



ARRL 10 GHz and Up Contest 2016 Results

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Give the mind-expanding microwaves a try!

It was a pleasantly cool morning at 9000 feet in the Santa Catalina mountains of southern Arizona on the first day of the 2016 10 GHz and Up contest (August 20th). Steve, KJ7OJ; Henry, KB7NIE; Bob, WA3HRM; and John, W7JM had driven up to the Stewart Observatory's Mt. Lemmon site — the biggest microwave contest of the year was off to a great start!



The family team of Tammy, KI7GVT (left) and Kevin, AD7OI roving during the September weekend. (Photo credit — Kevin Jacobson, AD7OI)

Wherever you operate, microwaving can be a lot of fun. It's also a way to meet people you might not otherwise encounter. Do you know anyone probing the black hole in the center of the galaxy or someone who was in a TV science documentary? You might if you participate in Amateur Radio's microwave community! This is particularly valuable for students and folks starting out in their careers, and mind-expanding for all of us.

Back to Mt. Lemmon — setting up the rigs had begun and the group was looking forward to contacts with rovers in the desert below, as well as in the White Mountains. There was even a long-shot QSO scheduled with a New Mexico team. Not everything would go as planned, but all made contacts.

Activity by Call Areas and Regions

As has been pointed out several times and shown in the tops scores and logs submitted by area, the contest is not the same in each call area or region. If there are only two other stations you can reach, you are not going to have very many points for unique call signs. That doesn't mean you can't have a fine contest, it just takes a different strategy.



Barry, VE4MA attempting four-band QSOs in Manitoba. He was successful on three out of four. (Photo credit – Barry Malowanchuk, VE4MA)

Canada

In the spirit of increasing activity on our higher microwave bands, VE4MA, VE4DDZ, and VE4MO mounted a four-band expedition in Manitoba and turned in 10 GHz and Up entries. Barry, VE4MA rebuilt one of his 47 GHz rigs using the new Kuhne transverter for higher power. (www.kuhne-electronic.de) All of the radios were checked out before the contest. Operating took both weekends as they overcame mud, a failed mixer, antennas with less than 1° beamwidth, and water in waveguides to make contacts on 10, 47 and 78 GHz.

| Area | Top Scores - 10 GHz | | | Top Scores - 10 GHz & Up | | | Logs |
|------|---------------------|--------|--------|--------------------------|--------|--------|------|
| | First | Second | Third | First | Second | Third | |
| 0 | WBØLJC | KØCQ | NØUK | K9PW | WØZQ | | 20 |
| 1 | K1GX | N1DPM | AA1L | AF1T | W1MKY | N1JEZ | 26 |
| 2 | N3RG | N2SPI | | K2SH | | | 3 |
| 3 | WA3GFZ | K1RZ | WA3PTV | | | | 5 |
| 4 | KØVXM | K4RSV | NA4N | | | | 3 |
| 5 | W5LUA | WA5YWC | K5LLL | | | | 9 |
| 6 | N6RMJ | N5BF | K6NKC | N9JIM | AA6IW | K6ML | 32 |
| 7 | AD7OI | KI7GVT | KJ7OG | | | | 5 |
| 8 | WA8RJF | W2RMA | | WB8TGY | K3SIW | WA8VPD | 9 |
| 9 | W9FZ | KA9VVQ | KØKFC | W9SZ | KA9VVQ | KØKFC | 7 |
| VE | VA3ELE | VE3MSC | VE3NYZ | VE3SMA | VE3WJ | VE3FN | 12 |
| XE | XE2EJ | XE2HWB | | | | | 2 |

Murphy, however, won the day on 24 GHz. VE3EG reported the only 300 GHz+ contact for the contest.

Mexico

XE2EJ and XE2HWB are the high scorers from XE land. Although they had several contacts each, it looks like there was no long range DX from the Baja peninsula this year.

Logs Received by Call Area

| Call Area | Entries |
|-----------|---------|
| 6 | 32 |
| 1 | 26 |
| ∅ | 20 |
| VE | 12 |
| 5 | 9 |
| 8 | 9 |
| 9 | 7 |
| 3 | 5 |
| 2 | 3 |
| 4 | 3 |
| 7 | 5 |
| DX | 2 |

Call Area 0

Call area 0 had the third-most logs and focused on lots of 10 GHz activity. According to notes on the St Louis Area Microwave Society website (slams-stlouis.blogspot.com), many folks headed up to Lake Michigan for the contest. Some roved farther south but the corn was still high enough for interference even in September. With 20 logs turned in, this part of the central states was a hot spot during the contest.

Call Area 1

Second only to California, call area 1 had 26 contest logs submitted. This was the place to be for trying QSOs above X-Band (10 GHz). There were more entries here in the 10 GHz & Up category than the 10 GHz category. Fourteen stations logged contacts above 10 GHz including AF1T, W1MKY, N1JEZ, W1FKF, W1JHR, WA2BTR, KA1OJ, W1GHZ, K1OR, W1EX, K1CA, KW2T, WA1MBA, and N1SAI. All of these stations made 24 GHz contacts and most made 47 GHz contacts as well. N1JEZ, W1FKF, KA1OJ, and WA1MBA excelled at microwave multi-banding, making QSOs on 10, 24, 47, and 75 GHz.

