# 2014 ARRL 10 Meter Contest Results

# New categories, club competition, stealth operating, and more show that there's no one "right way" to enjoy this contest.

### Scott Tuthill, K7ZO, k7zo@cableone.net

During the 2014 ARRL 10 Meter Contest over the December 13 – 14 weekend, more than 11,000 operators worldwide got on the air, and a record 5488 operators submitted their logs. With a final estimate of 2.67 million QSOs being made during the contest, spread evenly over the 48-hour operating period, this means 15 QSOs were being made every second, or over 55,000 QSOs per hour. That's a big party!

#### **Fun With Family and Friends**

Bruce, AA5B, got a chance during the contest to spend some quality time with his 7-year-old grandson, Keenan. Bruce let Keenan rotate the antenna when he needed to beam in a new direction. Keenan, who was visiting from his home in the Ivory Coast (TU), got really excited when Bruce worked a South African station and pointed on the map to where the station was located. Since Keenan knew how far away his home in TU was, he was amazed that his grandpa could talk to someone in that neighborhood of the world.

Bill, K2PO, took the opportunity during contest weekend to gather a bunch of friends and have an actual party, otherwise known as a multioperator activation. Bill and friends AF8Z, K7CIE, KD7VOK, KU1CW, W6ABM, W7TVC, W8NF, WN6W, and WS7L had a great time. Though Dave, AF8Z, related that they struggled with "...the typical Field Day problem wherein a tent fills with nominally deaf people, socializing in elevated voices, while I try to concentrate on operating..." In the end they persevered, managed to make almost 1400 QSOs, and placed 5<sup>th</sup> in the US in the Multioperator, Low Power category.

Longtime regular contester Don, K6ZO, used the 10 Meter Contest as an opportunity to introduce a new operator to the enjoyment of contesting. His pupil was Christine, KC3CIF, who earned her ticket earlier in 2014. Don's pre-contest training consisted of showing Christine how to use *N1MM Logger* software, how to listen for call signs, how to apply the DX Code of Conduct, and how to bust a



Figure 1 — Bruce, AA5B, with grandson Keenan. [Bruce Draper, AA5B, photo]

pileup. On contest day, Christine sat down at the microphone and quickly made her first QSO with a station in France. From there, nothing was holding her back, and off and running she went. Since Christine was operating at the W3HAC station in Washington, DC, a sought-after multiplier, she quickly drew attention. The 10 Meter Contest is a perfect event for first-time contesters: a wide band, plenty of activity, loud and clear signals. You can't help but have fun.

#### Small Signal? No Problem!

One of the great things about the ARRL 10 Meter Contest is that just about any HF capable operator can have fun getting on the air. Amazing results have been had with anything that can radiate RF. Let's take a look at some notable accomplishments.

Fred, NA2U, retired to sunny Arizona several

Number of Stations Achieving Worked All States			
Continent	2014	2013	
Africa Asia Europe North America Oceania South America Total	0 0 148 10 25 183	2 1 92 9 31 135	

years ago and found himself constrained by that bane of many Amateur Radio operators - CC&Rs (Covenants, Conditions, and Restrictions) and HOAs (Homeowners Associations). Continuing the tradition of inventiveness in our hobby, after some trial and error, Fred settled on an antenna configuration consisting of a ground-mounted screwdriver antenna with radials and a multiband dipole at a height of 58 inches. Yes, inches. Not feet! Amazingly, Fred made 761 QSOs in 16 hours on the air. These QSOs were not all easy stateside stations either. A selection of DX multipliers in Fred's log includes all six continents: ZL, EA8, S5, DL, EA, HK, HI, JA, BY, and VR.

John, N6HI, has always loved the challenge of being a QRP-only operator. Chasing DX and contesting with a maximum of 5 W is fun for him. Like Fred, NA2U, John also lives in a "No Antennas" QTH. If QRP operating isn't a big enough challenge, think of doing it without an antenna. Well, of course you need some sort of antenna. A couple of options are possible: The indoor antenna and the invisible outdoor antenna. John went with the second option. As he described,

I tied a small rock to the end of a 20-foot hunk of insulated wire, and threw it into a tree outside my window. On the indoor end of the wire, I attached a banana plug, and plugged that into the center conductor of the SO-239 antenna output of my tuner.

