



The SKYHOOK



HOLIDAY CITY AMATEUR RADIO CLUB

www.hcarc.us

April 2016

Toms River, NJ

Stay Tuned For Our Luncheon Plans



We have learned that the Fusion Chinese Buffet in the Indian Head Shopping Center is out of business, so we're looking for an new place to have our luncheon.

It seems they were evicted for not paying the rent, and were ordered to clear everything out.

So we're again looking for a place to have a luncheon. We need your input. Please contact any board member. You'll find them listed on page 3.

“Old Radio” At Our April 7 Meeting

Old Transmissions And Voices From The Past

John Dilks, K2TQN will give a PowerPoint presentation which includes Photos, Graphics, and the actual Voices of the following Wireless Pioneers telling their personal accounts and stories.

Included: Marconi, Jack Binns, Irving Vermila (Ham #1), Dr. Lee DeForest, Hugo Gernsback, Edwin Armstrong, John Reinartz (life story), Leon Deloy (French 8AB - first transatlantic QSO), Elmo Pickerill (first airplane-to-ground QSO, 1910), Art Collins, General Griswold (USAF- SAC), Clarence Tuska describing the start of QST Magazqzine in 1915, an SOS from the passenger ship "PRINSENDAM" in 1980 and early Wireless Ship transmissiions on 500kHz CW.

Warren Keay, KC2SSQ, SK



Warren Keay, 86, passed away from pneumonia on March 4, 2016.

He was active on the HF bands, contacting South America and all parts of Europe from his home in Crestwood Village One in Whiting.

Born in Saddle Brook, NJ, he served his country in the U.S. Air Force. He played semi-pro baseball, coached Little League, and was a member of the Saddle Brook Ambulance squad.

He was an electric power company supervisor, having worked for several years as a lineman. He retired in 1991 after 40 years with PSE&G.

With his loving wife Barbara, he enjoyed piloting their Cessna Skyhawk 152 for 7 years, and touring in their 36 foot Bounder motor home another 7 years, before moving to Whiting in 1993.

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

Ocean County ARES® News



April, 2016

The next meeting of Ocean County ARES will be Wednesday, April 18th at 7:00 PM. The meeting will be held at the Ocean County EOC, Robert J. Miller Airpark, Berkeley Township. The first order of business will be to conduct RERP 2016 training by Pete, K2PSG. This training is required by any radio operator who supports Oyster Creek nuclear drills or who responds to emergencies related to Oyster Creek. Pete will issue a new RERP 2016 card at the completion of the session. Refreshments will be served at the meeting, as usual.

Towards the end of March into the beginning of April, some changes will be made to the Harvey Cedars D-Star repeater. The output frequency will be changed to 445.36875 MHz and the input frequency will be 440.36875 MHz. We will also be working on the gateway tie-in to the Internet and those details will be released at a separate time.

Following the Harvey Cedars frequency change, the Toms River 70 cm Fusion repeater will come on line with an output frequency of 449.825 MHz, an input frequency of 444.825 MHz and a PL of 131.8 (For FM mode). The repeater will be operated under the callsign WA2RES/R and will be part of the Ocean County ARES repeater compliment. This frequency may not be permanent and will most likely change when ARCC issues a final coordination decision. Like the Manchester 2 meter Fusion repeater, the unit will operate in the "Auto" mode, so that a digital input will result in a digital output and an analog input will result

in an analog output.

Future Ocean County ARES nets will include the 70 cm Fusion repeater at least once a month in the FM analog mode and a final schedule will be released in the near future.

Keith, KC2OON, recently made an IP change to the D-Rats "Ratreflector". The new IP is 71.172.101.55, Type is Network and Name is localhost. These settings can be found under File, Preferences, Radio.

The Bike to Build (B2B) fundraiser, sponsored by Habitat for Humanity, has announced that another event for Ocean County has not been re-scheduled at this time. If you recall, a cyclist lost his life in the 2015 event. Ocean County ARES is looking at holding a mobilized Simulated Emergency Test (SET) this year in lieu of the B2B event. Details will be discussed at the April ARES meeting.

