

The SKYHOOK

HOLIDAY CITY AMATEUR RADIO CLUB

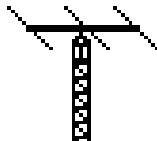


www.hcarc.us

JANUARY 2015

Toms River, NJ

Panel Of DX Experts To Tell How To Work DX, At Old Barney Club Meeting



Urb LeJeune W1UL, who is now President of Old Barney Amateur Radio Club, invites all who are interested to attend their January Meeting to hear some top DXers explain in detail how to work DX.

Presenters are to include Bob Schenck N2OO (on the DXCC Honor Roll with 359 confirmed entities), Skip Maze W1IBM (338 confirmed), and John Sawina NA2R (346 confirmed).

OBARC meets at Ocean Acres Community Center, 489 Nautilus Dr. Manahawkin, NJ, generally on the first Tuesday evening of each month at 7:30 PM.

License Exam Session January 14



Our Volunteer Examiners have scheduled the second Wednesday of each month at 7:00 pm for license exams. If you know someone who is interested in becoming a ham or upgrading an existing license, please spread the word. Please call Larry Puccio 732-359-2950 before coming.

OUR NEXT MONTHLY MEETING:
Thursday February 5 at 7:00 PM
Bldg A, Meeting Rm. #1
Holiday City South Clubhouse
Santiago Drive at Mule Road
Toms River, NJ

January Monthly Meeting Cancelled

That's right. Because our regular meeting date happens to be New Year's Day, our usual meeting place will be closed, so **our January regular meeting is cancelled.**

All other January HCARC activities will continue to function, weather permitting.

Monday Lunch Get-togethers



Photo by Carl LeFevre

Some of our members meet at noon for lunch at the Holiday City Diner every two weeks. You're welcome to come and visit our group. The dates in January are the 5th and the 19th. The Diner is located on Mule Road at Davenport Rd.

Happy Birthday

Murray Goldberg KD2IN
Ed Picciuti W1EAP
Eunice Alba
Barbara Keay
Jane Lee



Navassa Island Expedition

This should be a good one. Bob Schenck N200 (of Amsterdam Island fame) is their QSL guy.

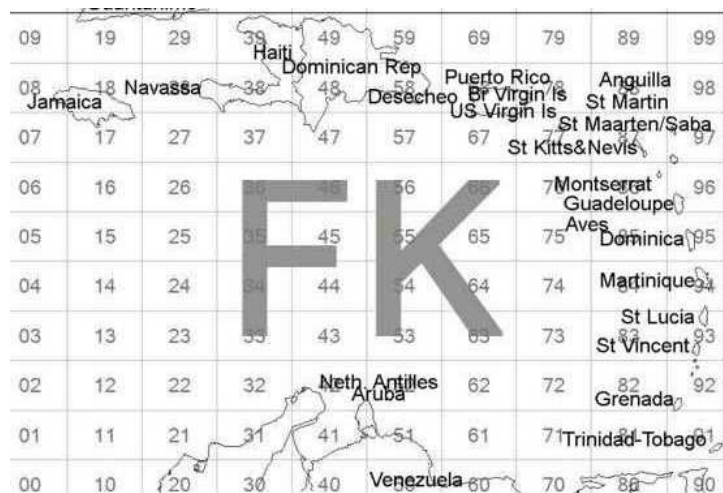
Navassa Island is Number One on the ClubLog Most Wanted list. It has been uninhabited since 1929, except for twice-a-year servicing of the lighthouse until the end of WWII, and for very few expeditions.

In the late 19th century, it was a source of bird guano. That's another name for the many centuries of hardened bird droppings that were mined as fertilizer, by badly mistreated laborers, until that business was exposed and eventually prohibited. Navassa is still on some lists as one of the "Guano Islands".

Access is now controlled by the US Fish and Wildlife Service, although it's also claimed by Haiti, which is 40 miles to the east. It's in Maidenhead "grid square" FK28lj.

The callsign prefix for Navassa Island is KP1, but the expedition has been assigned the special callsign K1N, valid for two weeks starting in January 2015.

