# 2008 ARRL International EME Competition Results

by Jeremy Alexander W7EME jeremy@w7eme.org

Competitive proving ground of skills and emerging technologies

Earth-Moon-Earth (EME) operators ran up their power bills for the 30th ARRL International EME Competition, held on September 20-21, October 18-19, and November 15-16, 2008. The use of newer technologies and operator endurance continue to be the cornerstone of the most successful contest stations. The brute-force approach to EME in general has faded a bit in recent years, and as a result, the EME competitor now has a larger selection of stations with which to compete.

The 2008 event once again provided outstanding activity and yielded some nice scores. EME contesters have traditionally been at the cutting edge of competition and utilize any and every advantage available to them. Smaller stations are scoring higher and higher total scores and have been logged by most participants nearly every year for some time now. Portable contest and Special Event stations also made a larger appearance in the competition this year.

There are three separate weekends of competition. For the accomplished microwave contester, the 2304 MHz and Up competition occurred on the weekend of 20-21st September. The second and third segments were held during the Moon's passes of 18-19th October and 15-16th November. The latter two weekend segments are for QSOs on 50 MHz through 1296 MHz. (Weekends are dedicated to different sets of bands to allow station and antenna reconfiguration.)

### How are contest dates selected?

Dates are selected from predictions of the three weekends having the best EME path conditions. These include factors such as path loss (which at 144 MHz can vary by 2 dB or more between the moon's perigee and apogee) and sky temperature (the level of noise behind and near the Moon as seen by the antennas). Other factors affect the choice of the weekend segments, such as suggestions from the EME community, conflict with other contests, holidays, and similar events. While the Moon may be "up there" every weekend, with such a difficult path little things can certainly make a weekend "good" or "bad" for EME.

### **EME Categories**

In this annual event, participants may choose from a variety of entry categories. The classic Single-Operator entry is the fancy of most EME contesters, although there are a handful of Multi-operator teams. Stations may choose to operate CW-only, Digital-only, or Mixed Mode. Participants must also choose to compete using a single band or as an All\-Band entry in either of the 50-1296 MHz or 2304 MHz and Up groups. The Assisted category was a further extension of the contest and is available to any Single-Op or Multi-Op contest entrant. The Assisted category allows the contestant to coordinate and advertise their operation in real-time, during the contest, by means of the Internet or otherwise.

The results of the competition show a total of 140 entrants and 7 check logs. Of the total, nearly 90% of the entries are Single-Operator with entries in almost all of the different categories. The remaining entries are in the Multi-Operator categories. The total of 140 submitted logs in 2008 is down from the previous year's competition of 183 entries. The reported total of completed QSO's was also down in comparison to the 2007 event, with just over 8500 QSO's in 2008 compared to 10,100 in 2007. Single-Operator entries totaled 124 of all entries and the remaining 16 entries were the Multi-Op and commercial facility stations. Single-Band, 222 MHz remains the only category for which an entry has never been received.

### **Category Winners**

The overall highest score of the 2008 ARRL International EME Competition goes this year to the mighty Multi-Op, All-Band, Mixed-Mode efforts of HB9Q with 360 Q's and a score of 5,724,000 points. Team HB9Q was composed of HB9CRQ, HB9EHJ, HB9DRI, HB9COG, HB9EFK, HB9JAW and HB9TST. The competition's second highest score overall was made by Team K1JT. With a score of 5,696,000 for their 356 contacts completed, Team K1JT was operating as a "Neighborhood" Multi-Op, All-Band, Mixed-Mode entry under Rule 7.1 that allows nearby stations optimized for different bands to "team up." (The rules for the contest are on-line at <a href="https://www.arrl.org/contests/rules">www.arrl.org/contests/rules</a>.) This effectively combined 144 MHz operation at K1JT with operation on the bands through 10 GHz at K2UYH. K2TXB, K2LNS, K1DS, K2BMI and W2KV were involved in the K1JT contesting effort. Top scores in each category are shown in <a href="https://www.arrl.org/contests/gratefully-acknowledges-the-following-amateurs-who-submitted-their-logs-as-checklogs: DL7APV, EA3MS, JM1WBB, PA3CWN, PJ4NX, RW3BP and UA4HAK.

#### Where the Action Is

The 2304 MHz band is showing more and more activity. This contest was a good example of the increasing population on 13cm. This band continues to dominate the first weekend of the contest. It is likely the New Band of Choice for the more technically-minded ham and a good place to find the modern analog operator on CW and SSB.