73 de WX2NJ

Bob Murdock

Ocean County Amateur Radio Emergency Service® EC

ARRL Asking FCC To Allow RTTY & Data In DX & QRP Windows Of 80 Meter CW Sub-band !

An editorial by John Roberts, KQ4WR.

Because the effect, if any, of a weak CW signal on an RTTY or modern data mode may not be noticed at all, such relatively wide-band (compared to cw) QRM may become a real international problem.

I suggest that if you're one who wants to be able to continue working QRP or DX CW, write to the FCC and tell them to ignore that part of the ARRL petition.

See the ARRL website (www.arrl.org) for more information on [RM 11759](#)

<http://apps.fcc.gov/ecfs/comment/view?id=60001374190>.

NOTICE TO ALL HCARC MEMBERS

At the March meeting, a motion was made and seconded to make the HCARC By-Laws and Constitution separate documents., There will be voting on this constitution change at the April meeting.

Time Conversion Chart

UTC "Zulu"	AST EDT	EST CDT	CST MDT	MST PDT	PST
00nn Z	8:nn PM	7:nn PM	6:nn PM	5:nn PM	4:nn PM
01nn Z	9:nn PM	8:nn PM	7:nn PM	6:nn PM	5:nn PM
02nn Z	10:nn PM	9:nn PM	8:nn PM	7:nn PM	6:nn PM
03nn Z	11:nn PM	10:nn PM	9:nn PM	8:nn PM	7:nn PM
04nn Z	12:nn AM	11:nn PM	10:nn PM	9:nn PM	8:nn PM
05nn Z	1:nn AM	12:nn AM	11:nn PM	10:nn PM	9:nn PM
06nn Z	2:nn AM	1:nn AM	12:nn AM	11:nn PM	10:nn PM
07nn Z	3:nn AM	2:nn AM	1:nn AM	12:nn AM	11:nn PM
08nn Z	4:nn AM	3:nn AM	2:nn AM	1:nn AM	12:nn AM
09nn Z	5:nn AM	4:nn AM	3:nn AM	2:nn AM	1:nn AM
10nn Z	6:nn AM	5:nn AM	4:nn AM	3:nn AM	2:nn AM
11nn Z	7:nn AM	6:nn AM	5:nn AM	4:nn AM	3:nn AM
12nn Z	8:nn AM	7:nn AM	6:nn AM	5:nn AM	4:nn AM
13nn Z	9:nn AM	8:nn AM	7:nn AM	6:nn AM	5:nn AM
14nn Z	10:nn AM	9:nn AM	8:nn AM	7:nn AM	6:nn AM
15nn Z	11:nn AM	10:nn AM	9:nn AM	8:nn AM	7:nn AM
16nn Z	12:nn PM	11:nn AM	10:nn AM	9:nn AM	8:nn AM
17nn Z	1:nn PM	12:nn PM	11:nn AM	10:nn AM	9:nn AM
18nn Z	2:nn PM	1:nn PM	12:nn PM	11:nn AM	10:nn AM
19nn Z	3:nn PM	2:nn PM	1:nn PM	12:nn PM	11:nn AM
20nn Z	4:nn PM	3:nn PM	2:nn PM	1:nn PM	12:nn PM
21nn Z	5:nn PM	4:nn PM	3:nn PM	2:nn PM	1:nn PM
22nn Z	6:nn PM	5:nn PM	4:nn PM	3:nn PM	2:nn PM
23nn Z	7:nn PM	6:nn PM	5:nn PM	4:nn PM	3:nn PM

(Shading indicates date change)

Forced Air Cooling

A nice breeze is an effective way to keep parts from overheating. But the disadvantage is that dust and smoke get drawn in, to accumulate on those parts more rapidly. In a few years, the buildup may cause the parts to get hot enough to fail, or at least be degraded. So disconnect the power, pop off the cover (and

discharge any high voltages), and dust them off with a paint brush, or blow the dust out with a hair dryer or shop vacuum.

