

Results, Sixth ARRL International EME Competition

By Mark J. Wilson,* AA2Z

Late at night on October 9-10 and November 6-7 last year, hams from all parts of the world sat in their shacks in front of an array of sophisticated equipment listening to very weak signals picked up by their equally sophisticated antenna systems. These weak signals managed to survive the torturous trip to that great passive reflector — the moon — and return to earth to be heard by a small but growing band of EME enthusiasts actively engaged in the most recent running of the ARRL EME contest.

Last fall's event was a departure from the traditional spring EME contest, and by all accounts the change to the fall was the right thing to do. Conditions were excellent, although there are conflicting reports on which weekend was the better of the two. Several stations indicated on their logs that they would not have been able to get on if they didn't have the summer and early fall warm weather to build and develop antenna systems. And best of all, activity levels were very high; we received 109 logs for the fall contest, compared to 87 last spring. Average QSOs per entry were higher than ever before at 26.8 for single ops. All in all, this was probably the best EME contest yet.

The other difference between this contest and the others is that we've broken down the scores into several more categories. Single operators may now compete in single-band classes, as well as in multiband. This change left only nine single-op stations active on more than one band. HB9SV took top honors in this class, using 144 and 432 MHz to run up a very nice score.

The 144 MHz-only single-op class was the most popular, with 49 entries. WA1JXN/7 placed first in this competitive category with a score 77% better than in the spring 1982 event. Lance worked many small stations, including WSUWB who was running a single "Jr. Boomer" antenna. K17D closely followed Lance, and WSUN, with a new (and big!) antenna, placed third. The continued rapid growth of 144-MHz EME made for many excellent scores on this band. Even smaller stations had their hands full. Using only four antennas the first weekend (and upgraded to six the second), K1FO worked a total of 46 stations without the use of skeds.

The competition on 432 MHz was very intense among heavyweights N9AB, 15MSH, F9FT and Z25JJ. All posted excellent scores that were above last spring's best. Of the 30 432-only stations sending logs, Andy, N9AB, came out on top with 68 QSOs, all made on random. A look at the table showing antennas

used by the various top contenders shows that several different antennas can be successful. One big surprise for the 432 ops was the November 7 appearance of NP4B using 3-W (yes, 3!) output and the 1000-foot Arecibo Observatory dish antenna. Maybe this contest needs a QRP class

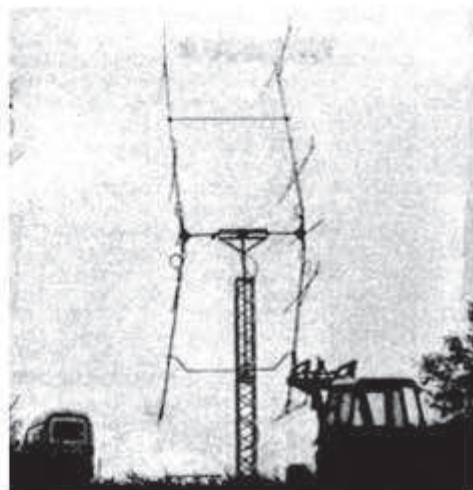
Only three stations submitted 1296-only scores, but the activity was there, as witnessed by leader SM6CKU's QSO total, which is 33% higher than in the spring. K2UYH reports that two new countries, OZ and OE, were active on this band.

Among the 14 multiops, WB0TEM, assisted by WB0PJB, again led the pack with an outstanding 539 kilopoints, a new record score for any class in this contest. Second place went to YU1AW, while K2UYH again placed third. The K2UYH score is excellent when you consider that they didn't make a single contact on 144 MHz and that they did work almost every available station on the bands they operated.

The fall EME contest was so successful that it will continue to be held at that time of year. Special thanks go to the ARRL Ad Hoc Committee for VHF/UHF Contesting and WA1JXN, K1WHS, W1JR, K2UYH and F9FT for their valuable assistance in determining the best dates.

Antennas Used by Leading Stations

Class	Call	Antenna
Single Op Multiband	HB9SV	16 x 16-el Yagi (144) 16 x 21-el Yagi (432)
	N4GJV	16 x 3-el quad (144) 8 x 13-el Yagi (432)
	DL7YC	8 x 21-el Yagi (432)
	G3LTF	2-meter dish (1296) 20-foot dish (432 and 1296)
	Single op 144 MHz only	WA1JXN
K17D		240-el collinear
WSUN		16 x 26-foot boom quagi (not specified)
SM7BAE SM2GGF		8 x 15-el Yagi
Single op 432 MHz	N9AB	16 x 20-el quagi
	15MSH	11-meter dish
	F9FT	16 x 21-el Yagi
	Z25JJ	32-foot dish
	OH6NU	16 x 21-el Yagi
Single op 1296 MHz	SM6CKU	8-meter dish
	VE7BBG	(not specified)
Multiop	WB0TEM	(not specified)
	YU1AW	12.2-meter dish (144 and 432) 7-meter dish (1296)
	K2UYH	28-foot dish (220, 432 and 1296)
	I2ODI	16 x 20-el Yagi (144)
	F6BSJ	8 x 16-el Yagi (144)
Commercial	K3NSS	84-foot dish (432)



A new design for 8 Yagis? No, just F6BSJ's array after 100-mph winds swept through the area!



