The SKYHOOK

HOLIDAY CITY AMATEUR RADIO CLUB

Earth-Moon-Earth (EME) Communication

Earth-Moon-Earth (EME) communication, or "moonbounce", is a radio technique where signals are bounced off the Moon's surface to achieve long-distance communication on Earth. This method relies on using the Moon as a passive reflector for radio waves, typically in the VHF and UHF bands, and was first demonstrated by the Naval Research Laboratory in 1954 with a voice transmission. While technically challenging, EME is used by amateur radio operators for reliable worldwide coverage and has been demonstrated for secure military communications.

Some of our members have recently participated in an EME experience and will discuss the knowledge gained from this event at the December meeting.

As the holiday season approaches, I would like to wish everone a safe and joyous timel

Doug Poray KC2TZC

HCARC's Thursday Night Net 8:00pm

Join us on the HCARC Thursday Night Net each week at 8:00pm. The exceptions are the 1st Thursday of the month. Please note there will be no net on 27th November, and 25th / 31st December 2025.

Frequency Info: 145.170 MHz PL of 131.8, Offset -600

Also Available on EchoLink: WA2RES-R Lacey

We Say Happy Birthday To:

There are no members or significant others to wish them a Happy Birthday

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OUR NEXT REGULAR MEETING:
Thursday December 4th
at 7:00 PM
Holiday City South Clubhouse A
Santiago Drive at Mule Road

Happy Anniversary To:

Ray & Pamela Barton

Ocean County ARES Training Nets And Meetings

Training Nets are suspended during emergencies, disaster relief efforts, and some holidays.

TENTATIVE REVISED SCHEDULE FOR JUNE-SEPTEMBER

Nets

Wednesdays every month except on meeting days (see "Meetings", below):

Skywarn Net (only on each month's 2nd Wednesday) 7:00 pm instead of 8:00 pm.

Voice Net 7:30 pm instead of 8:30 pm 449.825MHz.

Meetings:

7:00 am at Ocean County EOC 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, Ed WB2QWC, Wolf, KD2ZIW

*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 WA2VLRr.

Math Supplement

I found this information to assist with the math associated with trying to figure out wavelengths, db, line loss, etc. Hope this helps those who do not understand the math or in what order you need to perform the operations to get the correct answer. Wolf, KD2ZIW

The following Web links are a compilation of on-line resources organized by topic.

Many of the tutorials are part of the "Interactive Mathematics" Web site (www.intmath.com) - a free, on-line system of tutorials. The system begins with basic number concepts and progresses all the way through introductory calculus. The lessons referenced here are those of most use to a student of radio electronics.

Basic Numbers & Formulas

Order of Operations - www.intmath.com/Numbers/3_Order-of-operations.php

Tables of Conversion Factors - en.wikipedia.org/wiki/Conversion_of_units

Metric System

Metric System Overview - en.wikipedia.org/wiki/Metric_system
Metric System Tutorial - www.arrl.org/files/file/Radio%20Lab%20Handbook/Lesson%203/RLH%20Unit%203.pdf
Conversion of Metric & English Units
- www.m-w.com/mw/table/metricsy.htm
- en.wikipedia.org/wiki/Metric_yardstick

Fractions

Equivalent Fractions - www.intmath.com/Factoring-fractions/5_Equivalent-fractions.php
Multiplication and Division - www.intmath.com/Factoring-fractions/6_Multiplication-division-fractions.php
Adding and Subtracting - www.intmath.com/Factoring-fractions/7_Addition-subtraction-fractions.php
Equations Involving Fractions - www.intmath.com/Factoring-fractions/8_Equations-involving-fractions.ph p

Algebra & Trigonometry

Basic Algebra - www.intmath.com/Basic-algebra/Basic-algebra-intro.php
Exponents & Radicals - www.intmath.com/Exponents-radicals/Exponent-radical.php
Basic Trig Functions - www.intmath.com/Trigonometric-functions/Trig-functions-intro.php
Graphs of Trig Functions - www.intmath.com/Trigonometric-graphs/Trigo-graph-intro.php