Our VE Crew

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

License exams are given by appointment 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: John Rogers & Tony Kuzinski
Webmaster: Steve [N2WLH](#) N2WLH@yahoo.com
Publicity: Paul [N2QXB](#) 732-279-3911
Programs: Tony [KD2GSO](#) 732-930-5779
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	John Roberts	KQ4WR	732-350-1162 ext 33
Vice President	open		
Secretary	John Rogers	KD2HWR	732-269-5717
Treasurer	Larry Puccio	K2QDY	732-349-2950
Executive Board	Doug Poray	KC2TZC	732-928-2316
Executive Board	Tony Kuzinski	KD2GSO	732-930-5779
Executive Board	Paul Hansen	N2QXB	732-279-3911
Executive Board	Stan Stafiej	KB2PD	732-270-5395
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.
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 street corner.-

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The 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. (Well, almost --- see appendix)

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

“ **μ** “ (the lower case Greek "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.

“ **Ω** ” (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 μF.

“ **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 “μS”. 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.

“ **τ** “ (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.

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

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

“ **VHF** “ is for “Very High Frequency”, specifically **30 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.

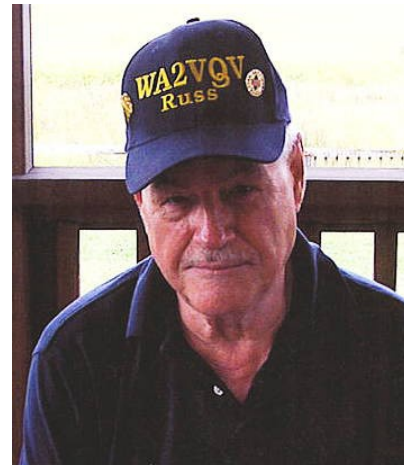
“ **Y** “ is the **math symbol** for **admittance**, the reciprocal of impedance. Admittance is easier to calculate than impedance when several components are connected in parallel. You just add. The unit of admittance, like conductance, is the Siemens (not Siemen or mho).

“ **Z** “ is the **math symbol** for **impedance**. Impedance is the combination of resistance and reactance, but because they are 90 degrees apart in time, the resulting amount is the square root of the sum of the squares. Only the resistance portion, because its voltage is in phase with current, affects power.

Joe Militano, KC2QLA Worked:



Russ Young, WA2VQV Worked:



Joe Militano KC2QLA worked:

