Results, Seventeenth ARRL International EME Competition

EME is certainly not only for "big gun" stations!—*Joop Mutter, PAØJMV*

By Billy Lunt, KR1R, Contest Manager and Warren C. Stankiewicz, NF1J, Assistant Contest Manager

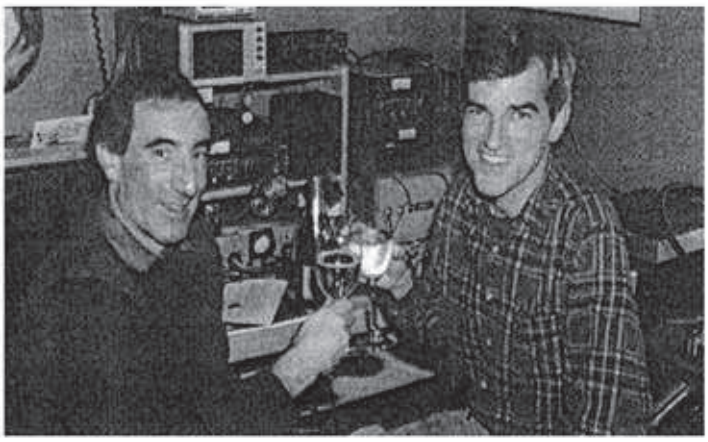
It seems like every time the EME Competition is held, everyone remarks how much easier it is to make moonbounce contacts. This year was no exception. The giant VE3ONT operation (see this month's Up Front in *QST* and the World Above 50 MHz, October *QST* page 92 and January *QST*, p 106) gave anyone with an interest in making their first Earth-Moon-Earth (EME) contacts an excellent chance to do so. Their effort helped make this the most successful edition of the contest yet.

Their objective was simple—mount an operation to put a signal on the band so loud that you could almost hear it with a rubber duck for an antenna. The 150-foot dish at the Algonquin Radio Observatory gave them the mother of all echoes, enabling people with OSCAR-class stations (running 80 to 100 W or so to a small Yagi) to make their first contacts via the exotic moonbounce path.

If you only worked one station, it was probably VE3ONT. A lot of people, however, hung around the band long enough to find that there were other stations loud enough for them to work, and successfully completed contacts they wouldn't have otherwise attempted. Although they may not have fried the ionosphere the way the VE3ONT crew did, Gerald, K5GW, made 316 QSOs on 2 meters, and Lars, SM4IVE, made 188 on 432 MHz. If you worked more than one station during the contest, it was probably one of these.

This added activity paid off handsomely for many people. Hannes, OE5JFL, finished at the top of the single-operator, multiband class with 3.2 million points. All the countries on the air led to a big jump in multipliers. This, in addition to all the newcomers on the bands, contributed to higher scores

Kiyoaki, JA7GTB, worked Gerald, K5GW, with just 50 W and two 16-element K1FO-type Yagis.



Michael, NV3Z (l), and Joe, NA3T, celebrate their first EME contact in style.

Tommy, WD5AGO (below), got help from students in a local electronics class to finish his 144-MHz array.

Magin, EA3UM, and Enrique, EA3BTZ, used this "wireless" station to make 82 contacts on 432 and 1296 MHz.

Scores

Each line score lists call sign, score, stations worked, multipliers, and band (A = 50 MHz, B = 144 MHz, C = 222 MHz, D = 432 MHz, 9 = 902 MHz, E = 1296 MHz, F = 2304 MHz, I = 10 GHz).