With this setup, John managed to make 52 QSOs, including a couple of Europeans — which was not so easy from the West Coast.

#### **New Unlimited Categories**

For the competition-oriented operators, the major change in contest rules for 2014 was the addition of Unlimited categories. No longer would single operators using spotting assistance or automated multi-channel decoders, aka *CW Skinmer* software by VE3NEA, have to enter in the Multioperator category. This change has been requested for years. The

ARRL listened and created a full set of Single Operator Unlimited categories. Almost onethird of the entrants participated in the new Unlimited categories. For the first year of a new scheme, it was very successful.

#### **Update on Mexico**

Another recent rule change occurred in 2010 when the 32 Mexican (XE) states were added to the multiplier list. Since then, XE contest activity has grown nicely, with a total of 38 XE logs submitted in 2014 containing 21,000 QSOs — up from 33 logs in 2013 and 30 in 2012. With competitors worldwide chasing down these multipliers, XE operators have realized they will be very popular when they get on the air. As Luis, XE2B, related after the contest: "I managed to work DXCC (106 countries) plus all stateside and just missed one VE province (NU)." He has to be one of the very few stations that managed both DXCC and WAS over the weekend. Well done, Luis! As he also described, "There were several instances where I was asked to repeat the exchange twice or more, because they were asking for a number and seemed confused when I was sending my state abbreviation." As a reminder for everyone, XE stations give a three-letter state abbreviation for their exchange. A list of the abbreviations can be found on the ARRL website, in the rules for the 10 Meter Contest.

#### **Affiliated Club Competition**

Club competition continues to be a popular aspect of this contest. Operators get a chance to be part of a team while operating from their home station. It can be quite motivating to get on the air to make some points for your club or to compete for honors against fellow club members. Many operators mention in their soapbox comments something similar to, "Wanted to get on the air to make some points for our club." A total of 1193 operators submitted logs that were also credited towards club competition. This means that 47% of the W/VE operators were part of one of the 78 different clubs that participated. Way to go, club organizers!

#### **Pass the Popcorn!**

This year, I developed some new software tools to analyze the logs and created something new — animated movies that portray how propagation across the US plays out across the whole contest weekend. As a metric for propagation I used, "What is the average QSO rate of stations in each state with a given target area during a certain period?" The raw data to build these views was extracted from submitted logs and converted to a map

