **R** ” is the **math symbol** for **resistance**. It is the amount of voltage that's in phase with the current, divided by the current.

“ **S** ” is for **Siemens**, the **unit** of **admittance**. One Siemens equals one ampere per volt. On old tube spec sheets, you'll find “micromhos” instead of “mS”. See Y.

“ **SWR** ” is for **Standing Wave Ratio**, an indication of the impedance mismatch of a transmission line or filter. A perfect SWR of 1.0 does not indicate an efficient line or load, as even a dummy load can have a perfect SWR). High SWR reduces the amount of signal obtainable from a limited amount of RF voltage or RF current.

“ **t** ” is the **math symbol** for **time**, in **seconds**.

“ **t** ” (the lower case Greek letter tau) is the **math symbol** for **Time Constant**. That's the how long it takes to charge or discharge a capacitor (through a resistor) by 63.2 percent.

$t = R \text{ times } C$. Seconds equals ohms times farads, equals megohms times microfarads.

“ **UHF** ” is for “Ultra High Frequency”, specifically **300 MHz to 3000 MHz**.

“ **VHF** ” is for “Very High Frequency”, specifically **30 MHz to 300 MHz**

“ **V** ” is for **volt**, the **unit** of electromotive force. A force of one volt is needed for a flow of one ampere through a resistance of one ohm. See E.

“ **W** ” is for **watt**, the **unit** of **power**. Power in watts equals:

Joules of energy per second

DC volts times DC amperes

AC volts times AC amperes times the cosine of the phase angle between voltage and current (assuming sine wave)

Amperes, squared, times ohms of resistance

Volts, squared, divided by ohms of resistance

“ **X** ” is the **math symbol** for **reactance**. Reactance is the ratio of the voltage that's 90 degrees out of phase with the current, divided by the current. For an inductor, the reactance equals $2 \pi f L$. For a capacitor, $X = -1$ divided by the product of $2 \pi f C$. Because X of a capacitor is negative, the X values of the inductor and capacitor cancel each other at resonance.

“ **Y** ” is the **math symbol** for **admittance**, the reciprocal of impedance. Admittance is easier to calculate than impedance when several components are connected in parallel. You just add. The unit of admittance, like conductance, is the Siemens (not Siemen or mho).

“ **Z** ” is the **math symbol** for **impedance**. Impedance is the sum of resistance and reactance, but because they are 90 degrees apart, the resulting amount is the square root of the sum of the squares.

Mike Larkins WA2CWX Worked:

Band	Call	Country	Date	/	Time	Frequency	ITUz	Mode	IOTA	LOC	Miles	Dir
10	6Y1A	Jamaica	2024/12/15		20:41	28.307	11	SSB	NA-097	FK08xk	1503	S
10	ZW5B	Brazil	2024/12/15		20:40	28.304	15	SSB		GG54kl	4801	SSE
10	KP3V	Puerto Rico	2024/12/15		20:32	28.572	11	SSB	NA-099	FK78di	1576	SSE
10	LP1H	Argentina	2024/12/15		20:30	28.567	14	SSB		FF88ag	4993	S
10	EA1SA	Spain	2024/12/15		16:02	28.575	37	SSB		IN83fk	3541	ENE
10	S50K	Slovenia	2024/12/15		15:57	28.567	28	SSB		JN75cw	4252	NE
10	HK3C	Colombia	2024/12/15		15:51	28.456	12	SSB		FJ24wq	2435	S
10	MM2N	Scotland	2024/12/15		15:41	28.502	27	SSB		I075ws	3269	NE
10	F4EGZ	France	2024/12/15		15:40	28.505	27	SSB		JN15ms	3777	ENE
10	HK1T	Colombia	2024/12/15		15:38	28.547	12	SSB		FK21oa	1998	S
10	OP2A	Belgium	2024/12/15		15:11	28.355	27	SSB		JO20gx	3704	NE
10	DK5DQ	Germany	2024/12/15		15:10	28.33	28	SSB		JO31qh	3809	NE
10	ED5I	Spain	2024/12/15		15:08	28.323	37	SSB		IM98pb	3829	ENE
10	9A5X	Croatia	2024/12/15		15:05	28.378	28	SSB		JN86di	4324	NE
10	II3F	Italy	2024/12/15		15:03	28.477	28	SSB		JN65rw	4221	NE
10	EF8R	Canary Is.	2024/12/15		15:02	28.46	36	SSB	AF-004	IL28hc	3404	E
10	TM1C	France	2024/12/15		15:00	28.435	27	SSB		NA80rc	8980	S
10	SN2M	Poland	2024/12/15		14:57	28.413	28	SSB		JO92pr	4223	NE
10	SJ8R	Sweden	2024/12/15		14:57	28.384	18	SSB		JO99bh	3976	NE
10	IP8A	Italy	2024/12/15		14:54	28.352	28	SSB		unlisted		
10	F4GGQ	France	2024/12/15		14:53	28.375	27	SSB		IN77sx	3392	NE
10	EI7M	Ireland	2024/12/15		14:52	28.348	27	SSB	EU-115	IO51uv	3157	NE