Graphs

Basic Graphs - www.intmath.com/Functions-and-graphs/Functions-graphs-intro.php
Polar Coordinates - www.intmath.com/Plane-analytic-geometry/7_Polar-coordinates.php

Advanced Math

Exponential & Logarithmic Functions - www.intmath.com/Exponential-logarithmic-functions/Exponential-log-functions-intro.php
Complex Numbers - www.intmath.com/Complex-numbers/imaginary-numbers-intro.php
Vectors – www.intmath.com/vectors/vectors-intro.php
Decibels - www.arrl.org/files/file/Product%2520Notes/Guide%2520to%2520Antenna%2520Tuners/APPENDIX%2520A.pdf
and www.ac6v.com/db.htm

"Classified Section"

The members can sell/trade equipment no longer needed or sell/trade duplicate equipment. People placing items in the Classified Section should be honest regarding the condition of the equipment. If the condition is unknown, this should be specified. Also, the transaction of any sale is between the buyer and the seller and does not involve the club in any way.

1. NAME: Jeff Pennel KA2DHE
2. Contact Info: 609-668-3070
3. Equipment: Heath Kit Key Model # HD1410 Double Paddle
4. Condition: Good
5. Buy, Sell, Trade, or In Search of: In Search of

1. NAME: Wolf (aka Richard) Wallace, KD2ZIW
2. Contact Info: 732-575-6429
3. Equipment: Bandpass Filters (10, 15, 20, 40 meters, etc.)
4. Condition: Used, Good
5. Buy, Sell, Trade, or In Search of: In Search of

American Sign Language (ASL)

Doug Poray, President of HCARC, presenting Thom Roberts a Certificate of Appreciation for his introduction presentation of American Sign Language (ASL) during November's HCARC's monthly meeting

Thom discussed his experiences as an ASL interpreter for individuals with hearing disabilities from various walks of life. His experience led him all over the globe

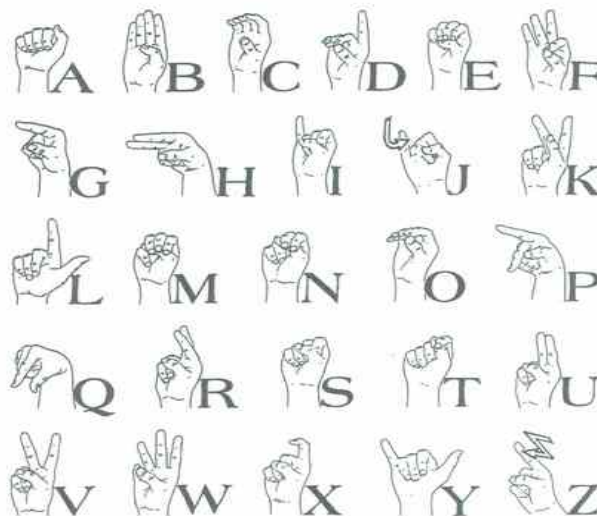and also proved to be an asset the US government utilized.

