

Results, Fourth ARRL EME Competition

By Mark J. Wilson,* AA2Z

This year's EME competition was marked by yet another big increase in activity. The 68 logs received indicate that a total of 174 stations completed successful EME QSOs, compared with 121 last year and 98 the year before. The average QSO total for single-operator stations was up slightly to 19.5, compared with 19 last year. This was, in part, caused by an increase in the number of stations making one or two QSOs.

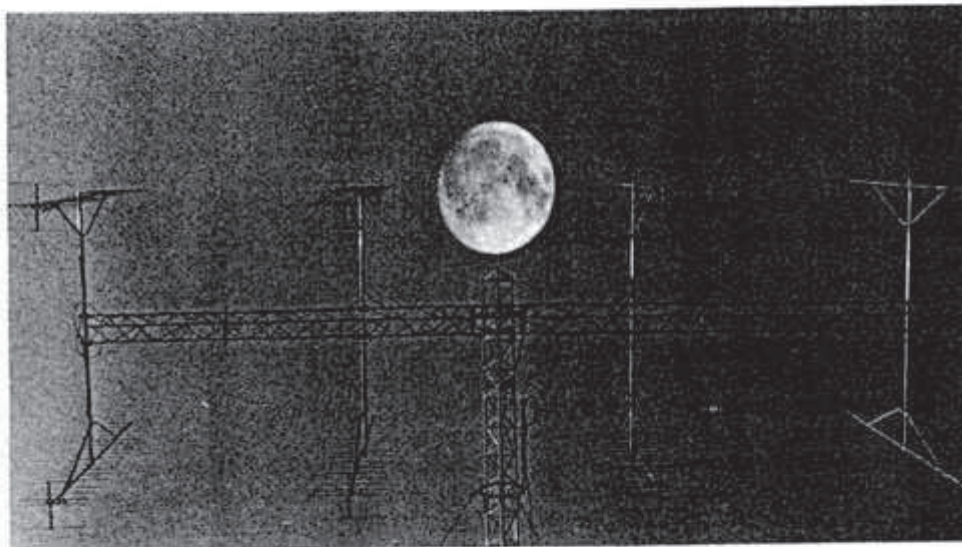
K1WHS led the single-operator category with an incredible 270,000 points — 90 QSOs on 2 meters alone. Dave's 336-element array (see it on the cover of this issue) helped him work many small stations, including DJ5MS who was using a single Yagi. DL9KR finished second with a 432-MHz score of 63 QSOs, up 12 from his score last year. The group at K2UYH put Al's 28-foot dish to good use, winning the multioperator category for the fourth year in a row.

Activity was up on 220 and 1296 MHz this year. K5FF completed seven contacts on 220, and PA0SSB found eight stations on 1296. Several stations indicated that they are gearing up for these bands, so look for even more activity next year.

Speaking of next year, several people suggested moving the contest to weekends in October and November to allow antenna construction during the summer and to take advantage of better fall conditions. If you have an opinion about this, drop us a line.

SOAPBOX

I was on both weekends with my new EME array, and can only say that I am still in shock after hearing such DX and QRM on 144 MHz. The level of 144-MHz activity in Europe is literally staggering. It was very easy to tell when the moon set in Europe because the QRM



The 144-MHz array at OH6NU/OH6NM

Band Leaders

	Single Operator	Multioperator
144 MHz	K1WHS	OH6NU
220 MHz	WB6NMT	K5FF/W5FF
430 MHz	DL9KR	I5MSH
1296 MHz	PA0SSB	K2UYH

level dropped 10 dB!! (K1WHS). I contacted many new stations this time; 17 initial contacts were completed (JA6CZD). It was very strange to notice that when a strong station was heard, it was impossible to reach him, and the opposite was true as well. It seems that QSOs were only possible when signals were weak on both sides (F5SE/F9FT). The good European activity was a big surprise (SM7BAE). It was a very interesting contest, and brought out many calls that had not been heard for some time (G3LTF). Being a newcomer to EME, I was disappointed with the use of