Unlimited     Entries     Score       Potomac Valley Radio Club     119     32,894,468       Vankee Clipper Contest Club     69     22,266,758       Minnesota Wireless Assn     82     13,753,212       Northern California Contest Club     59     12,311,710       Society of Midwest Contesters     63     9,528,114       Medium     1     74,331,432       Contest Club Ontario     39     11,786,532       Southern California Contest Club     27     9,254,746       DFW Contest Group     15     6,428,628       Mad River Radio Club     12     5,575,504       Georgia Contest Group     18     4,771,892       Carolina DX Association     19     5,114,306       Matime Contest Club     12     4,594,208       Western Washington DX Club     18     4,771,892       Louisiana Contest Club     12     4,578,236       Order of Boiled Owls of New York     2,212,214       Hudson Valley Contest Club     1     1,385,028       Order of Boiled Owls of New York     2,232,214       Hampden County Radio	Affiliated Club Competitio	n	
Potomac Valley Radio Club     119     32.894,468       Yankee Clipper Contest Club     69     22.506,758       Minnesota Wireless Assn     82     13,753,212       Northern California Contest Club     59     12,311,710       Society of Midwest Contest Club     47     14,331,432       Contest Club Ontario     39     11,786,532       Southern California Contest Club     27     9,254,746       Georgia Contest Group     15     6,428,628       Mad River Radio Club     12     5,575,504       Central Texas DX and Contest Club     10     4,860,048       Maritime Contest Club     12     4,578,236       Maritime Contest Club     14     4,574,208       Maritime Contest Club     18     4,578,236       Mother Lode DXContest Club     18     4,578,236       Mother Lode DXContest Club     18     4,578,236       Mineste Contest Club     14     2,243,706       Order of Boiled Owls of New York     9     2,326,372       Willamette Valley DX Clube to     1     3,852,028       Tennessee Contest Club     1	Unlimited Entri	es	Score
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Society of Midwest Contesters     63     9,528,144       Medium     Frankford Radio Club     40     16,651,752       Arizona Outlaws Contest Club     47     14,331,432       Contest Club Ontario     39     11,786,552       Southern California Contest Club     27     9,254,746       DFW Contest Group     11     9,191,668       Georgia Contest Group     15     6,428,628       Mad River Radio Club     12     5,575,504       Central Texas DX and Contest Club     10     5,301,270       Grand Meas Contesters of Colorado     15     5,183,018       Maritime Contest Club     10     4,860,048       Maritime Contest Club     12     4,578,236       Mother Lode DX/Contest Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3852,028       Tennessee Contest Club     12     2,629,802       South East Contest Club     12     2,629,802       South East Contest Club     1     1,85,068       Saskatchewan Contest Club     1     1,85,068       Saskatchewan Contest Club     <	Northern California Contest Club	o∠ 59	12,311,710
Medium       Frankford Radio Club     40     16,651,752       Arizona Outlaws Contest Club     47     14,331,432       Contest Club Ontario     39     11,786,532       Southern California Contest Club     27     9,254,746       DFW Contest Group     11     9,191,668       Georgia Contest Group     14     6,241,686       ORCA DX And Contest Club     12     5,575,504       Central Texas DX and Contest Club     10     4,860,048       Alabama Contest Club     12     4,594,208       Western Washington DX Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3,852,028       Tennessee Contest Group     25     3,848,906       Contest Group DU Quebec     12     2,629,802       South East Contest Club     11,88,768     3,852,028       Gorder of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     1     1,885,068       Saskatchewan Contest Club     5     1,700,706       North Texas Contest Club     1     1,608,928       Mississipip	Society of Midwest Contesters	63	9,528,144
Frankford Radio Club   40   16,651,752     Arizona Outlaws Contest Club   47   14,331,432     Contest Club Ontario   39   11,786,532     Southern California Contest Club   27   9,254,746     DFW Contest Group   31   9,191,668     Mad River Radio Club   14   6,241,666     Ortard Mesa Contest Club   12   5,575,504     Central Texas DX and Contest Club   10   5,183,0118     Carolina DX Association   9   5,114,306     Maritime Contest Club   10   4,860,048     Alabara Contest Group   18   4,771,892     Louisiana Contest Group   25   3,848,906     Contest Group DU Quebec   12   2,629,802     South East Contest Club   12   2,629,802     South East Contest Club   1   1,885,068     Saskatchewan Contest Club   5   1,700,706     North Exas Contest Club   1   1,885,068     Saskatchewan Contest Club   5   1,790,706     North Exas Contest Group   5   1,790,706     Rota Sciept Y   3   3,36,976 <t< th=""><th>Medium</th><th></th><th></th></t<>	Medium		