The 144 MHz band has always been host to the greatest activity. The use of digital mode JT65b from the WSJT suite of software (available for free at <a href="https://www.physics.princeton.edu/pulsar/K1JT">www.physics.princeton.edu/pulsar/K1JT</a>) was the choice of the 2 meter contester in 2008. The quantity of CW stations was down considerably from years past. The 23cm band was also a good place to hunt points for the contester. Many smaller stations are now enjoying 1296 MHz EME with quite a few of them active on the second and third weekends, accumulating QSO points.

#### EME - Learn More



CQ Moon! Demonstrating that a huge dish is not required at all, EME results author W7EME used this single Yagi (5 wavelengths long) to make the round-trip from the Hawaiian island of Kauai.

EME should be attempted by any amateur wanting to try something new, exciting and rewarding! There is now a wealth of information on the How-To and What-To by simply searching the subject on the Internet. The Web site of Paul Kelley, N1BUG is a great read for the beginner at <a href="https://www.n1bug.net/operate/emebasic.html">www.n1bug.net/operate/emebasic.html</a>. To learn more about and download the popular WSJT software suite, see the Web site of Joe Taylor, K1JT: <a href="https://www.physics.princeton.edu/pulsar/K1JT">www.physics.princeton.edu/pulsar/K1JT</a>. The state of the EME art is described on the home page of Leif Asbrink, SM5BSZ: <a href="https://www.sm5bsz.com">www.sm5bsz.com</a>. See the sidebar to this article, "Getting Started in Moonbounce", too. It is easier than you think to put together a small station and

give EME contesting a try. You will instantly find yourself in the middle of fantastic science that also doubles as a great hobby.

Lessons for the EME newbie can be obtained by observing the repeat success of top score holders. They are utilizing all of the tools at hand, always. There is awesome equipment available to the modern EME contester and weak-signal enthusiast: dual-polarity antenna systems, specialized hardware for stereo reception of both antenna senses, and software suites offering weak-signal capture with call sign and frequency mapping that just get better every year. The minimum-required budget just keeps getting smaller, too!

EME contesting is within the reach of even the weekend VHFer. Try it--it's fun, it's technical, and it's rewarding! Good luck to all next year! Please check <a href="http://www.arrl.org/eme-contest">http://www.arrl.org/eme-contest</a> for the 2009 dates of the 31st annual 2009 ARRL International EME Competition and possible changes to the structure of the contest categories.

# 2008 ARRL International EME Competition Results

#### **Getting Started in Moonbounce**

Moonbounce is an awesome achievement and fairly intimidating to the average ham, but it has never been more accessible than it is today. As you'll discover, the special digital signal processing (DSP) algorithms and protocols of WSJT by Joe Taylor K1JT put moonbounce within reach of even modest stations, leveraging the power of the microprocessor to copy extremely weak signals.

If the idea of making a "bank-shot" QSO over a half-million mile path sounds like it might be fun, you can get started by learning the terminology and fundamentals of EME operation. There is an HF Moonbounce Net at 1500Z on 14.345 MHz for EME operations on 432 MHz and the higher bands. It is followed by a net in support of 2 meter EME on the same frequency at 1600Z or 1700Z. This is a good place to meet hams that will answer questions (probably off-line and not during the net).