The Caribbean Islands



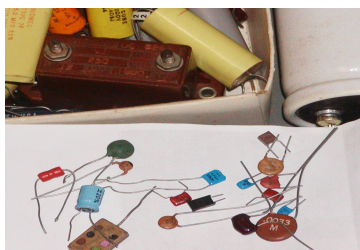
Here's Grid Square FK, aka the Caribbean. Twenty-three DXCC island entities in one square.

To find Navassa Island's abandoned lighthouse, go to **GoogleMaps**, enter **N18.397405 W75.013081** in their address box, and select **Satellite** view. Click the + in the lower right of the picture to enlarge. The round black dot is the lighthouse, and the black smear to its Southeast is its shadow.

Some Photos Of Our Holiday Party



Capacitors



Capacitors are like **tanks for electrons**. As current flows in, the voltage level rises. Like any tank, the **rate of change** of the level (in volts per second) is proportional to the **flow** (in amperes).

The **voltage level change rate** (in volts per second) **equals** the **current** (in amperes) **divided by** the **capacitance** (in farads). That can be abbreviated $dv/dt = i / C$.

Capacitors draw current that opposes voltage fluctuations, so they are useful as power supply filters. i (in amperes) = C (in farads) times dv/dt (in volts/second).

When a capacitor is connected across an AC voltage, instantaneous current flows in response to the rate of instantaneous voltage change. It's important to note that the **current is a quarter-cycle ahead of the voltage**. If you multiply the instantaneous voltage by the instantaneous current, you see that energy flows into the capacitor during the first and third quarter-cycles, and out during the second and fourth quarter-cycles. That's why a capacitor doesn't heat up like a resistor.

Capacitors are often used as simple timers. If a discharged capacitor is suddenly connected via a resistance to dc voltage source, the voltage level of the capacitor will begin rising, because of the current, but as the capacitor's voltage rises, the voltage across the resistance falls. Because the charging current keeps dropping (by Ohm's law), the capacitor's voltage never gets fully up to the supply voltage. The time (in seconds) it takes the capacitor's voltage to get to **63%** of the source voltage is called the **RC time constant**, and is simply the resistance of the resistor times the capacitance of the capacitor.

Because AC current can flow through a capacitor, but DC voltage doesn't, capacitors are often used to couple signals between stages of an amplifier.

Like resistance, the ratio of AC voltage to ac current is indicated in ohms. But because of the quarter-cycle shift, it's called capacitive reactance instead, and uses the letter X , rather than an Omega, and **capacitive reactance is negative** reactance because the voltage is a quarter-cycle later than the current.

Capacitors are often used with inductors for tuning. Because the reactance of a capacitor is negative and becomes smaller with frequency, whereas the reactance of an inductor is positive and becomes greater with frequency, there's always some frequency

at which their sum is zero. That's the resonant frequency.

$X = -1 / (2 * \pi * f * C)$, where f is the frequency in Hz, and C is the capacitance in farads. Impedance is the combination of resistance and reactance, which are orthogonal (at right angles to each other) like width and length. We'll have more about impedance in future article.
-John Roberts KQ4WR

Our VE Crew

Murray [KD2IN](#), John [K2JWH](#), Ed [W1EAP](#), Larry [K2QDY](#), John [KQ4WR](#), Stan [KB2PD](#), Steve [N2WLH](#), Kevin [W2FA](#), Walter [KC2LFD](#), Paul [N2QXB](#), Larry [WA2VLR](#).

License exams are given at 7pm 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 information.

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 intersection.

CLUB COMMITTEES

Refreshments:

Webmaster: Steve [N2WLH](#)

Publicity: Ed [W1EAP](#)

Programs: Lawrence [WA2VLR](#)

Sunshine: Dave [WA2DJN](#)

Field Day: Larry [K2QDY](#)

VE Sessions: Larry [K2QDY](#) 732-349-2950 & the crew

Fund Raising: vacant

Membership: Doug [KC2TZC](#)

HOLIDAY CITY AMATEUR RADIO CLUB

Toms River, New Jersey

Web Site www.hcarc.us

President	John Roberts	KQ4WR	732-350-1162 ext 33
Vice President	Tom Chicino	KC2RSE	732 240-7395
Secretary	John Hann	K2JWH	609-660-0985
Asst Secretary	John Rogers		732 269-5717
Treasurer	Larry Puccio	K2QDY	732 349-2950
Executive Board	Larry Loscalzo	WA2VLR	732 431-9082
Executive Board	Doug Poray	KC2TZC	732-928-2316
Executive Board	Tony Kuzinski	KD2GSO	732-930-5779
Executive Board	Murray Goldberg	KD2IN	732-505-6860
W2HC Trustee	Kevin Wagner	W2FA	732 279-0532

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.