Contest Club Ontario     39     11,786,532       Southern California Contest Club     27     9,254,746       DFW Contest Group     31     9,191,668       Georgia Contest Group     15     6,428,628       Mad River Radio Club     14     6,241,866       ORCA DX And Contest Club     10     5,575,504       Central Texas DX and Contest Club     10     4,860,048       Maritime Contest Club     10     4,860,048       Alabara Contest Group     18     4,771,892       Louisiana Contest Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3,852,028       Tennessee Contest Group     25     3,848,906       Contest Group DU Quebec     12     2,629,802       South East Contest Club     16     2,864,706       Order of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     19     1,885,068       Saskatchewan Contest Club     4     1,608,928       Morth East Contest Club     4     1,070,706       North Coast Contest Group     5     1,336,976 <td>Frankford Radio Club Arizona Outlaws Contest Club</td> <td>40 47</td> <td>16,651,752 14,331,432</td>	Frankford Radio Club Arizona Outlaws Contest Club	40 47	16,651,752 14,331,432
DFW Contest Group     31     9,191,668       Georgia Contest Group     15     6,428,628       Mad River Radio Club     14     6,241,686       ORCA DX And Contest Club     10     5,575,504       Central Texas DX and Contest Club     10     5,301,270       Grand Mesa Contesters of Colorado     15     5,183,018       Carolina DX Association     19     5,114,306       Maritime Contest Club     12     4,594,208       Western Washington DX Club     18     4,771,892       Louisiana Contest Group     25     3,848,906       Contest Group DU Quebec     12     2,629,802       South East Contest Club     12     2,629,802       South East Contest Club     14     1,700,706       North Texas Contest Club     5     1,700,706       North Texas Contest Club     4     1,608,928       Mississipi Valley DX/Contest Club     5     1,780,766       Kentucky Contest Group     6     1,078,062       Kentucky Contest Group     7     195,408       North Coast Contesters     3     3,404,385	Contest Club Ontario Southern California Contest Club	39 27	11,786,532 9,254,746
Mad River Radio Club     14     6,241,686       ORCA DX And Contest Club     12     5,575,504       Central Texas DX and Contest Club     15     5,114,306       Carolina DX Association     19     5,114,306       Maritime Contest Club     10     4,860,048       Alabama Contest Group     18     4,771,892       Louisiana Contest Club     12     4,594,208       Western Washington DX Club     18     4,578,236       Mother Lode DX/Contest Club     18     4,274,432       Hudson Valley Contesters and DXers     3,852,028       Tennessee Contest Group     25     3,848,906       Contest Group Du Quebec     12     2,629,802       South East Contest Club     12     2,624,648       Utah DX Association     12     2,624,760       Order of Boiled Owls of New York     9     1,336,976       South East Contest Club     1     1,497,546       Mississipi Valley DX/Contest Club     4     1,497,546       Texas DX Society     3     3,340,976       North Coast Contest Group     5     1,076,822  <	DFW Contest Group Georgia Contest Group	31 15	9,191,668
CHCA DX And Contest Club     12     5,375,504       Central Texas DX and Contest Club     10     5,318,018       Carolina DX Association     19     5,114,306       Maritime Contest Club     10     4,860,048       Alabama Contest Group     18     4,771,892       Louisiana Contest Club     12     4,594,208       Western Washington DX Club     18     4,577,8236       Mother Lode DX/Contest Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3,852,028       Tennessee Contest Group     25     3,848,906       Cortest Group Du Quebec     12     2,629,802       South East Contest Club     12     2,629,802       South East Contest Club     12     2,547,606       Order of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     19     1,885,068       Saskatchewan Contest Club     5     1,700,706       North Texas Contester Club     4     1,608,928       Mississispi Valley DX/Contest Club     1     1,858,064       North Coast Contest Group     5	Mad Řiver Radio Club	14	6,241,686
