



# ARRL EME Contest

## 2015 Results

By Rick Rosen, K1DS ([rick1ds@hotmail.com](mailto:rick1ds@hotmail.com))

### *New Rules, New Tools, New Views — More Qs!*

Tommy WD5AGO had 20 CW and phone moonbounce contacts on 2304 MHz. It was interesting to hear him and Bruce PY2BS chatting on SSB during the contest. Chatting? On SSB? Off the Moon? Yes! You can do this — read on for more.

EME has never been more accessible to the amateur than it is today and you needn't have an enormous dish in the backyard — although that certainly helps! You might think that it takes a brobdingnagian station to work others via lunar echoes but EME is surprisingly accessible to

modest stations using the digital mode JT65, one of the modes included in the *WSJT* software suite created by Joe Taylor, K1JT ([physics.princeton.edu/pulsar/k1jt](http://physics.princeton.edu/pulsar/k1jt)). You may already have most of the necessary equipment if you have an all-mode 2 meter radio, a pair of long-boom Yagis which are also straightforward to build yourself, and a linear amplifier “brick.” K1JT has written an extensive guide to moonbounce available in the Space Communications chapter on the CD-ROM distributed with the ARRL Handbook. Once you get some experience, building up your capabilities to try for an “ear-to-ear” CW or SSB contact will surely follow.

### **Online Microwave Matchmaking**

New for 2015 and beyond, ARRL VHF+ contest rules now allow the use of spotting assistance or nets to identify stations available for contacts and to announce (self-spot) their availability. The new capability was used and lauded by many. Some were vehemently opposed to this option and a few long-term EME operators simply refused to participate in a contest that allowed self-spotting and QSO coordination. Others simply continued contesting in the traditional fashion of

calling CQ, responding to callers, or using the MAP65 program from the *WSJT* suite to locate digital stations on the bands.

While change always results in various degrees of controversy, what was the outcome? Three weekends for EME action was just not enough! With so many stations adding and improving their microwave capabilities, there was a request to add more weekends for the bands at 2304 MHz (13 cm) and above in order to have more time to operate the five (or more) microwave bands popular for EME activity.



Looking at the business end of the “feed turret” shows how HB9Q puts the big 10-meter diameter dish to work. In the center is the 1296 MHz feed with the 2.3 GHz feed underneath. On top is the 3.4 GHz feed, at the right is the 5.76 GHz feed, and 10 GHz is on the left. (Photo by HB9CRQ)

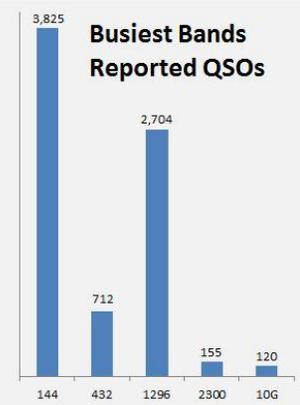
Several stations announced their microwave band selection and timing prior to the first weekend of the contest. Others simply operated on the bands for which their equipment was configured. Certainly, there was some frustration as stations found themselves selecting different bands than others. As Manfred, DL7YC wrote, “According to Murphy, everybody who can change bands decided for the ‘wrong’ band...but we found each other (online)!”

Changing bands for competitive EME stations is not simply a matter of pressing a button and selecting a different antenna. Their large dish antennas require a different feed antenna for each band, sometimes many feet above ground. Thus, safety is a concern for stations operating during the night when feed changes are required. Dan at HB9Q has this issue resolved with a turret full of feeds for the 13 cm and up bands. Others have designed and built work platforms to be able to get to the dish feeds in relative safety.

### **Activity Report**

Following the contest's three weekends, more than 7500 QSOs were submitted for scoring. There were 131 logs

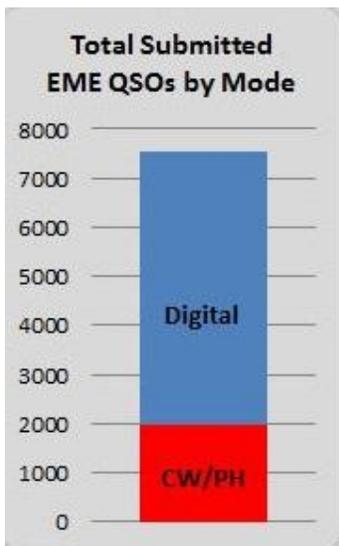
submitted, an increase of 7 over last year. Of those, 66 reported QSOs on 2 meters. Considering the 270 stations worked on 2 meters by DL25UNION, and the 498 stations cumulatively reported by W2LPL and HB9Q to be on 2 meter *WSJT* modes, only 14% of the stations active on the ARRL EME contest weekend submitted log reports.



In speaking with some of the most active contest stations that did not submit a log, there appears to be many different reasons. Some were chasing small stations, initial contacts or DX entities. Others participated without log submission as a protest

against the new rule, while several others just forgot about timely log submission, or had no desire to be part of a competition.