Call Area 2

Call area 2 had some good activity and three logs turned in. K2DH worked the first weekend from the eastern shore of Lake Erie along with WB2BYP and met WA8RJF there. In spite of new construction they worked a number of stations on both sides of the border on 10 and

24 GHz. They had one rain scatter contact of more than 400 km with K1RZ, the author and editor of the contest-wide plan spreadsheet.

Call Area 3

In call area 3 the action was all in the 10 GHz band, at least in the logs and reports. Paul, WA3GFZ analyzed his 2015 performance and concluded he needed a new rover setup to replace his tripod and computer. With design help from NN3Q and K1DS, he built a new rover tower trailer. In August, Paul operated from Camelback Mountain, and was the other end of one of AF1T's long range contacts.



Paul WA3GFZ's trailer rover set up debuting in the 2016 10 GHz and Up contest. (Photo credit – Paul Sokoloff, WA3GFZ)

Call Area 4

10 GHz was the band for call area 4 as well. Chuck, KØVXM, VP of the Florida Weak Signal Society, came in with the highest score followed by K4RSV and NA4N.

Call Area 5

Nine logs were turned in for call area 5 but several more stations were active. All reported activity was again on 10 GHz although there are a number of stations with higher frequency capability in this area. W7QQ upgraded his rig with a larger dish and 8 watt amp. He and KK6MC operated the first weekend from just below Santa Fe ski basin including multiple skeds into Arizona. Although all were not successful, they were all interesting. More New Mexico/Arizona attempts are being planned.

On the second weekend Al, W5LUA; Bob, WA5YWC; and Tony, WA8RJF mounted a major roving expedition along the Gulf Coast. Al set up in Grand Isle, LA while

Bob and Tony roved from Galveston, TX to Pensacola, FL. AA2LY and N2CYM joined in the contacts. Unsurprisingly, there was rain at times.



Al, W5LUA operating on the Gulf Coast in the rain. Note the drop of water hanging off the bottom right side of Al's secondary antenna - a horn. This was during two successful 424 km contacts! (Photo credit – Al Ward, W5LUA)

Call Area 6

California, Call Area 6, had the largest number of logs submitted including nine logs with contacts on both 10 GHz and 24 GHz. Six-land didn't get into 47 GHz or above though. There was a lot of action along the Pacific Coast as well as in and above the Mojave Desert and San Joaquin Valley. Excellent high points such as Mt. Fraser attracted multiple stations.

In a mix of Call Area 6 and 7 activations, Kevin, AD7OI and Tammy, KI7GVT are an Arizona family team that roved Arizona during the first weekend, and southern California from the Colorado River to the Pacific Coast during the second weekend of the contest. They are great operators with a pickup truck setup reminiscent of a short range, surface-to-air missile radar, but much more friendly. If anyone can work you, they will!

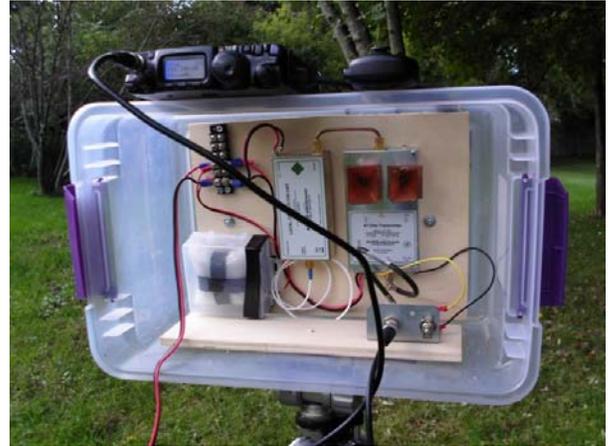
Call Area 7

Call area 7 had five logs turned in, all 10 GHz. Other operators did participate in multiple ways. The author roved both Arizona and California and thoroughly enjoyed the contest. On the second weekend W7JM roved to the Mule Mountains near Bisbee, AZ working K7RJ and KJ7OG on Mt Lemmon.

Call Area 8

There were many more 10 GHz and Up entries in Call Area 8 than 10 GHz only. This was another place to push the limits on the highest frequency bands. This area had seven logs with contacts above 10 GHz, including WB8TGY, K3SIW, and KB8VIO who all had QSOs in the 47 GHz band. Mark, WB8TGY attributes his successful 42 km, 47 GHz contact to the two new home-

built horn antennas. This may be a good way to get on 47 particularly if you don't have an antenna switch you like at that band. Mark roved while K3SIW, WA8VPD, NN9X, and KD9GGZ operated lakeside. There was lots of activity all over the Northeast.