Grand Mesa Contesters of Colorado     15     5,183,018       Carolina DX Association     19     5,114,306       Maritime Contest Club     10     4,860,048       Alabama Contest Group     18     4,771,892       Louisiana Contest Club     12     4,594,208       Mother Lode DX/Contest Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3,852,028       Tennessee Contest Group     25     3,848,906       Cortest Group Du Quebec     12     2,263,72       South East Contest Club     16     2,684,648       Utah DX Association     12     2,629,802       South East Contest Club     1     1,700,706       Order of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     19     1,885,068       Saskatchewan Contest Club     4     1,608,928       Mississispip Valley DX/Contest Club     4     1,608,928       Mississispip Valley DX/Contest Club     4     1,046,738       CTRI Contest Group     5     5,38,040       Badger Contesters     3     1,0	Central Texas DX and Contest Club	10	5,575,504
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Alabama Contest Group     18     4,771,892       Louisiana Contest Club     12     4,594,208       Western Washington DX Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3,852,028       Tennessee Contest Group     25     3,848,906       Contest Group DU Quebec     12     2,226,372       Willamette Valley DX Club     16     2,684,648       Utah DX Association     12     2,629,802       South East Contest Club     1     1,700,706       Order of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     19     1,885,068       Saskatchewan Contest Club     4     1,608,928       Mississippi Valley DX/Contest Club     4     1,608,928       Morth Coast Contesters     6     1,078,062       Kentucky Contest Group     5     2,384,906       CTRI Contest Group     7     195,408       Badger Contesters     3     1,613,366       Lincoln ARC     9     1,538,404       Bozinga DX and Contest Club     8     1,529,408	Maritime Contest Club	10	4,860,048
Louisal at Contest Club     12     4,578,236       Western Washington DX Club     18     4,274,432       Hudson Valley Contest Group     25     3,848,906       Contest Group DU Quebec     12     2,263,72       Willamette Valley DX Club     16     2,684,648       Utah DX Association     12     2,629,802       South East Contest Club     12     2,547,606       Order of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     19     1,885,068       Saskatchewan Contest Club     4     1,608,928       Mostississippi Valley DX/Contest Club     4     1,608,928       Most TC Contest Group     6     1,047,738       North Coast Contesters     6     1,078,062       Kentucky Contest Group     7     195,408       Badger Contesters     3     161,336       Central Virginia Contest Club     9     1,538,400       Badiosport Manitoba     5     2,349,000       Redwood Empire DX Assn     5     1,790,274       Kasas City Contest Club     8     1,659,168	Alabama Contest Group	18	4,771,892
Mother Lode DX/Contest Club     18     4,274,432       Hudson Valley Contesters and DXers     13     3,852,028       Tennessee Contest Group     25     3,848,906       Contest Group DU Quebec     12     3,226,372       Willamette Valley DX Club     16     2,684,648       Utah DX Association     12     2,224,372       South East Contest Club     1     2,623,802       North Texas Contest Club     4     1,700,706       Order of Boiled Owls of New York     9     2,132,214       Hampden County Radio Assn     19     1,885,068       Saskatchewan Contest Club     4     1,608,928       Mississippi Valley DX/Contest Club     4     1,608,928       North Coast Contesters     6     1,078,062       Kentucky Contest Group     5     486,242       Six Meter Club of Chicago     6     2,20,100       Swamp Fox Contest Group     7     195,408       Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,790,274       Kasasa City Contest Club     8     1,586,512	Western Washington DX Club	18	4,594,206
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Saskatchewan Contest Club     5     1,700,706       North Texas Contest Club     4     1,608,928       Mississippi Valley DX/Contest Club     4     1,497,546       Texas DX Society     3     1,336,976       Rochester (NY) DX Assn     10     1,158,946       North Coast Contesters     6     1,077,062       Kentucky Contest Group     5     486,242       Six Meter Club of Chicago     6     220,100       Swamp Fox Contest Group     7     195,408       Badger Contest Group     7     195,408       Central Virginia Contest Club     9     5,538,040       Bozinga DX and Contest Club     3     3,040,388       Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,790,274       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,1497,914       Bristol (TN) ARC     10     1,189,296       Spol DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,027,490       Northeast Maryland Amateur	Hampden County Radio Assn	19	1,885,068
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Texas DX Society     3     1,336,976       Rochester (NY) DX Assn     10     1,158,946       North Coast Contesters     6     1,078,062       Kentucky Contest Group     5     486,242       Six Meter Club of Chicago     6     220,100       Swamp Fox Contest Group     7     195,408       Badger Contesters     3     161,336       Local     2     20,100       Central Virginia Contest Club     9     5,538,040       Bozinga DX and Contest Club     3     3,040,388       Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,497,914       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,89,296       Spokane DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     1	Mississippi Valley DX/Contest Club	4	1,608,928