Band	Call	Country	Date	Freq	Mode	Grid
20	TI5/WX3B	Costa_Rica	Feb 22	14.225	SSB	EK80aa
17	LY5A	Lithuania	Feb 27	18.143	SSB	K024sm
17	KG4BP	Guantanamo_Bay	Feb 28	18.130	SSB	FL20ma
17	R7DN	European_Russia	Feb 29	18.155	SSB	KN96rc
20	CS2C	Cape_Verde	Mar 05	14.293	SSB	IM57ou
20	S54ZZ	Slovenia	Mar 05	14.300	SSB	JN76hc
20	9A1P	Croatia	Mar 05	14.273	SSB	JN75sd
20	EW6W	Belarus	Mar 05	14.269	SSB	K034sa
15	FY5KE	French_Guiana	Mar 05	21.290	SSB	GJ45aa
15	EI1Y	Ireland	Mar 05	21.399	SSB	IO63uh
15	GW4BLE	Wales	Mar 05	21.344	SSB	IO82gm
15	C02GG	Cuba	Mar 05	21.420	SSB	EL83tc
15	J38DG	Grenada	Mar 05	21.441	SSB	FK92ca
15	MM1E	Scotland	Mar 05	21.396	SSB	IO85au
15	5D3A	Morocco	Mar 05	21.294	SSB	IM63aa
10	PX2B	Brazil	Mar 05	28.480	SSB	GG87ja
10	P40M	Aruba	Mar 05	28.502	SSB	FK52am
15	LT1F	Argentina	Mar 05	28.484	SSB	GF06ta
15	HG7T	Hungary	Mar 05	21.368	SSB	JN97nm
10	OL6P	Czech_Republic	Mar 05	28.455	SSB	JO70ec
10	HK1NA	Colombia	Mar 05	28.455	SSB	FJ35aa
10	J62DX	St._Lucia	Mar 05	28.414	SSB	FK94ma
20	IT9STX	Italy	Mar 06	14.317	SSB	JN62ma
20	EF6T	Balearic_Is.	Mar 06	14.236	SSB	JM19nm
20	CT1BOL	Portugal	Mar 06	14.341	SSB	IM69jq
20	EA7RU	Spain	Mar 06	14.321	SSB	IN80dj
20	CR2X	Azores	Mar 06	14.3343	SSB	HM77ft
10	PZ5W	Suriname	Mar 06	28.377	SSB	GI24ma
15	C6ANM	Bahamas	Mar 06	21.410	SSB	FL15ga
20	E7DX	Bosnia-Herzegovina	Mar 06	14.251	SSB	JN94aa
20	TM6M	France: Brittany	Mar 06	14.245	SSB	IN78rj
15	WP4SK	Puerto_Rico	Mar 06	21.4029	SSB	FK68xi
15	HB2T	Switzerland	Mar 06	21.3529	SSB	JN37ma
10	LU5FC	Argentina	Mar 06	28.488	SSB	GF06ta
40	6Y6Y	Jamaica	Mar 06	7.241	SSB	FK28aa
20	VP2MMF	Montserrat	Mar 06	14.291	SSB	FK86vt
20	PJ2T	Curacao	Mar 06	14.253	SSB	FK52ma
40	PJ4G	Bonaire	Mar 06	7.238	SSB	FK52ma
40	KP2M	US_Virgin_Is.	Mar 06	7.293	SSB	FK78sa
40	SP8K	Poland	Mar 06	7.182	SSB	K000aa
15	ZF2AH	Cayman_Is.	Mar 09	21.300	SSB	EK99jm
15	OM3TWM	Slovak_Rep	Mar 09	21.288	SSB	JO80ac
12	TO66R	GUADELOUPE	Mar 14	24.940	SSB	FK96eg