WB8TGY's new 47 GHz station with dual horns. (Photo credit Mark Korroch, WB8TGY)

Call Area 9

Nine land had seven logs submitted with three having contacts in both the 10 and 24 GHz bands. Bruce, W9FZ, former author of your excellent results, and Janice, KA9VVQ planned roving expeditions for both weekends.



Bruce, W9FZ and Janice, KA9VVQ during their contest rove. (Photo and graphic courtesy of Bruce Richardson, W9FZ)



Overall Activity and Category Winners

This year 131 logs were turned in, up 7% from last year. N6RMJ topped the list in the 10 GHz Only category, but it was close. WBØLYC ended up less than 2% behind. In the 10 GHz & Up category, N9JIM finished first with QSOs on both 10 and 24 GHz.

No one turned in a log with contacts on 119, 142 or 241 GHz. That's a worthy challenge for 2017!

Planning and Publicity

One key to contest success on any band is planning. Multiple clubs sponsored tune-up parties. The San Bernardino Microwave Society (SBMS) devoted their August meeting to planning for the contest and streamed the meeting online. The North Texas Microwave Society (NTMS) gave talks at ham meetings and encouraged new operators. WA6JBD published a list of about 25 planned operations for California and Arizona. K1RZ published a contest-wide planning list with more than 80 operators. W9FZ published a map of Lake Michigan area fixed and planned rover stations. Many amateurs spent time planning and checking out operating sites, including the "confirmed New England Mountain Top Addict" Dave, K2DH.

In his Soapbox comments, Pat, N6RJM talks about wanting to do better in 2016 than he had before, planning carefully and working everyone he could. He roved 300+ miles through the San Joaquin Valley and the high desert. On the air he was polite but focused. It paid off.

Will you give the microwaves a try next year? If you haven't tried it before, volunteer to help with a team effort. The 10 GHz and Up Contest is waiting – find your location, choose a date (Aug 19-20 and Sep 16-17, 2017), and see who you can work!

The contest roving plan prepared by Bruce and Janice. They collected and distributed information on contest operators in the greater Lake Michigan area for both weekends. It's exciting just to look at the graphic with all those operators! (Graphic courtesy of Bruce Richardson, W9FZ)

Plans changed for at least two hams and rovers had to dodge rain storms but the results were still great. Scores were high for everyone in call area 9 with five of the nine logs having more than 95 contacts each.

Top 10 Scores (10 GHz Only)

| <i>Call</i> | <i>Score</i> |
|-------------|--------------|
| N6RMJ | 71,348 |
| WBØLYC | 70,059 |
| KØCQ | 67,531 |
| NØUK | 62,657 |
| KØHAC | 61,372 |
| NØKP | 57,345 |
| KCØP | 54,950 |
| N5BF | 43,768 |
| K6NKC | 40,829 |
| WA2VOI | 37,574 |

Top 10 Scores (10 GHz and Up)

| <i>Call</i> | <i>Score</i> |
|-------------|--------------|
| N9JIM | 67,409 |
| AA6IW | 54,847 |
| K6ML | 54,389 |
| K9PW | 53,293 |
| WØZQ | 52,707 |
| W6QIW | 48,120 |
| N6NU | 47,420 |
| W6BY | 41,179 |
| K6GZA | 39,535 |
| AF1T | 29,417 |

Best DX By Band

| <i>Call</i> | <i>Band</i> | <i>Distance (km)</i> |
|-------------|-------------|----------------------|
| K6NKC | 10 GHz | 801 |
| K6ML | 24 GHz | 343 |
| N1JEZ | 47 GHz | 108 |
| WA1MBA | 75 GHz | 108 |
| VE3EG | 300 GHz | 5 |

2016 Best DX by Band in KM

10 GHz

| | |
|--------|-------|
| K6NKC | 801 |
| K6ML | 800 |
| W6QIW | 669 |
| WA6JBD | 668.9 |
| WA6QDP | 651.7 |
| N6NU | 651 |
| W6BY | 650.2 |
| N6RMJ | 639 |
| AF1T | 636 |
| W1MKY | 636 |
| K1RZ | 636 |
| WA3PTV | 634 |

24 GHz

| | |
|-------|-------|
| K6ML | 343 |
| W6QIW | 343 |
| AA6IW | 314 |
| W6BY | 303.4 |
| N9JIM | 291.7 |
| K6GZA | 251 |
| N6NU | 248 |
| N1JEZ | 206 |
| W1FKF | 205 |
| W1EX | 204.6 |
| W1JHR | 204 |
| KA1OJ | 202 |

47 GHz

| | |
|--------|-------|
| N1JEZ | 108 |
| W1FKF | 108 |
| WA1MBA | 107.9 |
| AF1T | 99 |
| W1MKY | 99 |
| VE3FN | 99 |
| KA1OJ | 59 |
| W1GHZ | 59 |
| K3SIW | 48 |
| WB8TGY | 48 |
| W1EX | 41.1 |
| VE4MA | 24 |

75 GHz

| | |
|--------|-------|
| N1JEZ | 108 |
| WA1MBA | 107.9 |
| W1FKF | 41 |
| KA1OJ | 41 |
| VE4MA | 15 |