Larry Puccio K2QDY Worked:

DATE	TIME	FREQ	MODE	CALLSIGN	ENTITY	LOC	Miles	Dir
12/15	13:47	28.378	SSB	EE7P	Spain	IN80dj	3615	ENE
12/15	13:45	28.373	SSB	9A1P	Croatia	JN65vg	4257	NE
12/15	13:44	28.370	SSB	HB9FAP	Switzerland	JN47ph	4002	NE
12/15	13:42	28.360	SSB	OP2A	Belgium	JO20gx	3704	NE
12/15	13:42	28.360	SSB	DF8XC	Germany	JO41ft	3839	NE
12/14	18:50	28.410	SSB	PP1WW	Brazil	GG99up	4703	SE
12/14	18:47	28.402	SSB	F4GGQ	France	IN77sx	3392	NE
12/14	18:46	28.392	SSB	CS5ARC	Portugal	IN50se	3391	ENE
12/14	18:36	28.338	SSB	VP2VMM	Br Virgin Is	FK78tr	1579	SSE
12/14	18:33	28.333	SSB	PW2E	Brazil	GH49eq	3761	SSE
12/14	18:31	28.325	SSB	PU2WDX	Brazil	GG67mb	4685	SSE
12/14	18:29	28.315	SSB	N6MJ	CA USA	DM13av	2424	W
12/14	18:28	28.330	SSB	PY2E	Brazil	not found		
12/14	18:23	28.394	SSB	PY2CX	Brazil	GG66qm	4727	SSE
10/26	23:19	28.394	SSB	6Y1V	Jamaica	FK08xk	1503	S
10/26	23:15	28.385	SSB	LU7YZ	Argentina	FF51wc	5458	S
10/26	23:06	28.364	SSB	J62K	St. Lucia	FK93lu	1972	SSE
10/26	16:54	28.356	SSB	DO6MRC	Germany	JN39xe	3891	NE
10/26	16:51	28.354	SSB	LZ3ZZ	Bulgaria	KN22qp	4838	NE
10/26	16:50	28.375	SSB	ED5D	Spain	JM08bu	3845	ENE
10/26	16:48	28.352	SSB	EA2W	Spain	IN83xh	3614	ENE
10/26	16:41	28.340	SSB	OL9Z	Czech Rep.	JN99gu	4292	NE
10/26	16:11	28.340	SSB	IV3JVJ	Italy	JN66ha	4183	NE
10/26	16:09	28.336	SSB	DR0W	Germany	JN47vn	4015	NE
10/26	16:07	28.327	SSB	DQ55DIG	Germany	JN48of	3971	NE
10/26	16:05	28.310	SSB	SP8R	Poland	KO10cb	4424	NE
10/26	16:01	28.310	SSB	S53F	Slovenia	JN75on	4307	NE
10/26	15:54	28.354	SSB	E7DX	Bosnia-Herz.	JN84ix	4390	NE
10/26	15:52	28.354	SSB	LZ3ZZ	Bulgaria	KN22qp	4838	NE
10/26	13:48	28.375	SSB	RK4FD	Euro Russia	LO23lf	5048	NNE