Single Operator, Multiband

OE5JFL	3,263,500	109	37	B
		146	43	D
		50	27	E
SM2CEW	2,073,600	104	39	B
		87	39	D
		25	18	E
SM0PYP	1,232,000	9	8	B
		99	36	D
		45	27	E
		7	6	F
N2IQU	911,400	18	13	B
		99	32	D
		30	17	E
F6CGJ	649,000	79	32	D
		39	23	E
K4QIF	641,900	100	31	D
		31	18	E
VE1BVL	572,400	75	34	B
		21	14	D
		10	6	E
JA4BLC	560,500	55	29	B
		27	20	D
		12	9	E
		1	1	F
W7HAH	530,400	3	2	A
		77	33	B
		24	16	D
G3LTF	445,200	14	10	B
		34	21	D
		36	22	E
W7FN	423,000	55	27	B
		39	20	D
KB2AH	331,200	8	7	B
		45	30	D
		16	11	E
EA2LU	277,500	45	21	B
		30	16	D
F2TU	257,400	23	14	D
		34	21	E
		4	4	F
EA3DXU	247,900	51	26	B
		16	11	D
OH5IY	231,000	16	22	B
		20	13	D
RA3YCR	230,400	20	13	B
		44	23	D
AA4TJ	131,600	29	18	D
		18	10	E
RB5PA	127,600	31	19	B
		13	10	D
SM3AKW	116,000	20	15	D
		20	14	E
JA9BOH	94,500	13	10	B
		22	17	D
GM4JJJ	88,000	40	22	B
		1	1	D
VE4MA	79,200	17	11	D
		19	11	E
JH3EAO	72,000	13	10	D
		17	14	E
HL9UH (KG6UH,op)				
	71,300	13	9	B
		18	14	D
W0RAP	53,200	21	13	D
		7	6	E
S51ZO	43,200	11	9	B
		13	9	D
VE6TA	42,500	16	11	B
		9	6	E
W2CRS	42,500	5	4	B
		20	13	D
K9BCT	42,000	19	18	B
		1	1	D
		1	1	E
VE1ALQ	36,000	1	1	B
		23	14	D
EA3EHQ	28,800	12	10	B
		6	6	D
NT0V	19,200	15	11	B
		1	1	D
DL3YEE	14,400	4	4	B
		4	4	D
		4	4	E
DL7FJ	13,200	9	8	D
		3	3	I
VK5MC	13,200	7	6	D
		5	5	E
UA9XEA	4,200	1	1	B
		6	5	D
OH8NVQ	3,000	4	3	B
		4	2	D
KB2AYU	3,000	4	3	B
		2	2	D
JH7PAV	2,500	2	2	B
		3	3	D
VE1XYL	400	1	1	B
		1	1	D
EA4LY	400	1	1	B
		1	1	E

Single Operator, 50 MHz

K6QXY	8,000	10	8	A
K6MYC	8,000	10	8	A
W6JKV	6,300	9	7	A
I5MXX	2,400	6	4	A
W5FF	1,500	5	3	A
K5FF	300	3	1	A
VK3OT	300	3	1	A

Single Operator, 144 MHz

K5GW	1,706,400	316	54	B
SM5FRH	1,340,900	253	53	B
DL8DAT	1,263,600	234	54	B
SM5BSZ	893,000	190	47	B
HB9CRQ	792,000	165	48	B
LA8YB	690,800	157	44	B
S51WV	589,700	137	43	B
AA4FQ	588,000	140	42	B
AF9Y	584,000	146	40	B
S57TW	430,500	105	41	B
SM2CKR	414,200	109	38	B
LZ2US	406,800	113	36	B
F6IRF	406,600	107	38	B
K2GAL	370,800	103	36	B
IK1MTZ	353,500	101	35	B
W0HP	325,500	93	35	B
N5JHV	280,500	85	33	B
WB4WTC	261,000	87	30	B
SM4RNA	258,400	76	34	B
SM5IOT	249,000	83	30	B
DK9ZY	198,800	71	28	B
G4SWX	198,400	64	31	B
OE5EYM	189,100	61	31	B
PA2CHR	184,800	66	28	B
WA3HMK	156,600	54	29	B
PA0JMV	156,600	54	29	B
DJ3WA	153,400	59	26	B
WA2GSX	148,500	55	27	B
SM0FFS	140,400	52	27	B
W7VXW	132,600	51	26	B
IK1FJI	130,000	52	25	B
PE1DAB	125,000	50	25	B
K8BHZ	117,000	45	26	B
OH9NMS	85,000	34	25	B
LA8KV	83,600	38	22	B
PA3EPD	81,400	37	22	B
RB5AL	70,000	50	14	B
SM6CNU	59,400	33	18	B
ZL1PE	57,000	30	19	B
I1JTQ	54,000	30	18	B
IK2DDR	54,000	30	18	B
VE1KG	51,300	27	19	B
N3AJX	48,600	27	18	B
K8AAW	32,200	23	14	B
W8WVM	32,000	20	16	B
DL9MHG	30,800	28	11	B
KU8Y	28,600	19	14	B
9A2MK	25,200	21	12	B
EA2AGZ	23,800	17	14	B
IK5UBM	23,400	18	13	B
JE1BMJ	20,000	20	10	B
SM1MUT	19,200	16	12	B
JA4KLX	15,400	14	11	B
LA9NEA	15,000	15	10	B
DL4DTU	14,000	14	10	B
F5HRY	11,700	13	9	B
WB4BKC	11,000	11	10	B
K2QE	8,000	10	8	B
OZ9AAR	8,000	10	8	B
LA1K (LA9IY,op)	7,700	11	7	B
NC7K	7,200	9	8	B
VE3KDH	6,300	9	7	B
W6JKV	6,300	9	7	B
AI7K	5,600	8	7	B
PA2GER	5,600	8	7	B
KA2KOM	4,200	7	6	B
WA6YDI	4,200	7	6	B
DL5DTA	4,000	8	5	B
W1AIM	3,000	6	5	B
JA9RNR	3,000	6	5	B
N6PI	2,000	5	4	B
VP5/WA3HMK	1,200	4	3	B
VE3KPB	1,200	4	3	B
N8ZAT	400	2	2	B
W2RS	400	2	2	B
W3EP	400	2	2	B
VE3EQQ	100	1	1	B
WA3HMK	100	1	1	B
VE3NJK	100	1	1	B
N8ZAW	100	1	1	B
N8AXA	100	1	1	B
JA7GB	100	1	1	B