The cumulative *WSJT* reports showed there were 109 stations using *WSJT* modes on 432 MHz and 117 stations on 1296 MHz. Some will be excited and positive about the use of smaller antennas, less power, and the use of computer tools and spotting assistance to facilitate EME communications. Others will express dismay about the demise of the use of CW and phone contacts and the traditional ways of calling CQ and searching for callers to make contest QSOs.



Nevertheless, for the first microwave weekend, many found the online “loggers” useful for coordinating band changes and cross-band operation, especially when participants had different frequency allocations from country to country.

The use of the Internet enabled me to arrange my two CW QSOs on this band, as it was my first attempt to make contact off the Moon on 2304 MHz. I learned that steering the dish gets more difficult as the wavelength gets smaller!

## Single Operator, All Band Scores

In the Single Operator, CW/Phone Only, All Band, category we had 7 entries, topped by Franta OK1CA netting 111 QSOs for a score of 754K points on 5 bands; 432 MHz, 1296 MHz, 2304 MHz, 5.6 GHz, and 10 GHz. In second place, Philippe F5JWF had a 3-band entry with 364K points. Paul WA6PY was third with 363K points, using 5 bands, and a few QSOs ahead but 2 multipliers behind our second-place winner.

Dmitry, UA3PTW produced a prodigious Single Op, All Mode, All Band score of over 5 million points with activity on 144 MHz and 432 MHz and three additional microwave bands. He has been increasing his score by about a million points per year and appears to have set a new record for this category of operation.

Gunars, YL2GD produced a score of 2.2 million using 144 MHz, 432 MHz and 1296 MHz. Karl, DF3RU compiled almost 1 million points with a 2-band effort on 432 MHz and 1296 MHz. There were 15 logs submitted in the Single-Op, All Mode, All Band category.

## Top Three Scores in Main Categories

A=50 MHz, B=144 MHz, D=432 MHz, E=1296 MHz, F= 2.3 GHz, G=3.4 GHz, H=5.7 GHz, I=10 GHz

*Call Sign*    *Score*    *QSOs*    *Mults*

| Single Operator, All Mode, All Band |           |     |     |
|-------------------------------------|-----------|-----|-----|
| UA3PTW                              | 5,088,700 | 337 | 151 |
| YL2GD                               | 2,273,600 | 203 | 112 |
| DF3RU                               | 986,700   | 143 | 69  |

## Single Operator, CW/Phone Only, All Band

|       |         |     |    |
|-------|---------|-----|----|
| OK1CA | 754,800 | 111 | 68 |
| F5JWF | 364,800 | 64  | 57 |
| WA6PY | 363,000 | 66  | 55 |

## Multioperator, All Mode, All Band

|          |           |     |     |
|----------|-----------|-----|-----|
| W6YX     | 6,434,400 | 383 | 168 |
| PJ7/PE1L | 1,170,400 | 154 | 76  |
| YL3CT    | 457,600   | 88  | 52  |

## Multioperator, CW/Phone Only, All Band

|        |         |    |    |
|--------|---------|----|----|
| SP6JLW | 418,300 | 89 | 47 |
| SP7DCS | 328,500 | 73 | 45 |

## Single Operator, Single Band Scores

There were 45 entries in the Single Operator, All Mode, 144 MHz group. This was the most popular category and although it is designated as All Mode, only one operator, Christo, LZ1DP had two CW QSOs, the rest making exclusively digital contacts. Top scorer was Gary, KB8RQ with 258 contacts and 97 multipliers for a score of 2.37 million. He has a huge 24-Yagi array to enhance his received and transmitted signals which can be seen on his QRZ.com page. Alexander, operating UT5ZN/P, was second with 1.069 million points, 3 QSOs more than Alex, RU1AA in third place with a score of 1.065 million.

Stan, OK1MS and Helge, DL8UCC had the sole log entries in the 144 MHz, CW Only group, reporting 10 and 4 QSOs respectively. You can draw your own conclusions about the future of this mode of operation on 144 MHz EME, as the use of CW on this band continues to fade in favor of the *WSJT* modes.

Marshall, K5QE promoted the use of 222 MHz and made 4 digital contacts, with 3 other stations reporting a single QSO on that band.

Four stations sent in their logs with CW Only contacts on 432 MHz. Top scorer in that category was Franco, I2FHW with a score of 50K based on 28 contacts and 18 multipliers. Another five stations operated All Mode on 432 MHz and the best score was 85K points by Nikolay, UXØFF based on 34 contacts and 25 multipliers.

The activity on 1296 did dip from last year, with nine stations submitting logs using CW and phone exclusively. Anatoly, RA3EC had the high score of 352K based on 88 contacts and 40 multipliers. Chris, DL3EBJ was next with 334K points and in third place was Franck F5SE/P with a 302K score. All of them had great signals and were easy copy from my portable 3-meter dish.

Twenty-one stations submitted logs for All Mode, 1296 MHz. Ned, LZ1DX topped the group with 746K points. In second place was Marek, OK2DL with 655K points. Both top scorers had 131 contacts, but Ned had 7 more multipliers. Third place in this group went to Jan, PA3FXB with 90 QSOs and a 405K score.