Band	Mode	Date	Time	Callsign	Entity	Grid	Dist	Dir
14	CW	02-20	1522	G2F	England	IO91wm	3601	NE
14	CW	02-20	1527	EB7KA	Spain	IN80dj	3707	ENE
14	CW	02-20	1528	EF1A	Spain	IN80dj	3707	ENE
14	CW	02-20	1529	S50K	Slovenia	JN76hc	4364	NE
14	CW	02-20	1531	CR3W	Madiera I	IM12np	3256	ENE
14	CW	02-20	1535	LX7I	Luxembourg	JN39ga	3937	NE
14	CW	02-20	1536	OK8NM	Czech Rep.	JO70ec	4223	NE
14	CW	02-20	1541	9A1A	Croatia	JN75sd	4435	NE
14	CW	02-20	1542	EI1Y	Ireland	IO63uh	3318	NE
14	CW	02-20	1544	IK2YCW	Italy	JN62ma	4435	NE
14	CW	02-20	1545	PJ2T	Curacao	FK52ma	1899	SSE
14	CW	02-20	1547	S57DX	Slovenia	JN76hc	4364	NE
14	CW	02-20	1548	ED7P	Spain	IN80dj	3707	ENE
14	CW	02-20	1550	DD1A	Germany	JO31aa	3863	NE
14	CW	02-20	1553	OH8L	Finland	KP20me	4263	NNE
14	CW	02-20	1930	HP3/VY2SS	Panama	FJ09ga	2080	S
14	CW	02-20	1931	IR4X	Italy	JN62ma	4435	NE
14	CW	02-20	1932	CR6X	Portugal	IM69jq	3556	ENE
14	CW	02-20	1933	G4A	England	IO91wm	3601	NE
14	CW	02-20	1937	SO9Q	Poland	KO00aa	4445	NE
14	CW	02-20	1938	DL1REM	Germany	JO31aa	3863	NE
14	CW	02-20	1938	9A5Y	Croatia	JN75sd	4435	NE
14	CW	02-20	1940	9A8WM	Croatia	JN75sd	4435	NE
14	CW	02-20	1941	DL8SCG	Germany	JO31aa	3863	NE
14	CW	02-20	1942	FY5KE	French Guiana	GJ45aa	2763	SE
14	CW	02-20	1942	DD2ML	Germany	JO31aa	3863	NE
14	CW	02-20	1944	HG1A	Hungary	JN97nm	4498	NE
14	CW	02-20	1945	E7DX	Bosnia-Herzegovina	JN94aa	4581	NE
14	CW	02-20	1946	9A3XV	Croatia	JN75sd	4435	NE
14	CW	02-20	1947	HG3R	Hungary	JN97nm	4498	NE
14	CW	02-20	1948	YT1A	Serbia	KN04gv	4652	NE
14	CW	02-20	1948	OL7M	Czech Rep.	JO70ec	4223	NE
14	CW	02-20	1949	HG6N	Hungary	JN97nm	4498	NE
14	CW	02-20	1950	S58N	Slovenia	JN76hc	4364	NE
14	CW	02-20	1951	GJ0KE	Jersey	IN89vh	3559	NE
14	CW	02-20	2114	TM6M	France: Brittany	IN78rj	3477	NE
14	CW	02-20	2116	PJ4X	Bonaire	FK52ma	1899	SSE
14	CW	02-20	2122	VP9/W6PH	Bermuda	FM72ph	753	SE
14	CW	02-20	2125	CR3A	Madiera Is.	IM12np	3256	ENE
14	CW	02-20	2126	EF6T	Balearic Is.	JM19nm	4057	ENE
14	CW	02-20	2127	EI7M	Ireland	IO63uh	3318	NE
14	CW	02-20	2129	T48K	Cuba	EL83tc	1166	SSE
14	CW	02-20	2130	EA4TX	Spain	IN80dj	3707	ENE
14	CW	02-20	2134	NP2P	Virgin Is.	FK78sa	1585	SSE
14	CW	02-20	2136	GM5A	Scotland	IO75ut	3362	NE
14	CW	02-20	2315	PS2T	Brazil	GG87ja	4757	SSE
14	CW	02-20	2317	TI5W	Costa Rica	EK80aa	2064	SSE
14	CW	02-20	2318	KP2M	Virgin Is.	FK78sa	1585	SSE
14	CW	02-20	2321	YV8AD	Venezuela	FK60nm	2029	SSE
14	CW	02-20	2323	ZF1A	Cayman Is.	EK99jm	1383	SSE