Some DX Opportunities

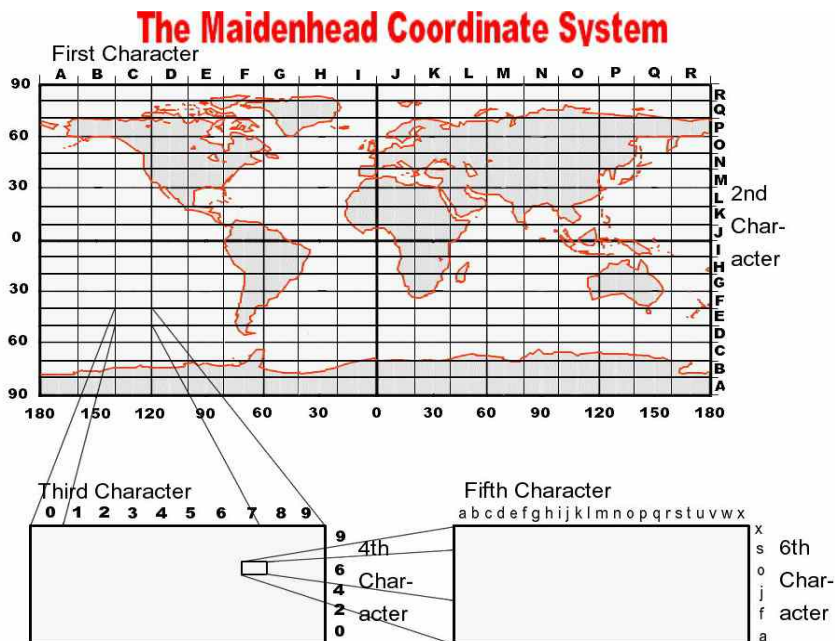
Opportunities shown in alphanumeric order of callsigns.

Mode codes: 3 = PSK31, 4 = JP4, 8 = JT8, C = CW, D = "digital", F = FM, O = Olivia, R = RTTY, S = SSB, T = Image (SSTV)