Location: Meeting Room #1 in the 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 the building nearest the intersection.

The SKYHOOK is published monthly.

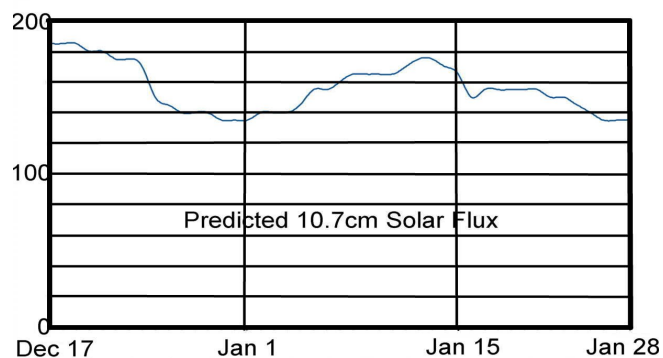
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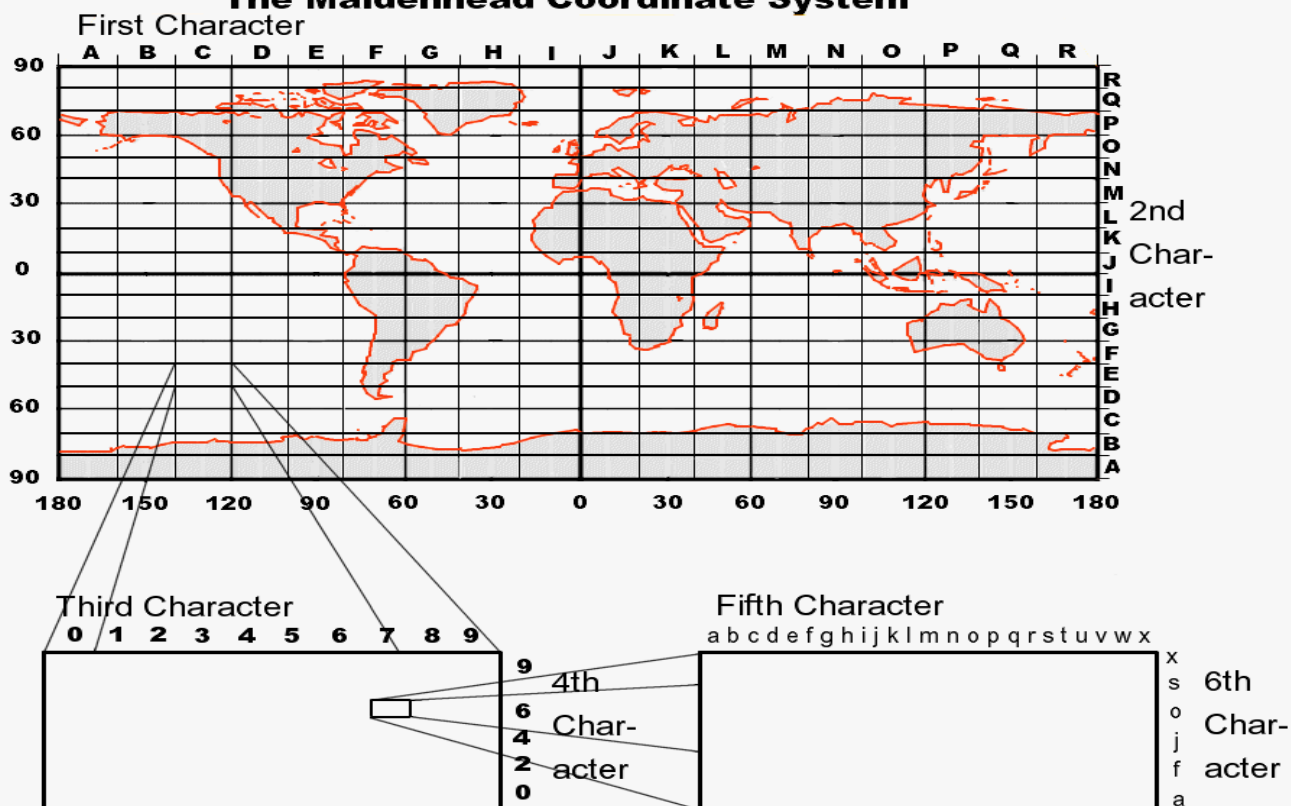
DX Reports