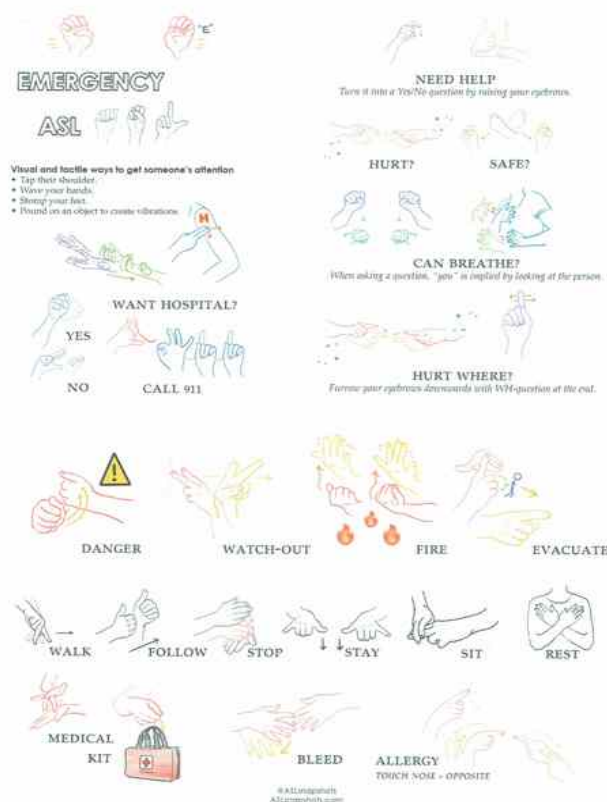*Illustration 1: American Sign Language (ASL) Alphabet*
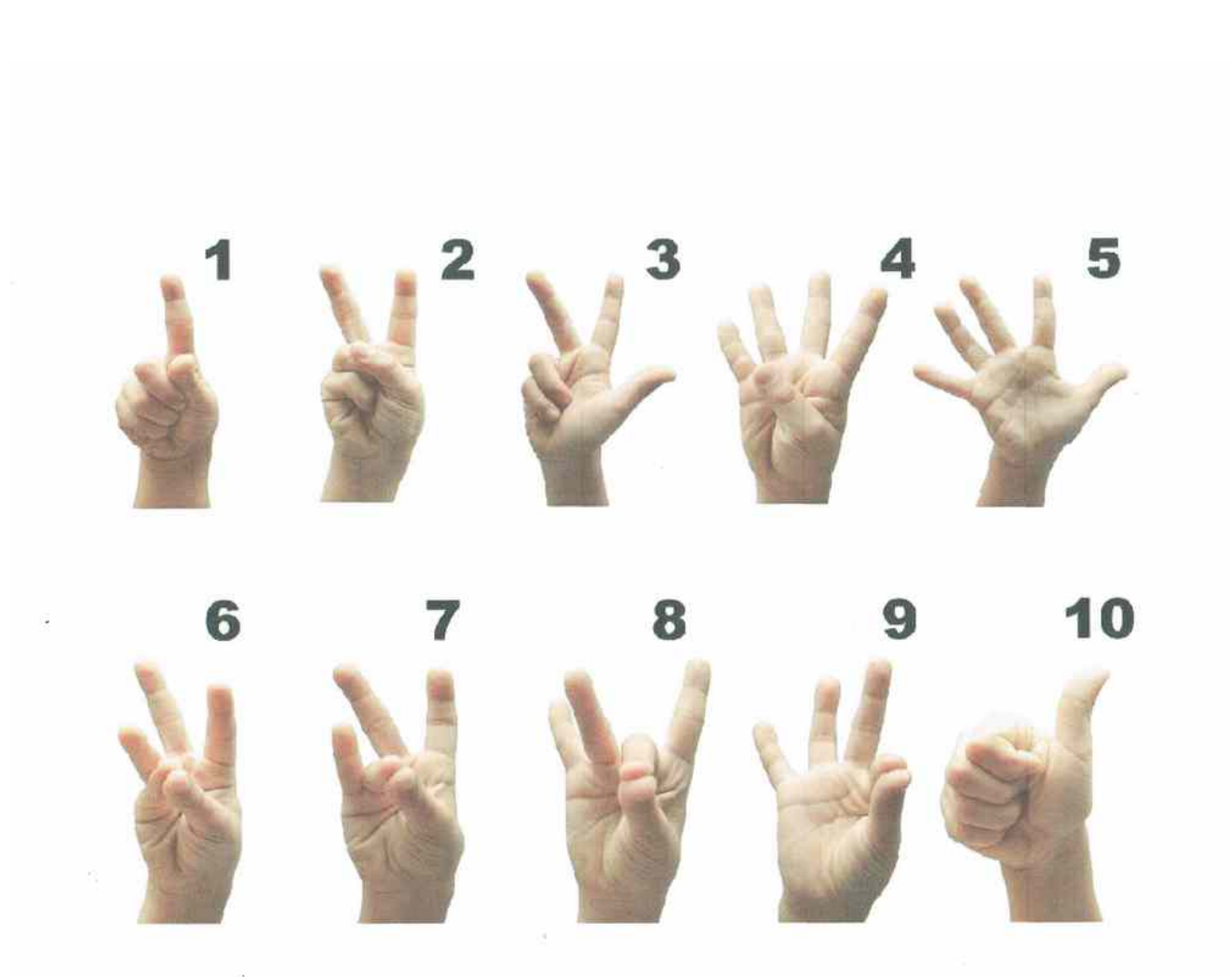