There are excellent resources online, too. Try the ARRL Technical Information Service EME pages at <a href="http://www.arrl.org/tis/info/moon.html">http://www.arrl.org/tis/info/moon.html</a> where you'll find some QST articles and links to other moonbounce sites. N1BUG publishes a good how-to guide for the EME beginner at <a href="http://www.glogy.com/www.n1bug.net/operate/emebasic.html">http://www.glogy.com/www.n1bug.net/operate/emebasic.html</a>. A good US site is maintained by K7XQ at <a href="http://www.elite.net/~k7xq/k7xq.html">http://www.n1bug.net/operate/emebasic.html</a>. A good US site is maintained by K7XQ at <a href="http://www.elite.net/~k7xq/k7xq.html">http://www.n1bug.net/operate/emebasic.html</a>. A good US site is maintained by K7XQ at <a href="http://www.unitained.ntml">http://www.n1bug.net/operate/emebasic.html</a>. A good US site is maintained by K7XQ at <a href="http://www.unitained.ntml">http://www.n1bug.net/operate/emebasic.html</a>. A good US site is maintained by K7XQ at <a href="http://www.unitained.ntml">http://www.unitained.ntml</a>. By DK5YA at <a href="http://www.unitained.ntml">http://www.unitained.ntml</a>. By DK5YA at <a href="http://www.unitained.ntml">http://www.unitained.ntml</a>. If you want to take a look at the EME state of the art, it is described on the home page of Leif Asbrink, SM5BSZ at <a href="http://www.sm5bsz.com">http://www.sm5bsz.com</a>. Leif's WSE modules are getting rave reviews as a dual-polarity receiver and are in use by every high-scoring moonbounce station on 144 MHz. Analog, in the context of moonbounce, means the use of human hearing and brainpower as the means by which audio from the received echoes is translated into call signs and messages. The two modulation techniques used are CW and SSB. Of the two, SSB requires the strongest signal strength. CW signals can be detected by a highly trained and sensitive pair of ears (certainly not the author's) down into the receiver noise floor and slightly beyond in exceptional cases and circumstances. The resul

Digital moonbounce is dominated by the use of signal processing in the form of special protocols and codes known as JT65, part of the WSJT software suite developed and made available for free by Joe Taylor K1JT (<a href="http://physics.princeton.edu/pulsar/K1JT">http://physics.princeton.edu/pulsar/K1JT</a>). His latest addition to the package is the MAP65 software that "finds" stations using the JT65 mode over a wide bandwidth—IF you have the necessary hardware and

computer operating system. In these digital modes, the received audio is translated into call signs and messages by signal processing software that uses a PC sound card to digitize the audio. JT65 can dig a lot farther into the noise to recover signals than can even the best human ear. This extra ability to recover a signal is known as "processing gain." By using JT65 codes, a much more modest station can successfully complete moonbounce contacts than is required for analog modes.

A couple of long-boom Yagi's will get you "on the moon" on either 144 or 432 MHz, the two most popular bands for EME operation. There may even be a moonbouncer in your town or region that wouldn't mind showing you the ropes or you can participate on a moonbounce team. (Or start one!) You can also find moonbounce operators through the regional VHF/UHF contest clubs and those can be located those via the ARRL Club Search Web page at <a href="http://www.arrl.org/find-a-club">http://www.arrl.org/find-a-club</a>.

With a basic station, analog moonbounce QSOs are by no means out of the question, but you will have to wait for just the right time and then take advantage of the capabilities of a seasoned moonbounce station on the other end of the path. EME contests are a good time to find these strong signals and sensitive receivers waiting for your call. In contrast, there are more opportunities for digital moonbounce operating, because of the mode's better tolerance of noise. Many stations try both analog and digital moonbounce!

With all of these resources and the excellent VHF/UHF all-band all-mode radios so widely available, the barriers to moonbounce have never been lower. Why not make it a team or club project? The Moon is closer than you think!

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CATEGORY	CALL	SCORE	Analog QSOs	Digital QSOs	Total QSOs	Total Mults
Single Operator All-Band Analog	G3LTF	1,582,400	172	0	172	92
	DF3RU	1,193,400	153	0	153	78
	DL4MEA	802,400	118	0	118	68
	WA6PY	549,400	82	0	82	67
	IW2FZR	225,700	61	0	61	37
	NA4N	188,700	51	0	51	37
	W9IIX	98,000	35	0	35	28
	WA8RJF	8,100	9	0	9	9

Single Operator All-Band		i		Ì		
Mixed-Mode	OH2DG	967,500	11	118	129	7
Single Operator Multi-Band 50-	VK3UM	618,000	103	0	103	
1296 MHz Analog	VK3UM	018,000	103	0	103	6
	SM3JQU	27,200	16	0	17	1
Single Operator Multi-Band 50- 1296 MHz Digital	VK4CDI	28,500	0	19	19	1
12)0 WIII2 Digital						
Single Operator Multi-Band 50- 1296 MHz Mixed-Mode	WA4NJP	459,200	25	57	82	5
	JA6AHB	202,800	51	1	52	3
	RW6AG	98,800	8	30	38	2
	UA4AQL	40,800	1	23	24	1
	UT3LL	22,400	5	11	16	1
Single Operator All-Band 2.4		27.5.700				
GHz and Up	RW1AW	256,500	57	0	57	0
	F2TU	206,700	53	0	53	3
	W5LUA	176,300	43	0	43	4
	ES5PC	145,200	44	0	44	3
Single Operator 50 MHz Digital	JR6EXN	1,600	0	4	4	4
	K2ZD	400	0	2	2	2