On November 15 thru
December 14, Russ Young,
WA2VQV worked:



CALLSIGN	DATE	TIME	MODE	BAND	ENTITY	C/IOTA	GRID	MILES	DIR
TC10SWAT	15-Nov-14	1515Z	SSB	12M	Turkey (European)	EU	KN41	5358	NE
MA0XAU	20-Nov-14	1629Z	CW	12M	Shetland Islands	EU-012	IP90	3400	NE
CT9/OM7JG	21-Nov-14	2007Z	CW	20M	Madeira Island	AF-014	IM12	3246	ENE
TA0/LZ3FN	23-Nov-14	1452Z	CW	10M	Bozcaada Is., Turkey	AS-099	KM39	5085	NE
HC2RCT/8	27-Nov-14	1724Z	CW	12M	Galapagos Islands	SA-004	EI59	2890	SSW
ZA/YT7DQ	28-Nov-14	0245Z	CW	30M	Albania	EU	JN91	4768	NE
HC2AO/8	28-Nov-14	1913Z	SSB	12M	Galapagos Islands	SA-004	EI59	2890	SSW
KP2Q	28-Nov-14	1933Z	CW	10M	Us Virgin Islands	NA-106	FK77	1596	SSE
PY3XX	28-Nov-14	2224Z	CW	15M	Brazil	SA	GF49	3729	SSE
UB7K	1-Dec-14	1428Z	CW	12M	Russia (Crimea)	EU	KN85	4810	NNE
UT5UT	1-Dec-14	1440Z	CW	12M	Ukraine	EU	KO50	4817	NE
MOVKC	1-Dec-14	1626Z	RTTY	12M	England	EU-005	IO83	3463	NE
ON8ON	1-Dec-14	1636Z	RTTY	12M	Belgium	EU	JO10	3769	NE
IY1GMS	7-Dec-14	1335Z	SSB	10M	Italy	EU	JN34	4117	NE

The Maidenhead Coordinate System



DX Opportunities For January

The grand prize this month is K1N on Navassa Island (KP1), see Page 2. But there are some other hot ones, too. EP6T in Iran (EP) is also on the Most Wanted List (#34).