The YU1AW crew (left to right), YU10AM, YU1BB and YU1AW, placed second in the multiop category using this 12.2-meter dish antenna.



OH6NM (left) and OH6NU switched from 144 MHz to 432 MHz for this contest.

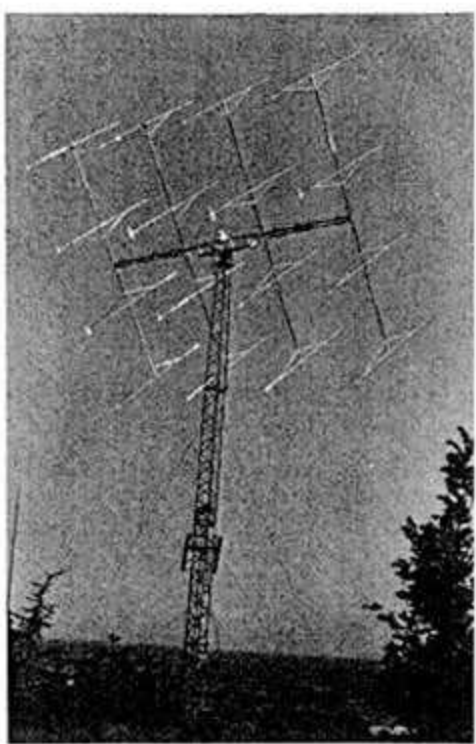
*Assistant Communications Manager, ARRL



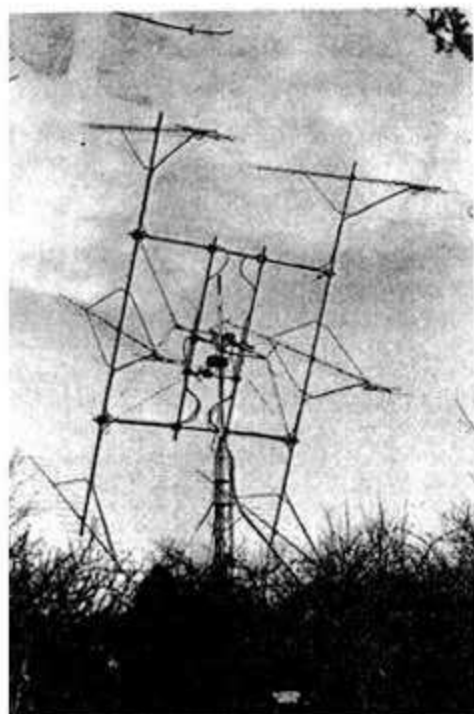
WBØTEM (left) and WBØPJB operated 144, 220 and 432 to win the multiop class.



ZL3AAD gave out several 1296-MHz contacts using this 20-foot dish.



That big 144-MHz signal from I2ODI emanated from this 16-Yagi array.



K1FO's array of six modified "Boomer" antennas played quite well during the second weekend. The phasing lines are made from RG-331U (1/2-inch Alumifoam), and the array is fed with 7/8-inch air Heliax.® (K1FO photo)

SOAPBOX

We could not operate during the first session because of a vhf meeting. Our impression of the second weekend is very good (I2ODI). In 1980, '81 and '82, winter damage prevented me from being operational during the spring affairs. Fall definitely gives me time to repair winter damage. QRM below 432.012 was rough, but when I went above that I had no luck. It seems like the big guns have to lead the way in spreading the activity out (N2CB). We put up the station the week before the first weekend. Our results the first weekend were poor, so we worked the month before the second weekend and things were much

better (EA3LL). Conditions the first weekend were superb! (WAØLSH). The Nov. 6 period was excellent. I2ODI was 30 dB out of the noise, and I was able to work nearly every station I could hear on random (KD9Z). Reduced my total receive system temperature to 50 K by installing a new, ultra-low-loss feed system. My echoes are consistently 6 to 12 dB out of the noise. I now know what the 16-Yagi and big-dish operators are hearing! (K17WE). It would be interesting to give 100 points for a sked QSO and 200 points for random. Also, U.S. states should be broken down as multipliers (F6CJG). Being the only California station on 2 meters during the first weekend made me very

popular (KY4Z/6). Let's have two contests every year (N4GJV).