					1	
Single Operator 144 MHz	I A OVER	150 600				20
Analog	LA8YB	159,600	57	0	57	28
	K6PF	11,000	11	0	11	10
	JH0WJF	9,900	11	0	11	9
	DL8UCC	8,000	10	0	10	8
	9A9B	5,600	8	0	8	0
	UR0EQ	1,600	4	0	4	4
	SM5BSZ	400	2	0	2	2
CATEGORY	CALL	SCORE	Analog QSOs	Digital QSOs	Total QSOs	Total Mults
Single Operator 144 MHz Digital	НА0НО	251,600	0	68	68	37
	EA5SR	247,500	0	75	75	33
	RA3GES	176,700	0	57	57	31
	F4ERO	164,300	0	53	53	31
	RV9JD	122,500	0	49	49	25
	YL2HA	102,500	0	41	41	25
	SP2NJI	75,600	0	36	36	21
	KI4TZ	55,100	0	29	29	19
	PY2SRB	54,000	0	27	27	20
	WA4EWV	51,300	0	27	27	19
	K8TL	16,500	0	15	15	11
	UA9UHN	10,800	0	12	12	9

	UA0LW	4,800	0	8	8	6
	9M6YBG	3,600	0	6	6	6
	DF1HF	2,000	0	5	5	4
	YO4FNG	900	0	3	3	3
	WB2SIH	600	0	3	3	3
	UA9UCK	400	0	2	2	2
	G4KLA	400	0	2	2	2
	NQ7R	200	0	2	2	1
	WC9C	100	0	1	1	1
	YO3JW	100	0	1	1	1
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CATEGORY	CALL	SCORE	Analog QSOs	Digital QSOs	Total QSOs	Total Mults
Single Operator 144 MHz Mixed-Mode	RA6DA	1,252,900	12	175	187	67
	I3EVK	412,800	13	83	96	43
	LZ1DP	381,300	11	82	93	41
Single Operator 144 MHz Mixed-Mode Assisted	RU1AA	3,175,900	39	317	349	91
	RA6AX	3,168,000	65	295	360	88
	RK3FG	1,247,400	3	186	189	66
	KB8RQ	1,112,200	0	166	166	67
	OK1UGA	985,300	0	167	167	59

	YU7AA	873,200	0	148	148	0
	EA6VQ	778,400	0	139	139	56
	7K3LGC	688,500	10	125	135	51
	RU1AC	570,400	5	119	124	46
	RX1AS	567,600	7	122	129	45
	EA2AGZ	566,100	0	111	111	51
	WA3QPX	479,600	0	109	109	44
	SM5CUI	469,200	1	91	92	51
	VE5UF	438,600	0	102	102	43
	PA3ECU	292,600	0	77	77	38
	RZ3BA/1	285,600	1	83	84	34
	ҮО9НР	283,500	0	81	81	35
	RV9UV	174,900	1	52	53	33
	UK/DL9LBH	150,800	0	58	58	26
	K0KP	139,200	3	45	48	29
	EB1DNK	117,500	0	47	47	25
	I3LDP	70,000	0	35	35	20
	F6BEG	60,000	0	30	30	20
	JS3CTQ	44,200	0	26	26	0
	XE2AT	42,500	0	25	25	0
	W7CE	28,600	0	22	22	13
	VE6CPP	25,200	0	21	21	12
	RW9USA	23,400	1	17	18	0
I	1					