schedules during a contest (N9AB). The conditions both weekends were deplorable with heavy auroral activity (W1JR). Worked Utah and Wyoming to complete my 2-meter WAS (WA3VSJ). I have a 24-foot dish under construction, and hope to be on 432 and 1296 soon (WA8HGX). Operated under primitive conditions during my "DXpedition" to South Carolina (WA4MVI/4). Antenna aiming was simple. Just listen on 144.010 for K1WHS, and then swing the antennas to peak up his signal (W8TN). My efforts were on 220 MHz using four Yagis and just 300 watts output. Got operational the second half, and worked K5FF and WB6NMT right off the bat. The remarkable thing is that they copied me with minimum antenna and minimum power! The end result is that W0VB is QRV on 220 EME! Skeds anyone? (W0VB). This is the first time (I believe) that a contest station, or any station, has operated EME on more than one band simultaneously. We operated on 2 meters with an eight-Yagi array and on 220/432/1296 with my 28-foot dish (K2UYH). Our contest highlight was that K5FF completed a QSO with every 220 station that was workable during the contest — seven contacts in all!! (W5FF/K5FF). QST

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Scores

Line scores list: Call, score, stations heard, stations worked, multipliers, band (A-144 MHz, B-220 MHz, C-432 MHz, D-1296 MHz).

Single Operator

K1WHS	270,000-94-90-30-A
DL9KR	176,400-63-63-28-C
KA9Y	147,200-6-6-4-B
	40-40-28-C
DL7YCA	132,600-62-57-26-C
JA6CZD	115,000-50-50-23-C
WA1JXN/7	103,500-54-45-23-A
WB9QMN	100,000-40-40-25-A
WB5LUA	92,500-5-5-4-A
	30-30-19-C
	2-2-2-D
F9FT(F5SE,opr)	92,000-40-40-23-C
PA9SSB	81,600-26-26-16-C
	8-8-8-D
WB9TEM	81,600-20-13-8-A
	32-21-16-C
OK3CTP	81,400-43-37-22-C
SM7BAE	70,200-45-39-18-A
JA9BOH	68,000-44-34-20-C
SM2GGF	68,000-12-12-4-A
	22-22-16-C
G3LTF	65,100-28-28-18-C
	3-3-3-D
VE2DFD	48,000-42-32-15-A
W7FN	45,900-41-27-17-A
JA6AHB	40,800-24-24-17-C
N9AB	36,800-30-23-16-C
K4QIF	32,300-17-17-15-C
	2-2-2-D

SM5FRH

22,000-32-20-11-A	
VK5MC	18,000-4-4-1-A
	14-14-9-C
OH3TH	17,600-16-16-11-C
K8WW	16,800-14-14-12-C
DL3YB	16,500-15-15-11-A
F6CJG	15,000-36-15-10-A
W9LUU	14,400-27-16-9-A
WB5NMT	12,100-5-5-5-A
	8-6-6-B
K1MNS	9600-12-12-8-A
W1JR	5600-8-8-7-C
K9XY	5600-24-8-7-A
YU2RGC	4800-8-8-6-C
DK4XI	4200-29-7-6-A
DL6WU	4200-24-7-6-C
K2OS	3000-19-6-5-A
WA3V5J	3000-10-6-5-A
KA1GT	2500-8-5-5-C
SM5CPD	2000-12-5-4-C
WA8HGX	2000-9-5-4-C
YU1EV	2000-5-5-4-C
WA4MVI/4	1600-6-4-4-A
K7NI	1600-7-4-4-B
W7CI	900-3-3-3-A
JA4BLC	800-4-4-2-C
W81OU	400-2-2-2-A
W87N	400-2-2-2-C
K9Z2H	400-2-2-2-C
W9RWB	400-5-2-2-A
W8VB	400-5-2-2-B
K9IMM	200-2-2-2-A