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Kentucky Contest Group     6     1,046,738       CTRI Contest Group     5     486,242       Six Meter Club of Chicago     6     220,100       Swamp Fox Contest Group     7     195,408       Badger Contesters     3     161,336       Local	North Coast Contesters	6	1,158,946
C1H1 Contest Group     5     486,242       Six Meter Club of Chicago     6     220,100       Swamp Fox Contest Group     7     195,408       Badger Contesters     3     161,336       Local	Kentucky Contest Group	6	1,046,738
Swamp Fox Contest Group     7     195,408       Badger Contesters     3     161,336       Local         Central Virginia Contest Club     9     5,538,040       Badger Contesters     3     0,40,388       Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,790,274       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,189,296       Systex Sociation     9     1,167,016       Hiltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     7     737,448       Morth Carolina DX and Contest Club     5     533,416     Murgas ARC     4     478,588       Metro DX Club     4     411,278     Contoocook Valley Radio Club     4<	Six Meter Club of Chicago	5 6	486,242 220.100
Dauger Contesters3101,300LocalCentral Virginia Contest Club95,538,040Bozinga DX and Contest Club33,040,388Radiosport Manitoba52,349,080Redwood Empire DX Assn51,790,274Kansas City Contest Club81,586,512Lincoln ARC91,497,914Bristol (TN) ARC101,189,296Sy9 DX Association91,167,016Hilltop Transmitting Assn41,127,490Northeast Maryland Amateur RadioContest Cociety91,113,418Spokane DX Association81,059,168Sussex County ARC101,008,678Delara Contest Team5885,248Meriden ARC5755,410Niagara Frontier Radiosport7737,448Midland ARC4478,588Metro DX Club4411,278Contoocook Valley Radio Club6382,554Portage County Amateur Radio Service4345,368Brazos Valley ARC5315,710Granite State ARA7258,204Athens County ARA5204,814Columbia-Montour ARC3201,168Sterling Park ARC4163,216West Allis RAC6161,282South Jersey DX Assn3158,268North Fulton ARL6135,566Skyview Radio Society6104,242Bergen ARA730,782Pottstown Area ARC690,258<	Swamp Fox Contest Group	7	195,408
Local       Central Virginia Contest Club     9     5,538,040       Bozinga DX and Contest Club     3     3,040,388       Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,790,274       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,182,296       S99 DX Association     9     1,167,016       Hiltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     5     755,410       Niagara Frontier Radiosport     7     737,448     Meriden ARC     4     499,752       Midland ARC     4     478,588     Metro DX Club     4     411,278       Contoocook Valley Radio Club     6     382,554     Portage County Amateur Radio Service     315,710 <td< th=""><th></th><th>3</th><th>101,330</th></td<>		3	101,330
Central Virginia Contest Club     9     5,538,400       Bozinga DX and Contest Club     3     3,040,388       Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,790,274       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,189,296       Sy9 DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     5     737,448       North Carolina DX and Contest Club     5     533,416     Murgas ARC     4     499,752       Midland ARC     4     478,588     Metro DX Club     4     411,278       Contoccook Valley Radio Club     6     382,554     Portage County Amateur Radio Service     315,710       Granite State ARA <td< th=""><th></th><th></th><th></th></td<>			
Radiosport Manitoba     5     2,349,080       Redwood Empire DX Assn     5     1,790,274       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,189,296       S99 DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     5     755,410       North Carolina DX and Contest Club     5     533,416     Murgas ARC     4     499,752       Meidand ARC     4     478,588     Metro DX Club     4     411,278       Contoocook Valley Radio Club     4     411,278     204,814     204,814       Contoccook Valley Radio Club     4     411,278     204,814     204,814     204,814     204,814     204,814     204,814     204,814     204,814	Bozinga DX and Contest Club	9	5,538,040