	KL7UW	17,600	0	16	16	11
	KR7O	16,800	0	14	14	12
	EA4WT	15,000	0	15	15	10
	RA3WDK	11,700	0	13	13	9
	XE2NS	9,900	0	11	11	9
	KC6ZWT	7,700	0	11	11	7
	RW3WR	4,900	0	7	7	7
	ЈН9ТЈТ	1,500	0	5	5	5
	XE2MVS	600	0	3	3	2
	RA4SD	200	0	2	2	1
	ЈЈЗЈНР	100	0	1	1	1
CATECODY	CALL	SCORE	Analog	Digital	Total	Tota
CATEGORY	CALL	SCORE	QSOs	QSOs	QSOs	Mul
Single Operator 432 MHz Analog	IINDP	198,000	QSOs 66	QSOs 0	QSOs 66	30
Single Operator 432 MHz						
Single Operator 432 MHz	IINDP	198,000	66	0	66	30
Single Operator 432 MHz	I1NDP UA3PTW	198,000	66	0	66	30
Single Operator 432 MHz	I1NDP UA3PTW K0RZ	198,000 188,800 110,000	66 59 44	0 0	66 59 44	30 32 25
Single Operator 432 MHz	IINDP  UA3PTW  K0RZ  JJ1NNJ	198,000 188,800 110,000 71,400	59 44 34	0 0 0	66 59 44 34	32   25   21
Single Operator 432 MHz	I1NDP  UA3PTW  K0RZ  JJ1NNJ  UT2EG	198,000 188,800 110,000 71,400 39,900	66 59 44 34 21	0 0 0 0	66 59 44 34 21	30 32 25 21 19
Single Operator 432 MHz	I1NDP  UA3PTW  K0RZ  JJ1NNJ  UT2EG  JA9BOH	198,000 188,800 110,000 71,400 39,900 28,500	66 59 44 34 21 19	0 0 0 0 0	66 59 44 34 21 19	30 32 25 21 19
Single Operator 432 MHz	IINDP  UA3PTW  K0RZ  JJ1NNJ  UT2EG  JA9BOH  DG1KJG	198,000 188,800 110,000 71,400 39,900 28,500 27,000	66 59 44 34 21 19	0 0 0 0 0 0	66 59 44 34 21 19	30 32 25 21 19 15

Single Operator 1296 MHz Analog	DL0SHF (DL6LAU, op)	438,600	102	0	102	43
	OK1CA	417,300	107	0	107	39
	LA9NEA	334,400	88	0	88	38
	RA3AQ	325,600	88	0	88	0
	K2DH	221,100	67	0	67	33
	IK3COJ	192,000	64	0	64	30
	UT5JCW	172,800	54	0	54	32
	JA6CZD	135,000	50	0	50	27
	K4QI	128,800	46	0	46	28
	RW3PX	97,500	39	0	39	25
	JH5LUZ	48,600	27	0	27	18
	JF3HUC	31,200	24	0	24	13
	JA4JLB	21,000	15	0	15	14
	W3HMS	400	2	0	2	2
Single Operator 1296 MHz Mixed-Mode	PA3FXB	107,500	26	17	43	25
Single Operator 1296 MHz Mixed-Mode Assisted	PY2BS	18,000	0	15	15	12
	PY2MJ	100	0	1	1	1
Single Operator 2.4 GHz	WD5AGO	39,600	22	0	22	0

	SP6GWN	17,600	16	0	16	11
Single Operator 10 GHz	F5JWF	14,300	13	0	13	11
Single Operator 24 GHz	DF10I	900	3	0	3	3

CATEGORY	CALL	SCORE	Analog QSOs	Digital QSOs	Total QSOs	Total Mults	Operators
Multi-Operator All- Band Mixed-Mode	HB9Q	5,724,000	151	209	360	159	(HB9CRQ, HB9EH HB9DRI, HB9COO HB9EFK, HB9JAV HB9TST, ops)
	K1JT	5,696,000	158	198	356	160	(+ K2UYH, K2TX K2LNS, K1DS, K2BMI, W2KV)
Multi-Operator Multi- Band 50-1296 MHz Analog	SP6JLW	713,900	121	0	121	59	(+ SP6OPN)
Multi-Operator Multi- Band 50-1296 MHz Mixed-Mode	RK3WWF	934,800	24	99	123	76	(RA3WME & RA3WT, ops)
	K4EME	584,100	24	75	99	59	(+ AD4TJ, KR4V)
	LU1C	105,000	1	41	42	25	(LU1ABE & LU1CGB, ops)
Multi-Operator All-	OK1KIR	36,000	20	0	20	18	(OK1DAI, OK1DA OK1VAO, OK1DO