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

START	FINISH	ENTITY	PFX	CALLSIGN	IOTA	BANDS	MODES	QSL via	LOC	MILES	DIR	INFO by
2024 Dec31	2025 Jan07	Fiji	5W	5W0GE	OC-097	30-10m	C	LoTW	AH47aa	7191	W	DXW.Net
2025 Jan11	2025 Jan12	Senegal	6W	6W1RD		80-10m	S 8 4	EA7FTR	IK14gq	3820	E	DXW.Net
2025 Jan01	2025 Feb08	Guyana	8R	8R1TM		80-6m	C S D	LoTW	GJ06vs	2497	SSE	DXW.Net
2025 Jan27	2025 Feb15	Rwanda	9X	9X2AW		160-10m	C 4 S	LoTW OQRS	KI58aa	7056	E	DXW.Net
2024 Dec29	2025 Jan14	Trinidad & Tobag	9Y4	9Y4/WA3DX	SA-011	40-10m	4 8	WA3DX LoTW	FK90ip	2174	SSE	TDDX
2025 Jan04	2025 Jan05	Gambia	C5	C5RK		80-10m	S 8 4	EA7FTR	IK13pk	3913	E	DXW.Net
2025 Jan17	2025 Feb02	Mozambique	C8	C8K		160-6m	ALL	OK6DJ LoTW	KG65ji	8159	E	425DXN
2025 Jan09	2025 Jan26	Guadeloupe	FG	FG/VA3QSL		40-6m	S C D	LoTW	FN03dr	383	NW	DXW.Net
2025 Jan19	2025 Jan27	Martinique	FM	FM/F4IFF	NA-107	80-10m	S D	EB7DX	FK94mp	1923	SSE	DXW.Net
2024 Dec29	2025 Jan14	Galapagos	HD8	HD8FG	SA-004	6m *	8	LoTW	EI49uf	2989	SSW	TDDX
2024 Dec26	2025 Jan04	Dominica	J7	J75K	NA-101	160-6m	S C 8	LoTW IV3VJ	FK95hk	1862	SSE	DXW.Net
2024 Dec23	2025 Jan03	Ogasawara	JD1	JD1BMH	AS-031	80-10m	C S R	JG7PSJ dir	QL17cc	7239	NNW	TDDX
2025 Jan05	2025 Jan12	Honduras	HR9	K6VHF/HR9	NA-057	80-6m	S C R 8	LoTW K6VHF	EK66rh	1792	SSW	TDDX
2024 Dec30	2025 Jan03	Mariana Is	KH0	KH0/AJ6VJ	OC-086	40-10m	C S 8	LoTW /OQRS	QK25vg	7829	NW	TDDX
2024 Dec30	2025 Jan03	Mariana	KH0	KH0/J01VRK	OC-086	40-10m	C 8 4 R S	LoTW	QK25ve	7834	NW	425DXN
2025 Jan09	2025 Jan12	American Samoa	KH8	KH8/OE3GEA	OC-045	30-10m	C	LoTW	AH45pq	7183	W	DXW.Net
2025 Jan18	2025 Jan28	Aruba	P4	P40AA	SA-036	160-10m	C 8 S	Club Log OQRS	FK52al	1915	S	DL4MM
2025 Jan10	2025 Oct16	Palau	T8	T88SM	OC-109	160-6m	C S D	JA6EGL	PJ77fi	8684	NW	OPDX
2025 Jan10	2025 Oct16	Palau	T8	T88XK	OC-109	160-6m	C S D	JE6KFN	PJ77gl	8674	NW	OPDX
2024 Oct31	2025 Jan31	Gabon	TR	TR8CR		30-10m	C	F6AJA	JJ40rj	5864	E	TDDX
2025 Jan12	2025 Jan27	Marquesas	TX7	TX7N	OC-027	160-6m		LoTW	CI00le	5368	WSW	TDDX
2025 Jan10	2025 Jan31	Benin	TY	TY5C		80-10m	C 8	LoTW F5RAV	JJ16el	5220	E	DXW.Net
2024 Dec31	2025 Jan06	St Kitts & Nevis	V4	V4/GW4DVB	NA-104	160-6m		GW4DVB	FK87pf	1714	SSE	DXW.Net
2025 Jan28	2025 Feb02	Turks & Caicos	VP5	VP5/KD8RTT	NA-002	80-10m		LoTW KD8RTT	FL41ct	1261	S	TDDX
2025 Jan23	2025 Jan26	Turks & Caicos	VP5	VP5/OE3GEA	NA-002	30-10m	C	LoTW OE3GEA	FL31wt	1259	S	DXW.Net
2025 Jan21	2025 Feb03	St Helena	ZD7	ZD7DPX	AF-022	160-6m	S 8 4	IK2DUW	IH74da	5846	ESE	DXW.Net

*HD8FG 50-313, 50.323 MHZ



January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Happy New Year; no ARES nets	2 HCARC Noon Party replaces 7pm meeting	3	4 Predawn: Quadrantids meteor shwr
5	6	7	8 ARES B nets	9	10	11
12	13	14	15 ARES A nets	16	17	18
19	20 M L King Day	21	22 ARES B nets	23	24	25
26	27	28	29 ARES A nets; HCARC Board Lunch	30	31	
					Updated on	12/28/2024

Thank You All

QSO Parties

The US state QSO parties are on their winter vacation, and will resume in February.

Many thanks to:

Doug Poray KC2TZC, Larry Puccio K2QDY, Bob Murdock WX2NJ, Mike Larkins WA2CWX, Carl Lee W2PTZ, Bill Feidt NG3K, QRZ.com, and the ARRL.