Russ Young, WA2VQV, Continued

Band	Mode	Date	Time	Callsign	Entity	Grid	Dist	Dir
14	CW	02-21	1354	OK7M	Czech Rep.	J070ec	4223	NE
21	CW	02-21	1357	SK3W	Sweden	J099bh	4077	NE
21	CW	02-21	1358	IR4M	Italy	JN62ma	4435	NE
21	CW	02-21	1401	HG7T	Hungary	JN97nm	4498	NE
21	CW	02-21	1402	UW1M	Ukraine	K050mm	4829	NE
21	CW	02-21	1402	SN5X	Poland	K000aa	4445	NE
21	CW	02-21	1403	9A1A	Croatia	JN75sd	4435	NE
21	CW	02-21	1406	RT4F	Eu. Russia	K023pg	4519	NE
21	CW	02-21	1407	F5VHY	France	JN18dt	3763	NE
21	CW	02-21	1408	UX4U	Ukraine	K050mm	4829	NE
21	CW	02-21	1409	RU7M	Eu. Russia	K085ss	4813	NNE
21	CW	02-21	1410	IR2C	Italy	JN62ma	4435	NE
21	CW	02-21	1411	OL7M	Czech Rep.	J070ec	4223	NE
21	CW	02-21	1412	YU1EA	Serbia	KN04gv	4652	NE
21	CW	02-21	1414	9A8M	Croatia	JN75sd	4435	NE
21	CW	02-21	1415	9A8MW	Croatia	JN75sd	4435	NE
21	CW	02-21	1416	V31TP	Belize	EK57um	1669	SSE
21	CW	02-21	1416	9A7V	Croatia	JN75sd	4435	NE
21	CW	02-21	1417	IR4X	Italy	JN62ma	4435	NE
21	CW	02-21	1418	DL1A	Germany	J031aa	3863	NE
21	CW	02-21	1419	9A5Y	Croatia	JN75sd	4435	NE
21	CW	02-21	1420	EI5KF	Ireland	I063uh	3318	NE
21	CW	02-21	1420	TI5W	Costa Rica	EK80aa	2064	SSE
21	CW	02-21	1421	T48K	Cuba	EL83tc	1166	SSE
21	CW	02-21	1425	ES5Q	Estonia	K029ma	4304	NE
21	CW	02-21	1426	NP2N	Virgin Is.	FK78sa	1585	SSE
21	CW	02-21	1427	HA4XH	Hungary	JN97nm	4498	NE
21	CW	02-21	1429	NP3A	Virgin Is.	FK68vm	1512	SSE
14	CW	02-21	1431	NP3A	Virgin Is.	FK68vm	1512	SSE
21	CW	02-21	1433	LY2XW	Lithuania	K024sm	4481	NE
21	CW	02-21	1433	KP3Z	Puerto Rico	FK68vm	1512	SSE
21	CW	02-21	1434	PJ4X	Bonaire	FK52ma	1899	SSE
21	CW	02-21	1435	EI7M	Ireland	I063uh	3318	NE
21	CW	02-21	1437	OL6P	Czech Rep.	J070ec	4223	NE
21	CW	02-21	1439	EI0PL	Ireland	I063uh	3318	NE
21	CW	02-21	1442	TK5MH	Corsica	JN42ma	4256	ENE
21	CW	02-21	1443	SN90LKK	Poland	K000aa	4445	NE
21	CW	02-21	1444	CU4DX	Azores	HM78ma	2696	ENE
21	CW	02-21	1446	S50R	Slovenia	JN76hc	4364	NE
21	CW	02-21	1446	VP2MWA	Montserrat	FK86vt	1721	SSE
21	CW	02-21	1448	D4C	Cape Verde	SPECIA	3235	NNE
21	CW	02-21	1449	CR3W	Madiera Is.	IM12np	3256	ENE
21	CW	02-21	1451	EF6T	Balearic Is.	JM19mm	4057	ENE
21	CW	02-21	1452	SN7Q	Poland	K000aa	4445	NE
21	CW	02-21	1455	OK7M	Czech Rep.	J070ec	4223	NE
21	CW	02-21	1457	RU1A	Eu. Russia	K048vr	4458	NNE
21	CW	02-21	1458	8P5A	Barbados	GK01gm	2131	SSE
21	CW	02-21	1459	9A2J	Croatia	JN75sd	4435	NE
21	CW	02-21	1500	IT9VDQ	Italy	JN62ma	4435	NE
21	CW	02-21	1839	CR3A	Madiera Is.	IM12np	3256	ENE
21	CW	02-21	1841	HI3TT	Dominican Rep.	FM58am	1445	SSE
21	CW	02-21	1843	ZF1A	Cayman Is.	EK99jm	1383	SSE
28	CW	02-21	1845	NP3A	Virgin Is.	FK68vm	1512	SSE
28	CW	02-21	1846	PS2T	Brazil	GG87ja	4757	SSE
28	CW	02-21	1847	HK1X	Colombia	FJ35aa	2343	S
28	CW	02-21	1848	V31TP	Belize	EK57um	1669	SSE
28	CW	02-21	1848	NP2N	Virgin Is.	FK78sa	1585	SSE
28	CW	02-21	1851	PJ2T	Curacao	FK52ma	1899	SSE
28	CW	02-21	1852	NP2X	Virgin Is.	FK78sa	1585	SSE
28	CW	02-21	1853	P40LE	Aruba	FK52am	1853	SSE
28	CW	02-21	1855	V26M	Antigua & Barbuda	GK07ca	1781	SE
28	CW	02-21	1856	PJ6A	Saba&St.Eustatius	FK87ml	1659	SSE
28	CW	02-21	1858	8P5A	Barbados	GK01gm	2131	SSE
28	CW	02-21	1858	NP2P	Virgin Is.	FK78sa	1585	SSE
28	CW	02-21	1859	XR2K	Chile	FF47oa	4977	S
28	CW	02-21	1902	KP2M	Virgin Is.	FK78sa	1585	SSE
28	CW	02-21	1907	KP4KE	Puerto Rico	FK68vm	1512	SSE
28	CW	02-21	1907	PT5A	Brazil	GG87ja	4757	SSE
28	CW	02-21	1909	P40XM	Aruba	FK52am	1853	SSE
21	CW	02-21	1910	P40XM	Aruba	FK52am	1853	SSE
21	CW	02-21	1912	T07A	Martinique	FL94mm	1301	SE
14	CW	02-21	1928	OT4A	Belgium	J020ev	3799	NE