Band 2.4 GHz and Up							ops)
Multi-Operator 144 MHz Mixed-Mode Assisted	K5QE	1,258,000	7	178	185	68	(+ KE5CLR, KD5SHM)
	IK1UWL	1,102,200	5	162	167	66	(+I1ANP)
	KA1VHF	413,600	0	88	88	47	(+ KA8HOK)
Multi-Operator 432	ОН2РО	213,000	71	0	71	30	(+ OH6DD)
MHz Analog							
Multi-Operator 1296 MHz Analog	LA2Z	41,400	23	0	23	18	(LA2PKA, LA6M LA7VH, ops)
Multi-Operator 1296 MHz Mixed-Mode	VA7MM	160,000	48	2	50	32	(VE7CMK & VE7CMF, ops)
	K6JEY	16,500	8	7	15	11	(+ KJ6HZ, W6SZ
COMMERCIAL ENTRANTS:							
Multi-Operator Multi- Band 50-1296 MHz Mixed-Mode	PI9CAM	1,833,500	100	93	193	95	(PA2DW, PA0PL PE1L, PA3FXB, o
Multi-Operator 144 MHz Mixed-Mode	8J1AXA	57,800	6	28	34	17	(JA1FY, JA1DYE JH1KRC, JE1OY JF1AKD, JO1LV 7M1KAE, JA9CO JF6DEA, ops)

## **CHECKLOGS:**

DL7APV

EA3MS

JM1WBB

PA3CWN

PJ4NX

RW3BP

UA4HAK

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**Category Winners** 

Category Winner		
Single Operator Entrants		
All Band, Analog	G3LTF	1,582,400
All Band, Digital	VK4CDI	28,500
All Band, Mixed Mode	OH2DG	967,500
Multi-Band, 50-1296 MHz Analog	VK3UM	618,000
Multi-Band, 50-1296 MHz Digital	VK4CDI	28,500
Multi-Band, 50-1296 MHz Mixed-Mode	WA4NJP	459,200
50 MHz, Digital	JR6EXN	1,600
144 MHz, Analog	LA8YB	159,600
144 MHz, Digital	НА0НО	251,600
144 MHz, Mixed Mode	RA6DA	1,252,900
144 MHz, Mixed Mode, Assisted	RU1AA	3,175,900

432 MHz, Analog	I1NDP	198,000
1296 MHz, Analog	DL0SHF	438,600
1296 MHz, Mixed Mode	PA3FXB	107,500
1296 MHz, Mixed Mode, Assisted	PY2BS	18,000
Multi-Band, 2.4 GHz and Up	RW1AW	256,500
2.4 GHz	WD5AGO	39,600
10 GHz	F5JWF	14,300
24 GHz	DF1OI	900
Multi-Operator Entrants		
All-Band Mixed	HB9Q	5,724,000
Multi-Band, 50-1296 MHz Analog	SP6JLW	713,900
Multi-Band, 50-1296 MHz Mixed Mode	RK3WWF	934,800
144 MHz Mixed Assisted	K5QE	1,258,000
432 MHz Analog	ОН2РО	213,000
1296 MHz Analog	LA2Z	41,400
1296 MHz Mixed Mode	VA7MM	160,000
Multi-band, 2.4 GHz and Up	OK1KIR	36,000
Commercial Gear Entrants	I	
Multi-operator, Multi-Band, 50-1296 MHz Mixed Mode	PI9CAM	1,833,500
Multi-operator, 144 MHz Mixed-mode	8J1AXA	57,800

# 2008 ARRL International EME Competition Results

**From The Participants** 

XE2AT	GREAT CONDS FIRST LEG! Thanks to all.
XE2NS	First time in EME contest! Thanks to all.
EA3MS	I was very pleased to work my first JT65B contacts on the EME test. Now I learned to work JT65B next contest I will try to perform a better result. Some years ago I was active under my old call EA/DL3MGL, but most of the people did not copy my call correctly on CW EME.  Anyway I am very limited due to lack of elevation (I can actually elevate from 0° to 35°). During the contest I climbed the tower and elevated the antenna manually, so I had to relay on my optical camera tracking system. Depending on azimuth of the moon my moonset is very high, up to 25°, so I can not take chance of the whole possible moon period of each day of contest.  Further I checked the CW EME frequencies, but only achieved one QSO. In addition I am very surprised about the performance of JT65B (congrats to K1JT), it makes EME accessible to everyone, of course you need less operator's skill but it pushes activity on EME and in VHF.  I am located about 100km south of Barcelona in JN01ME. Some more information's you can extract from my web page: www.ea3ms.com.  Finally I would thank the ARRL and all participants of maintaining and organizing this interesting contest.  If you need some more information, please do not hesitate in contacting me. Best regards and 73's, Carlos EA3MS
LU1CGB	This year we tried to work in CW and digital and also some UHF in QRP mode, that why we use an special call LU1C submitted by local agency, but we use my regular setup and location.  The team was LU1AEE Fabian and me. Saludos,
LA2Z	LA2Z participated only first weekend due to work duties. Good participation and fun to work. Cu next year. 73 de LA6MV Helge
OK1KIR	OK1KIR participated in 3.4 GHz, 5.7 GHz and 10 GHz bands in ARRL EME 2008 contest. Our business duties and illness of Tonda, OK1DAI kept us away from participation in 1296 MHz legs and persistent terrible local QRM eliminated completely our EME activity on 13cm. We are currently not QRV on 24 GHz after TX TWT PSU is gone. However we progress slowly with the new PA construction. Overall it was very nice contest with lot of fun on MW bands. Facing current discussion about ARRL EME Contest rules, we, ops at OK1KIR would advise anybody attending the discussion to turn back 10 years. QST in May