Begin	End	Entity	Call Sign	Grid	Dir	Mode	C / IOTA	QSL Via
Dec 28, 2014	Dec 30, 2014	Monaco	3A/EA5IDQ	JN34	ENE	40-10m SSB,RTTY	EU	EA5IDQ
Jan 10, 2015	Feb 05, 2015	Senegal	6W7SK	IK15	E	HF CW	AF	LotW
Dec 11, 2014	Dec 14, 2014	Lesotho	7P8NH	KG40	ESE	HF CW	AF	G3RWF
Dec 24, 2014	Dec 24, 2014	Nepal	9N7CB	NL27	NNE	20-15m SSB,cw	AS	DL2GAN
Jan 15, 2015	Jan 26, 2015	Gambia	C5X	IK13	ESE	160-10m CW,SSB,RTTY,psk	AF	LotW
Jan 01, 2015	Jan 31, 2015	Bahamas	C6A/9H5G	FL15	S	160-10m SSB,RTTY,Dig	NA-001,048,054,113	LotW
Dec 13, 2014	Dec 19, 2014	Morocco	CN2KV	IM63	ENE	HF SSB	IM	LotW
Dec 12, 2014	Jan 08, 2015	Cape Verde Is	D44TWO	HK86	ESE	HF CW,SSB	AF-005	M00XO
Dec 09, 2014	Jan 08, 2015	Canary Is	EA8/IK1PMR	IL28	E	160-6m CW,RTTY,SSB	AF-004	LotW
Jan 16, 2015	Jan 31, 2015	Iran	EP6T	LM55	NE	160-10m CW,SSB,RTTY	AS-166	LotW
Jan 17, 2015	Jan 25, 2015	St Barthelemy	FJ/N9SW	FK88	SSE	40-6m (&maybe 80m) CW	NA-146	N9SW
Dec 11, 2014	Jan 08, 2015	Martinique	FM/F2VX, FM/F9IE	FK94	SSE	HF CW,SSB	NA-107	F2VX, F9IE
Jan 11, 2015	Feb 03, 2015	Haiti	HH5/KCOW	FK38	S	160,80,40m CW	NA-096	KCOW Direct
Dec 22, 2014	Jan 02, 2015	Ogasawara I	JD1BON, JD1BOI	QL07	NNW	80-6m SSB,CW,RTTY	AS-031	J11LET, JA1UII
Dec 18, 2014	Jan 10, 2015	Ogasawara	JD1BMH	QL07	NNW	40-10m CW,RTTY,RTTY	AS-031	JD1BMH Buro
Jan 25, 2015	Feb 13, 2015	Navassa I	K1N (counts as a KP1)	FK28	S	See K1N Navassa websites	NA-098	N2OO
Dec 27, 2014	Dec 30, 2014	Guam	KH2 (AH2/AB2RF)	QK23	NW	WARC(30,17,12m) RTTY	OC-026	LotW
Jan 07, 2015	Jan 12, 2015	American Samoa	KH8 (AH0CO/KH8)	AH55	W	30,17,15m SSB cw	OC-045	JA0JHQ
Jan 14, 2015	Jan 29, 2015	Bonaire	PJ4B	FK52	SSE	HF CW,SSB	SA-006	PA8A Direct
Jan 17, 2015	Feb 10, 2015	Seychelles	S79AC	LI75	ENE	40-10m CW	AF-024	OE4AAC
Jan 07, 2015	Jan 15, 2015	Palau	T88SM, T88HS, T88HK, T88CP	PJ77	NW	160-6m CW,SSB	OC-009	See QRZ.com
Dec 25, 2014	Jan 04, 2015	Palau	T8CW	PJ77	NW	160-6m CW,SSB,RTTY,Dig	OC-009	LotW
Jan 22, 2015	Feb 17, 2015	Guatemala	TG9/VE7BV	EK44	SW	20-15m CW,SSB	NA	VE7BV
Jan 05, 2015	Jan 11, 2015	Austral Is	TX5W	BG66	WSW	40-10m SSB	OC-114	KE8G
Jan 20, 2015	Mar 01, 2015	St Kitts & Nevis	V47JA	FK87	SSE	160-6m SSB	NA-104	LotW
Jan 06, 2015	Jan 13, 2015	Namibia	V5/G3RWF	JG87	ESE	HF CW	AF	G3RWF
Dec 20, 2014	Dec 22, 2014	Norfolk I	VK9N (JA0JHQ/VK9N)	RG41	W	HF SSB	OC-005	JA0JHQ
Dec 26, 2014	Jan 01, 2015	Norfolk I	VK9N/G7VJR	RG41	W	"High bands" CW	OC-005	LotW
Dec 13, 2014	Dec 14, 2014	Br Virgin Is	VP2VGG	FK78	SSE	10m Contest PSK31	NA-023	LotW
Dec 31, 2014	Jan 05, 2015	Bermuda	VP9/K4KGG	FM72	SE	HF RTTY,SSB,cw	NA-005	LotW
Jan 09, 2015	Jan 17, 2015	Easter I	XR0YJ	DG52	SSW	80-6m CW,SSB,Dig	SA-001	JA3ARJ (?)
Dec 15, 2014	Jan 02, 2015	Laos	XW4XR	OK18	N	HF CW	AS	E21EIC
Jan 15, 2015	Jan 23, 2015	Laos	XW4XR	OK18	N	HF CW	AS	E21EIC
Dec 10, 2014	Dec 14, 2014	Laos	XW4YT	OK18	N	10m Contest SSB,CW	AS	K4YT
Jan 10, 2015	Jan 18, 2015	Cayman Is	ZF2PG	EK99	SSW	20-10m SSB	NA-016	LotW

Antennas For The 2 Meter Band

What's a good antenna for the two meter band? That depends on where you are putting it and how much you want to spend.