Jest For Pun

What do you call:

two thousand mockingbirds?

a million Ryans?

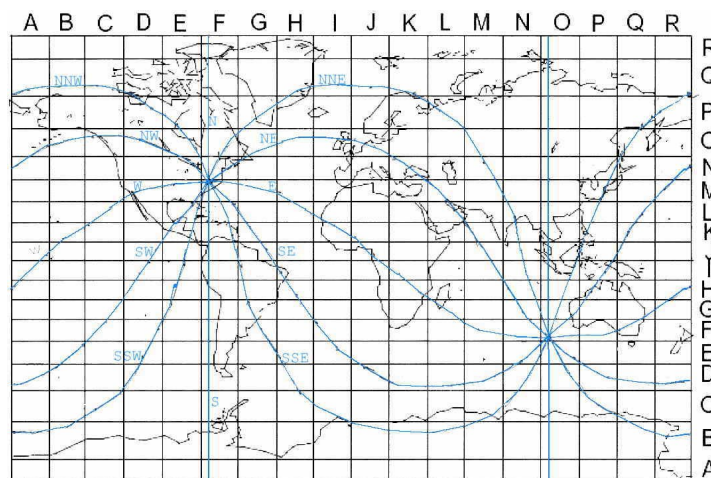
a millionth of a phone?

a billionth of a goat?

a trillionth of a boo?

Need hints? See listing at bottom of page.

Grid Codes



Some Common Metric Prefixes

The metric prefix for:

a thousand is "kilo" (k);

a million is "mega" (M);

a millionth is "micro" (μ);

a billionth is "nano" (n);

a trillionth is "pica" (p).

Some DX Opportunities For April

Begin	End	Callsign	Entity	Grid	Miles	Dir	Modes
Apr 05	Apr 11	4W	TIMOR-LESTE	PI21tj	9954	NW	C,S,R
Apr 15	Apr 25	EP2A	IRAN	LM55vt	6182	NE	C,S,R
Mar 20	Apr 21	FO/K3JZ	FRENCH POLYNESIA	BH52b1	6268	WSW	C,R,J
Mar 20	Apr 21	FO/N7SOF	FRENCH POLYNESIA	BH52b1	6268	WSW	C,R,J
Mar 29	Apr 11	FT4JA	JUAN DE NOVA, EUROPA	LH12iw	8391	E	
Apr 27	May 06	JD1BMH	MINAMI TORISHIMA	QL75aa	6981	NW	C,S,R
Apr 26	May 06	JD1BOI	MINAMI TORISHIMA	QL75aa	6981	NW	C,S,R
Mar 15	May 15	JG8NQJ/JD1	MINAMI TORISHIMA	QL75aa	6981	NW	C
Mar 23	Apr 10	VK0EK	HEARD I.	MD67qa	10680	SE	C,S,R
Apr 23	May 02	VK9NU	NORFOLK I.	RG41aa	8886	W	

April						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7 HCARC Meeting 7:00pm	8	9
10	11 Noon Lunch at HC Diner	12	13 License Exams by appoint.	14	15	16
17	18	19	20 ARES Meeting Miller Air Park 7pm	21	22	23 <i>Passover</i>
24	25 Noon Lunch at HC Diner	26	27 Board Meeting 10:00am	28	29	30