Illustration 2: Emergency ASL

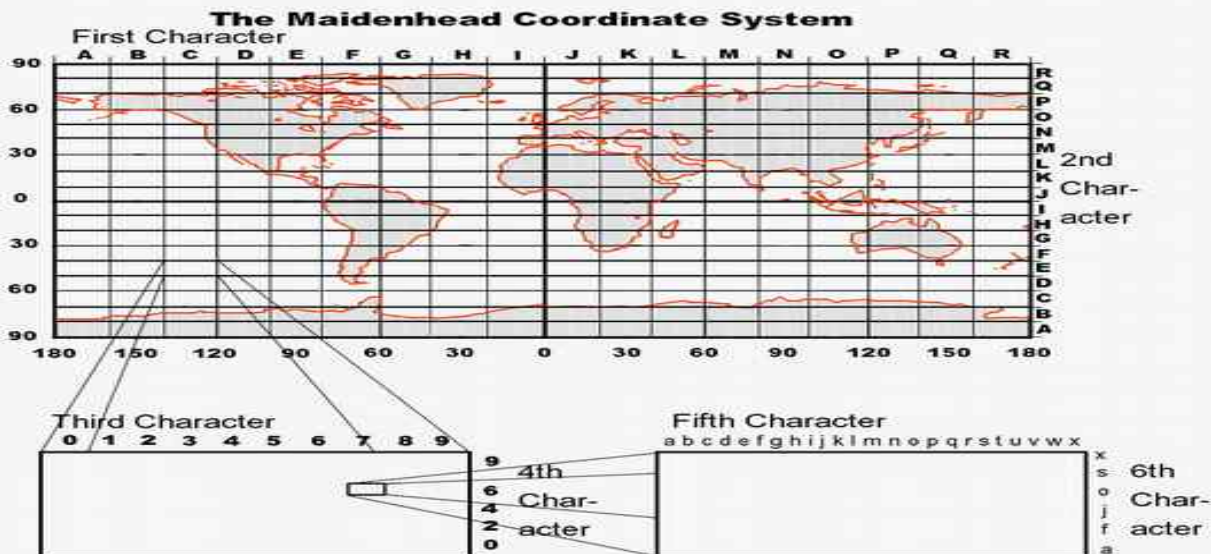*Illustration 3: American Sign Language (ASL) Numbers*
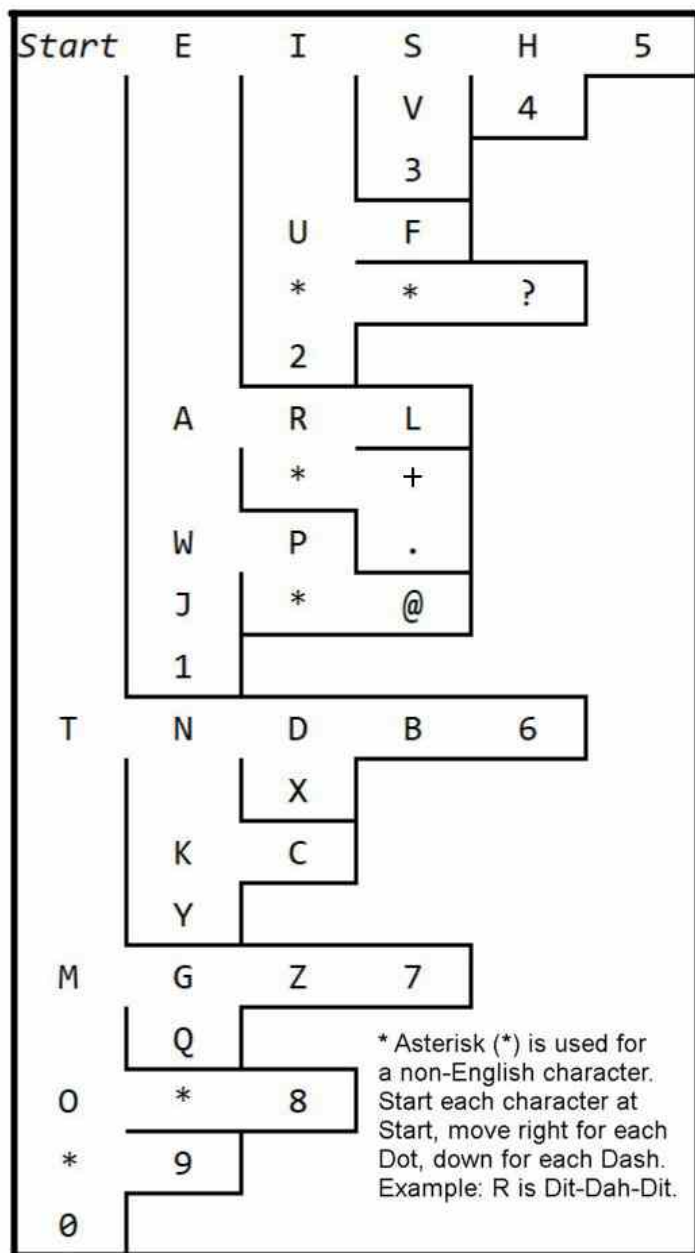
Some DX Opportunities