	1999 issue on page 93 and "432 MHz and above EME News" in May 1999, vol. 27,#5 both published an opinion as follows. "MICROWAVE EME CONTEST 1998.  The first ARRL sponsored Microwave EME weekend was a great success. The event took place on November 7 and 8th and concentrated on EME activity at 2300 MHz and higher. Entries indicated that about 30 stations from 15 countries participated in the event. 20 stations were active on 13 cm, 11 on 6 cm and 8 on 3 cm. Two stations were active on 9 cm but no two-way QSOs were recorded. Two days is not enough time to operate 4 microwave amateur bands on EME!"  We, OK1KIR EME team fully support this opinion. We would like to propose to ARRL EME contest committee and organizers to consider splitting of MW part into two weekends, for example 2.3 GHz and 3.4 GHz in the first weekend and rest of the MW bands in the second weekend. We believe that this will stimulate number of participants and number of QSOs on MW. Furthermore, we strongly support to continue presentation of multiband stations results in the same way as it was done till 2006, i.e. #of QSOs and multipliers per each particular band in parallel to the total score.
EA5SR	Hi I'm ea5sr angel, is my first time to participate in such competitions already been a great pleasure for me, because I love the high frequencies and I dedicate them afondo am a very young man just 25 years and is not Typically, a young man so that the eme because everything is very expensive and for a more humble and hardworking person like me that much for me to achieve all this but I am very proud of these modalities and able to work every day with more illusion, a greeting and the year to be good to try again with you in this wonderful contest, thanks for everything.  I hope here to receive confirmation of my lists and which are correct.
KR7O	I operated unassisted/random the first weekend. About half of my contacts were in response to my CQ (thanks for tuning around and calling guys). I was 100% digital, but do not see a category on the summary form for that. BTW, I am in full support of the assisted category (even though I primarily operated unassisted, only one assisted QSO made).
9M6YBG	This is my very first EME Contest with my 2 X 10 elements Yagi plus maximum 50 watts output from YAESU FT-847.  I enjoyed very much in the contest, eventhough I have only worked 6 QSOs.  Thank you very much.  GO YEU BIN - 9M6YBG  East Malaysia
WB9PNU	I have attached a check log for the 2008 EME contest. Due to other priorities, I could not devote additional time to this contest. Looking forward to 2009 Contest.
XE2MVS	First time in EME, very fun, tnx for my QSO and next year installed