For a mobile antenna, a quarter-wave magnetically mounted one will do, and may even fit through the garage doorway. A 5/8 wave version will do considerably better.

For home use, a J-pole will do nicely. The cheapest type is easy to make out of 300 ohm TV antenna ribbon, and can be easily mounted in the attic. For an outdoor version, the all-copper "Plumber's Delight" J-pole can be made from under \$20 worth of plumbing supplies if you have (or can borrow) a propane torch.

The Yagi is favored for "serious" work, and surprisingly easy to make. Verticals are used for FM, but other modes use horizontal antennas.

At <http://home.comcast.net/~wx2nj/>, Bob Murdock WX2NJ tells how to make a "Jurassic Duck" style J-pole.

The First Successful Capacitors

By 1740, experimenters were able to produce thousands of volts of electricity by using machines that rubbed dissimilar materials together, but the amount of current was so weak that it could barely be felt.

Then in 1745, Ewald Von Kleist in Germany, and Pieter Muschenbroek at the University of Leiden, each independently discovered the capacitor.

The idea was to dissolve electricity in a bottle of water. What they really had was the water as a conductor, glass as the dielectric (insulation), and the experimenter's hand as the other conductor.

Eventually, metal foil was substituted for the water and hand, and the gadget became known as a Leyden Jar because Muschenbroek published the account of his work.

The jar could give a serious shock. It is written that it was considered scientific entertainment to have a circle of several people, holding hands, receive an electric shock.

January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	HAPPY	NEW	YEAR	1 Meeting cancelled	2	3
4	5 Noon lunch at HC Diner	6	7	8	9	10
11	12	13	14 License Exams 7pm	15	16	17
18	19 Noon lunch at HC Diner	20	21	22	23	24
25	26	27	28 Board Meeting 10am	29	30	31
SEE	YOU	ON	FEBRUARY	FIFTH	Updated on	12/16/2014

Dues Are Due



That Duesy (Duesenberg, that is) is back again to remind us that dues are due January 1. Dues are now \$25, the first increase in 25 years. You can pay at the February meeting (cash or check), or mail a check for \$25 payable to "HCARC" to:

Larry Puccio

22 Sabinas Street

Toms River, NJ 08757-6153

Ocean County ARES® News – January, 2015

I would like to thank everyone who attended the annual ARES Holiday Party on Wednesday, December 17th at the Ocean County EOC. Special thanks goes out to those who prepared/donated food for the party, especially Keith (KC2OON) and his wife Barbara, Holger (K2HES), Jim (W2YG), Glen (KD2FFR) and Diane (KC2GKO). [See <http://www.wa2res.com/aresnews.pdf> for the group picture taken by Rob KC2ODS]

KC2OON gave a presentation on the Raspberry Pi computer module and it's applications to amateur radio, such as a D-Star Access Point.

The new Yaesu DR-1X repeater was shipped on December 18th and should be here in about a week. Ocean County ARES currently has a DR-1 installed at the 145.170 site in Manchester and the DR-1X will be setup to operate on 70 cm at a future site in Ocean County, possibly Toms River. This will eventually provide a 2 meter and 70 cm Fusion repeater, capable of digital or analog operations and a 70 cm D-Star digital repeater in Harvey Cedars, networked into the Southern Counties Emergency Repeater Network (SCERN) throughout Southern New Jersey.

The Yaesu polo shirts, ordered for those who financially supported the DR-1X project, are anticipated to be shipped by Yaesu the middle of January 2015. A nice plaque was sent to Ocean County ARES recently by Yaesu for supporting the Fusion Repeater Beta Test Program. Because of the upcoming holidays, **there will be no Ocean County ARES training Nets on December 24th or 31st. The next training net will be on January 7th, 2015 at 8:30PM on 145.170 MHz, WA2RES/R.**

Wishing everyone a Happy Holiday and a Prosperous New Year. 73 de WX2NJ

Bob Murdock, Ocean County Amateur Radio Emergency Service® EC