Peter, OZ1LPR and Kjeld, OZ1FF submitted logs for All Mode contacts on 10 GHz. Between them there were 25 CW/Phone QSOs and 7 digital QSOs. Peter was the higher scorer with 36K points.

## Multioperator Scores

There were 16 Multioperator team logs submitted in 6 different categories. The Stanford team at W6YX made a

great effort as an All Mode station with activity on 5 bands including the most active ones; 144 MHz, 432 MHz, 1296 MHz, 2304 MHz, and 10 GHz. With a total of 383 QSOs and 168 multipliers, their score of 6.43 million comes close to the 6.64 million point record set in 2011 by the K1JT multiop group.



The antenna farm at HB9Q enables them to have great EME activity. It consists of a 15 m mesh dish for 144 and 432 MHz, a 10 m solid dish for 1296, 23xx, 3400, 5760, and 10xxx MHz, 8x19xxx M2 Yagis for 144 MHz, and 1x2.5wl M2 Yagi for 50 MHz, on top of the HF beam, 24 m above ground. (Photo by HB9CRQ)

The PJ7/PE1L team from French Saint Maarten helped many add a new DX entity to their logs with 5 CW contacts and 149 digital contacts across 3 bands; 144 MHz, 432 MHz, and 1296 MHz. The teams of SP6JLW and SP7DCS battled for first place in the All Band, CW/Phone Only category. With 89 QSOs and 47 multipliers, the 3-man team at Andrzej, SP6JLW station beat the SP7DCS father-and-son competitors by 16 contacts and 2 multipliers.

The DL25UNION team made 270 digital QSOs on 144 MHz for a Single Band, All Mode score of 2.16 million points. The HA1VHF team had 1 CW QSO and 204 digital contacts to place second in this category.

The OH2PO and LU8ENU groups were active in All Mode on 432 MHz. Using their 15-meter dish, the OH2PO station managed to work about everyone who put a signal on that band, finishing with 106 QSOs and a final score of 424K points.

Three multiop teams entered the All Mode, 1296 MHz category. The VA7MM group was the leader with 28 CW and 37 digital contacts for a 260K final score. The 2-man team at OK1KIR made 22 CW and 7 digital contacts on 10 GHz as the leader and only single-band 10 GHz log.

## Other Stations

Although they don't always show up in the listings and are not award winners, it's often the small stations that have the most satisfaction, using limited antennas and power to eke out a few contacts off the Moon with the larger and more powerful moonbouncers.



Even the smaller stations can have success in the EME contest. This single 12-element Yagi was hand-positioned on the balcony by DK1KW to make several digital EME QSOs. (Photo by DK1KW)

Werner, DK1KW used the antenna system seen above. With a 250-watt amplifier, he made a handful of QSOs using JT65 and copied several others on CW.

Mike, K7ULS used a single 28-element, 9-wavelength Yagi with only 70 watts to make 9 digital QSOs that added 4 new DX entities to his log.

The PJ7/PE1L DXpedition team used a single 9-wavelength Yagi on 432 MHz. Being rare DX, they were very busy during their moon time. They were also operational on 1296 MHz and 2320 MHz, using a 1.8-meter diameter dish and modest power to work dozens of QSOs. Although they did not submit a contest log, their activity boosted the results of many of those who sent in their logs and scores. The operation of these DXpeditions underscores the ability to work stations via moon-

bounce, even with limited antennas, power and technology.

## What Next

So many of the EME "regulars" were active during the three weekends of the ARRL contest, but few of them submitted logs. Participation, station improvements and activity, rather than strict competition seemed to be the order of the contest.

Many active stations report their EME activity through alternate outlets such as the *144 MHz EME News* ([www.df2zc.de/newsletter](http://www.df2zc.de/newsletter)) and the *432 and Above EME News* ([www.nitehawk.com/rasmit/em70cm.html](http://www.nitehawk.com/rasmit/em70cm.html)).

There are several other moonbounce contests and activity weekends during the year sponsored by DUBUS and the Italian Amateur Radio Association (ARI) that occupy the "lunatics" attention. The global impact of the new rules is difficult to discern from the submitted logs and comments. This will likely be a topic of conversation at the XVII International EME Conference, scheduled for August 19-21, 2016 in Venice, Italy. ([www.eme2016.org](http://www.eme2016.org))

## Start Getting Ready for 2016

The 2016 ARRL EME weekends are currently scheduled for 2.3 GHz and up on September 24-25, and 50 MHz-1296 MHz on the weekends of October 22-23 and November 19-20. Find a good Elmer to help you and you might just make your first EME QSO. And speaking of Elmers, Thanks to my XYL Jani for editing assistance!