K5WKN

100-1-1-1-A	
N6AMG	100-1-1-1-A
WA9ACI	100-12-1-1-A
K9DAS	100-2-1-1-A
	230,400-6-6-6-A
	4-4-4-B
	51-51-23-C
	3-3-3-D
15M5H(+15s CTE MZY TDJ	
UNA)	140,400-60-54-26-C
I2COR(+11NU,I2s TF1 YTD	
IW2ATM)	60,900-35-28-20-C
OH6NU(+OH6NM)	
	49,500-58-40-15-A
I2ODI(+I2CSE,I4BXN)	
	49,400-38-38-13-A
K5FF/W5FF	28,500-7-7-4-B
	16-12-11-C
F6BSJ(+F6s FTN GBY,F8DO)	
	10,800-29-12-9-A
OK1KIR(+OK1s AKF AXH	
DAI DAK DCI DKWI)	
	9900-39-11-9-C

Multioperator

K2UYH(+KA2JTB,KB2AH,	
N3AIH,W3HQT)	
	230,400-6-6-6-A
	4-4-4-B
	51-51-23-C
	3-3-3-D
15M5H(+15s CTE MZY TDJ	
UNA)	140,400-60-54-26-C
I2COR(+11NU,I2s TF1 YTD	
IW2ATM)	60,900-35-28-20-C
OH6NU(+OH6NM)	
	49,500-58-40-15-A
I2ODI(+I2CSE,I4BXN)	
	49,400-38-38-13-A
K5FF/W5FF	28,500-7-7-4-B
	16-12-11-C
F6BSJ(+F6s FTN GBY,F8DO)	
	10,800-29-12-9-A
OK1KIR(+OK1s AKF AXH	
DAI DAK DCI DKWI)	
	9900-39-11-9-C

K9ALL(+WB9AUM)

4900-7-7-7-A	
N6GN(+K6RFT,W6SFH,	
WB6KDF,WD6CJF,WB7ABP)	
	4800-23-8-6-C
WB4IZR(+WB4WMT)	
	3000-6-6-5-C
WD4IIS(+AA4GA)	
	900-3-3-3-A

Other Active Stations

DJ4AU,DJ5MS,DJ8QL,DJ9DL,	
DK1PZ,DK1KO,DK5LA,DL2LAH,	
DL4AXE,DL7QY,DL8GP,	
DL8HA8,DL9CS,F6CIS,F2TU,	
F2ZVH,GA8MQ,F6FTN,F6GBY,	
F1DYD,F6FHP,G3POI,G3XGS,	
G4DDU,GW4ZIP,GW4CQT,	
GW3XYW,HB95V,I4BXN,	
I4VEQ,IW4ADT,JA6DR,JA8QQ,	
JE6CTS,WA9LPK,KL7,LX1DB,	
OE9XXI,OH7PI,OH4UC,OK1MBS,	
OZ1EME,PA9AVS,SK2AU,	
SM4IVE,SM9ERR,SM5CPD,	
SM8BYC,UA3TCF,UT5DL,	
VK3BKE,YU1AW,YU1SV,	
YU3NLM,YU7PX,YV5Z2,ZE5JJ,	
ZL3AA,D,Z55TR,K1FO,K1MFQ,	
W1XP,WA1TZV,K2CTA,W2AV,	
W2AZL,W3VD,WA3USC,WB3JHP,	
K4PKV,W4WD,WA4NJP,K5AZU,	
K5JL,W5UKQ,W5JTL,W5HM,	
WB5TKU,WB5LBT,WB5ERD,	
KD6R,N6MB,W6ABN,W6PO,	
WB6EQ,W7FU,W7GBI,W7JF,	
W7HAH,WA7BIM,W87TYU,	
W87UF,O,W8WN,K9KFR,W9BOZ,	
WA9KRT,W9WHE,W9PUF,	
W9MDL,W9RAD,WA9LPK,	
WB9YSG,VE1UT,VE1OD,	
VE4MA,VE7BQH,VE7BBG	