	new eme station
DG1KJG	My name is Juergen and it was the first time I had participated in the ARRL EME contest. I had a great time with a good result in QRP CW
RK3FG	Hello All! Many thanks to all organizers of contest EME ARRL 2008
W5LUA	Considering that the moon rose about the time I would normally go to bed, I had a great time operating the microwave portion of the ARRL EME contest. Fortunately I spent some time troubleshooting the system during the week so the weekend was event free. Here are my results by band.  2304 MHz.  5 meter dish about 200 watts at the feed, Since I started out on 3400 MHz I was only operational on 13 cm on the second day. I worked HB9Q, OM/OK1DFC, DL4MEA, OZ4MM, FZTU, LX1DB, G3LTF, SD3F, K1JT, ESSPC, WD5AGO, NA4N, WA8RJF, G4CCH, WA6PY, and VK4AFL  5 meter dish and about 100 watts at the feed. I only operated the first day on 3400 MHz but was able to work PA0BAT, VE6TA, RW1AW, OK1CA, LX1DB, DL4MEA, G3LTF and VK3NX.  5760 MHz  5 meter dish and 70 watts at the feed Due to the over run from 802.11a interferers in the neighborhood it has become a challenge on this band for me to track the moon. With the help of my SDR-1000, I determined that the band was a little cleaner down around 5755 MHz so I devised a secondary downconverter that supplies 5755 MHz to my GR-1236 IF meter. This makes it a little easier to track the moon in a quieter part of the band. As a result on 5760 MHz I was able to work IK2RTI, OK1KIR, RW1AW, F2TU, LX1DB, ES5PC, and VK3NX.  10368 MHz  5 meter dish and 50 watts at the feed 3 cm was the challenge of the week as I had not been QRV on 3 cm for about a year due to a waveguide relay that decided to quit after being in use for 15 years! I replaced the relay with a new WR-90 waveguide relay connected to my horizontally polarized linear feed and proceeded to look for echoes with 100 watts in the shack earlier in the week. The results were zero echoes. So I decided to take my WR-90 directional coupler and move it to the feed. Well I was only getting less than a watt at the feed. After taking the waveguide apart in sections, I found water had leaked in I decided to use the air hose to see what else was in the waveguide and much to my surprise I found a couple handfuls of grass had been forced out. Well it t
	G4NNS, HB9BHU, F5JWF, K1JT for state #15, OK1CA, ES5PC, OK1KIR, WA6PY, and LX1DB. 24048 MHz

	worked flawlessly. As a result, I was able to work DF1OI and LX1DB.  Well it was a good weekend as I was able to work LX1DB on all 5 bands from 2304  MHz through 24048 MHz! Thank you Willi!  The contest wore me out but it was a lot of fun. I was wondering how the folks would feel about expanding the microwave part of the ARRL EME contest back in to August making it a August and September event?  Looking forward to the next microwave EME event!  Best 73 de W5LUA EM13qc
PA3ECU	This was my second time I join the ARRL eme contest and I was wrealy surprised that I good work so many stations with my smal station Condx was sometimes very good so I'am very happy with my results :-) 73 Rudy PA3ECU
SP2NJI	Thanks for all nice qso and see you again next in the contest. 73! de Wieslaw SP2NJI
WC9C	Really glad to see all the activity off the moon on vhf
DL7APV	I vote for separate weekends JT/CW and no self spotting. It was real fun working so many stations with my new system.
VE6CPP	Just started with this Mode a few months ago after it was suggested to me to try at Moon Rise as I did not have the Antennas on El Rotor. I switched them after I made 4 Contacts the first weekend, and are now 2x13B2's on a Horizontal Boom with EL. What a Difference! I managed 17 more Contacts the second weekend with a 'little more Moon Time'.  Station consists of a TS-711A into a 300W Mirage, 2x13B2's at 21' fed with LMR-400.  Thanks to Doug VE5UF for All his Great Advice in getting me started, and a Special Thank You to All the EME Gang for there patience with the 'New Guy'! I am not sure if DN39 has ever been active on this Mode but it 'Sure is Now'! 73 Jerry Siegmund VE6CPP Lethbridge, AB Canada DN39or
UK/DL9LBH	I am sad about this ideological discussion about assisted mode. Are there any other contests with this differentiation? At least not at VHF/UHF contests in Europe. And if you want to make this please allow this for more than this one categorie. 73 from Central Asia Hans-Walter Orths
PA3CWN	Hereby I send a checklog from PA3CWN for the 2008 ARRL EME contest I do not send a participating log because there is no class I fit in and will not be placed in mixed mode because apples and pears cannot be compared.

YO2IS	This is my 19-th! (1990 - 2008) in row participation in the annual ARRL E.M.E Contest and that despite the downtown QRM and the divergent opinions regarding the recent contest rules. Stateside activity was low, no NA station got in my log. Am proud with all my EME ARRL-Contest awards showing my EME activity with a marginal all homebrew setup.
I1NDP	With the occasion only one comment to the regulations: To me, but not only, two weekends are too much especially for the level of activity we find on 70cm it would be desirable, instead, to split analog & digital in different dates.  Best 73  Nando i1ndp
YO3JW	Finaly I made a QSO via EME My condition not so good but received RRR from RA6AX at moon rise! 73 Pit