| 2015 ARRL EME Contest - Scores and QSO/Multiplier Breakdown by Band |           |                                   |      |       |       |       |           |       |       |           |       |       |           |        |        |            |        |        |            |        |        |            |        |        |            |       |       |           |                |  |
|---|-----------|-----------------------------------|------|-------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|--------|--------|------------|--------|--------|------------|--------|--------|------------|--------|--------|------------|-------|-------|-----------|----------------|--|
| Call  | Score     | Category Name                     | QSOs | Mults | 144 Q | 144 M | 144 Score | 222 Q | 222 M | 222 Score | 432 Q | 432 M | 432 Score | 1296 Q | 1296 M | 1296 Score | 2304 Q | 2304 M | 2304 Score | 3456 Q | 3456 M | 3456 Score | 5760 Q | 5760 M | 5760 Score | 10G Q | 10G M | 10G Score | Operator Calls |  |
| LZ1DX   | 746,700   | Single Operator All Mode 1.2 GHz  | 131  | 57    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 131    | 57     | 7467       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| OK2DL   | 655,000   | Single Operator All Mode 1.2 GHz  | 131  | 50    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 131    | 50     | 6550       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| PA3FXB  | 405,000   | Single Operator All Mode 1.2 GHz  | 90   | 45    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 90     | 45     | 4050       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| RA3AUB  | 327,600   | Single Operator All Mode 1.2 GHz  | 78   | 42    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 78     | 42     | 3276       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| IK3COJ  | 295,200   | Single Operator All Mode 1.2 GHz  | 72   | 41    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 72     | 41     | 2952       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| ISYDI   | 165,000   | Single Operator All Mode 1.2 GHz  | 55   | 30    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 55     | 30     | 1650       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| SP5GDM  | 147,900   | Single Operator All Mode 1.2 GHz  | 51   | 29    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 51     | 29     | 1479       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| ES6FX   | 123,200   | Single Operator All Mode 1.2 GHz  | 44   | 28    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 44     | 28     | 1232       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| OK1YK   | 105,300   | Single Operator All Mode 1.2 GHz  | 39   | 27    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 39     | 27     | 1053       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| VE3KRP  | 99,900    | Single Operator All Mode 1.2 GHz  | 37   | 27    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 37     | 27     | 999        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| WA3GFZ  | 69,600    | Single Operator All Mode 1.2 GHz  | 29   | 24    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 29     | 24     | 696        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| VE4SA   | 66,000    | Single Operator All Mode 1.2 GHz  | 30   | 22    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 30     | 22     | 660        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| RWØLDF  | 51,300    | Single Operator All Mode 1.2 GHz  | 27   | 19    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 27     | 19     | 513        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| YL3AEV  | 43,200    | Single Operator All Mode 1.2 GHz  | 24   | 18    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 24     | 18     | 432        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| W3HMS   | 39,600    | Single Operator All Mode 1.2 GHz  | 22   | 18    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 22     | 18     | 396        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| YO2LEL  | 29,400    | Single Operator All Mode 1.2 GHz  | 21   | 14    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 21     | 14     | 294        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| SV1CAL  | 26,600    | Single Operator All Mode 1.2 GHz  | 19   | 14    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 19     | 14     | 266        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| SQ7D  | 18,700    | Single Operator All Mode 1.2 GHz  | 17   | 11    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 17     | 11     | 187        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| EA1RJ   | 14,300    | Single Operator All Mode 1.2 GHz  | 13   | 11    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 13     | 11     | 143        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| W2LPL   | 12,100    | Single Operator All Mode 1.2 GHz  | 11   | 11    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 11     | 11     | 121        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| SP9AF   | 3,000     | Single Operator All Mode 1.2 GHz  | 6    | 5     | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 6      | 5      | 30         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| WD5AGO  | 32,000    | Single Operator All Mode 2.4 GHz  | 20   | 16    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 20     | 16     | 320        | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| OZ1LPR  | 36,000    | Single Operator All Mode 10 GHz   | 24   | 15    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 24    | 15        | 360            |  |
| OZ1FF   | 5,600     | Single Operator All Mode 10 GHz   | 8    | 7     | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 8     | 7         | 56             |  |
| UA3PTW  | 5,088,700 | Single Operator All Mode All Band | 337  | 151   | 152   | 53    | 8056      | 0     | 0     | 0         | 71    | 33    | 2343      | 76     | 40     | 3040       | 31     | 18     | 558        | 0      | 0      | 0          | 7      | 7      | 49         | 0     | 0     | 0         |                |  |
| YL2GD   | 2,273,600 | Single Operator All Mode All Band | 203  | 112   | 104   | 51    | 5304      | 0     | 0     | 0         | 28    | 22    | 616       | 71     | 39     | 2769       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| DF3RU   | 986,700   | Single Operator All Mode All Band | 143  | 69    | 0     | 0     | 0         | 0     | 0     | 0         | 48    | 28    | 1344      | 95     | 41     | 3895       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| RA9LR   | 530,100   | Single Operator All Mode All Band | 93   | 57    | 81    | 46    | 3726      | 0     | 0     | 0         | 12    | 11    | 132       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| JA6AHB  | 439,900   | Single Operator All Mode All Band | 83   | 53    | 0     | 0     | 0         | 0     | 0     | 0         | 30    | 21    | 630       | 53     | 32     | 1696       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| KL7UW   | 370,000   | Single Operator All Mode All Band | 74   | 50    | 51    | 35    | 1785      | 0     | 0     | 0         | 0     | 0     | 0         | 23     | 15     | 345        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| I1NDP   | 294,000   | Single Operator All Mode All Band | 70   | 42    | 0     | 0     | 0         | 0     | 0     | 0         | 16    | 15    | 240       | 54     | 27     | 1458       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| W1PV  | 279,500   | Single Operator All Mode All Band | 65   | 43    | 59    | 37    | 2183      | 0     | 0     | 0         | 6     | 6     | 36        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| PA2CHR  | 176,400   | Single Operator All Mode All Band | 49   | 36    | 23    | 19    | 437       | 0     | 0     | 0         | 26    | 17    | 442       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| VK4CDI  | 147,200   | Single Operator All Mode All Band | 46   | 32    | 5     | 5     | 25        | 0     | 0     | 0         | 2     | 2     | 4         | 38     | 24     | 912        | 0      | 0      | 0          | 1      | 1      | 1          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| KNØWS   | 136,400   | Single Operator All Mode All Band | 44   | 31    | 0     | 0     | 0         | 0     | 0     | 0         | 11    | 9     | 99        | 33     | 22     | 726        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| K1DS  | 68,200    | Single Operator All Mode All Band | 31   | 22    | 0     | 0     | 0         | 0     | 0     | 0         | 1     | 1     | 1         | 28     | 19     | 532        | 2      | 2      | 4          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |
| YO2BCT  | 52,500    | Single Operator All Mode All Band | 25   | 21    | 0     | 0     | 0         | 0     | 0     | 0         | 16    | 13    | 208       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 9     | 8         | 72             |  |
| OK2AQ   | 11,000    | Single Operator All Mode All Band | 11   | 10    | 0     | 0     | 0         | 0     | 0     | 0         | 7     | 7     | 49        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 4     | 3         | 12             |  |
| K3GNC   | 6,400     | Single Operator All Mode All Band | 8    | 8     | 1     | 1     | 1         | 0     | 0     | 0         | 7     | 7     | 49        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              |  |