FEEDBACK

Please refer to August 1982 QST, page 72, for the following corrections to the spring 1982 EME contest. The following entries were received too late to make the results. In the single-operator class, AFIT 100-5-1-A. In the multioperator class, 15MSH (plus 15s CTE, TDJ, UNA) 159,300-59-59-27-C; OE3XUA (OE1WWA, OE3s LI, ZK oprs) 68,200-35-15-10-A, 26-16-12-C; I6WJB (plus 16s OVO, YPK) 7000-17-10-7-A.

Scores

Scores list: call, score, stations heard, stations worked, multipliers, band (A — 144 MHz; B — 220 MHz; C — 432 MHz; D — 1296 MHz).

Single Operator				Multiop				432 MHz Only				1296 MHz Only							
BB9SV	196,000	24-24	16-A	SM7BAE	216,000	75-72	20-A	M990I	4200-	7-7	6-A	DF7VX	13,000	13-13	10-C	OK1KIR (OK1s BKF, DAI, DAK, DCI, EK, oprs.)	71,300	32-20	15-C
W4CJV	87,400	21-9	6-A	SM2GGF	215,400	80-77	28-B	OH7RJ	3600-	6-6	6-A	WA6ZTK	13,000	27-13	10-C				
DL7TC	68,200	28-28	11-C	WASONQ	176,700	58-57	31-A	WA9AC1	3500-	70-7	5-A	N2CB	11,000	28-11	10-C				
C3LTF	57,500	17-17	16-C	TU3USB	156,600	58-58	22-A	WB9CAS	3500-	7-7	5-A	W1UHE	8000	10-10	8-C				
K4QIF	41,800	16-16	13-C	WA4NJP	151,600	75-64	24-A	WBRT	2500-	5-5	5-A	WA3PFC	4900-	41-7	7-C				
VE5MC	41,400	4-4	3-A	OM7PI	140,400	54-54	24-A	K18KK	1500-	5-5	3-A	KBDC (WBTR, opr.)	4900-	7-7	7-C				
WB5LJA	36,000	3-3	3-B	F6CJG	108,100	47-47	23-A	KB8DE	1200-	4-4	3-A	DE1PZ	1600-	4-4	4-C				
W1JR	24,000	3-3	3-A	K1FO	105,800	53-46	23-A	WA0CQ	400-	7-2	2-A	VE6ZT	1600-	7-4	4-C				
HG4NC	4900-	1-1	1-B	SM1LYE	98,400	41-41	24-A	G40ZU	100-	1-1	1-A								
				WA9KRT	86,100	73-41	21-A	1296 MHz Only				SM6CKX	23,400	18-18	13-D	16WJR (+16YPK)	20,800	16-16	13-A
				DJSDT	58,900	44-31	19-A					VE7BNC	18,200	14-14	13-D	EA3LL (+EA3s AEO, BEW, LL7, RU)	16,500	31-15	11-A
				Y22RE	54,400	32-32	12-A					ZL3AAD	900-	3-3	3-D	WA7JOO (+N7RPA)	11,000	11-11	10-A
				K8RRQ	51,300	27-27	19-A									W4LY (KAACKI, WBAE1Y, KBK1, oprs.)	900-	3-3	3-A
				SN4GVF	45,000	25-25	18-A									W5UWB (+W5ATRE)	400-	3-2	2-A
				K2QR	42,500	51-25	17-A									FIN1 (+F6DR0)	200-	14-2	2-A
				KY4Z/6	38,400	31-24	16-A									Non-Amateur Equipment			
				KR5F	36,500	40-23	15-A												
				JAG6K	29,900	23-23	13-A												
				W7BAH	26,600	19-19	14-A												
				WAØLSH	25,200	22-18	14-A												
				K9XY	22,400	29-16	14-A												
				W4LLYS	20,400	17-17	12-A												
				W7IUV	19,200	24-16	12-A												
				W8RWS	16,800	14-14	12-A												
				K1HMS	16,500	35-15	11-A												
				K1HMS	16,500	15-15	11-A												
				K57B	15,400	24-16	11-A												
				KD9Z	13,000	13-13	10-A												
				WB8PAT	12,000	40-12	10-A												
				WA4NVI	11,700	13-13	9-A												
				WA2GSX	10,000	10-10	10-A												
				OH5JIN	9900-	38-11	9-A												
				W73ZV	9600-	12-12	8-A												
				W7CMS	9600-	12-12	8-A												
				SN5CFS	8000-	10-10	8-A												
				WA8ZRE	7200-	9-9	8-A												
				WB9W	5600-	8-8	7-A												
144 MHz Only																			
WA1JXN/7	363,000	120-110	51-A																
K17D	304,000	95-95	52-A																
W5IN	252,000	84-84	30-A																