Single Operator, 432 MHz

SM4IVE	827,200	188	44	D
DL9KR	688,000	160	43	D
DJ6MB	592,200	141	42	D
N4JGV	442,800	123	36	D
KD4LT	402,500	115	35	D
DL9NDD	296,400	78	38	D
K0RZ	229,100	79	29	D
KB4WM	175,500	65	27	D
JA2JRJ	145,800	54	27	D
F5MZN	90,300	43	21	D
WA6BJE	78,200	48	17	D
W7CI	62,900	37	17	D
ON4KNG	55,800	31	18	D
WA4OFS	52,200	29	18	D
F5EHQ	48,000	32	15	D
ON5OF	46,500	31	15	D
JA2KRW	44,800	28	16	D
I5CTE	44,800	28	16	D
DF6NA	43,500	29	15	D
W8TN	38,400	24	16	D
OK1CA	36,400	26	14	D
I5TDJ	33,600	24	14	D
SP5CJT	33,600	24	14	D
W2UHI	28,600	22	13	D
G4ERG	25,200	21	12	D
DK3FB	24,000	20	12	D
OE6XHF	18,700	17	11	D
S57QM	14,400	18	8	D
JH1MOM	11,700	13	9	D
IK5WJD	10,400	13	8	D
JH4JLV	7,200	9	8	D
JA7UIQ	6,400	8	8	D
JA2ODV	2,500	5	5	D
JR9NWC	400	2	2	D
JH1EFA	400	2	2	D
KN5S	100	1	1	D
JJ1NNJ	100	1	1	D

Single Operator, 1296 MHz

OE9XXI	195,300	63	31	E
SM4DHN	143,100	53	27	E
AA6WI	122,500	49	25	E
F1ANH	105,600	44	24	E
ZS6AXT	98,900	43	23	E
LA8LF	77,000	35	22	E
SM6CKU	77,000	35	22	E
EA5/DF5JJ	54,400	34	16	E
G4CCH	45,900	27	17	E
F5PL	45,900	27	17	E
OZ7UHF (OZ1FTU,op)				
	26,400	22	12	E
IK3COJ	26,000	20	13	E
HB9BBD	20,400	17	12	E
OZ4MM	600	3	2	E
CX9BT	600	3	2	E
N4MW	100	1	1	E
SM5CFS	100	1	1	E
HB9CW	100	1	1	E

Single Operator, 2304 MHz

OE9ERC	9,000	10	9	F
W4HHK	3,000	6	5	F
I6PNN	400	2	2	F

Multioperator, Multiband

JL1ZCG (JM1MCF,JO1BMV, JR4ENY,JR0JFM,ops)				
	951,300	97	38	B
		38	25	D
DL7MAT (+DD0YD,DG1MHY, DG3MHJ,DG4MHJ,DJ5MN, DK5MV,DL1MAJ,DL3MGL,DL5MAE)				
	792,000	116	39	B
		28	16	C
WD5AGO (+KB5ZFL,KF0M)				
	642,000	38	21	B
		26	16	D
		43	23	E
DL3BWW (+DL4EBY)				
	627,000	53	27	B
		61	28	D
K2UYH (+AK2F,K2TXB,W3EP)				
	580,000	89	32	D
		27	18	E
I2COR (+I2s TFI,YID,IK2TLA,IW2s AMQ,ATM)	427,500	70	30	D
		25	15	E
EA3UM (+EA3BTZ)				
	369,000	49	26	D
		33	19	E
OK1KIR (OK1s DAI,DAK,ops)				
	231,800	33	20	D
		21	11	E
		5	5	F
		2	2	I

Multioperator, 144 MHz

W5UN (+N5BLZ)				
	1,452,200	274	53	B
UZ2FWA (UA2s FF,FJ,FM,ops)				
	479,700	123	39	B
IK3MAC (+I3YXO)				
	336,600	99	34	B
F5JTA (+F1HDI,F6s EPY,HLC)				
	282,200	83	24	B
EA4ED (+EA3AIR)				
	159,600	57	28	B
N8AM (+N8ITP)	50,400	28	18	B
LZ1DP (+LZ1s JH,KQ,ZX)				
	30,800	28	11	B
SK7CA (SM7s NZB,SJR,SJV,THS,ops)				
	1,200	4	3	B
NV3Z (+NA3T)	100	1	1	B
NX2Q (+W2OZU,WB2ONA)				
	100	1	1	B