| 2015 ARRL EME Contest - Scores and QSO/Multiplier Breakdown by Band |         |                                  |      |       |       |       |           |       |       |           |       |       |           |        |        |            |        |        |            |        |        |            |        |        |            |       |       |           |                |
|---|---------|----------------------------------|------|-------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|--------|--------|------------|--------|--------|------------|--------|--------|------------|--------|--------|------------|-------|-------|-----------|----------------|
| Call  | Score   | Category Name                    | QSOS | Mults | 144 Q | 144 M | 144 Score | 222 Q | 222 M | 222 Score | 432 Q | 432 M | 432 Score | 1296 Q | 1296 M | 1296 Score | 2304 Q | 2304 M | 2304 Score | 3456 Q | 3456 M | 3456 Score | 5760 Q | 5760 M | 5760 Score | 10G Q | 10G M | 10G Score | Operator Calls |
| OK1CA   | 754,800 | Single Operator CW Only All Band | 111  | 68    | 0     | 0     | 0         | 0     | 0     | 0         | 13    | 8     | 104       | 55     | 30     | 1650       | 26     | 18     | 468        | 0      | 0      | 0          | 2      | 2      | 4          | 15    | 10    | 150       |                |
| F5JWF   | 364,800 | Single Operator CW Only All Band | 64   | 57    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 41     | 36     | 1476       | 17     | 16     | 272        | 0      | 0      | 0          | 0      | 0      | 0          | 6     | 5     | 30        |                |
| WA6PY   | 363,000 | Single Operator CW Only All Band | 66   | 55    | 0     | 0     | 0         | 0     | 0     | 0         | 4     | 4     | 16        | 41     | 32     | 1312       | 11     | 11     | 121        | 0      | 0      | 0          | 1      | 1      | 1          | 9     | 7     | 63        |                |
| YK3UM   | 334,400 | Single Operator CW Only All Band | 76   | 44    | 0     | 0     | 0         | 0     | 0     | 0         | 14    | 13    | 182       | 62     | 31     | 1922       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KL6M  | 261,300 | Single Operator CW Only All Band | 67   | 39    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 53     | 27     | 1431       | 14     | 12     | 168        | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| JA4BLC  | 184,800 | Single Operator CW Only All Band | 56   | 33    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 42     | 22     | 924        | 8      | 6      | 48         | 0      | 0      | 0          | 0      | 0      | 0          | 6     | 5     | 30        |                |
| LZ2US   | 138,000 | Single Operator CW Only All Band | 46   | 30    | 10    | 7     | 70        | 0     | 0     | 0         | 0     | 0     | 0         | 36     | 23     | 828        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| SP3XBO  | 44,200  | Single Operator CW Only All Band | 26   | 17    | 2     | 2     | 4         | 0     | 0     | 0         | 0     | 0     | 0         | 24     | 15     | 360        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| OK1MS   | 6,000   | Single Operator CW Only 144 MHz  | 10   | 6     | 10    | 6     | 60        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| DL8UCC  | 1,200   | Single Operator CW Only 144 MHz  | 4    | 3     | 4     | 3     | 12        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| I2FHW   | 50,400  | Single Operator CW Only 432 MHz  | 28   | 18    | 0     | 0     | 0         | 0     | 0     | 0         | 28    | 18    | 504       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| F6HLC   | 6,400   | Single Operator CW Only 432 MHz  | 8    | 8     | 0     | 0     | 0         | 0     | 0     | 0         | 8     | 8     | 64        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| JA9BOH  | 1,600   | Single Operator CW Only 432 MHz  | 4    | 4     | 0     | 0     | 0         | 0     | 0     | 0         | 4     | 4     | 16        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| JH4JLV  | 400     | Single Operator CW Only 432 MHz  | 2    | 2     | 0     | 0     | 0         | 0     | 0     | 0         | 2     | 2     | 4         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| RA3EC   | 352,000 | Single Operator CW Only 1.2 GHz  | 88   | 40    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 88     | 40     | 3520       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| DL3EBJ  | 319,200 | Single Operator CW Only 1.2 GHz  | 84   | 38    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 84     | 38     | 3192       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| F5SE/P  | 302,400 | Single Operator CW Only 1.2 GHz  | 84   | 36    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 84     | 36     | 3024       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| OK1CS   | 284,400 | Single Operator CW Only 1.2 GHz  | 79   | 36    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 79     | 36     | 2844       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| SM3AKW  | 226,300 | Single Operator CW Only 1.2 GHz  | 73   | 31    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 73     | 31     | 2263       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| S53MM   | 105,600 | Single Operator CW Only 1.2 GHz  | 44   | 24    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 44     | 24     | 1056       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| S59DCD  | 74,800  | Single Operator CW Only 1.2 GHz  | 44   | 17    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 44     | 17     | 748        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| F6ETI   | 16,500  | Single Operator CW Only 1.2 GHz  | 15   | 11    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 15     | 11     | 165        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| SP2HMR  | 15,000  | Single Operator CW Only 1.2 GHz  | 15   | 10    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 15     | 10     | 150        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| UA3XCR  | 400     | Single Operator CW Only 1.2 GHz  | 2    | 2     | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 2      | 2      | 4          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |

| 2015 ARRL EME Contest - Scores and QSO/Multiplier Breakdown by Band |           |                                  |      |       |       |       |           |       |       |           |       |       |           |        |        |            |        |        |            |        |        |            |        |        |            |       |       |           |                |
|---|-----------|----------------------------------|------|-------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|--------|--------|------------|--------|--------|------------|--------|--------|------------|--------|--------|------------|-------|-------|-----------|----------------|
| Call  | Score     | Category Name                    | QSOs | Mults | 144 Q | 144 M | 144 Score | 222 Q | 222 M | 222 Score | 432 Q | 432 M | 432 Score | 1296 Q | 1296 M | 1296 Score | 2304 Q | 2304 M | 2304 Score | 3456 Q | 3456 M | 3456 Score | 5760 Q | 5760 M | 5760 Score | 10G Q | 10G M | 10G Score | Operator Calls |
| KB8RQ   | 2,373,600 | Single Operator All Mode 144 MHz | 258  | 92    | 258   | 92    | 23736     | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| UT5ZN/P   | 1,069,200 | Single Operator All Mode 144 MHz | 162  | 66    | 162   | 66    | 10692     | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| RU1AA   | 1,065,300 | Single Operator All Mode 144 MHz | 159  | 67    | 159   | 67    | 10653     | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| W3SZ  | 661,200   | Single Operator All Mode 144 MHz | 116  | 57    | 116   | 57    | 6612      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| 7K3LGC  | 591,600   | Single Operator All Mode 144 MHz | 116  | 51    | 116   | 51    | 5916      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K11T  | 560,000   | Single Operator All Mode 144 MHz | 112  | 50    | 112   | 50    | 5600      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K3RWR   | 550,800   | Single Operator All Mode 144 MHz | 108  | 51    | 108   | 51    | 5508      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| NTØV  | 548,800   | Single Operator All Mode 144 MHz | 112  | 49    | 112   | 49    | 5488      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| LZ1DP   | 450,000   | Single Operator All Mode 144 MHz | 100  | 45    | 100   | 45    | 4500      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| WØXG  | 446,500   | Single Operator All Mode 144 MHz | 95   | 47    | 95    | 47    | 4465      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| W5ZN  | 306,600   | Single Operator All Mode 144 MHz | 73   | 42    | 73    | 42    | 3066      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| W2DBL   | 264,600   | Single Operator All Mode 144 MHz | 54   | 49    | 54    | 49    | 2646      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| RZ6DD   | 258,300   | Single Operator All Mode 144 MHz | 63   | 41    | 63    | 41    | 2583      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| YL2AJ   | 261,300   | Single Operator All Mode 144 MHz | 67   | 39    | 67    | 39    | 2613      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| W4YTB   | 255,300   | Single Operator All Mode 144 MHz | 69   | 37    | 69    | 37    | 2553      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| L8BKV   | 219,600   | Single Operator All Mode 144 MHz | 61   | 36    | 61    | 36    | 2196      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KAØRYT  | 185,500   | Single Operator All Mode 144 MHz | 53   | 35    | 53    | 35    | 1855      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| RU3GX   | 169,600   | Single Operator All Mode 144 MHz | 53   | 32    | 53    | 32    | 1696      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K45QC   | 160,000   | Single Operator All Mode 144 MHz | 50   | 32    | 50    | 32    | 1600      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| I2SVA   | 123,200   | Single Operator All Mode 144 MHz | 44   | 28    | 44    | 28    | 1232      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| DK7ME   | 79,200    | Single Operator All Mode 144 MHz | 33   | 24    | 33    | 24    | 792       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KB5WIA  | 77,700    | Single Operator All Mode 144 MHz | 37   | 21    | 37    | 21    | 777       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| EB1DNK  | 60,800    | Single Operator All Mode 144 MHz | 32   | 19    | 32    | 19    | 608       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| LZ2FO   | 59,400    | Single Operator All Mode 144 MHz | 27   | 22    | 27    | 22    | 594       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| EA3NE   | 52,500    | Single Operator All Mode 144 MHz | 25   | 21    | 25    | 21    | 525       