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 = Pix

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
2025 Dec30	2026 Jan03	Monaco	3A	3A/MM0NDX		160-30m	S 8 4 R	LoTW	JN33rr	4033	ENE	DXW.Net
2025 Dec30	2026 Jan03	Monaco	3A	3A/MM0SAJ		160-30m	S 8 4 R	LoTW	JN33rr	4033	ENE	DXW.Net
2025 Dec26	2026 Jan03	Azerbaijan	4K	4K/DL4XT		80-10m	C S 8	LoTW	LN30tm	5780	NE	OPDX
	2025 Dec31	ITU HQ	4U	4U0ITU			C S	4U0ITU	JN36bf	3899	NE	ARLD020
2025 Nov14	2025 Dec08	Uganda	5X	5X7W		80-10m	C 8 4	LoTW	KJ60hj	7084	ENE	OPDX
2025 Dec01	2025 Dec10	Maldives	8Q	8Q7HT	AS-013	40-6m	8	DL7MDX	MJ64th	8755	NE	DL7MDX
2025 Nov25	2025 Dec05	Bhutan	A5	A52AA		160-10m	S	LoTW	NL47tl	7658	NNE	DXW.Net
2025 Nov26	2025 Dec10	Panama	HP3	HP3/OK2WX		160-10m	C S	OK2WX	FJ09ga	2163	S	DXW.Net
2025 Nov26	2025 Dec10	Panama	HP3	HP3/OK2YL		160-10m	C S	0K2YL	FJ09ga	2163	S	DXW.Net
2025 Dec30	2026 Jan03	Mariana Is	KH0	KH0/AJ6VJ	OC-086	40-10m			LoTW	QK25vg	7829	NW	DXW.Net
2025 Apr16	2025 Dec31	Czech Republic	OK	OL100IARU		"all"	C S D	LoTW	J070gh	4122	NE	ARLD016
2025 Nov04	2025 Dec06	Aruba	P4	P40MC	SA-036	40-6m	8 R C S	LoTW	FK42xn	1909	S	TDDX
2025 Nov20	2025 Dec03	Bonaire	PJ4	PJ4KV	SA-006	80-10m	C	DL6KVA	FK52vd	1955	SSE	DXW.Net
2025 Dec21	2026 Jan02	Surinam	PZ	PZ5OZ		160-6m	S C 8 r	LoTW	CJ25fc	4483	WSW	OZ0J
2025 Dec21	2025 Dec27	Bangladesh	S2	S21DX	AS-127	160-10m	S 8	LoTW	NL51iu	8052	NNE	DXW.Net
2025 Dec10	2025 Dec17	Palau	T88	T88AC	OC-009	80-10m			LoTW	PJ77fi	8684	NW	OPDX
2025 Dec07	2026 Jan05	Guatemala	TG	TG9/AF4CZ		40-10m	8 4 s	LoTW	EK44mv	2003	SW	TDDX
2025 Nov30	2025 Dec12	St Martin	TO9	TO9W	NA-105	160-10m	C S 8 4	W9ILY*	FK88lc	1650	SSE	DXW.Net
2025 Nov20	2026 Mar24	Namibia	V5	V51WH		160-6m	S c	DK2WH	JG88ap	7162	ESE	OPDX
2025 Apr01	2027 Apr01	Marshall Is	V7	V73HW	OC-028	80-10m	S 8	KX4QD	RJ39re	7239	WNW	ARLD014
2025 Nov24	2025 Dec04	Bermuda	VP9	VP9/WE9G	NA-005	160-6m	8 C S	LoTW	FM72og	0747	SE	DXW.Net