Multioperator, 432 MHz

OH2PO (+OH6DD)				
	624,800	142	44	D
K1FO (+K1GX,NC1I)				
	557,700	143	39	D
F5FHI (+F5s DE,MYK,NWK,F6GIN)				
	525,000	125	43	D
9M8WB (+9M2AV)				
	51,200	32	16	D
K1FJM/6 (+KV6J)	5,600	8	7	D

Multioperator, Multiband, Commercial Equipment

VE3ONT (VE2DFO,VE3s ASO,RFM, CRU,DSS,EMS,KDH,VD,W9IP,ops)				
	5,496,000	235	46	B
		246	41	D
		79	29	E

Checklog

ZS6BMN

across the board. It made for a close race in the Multioperator, 432 MHz class—Matti, OH2PO (with help from Jukka, OH6DD), defeated Steve, K1FO, and his crew (Frank, NC1I, and Paul, K1GX) by a narrow margin, working one less QSO, but five more multipliers.

This year's competition saw a return of activity on 6 meters. Eight stations reported making contacts on this band. It may be tougher, but that's where the challenge is. Activity was good on 2304 MHz, too–Paul, W4HHK, reports, "It was unbelievable to observe a three-station pileup on 2304.025." OK1KIR, with Antonin, OK1DAI, and Vladimir, OK1DAK, at the controls, even made two EME contacts on 10 GHz—great job!

We had a record number of entries this year, with 215 stations sending in logs. This is a jump of 18% over the previous mark, set in 1991. If you weren't in on the action, why not start planning your effort now? The rules for the next ARRL International EME Competition will be in September *QST*; that should give you plenty of time to get ready.

SOAPBOX

Mr Faraday did his worst, particularly during the second weekend! As a result, my effort this year was only slightly better than last year's (N4GJV). I spent an inordinate time chasing VE3ONT, but managed to work them on three bands (K9BCT). The ability to switch polarization was again an advantage on 2 and 432, and I found conditions good both weekends. The only problem I had was when my high-voltage supply failed twice (OE5JFL). I doubled my score again and had a lot of fun (N2IQU). This was my first experience in operating EME on four bands. I enjoyed it, but got a little tired (JA4BLC). Bad weather and the gremlins left me alone. My big thrill was working I5MXX via 6-meter EME (W7HAH). Next year, I'm going to get out the chainsaw so I have more than a five-hour window (KB2AH). Multiband operation is much more entertaining because you can change the bands and find new stations to work and you have the ability to operate the band with the best conditions at any given time (EA3DXU). This contest is exciting every year and the appearance of the VE3ONT superstation made it even more exciting. I wish more W/VE stations were active on 1296 MHz (JH3EAO). Murphy struck the November weekend and I was unable to work VE3ONT on 1296 (VE6TA). High winds and heavy rain both weekends limited operation (VE1ALQ). This was my first effort in the EME contest and I had a lot of fun. I was happy to work VE3ONT on 432 with my tropo antennas at my moonrise; I listened for them on 1296 at moonrise, but heard nothing (NT0V). My antenna system was the biggest project I've ever taken on and took all summer to complete. My first EME contact with VE3ONT on 432 was quite a thrill! (KB2AYU). I found conditions on the first weekend quite good, but variable the second weekend. This was my first try at 6 meters during this contest; it was difficult! (K6QXY). Conditions the October weekend were fairly unstable and activity didn't seem very high. Nevertheless, I worked many new stations and new countries, like HL, OK and EA8 (HB9CRQ). Every EME QSO I make is still a thrill, despite being a ham for more than 50 years! (W0HP). I enjoyed the contest, despite auroral attenuation the first weekend and lots of QRM the second weekend from the European Marconi CW contest. My highlight was the random QSO with another 2-Yagi station, EA3DXU (PA0JMV). Sunday morning the second weekend even big stations disappeared for hours (DJ3WA). Conditions were erratic the first weekend; I missed several stations I should have worked (WA3HMK). This was my first EME contest and I enjoyed the challenge. I'm still amazed that I'm able to establish contacts via the moon (K2QE). These were the hardest nine QSOs I've ever made! (NC7K). This was my first EME contest and it was fantastic! (VE3KDH). The trip to VP5 was great—it's too bad the radio portion was cursed! (VP5/WA3HMK). The conditions on the first weekend were very good. The second weekend there was strong Faraday from time to time (DJ6MB).