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| PA5MS   | 52,000    | Single Operator All Mode 144 MHz | 26   | 20    | 26    | 20    | 520       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| UT2EG   | 41,800    | Single Operator All Mode 144 MHz | 22   | 19    | 22    | 19    | 418       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K8DIO   | 41,400    | Single Operator All Mode 144 MHz | 23   | 18    | 23    | 18    | 414       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KD7UO   | 39,600    | Single Operator All Mode 144 MHz | 22   | 18    | 22    | 18    | 396       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 18     | 2          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| UA10EJ  | 32,500    | Single Operator All Mode 144 MHz | 25   | 13    | 25    | 13    | 325       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| LZ1VPV  | 28,900    | Single Operator All Mode 144 MHz | 17   | 17    | 17    | 17    | 289       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| LZ4OC   | 25,500    | Single Operator All Mode 144 MHz | 17   | 15    | 17    | 15    | 255       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| SM5EPO  | 18,000    | Single Operator All Mode 144 MHz | 15   | 12    | 15    | 12    | 180       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KG7P  | 16,200    | Single Operator All Mode 144 MHz | 18   | 9     | 18    | 9     | 162       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| UAØLW   | 15,000    | Single Operator All Mode 144 MHz | 15   | 10    | 15    | 10    | 150       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KBØPPQ  | 14,000    | Single Operator All Mode 144 MHz | 14   | 10    | 14    | 10    | 140       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| W1FKF   | 13,000    | Single Operator All Mode 144 MHz | 13   | 10    | 13    | 10    | 130       | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| N1EYE   | 6,300     | Single Operator All Mode 144 MHz | 9    | 7     | 9     | 7     | 63        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| RWØJC   | 4,200     | Single Operator All Mode 144 MHz | 7    | 6     | 7     | 6     | 42        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| YO6XK   | 3,600     | Single Operator All Mode 144 MHz | 6    | 6     | 6     | 6     | 36        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KJ7OG   | 2,500     | Single Operator All Mode 144 MHz | 5    | 5     | 5     | 5     | 25        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| KUBL  | 2,400     | Single Operator All Mode 144 MHz | 6    | 4     | 6     | 4     | 24        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| YL2FZ   | 2,000     | Single Operator All Mode 144 MHz | 5    | 4     | 5     | 4     | 20        | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| WA4MYO  | 100       | Single Operator All Mode 144 MHz | 1    | 1     | 1     | 1     | 1         | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K5QE  | 1,600     | Single Operator All Mode 222 MHz | 4    | 4     | 0     | 0     | 0         | 4     | 4     | 16        | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K9KNW   | 100       | Single Operator All Mode 222 MHz | 1    | 1     | 0     | 0     | 0         | 1     | 1     | 1         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| N2EME   | 100       | Single Operator All Mode 222 MHz | 1    | 1     | 0     | 0     | 0         | 1     | 1     | 1         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| N9HF  | 100       | Single Operator All Mode 222 MHz | 1    | 1     | 0     | 0     | 0         | 1     | 1     | 1         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| UXØFF   | 85,000    | Single Operator All Mode 432 MHz | 34   | 25    | 0     | 0     | 0         | 0     | 0     | 0         | 34    | 25    | 850       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| YK4EME  | 51,300    | Single Operator All Mode 432 MHz | 27   | 19    | 0     | 0     | 0         | 0     | 0     | 0         | 27    | 19    | 513       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| W4ZST   | 20,400    | Single Operator All Mode 432 MHz | 17   | 12    | 0     | 0     | 0         | 0     | 0     | 0         | 17    | 12    | 204       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| OK2POI  | 19,500    | Single Operator All Mode 432 MHz | 15   | 13    | 0     | 0     | 0         | 0     | 0     | 0         | 15    | 13    | 195       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |
| K7ULS   | 7,200     | Single Operator All Mode 432 MHz | 9    | 8     | 0     | 0     | 0         | 0     | 0     | 0         | 9     | 8     | 72        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         |                |