Non-Amateur Equipment

K3N55(W1ZX,K3AGR,N3s CAF	
CAL,W3PJM,WA3UPH,	
WB3AEQ,opr)	
	88,000-44-44-20-C

SWL

JA9YAP(+JE2QPU,JF3HKY,	
JA9BN)	
	(20 stations - 432 MHz)
YU2RIZ	(12 stations - 432 MHz)

Rules, Sixth ARRL International EME Competition

In response to overwhelming input from the EME contest participants, the next ARRL EME Contest will be held this fall, on the weekends of October 9-10 and November 6-7. This should give more stations a chance to get things working during the warmer months. Also, there is some hope that conditions will be better than during the spring. Pray for an absence of aurora!

The rules are essentially the same as the spring contest, except that both single-band and multi-band entries will be recognized. This recognition will come in the form of QST listings and in the awards offered.

An s.a.s.e. to ARRL Hq. will get you the official entry forms. Good hunting!

Rules

1) **Object:** Two-way communications via the earth-moon-earth path on any authorized amateur frequency above 50 MHz.

2) **Contest Period:** Two full weekends, Oct. 9-10 and Nov. 6-7, full 48-hour period UTC each weekend.

3) Categories:

(A) **Single Operator:** one person performs all operating and logging functions, equipment adjustment and antenna alignment.

(1) Multi-band.

(2) **Single-band:** Single-band entries on 50, 144, 220, 432, and 1296-and-up categories will be recognized in awards offered. Contacts may be made on any and all bands without jeopardizing single-band entry status. Such additional contacts are encouraged and should be

reported. Also see Rule 8, Awards.

B) **Multioperator:** Two or more persons participate; includes neighboring amateurs within one call area, but with EME facilities for different bands on different team members' premises, as long as no two are more than 50 km (30 miles) apart. Multioperator neighborhood groups cannot use the same call signs at each location; all calls will be listed in the results.

C) **Commercial equipment:** Stations using equipment that is not amateur (such as a dish antenna for lab equipment owned by an institution or government agency) will have their scores listed separately.

4) **Exchange:** For a valid contact to occur, each station must send and receive both call signs and a signal report in any mutually understood format, plus a complete acknowledgement of the calls and report. Partial or incomplete QSOs should be indicated in your log, but not for contest credit.

5) Scoring:

A) **QSO Points:** Count 100 points for each complete EME contact.

B) **Multiplier:** Each U.S. and Canadian call area, plus each DXCC country (not U.S./Canada) worked via EME on each band.

C) **Final score:** Multiply QSO points by sum of multipliers worked on each band for your final score.

6) Miscellaneous:

A) Fixed or portable operation is permitted. Stations operating outside traditional call areas *must* indicate so, identifying the call area of the operating site.

B) Contacts may be on cw or ssb. Only one signal per band is permitted.

C) A transmitter, receiver or antenna used to contact one or more stations under one call sign may not be used subsequently under any other call sign during the contest, except for family stations where more than one call has been issued, and then only if the second call sign is used by a different operator.

D) There is no specified minimum terrestrial distance for contacts, but all communications must be copied over the moon-bounce path, regardless of how strong (or weak) a nearby station's terrestrial signal may be.

7) **Reporting:** Entries must be postmarked no later than 30 days after the contest and must include complete log data. Your summary sheet should indicate the total number of QSOs on each band, multipliers per band and final score. If possible, include details of your station set-up and a photo.

8) **Awards:** Certificates will be issued to the top five stations worldwide in each of the entry categories: single operator multiband; single operator single band (separate awards for each band); and multioperator. Additional awards will be issued where significant achievement or competition is evidenced. In addition, each station that successfully completes at least one EME contact during the contest period will receive a certificate commemorating that achievement.

9) **Disqualification:** See January QST, page 92.