2025 Nov25	2025 Dec03	Cambodia	XU	XU7RRC	AS-133	80-10m	C S 8	LoTW	OK22sv	8779	N	TDDX
2025 Nov23	2025 Dec05	VANUATU	YJ	YJ0GC	OC-035	80-10m	C 8 s	OQRS	RH42dh	8433	W	DXW.Net
2025 Nov23	2025 Dec05	Chatham I	ZL7	ZL7/LZ1GC	OC-038	160-6m	C S 8 4	OQRS	AE16ug	8563	WSW	OPDX

The Maidenhead Coordinate System

* Asterisk (*) is used for a non-English character. Start each character at Start, move right for each Dot, down for each Dash. Example: R is Dit-Dah-Dit.

Here is a chart of the most essential characters of International Morse Code. The charactors are not all the same length. The most commonly used ones are very short, to save time, while rarely used ones take much longer. Listen for the slight pause at the end of each charactor.

To decode a character of the code, start with your cursor (or focus your thought) at the "Start" location. Move your cursor to the right one character for a Dit (Dot), and down one charactor for a Dah(Dash). The decoded charactor is the one where you end.

For example, to decode "DiddyDahDahDiddy" (. . _ _ . .), start at "Start", move right one character (to "E"), then right another character (to "I"), down one character (to "U"), down another (to asterisk (*)), then right (to another asterisk), and finally right to arrive at Question Mark ("?"), which is the decoded character. To decode the next character, start again at "Start".

Obviously this is not a fast way to decode a message, but rather a way to show how the characters are related to each other.

December

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4 HCARC MEETING 7:00 pm	5	6
7	8	9	10	11 HCARC NET 8:00PM	12	13
14	15	16	17 VE Session? 6:30pm	18 HCARC NET 8:00PM	19	20
21	22	23	24	25 Christmas	26	27
28	29	30	31			
					Updated on	**11/21/2025**

December QSO Parties

There appears to be no QSO Parties for the month of December

Thank You To All

Many thanks to Doug Poray, John Roberts, John Perry, Larry Puccio, QRZ.com, and the ARRL.