| 2015 ARRL EME Contest - Scores and QSO/Multiplier Breakdown by Band |           |                                  |      |       |       |       |           |       |       |           |       |       |           |        |        |            |        |        |            |        |        |            |        |        |            |       |       |           |                |   |  |          |
|---|-----------|----------------------------------|------|-------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|--------|--------|------------|--------|--------|------------|--------|--------|------------|--------|--------|------------|-------|-------|-----------|----------------|---|--|----------|
| Call  | Score     | Category Name                    | QSOs | Mults | 144 Q | 144 M | 144 Score | 222 Q | 222 M | 222 Score | 432 Q | 432 M | 432 Score | 1296 Q | 1296 M | 1296 Score | 2304 Q | 2304 M | 2304 Score | 3456 Q | 3456 M | 3456 Score | 5760 Q | 5760 M | 5760 Score | 10G Q | 10G M | 10G Score | Operator Calls |   |  |          |
| SP6JLW  | 418,300   | Multi Operator CW Only All Band  | 89   | 47    | 0     | 0     | 0         | 0     | 0     | 0         | 6     | 6     | 36        | 83     | 41     | 3403       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+SP6OPN, SQ6OPG)                        |          |
| SP7DCS  | 328,500   | Multi Operator CW Only All Band  | 73   | 45    | 6     | 5     | 30        | 0     | 0     | 0         | 10    | 8     | 80        | 50     | 25     | 1250       | 7      | 7      | 49         | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+SP7MC)                                 |          |
| VA7MM   | 260,000   | Multi Operator All Mode 1.2 GHz  | 65   | 40    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 65     | 40     | 2600       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (VE7CMK, VE7CNF,ops)                     |          |
| IK5VLS  | 195,000   | Multi Operator All Mode 1.2 GHz  | 78   | 25    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 78     | 25     | 1950       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+IK5AMB, IZ5DIY, IZ5OVP)                |          |
| K6JEY   | 9,000     | Multi Operator All Mode 1.2 GHz  | 10   | 9     | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 10     | 9      | 90         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+W6SZ, N6NM, KJ6HZ, N6EV)               |          |
| OK1KIR  | 49,300    | Multi Operator All Mode 10 GHz   | 29   | 17    | 0     | 0     | 0         | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 29    | 17        | 493            | (OK1DAI, OK1DAK,ops)  |  |          |
| W6YX  | 6,434,400 | Multi Operator All Mode All Band | 383  | 168   | 196   | 67    | 13132     | 0     | 0     | 0         | 41    | 24    | 984       | 113    | 51     | 5763       | 19     | 16     | 304        | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 14    | 10        | 140            | (AD6FP, KG4UHM, KJ6SDF, K6PR, KG6NUB, KK6QYP, N6SPP, AD6IW, K6KLY, KK6TFY, N9JIM, K6TJ, K2YY,ops) |  |          |
| PJ7/PE1L  | 1,170,400 | Multi Operator All Mode All Band | 154  | 76    | 93    | 37    | 3441      | 0     | 0     | 0         | 27    | 19    | 513       | 34     | 20     | 680        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+K5QE, PA3FPQ, PE1LWT)                  |          |
| YL3CT   | 457,600   | Multi Operator All Mode All Band | 88   | 52    | 73    | 41    | 2993      | 0     | 0     | 0         | 15    | 11    | 165       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+YL2OW, YL2NX)                          |          |
| LU1CGB  | 395,000   | Multi Operator All Mode All Band | 79   | 50    | 55    | 31    | 1705      | 0     | 0     | 0         | 0     | 0     | 0         | 24     | 19     | 456        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+LU8ENU, LU1AGR, LU9DO, LU1FAM, LU1AEE) |          |
| K4EME   | 209,000   | Multi Operator All Mode All Band | 55   | 38    | 1     | 1     | 1         | 0     | 0     | 0         | 28    | 19    | 532       | 26     | 18     | 468        | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | 0  | (+AD4TJ) |
| DL25UNION   | 2,160,000 | Multi Operator All Mode 144 MHz  | 270  | 80    | 270   | 80    | 21600     | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (DF7KF, DM1CG, DM1AC,ops)                |          |
| HA1VHF  | 1,353,000 | Multi Operator All Mode 144 MHz  | 205  | 66    | 205   | 66    | 13530     | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (HA1YA, HA1WA,ops)                       |          |
| FG6EO   | 197,500   | Multi Operator All Mode 144 MHz  | 79   | 25    | 79    | 25    | 1975      | 0     | 0     | 0         | 0     | 0     | 0         | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+F0EUI, FSUNH)                          |          |
| OH2PO   | 424,000   | Multi Operator All Mode 432 MHz  | 106  | 40    | 0     | 0     | 0         | 0     | 0     | 0         | 106   | 40    | 4240      | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+OH2BGR, OH2HYT, OH6DD)                 |          |
| LU8ENU  | 28,500    | Multi Operator All Mode 432 MHz  | 19   | 15    | 0     | 0     | 0         | 0     | 0     | 0         | 19    | 15    | 285       | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0      | 0      | 0          | 0     | 0     | 0         | 0              | 0   | (+LU1CGB, LU1AGR, LU9DO, LU1FAM, LU1AEE) |          |