Hedwood Empire DX Assn     5     1,790,2/4       Kansas City Contest Club     8     1,586,512       Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,189,296       S99 DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     5     755,410       Niagara Frontier Radiosport     7     737,448     499,752       Midland ARC     4     478,588     Metro DX Club     4     411,278       Contoocook Valley Radio Club     4     411,278     Contoocook Valley Radio Club     4     411,378       West Park Radiops     6     382,554     Portage County Amateur Radio Service     345,368     Sterling Park ARC     4     163,216       Granite State ARA     7     258,204     Athens County ARA     204,814     Columb	Radiosport Manitoba	5	2,349,080
Lincoln ARC     9     1,497,914       Bristol (TN) ARC     10     1,189,296       599 DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     5     755,410       North Carolina DX and Contest Club     5     533,416     4499,752     Midland ARC     4     478,588       Metro DX Club     4     411,278     Contoocook Valley Radio Club     6     382,554       Portage County Amateur Radio Service     345,368     315,710     315,710       Granite State ARA     7     258,204     Athens County ARA     204,814       Columbia-Montour ARC     3     201,168     32,554       Sterling Park ARC     4     163,216       West Park Radiops     6     382,554       Portage County Amateur Radio Service     315,770	Kansas City Contest Club	5	1,790,274
Bristol (TN) ARC     10     1, 189,296       599 DX Association     9     1,167,016       Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168     Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248     Meriden ARC     5     755,410       Niagara Frontier Radiosport     7     737,448     499,752       Midland ARC     4     478,588       Metro DX Club     4     411,278       Contocook Valley Radio Club     6     382,554       Portage County Amateur Radio Service     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Park Radios Society     6     162,216       Sterling Park ARC     4     163,216       West Park ARG     163,216     104,242	Lincoln ARC	9	1,497,914
Hilltop Transmitting Assn     4     1,127,490       Northeast Maryland Amateur Radio     7     1,113,418       Contest Society     9     1,113,418       Spokane DX Association     8     1,059,168       Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248       Meriden ARC     5     755,410       Niagara Frontier Radiosport     7     737,448       Morth Carolina DX and Contest Club     5     533,416       Murgas ARC     4     499,752       Midland ARC     4     478,588       Metro DX Club     4     411,278       Contoocook Valley Radio Club     6     382,554       Portage County Amateur Radio Service     315,710       Granite State ARA     7     258,204       Athens County ARA     204,814     Columbia-Montour ARC     320,168       Sterling Park ARC     4     163,216     West Allis RAC     163,216       West Park RARD     7     258,204     104,242     Bergan ARA     7     33,782       Sterling Pa	599 DX Association	10	1,189,296
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Spokane DX Association     8     1,059,168       Sussex County ARC     10     1,008,678       Delara Contest Team     5     885,248       Meriden ARC     5     755,410       North Carolina DX and Contest Club     5     533,416       Murgas ARC     4     499,752       Midland ARC     4     478,588       Metro DX Club     6     382,554       Portage County Amateur Radio Service     4     345,368       Brazos Valley ARC     5     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     3,5566       Skyview Radio Society     6     104,242       Bergen ARA     7     30,782       Rappahannock Valley Amateur Radio Society     6     90,258       Ventura County Amateur	Contest Society	9	1.113.418
Subsex Contrest Team     10     1,1006,07       Delara Contest Team     5     885,248       Meriden ARC     5     755,410       Niagara Frontier Radiosport     7     737,448       Morth Carolina DX and Contest Club     5     533,416       Murgas ARC     4     499,752       Midland ARC     4     478,588       Metro DX Club     6     382,554       Portage County Amateur Radio Service     4     345,368       Brazos Valley ARC     5     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     33,782       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     6     90,258       Pottstown Area ARC     90,258     47,274       Peterborough	Spokane DX Association	8	1,059,168
Meriden ARC     5     755,410       Niagara Frontier Radiosport     7     737,448       North Carolina DX and Contest Club     5     533,416       Murgas ARC     4     499,752       Midland ARC     4     478,588       Metro DX Club     4     411,278       Contoocook Valley Radio Club     6     382,554       Portage County Amateur Radio Service     4     345,368       Brazos Valley ARC     5     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     3,782       Pottstorw Area ARC     6     90,258       Ventura County Amateur Radio Society     6     90,258       Pottstorw Area ARC     90,258     47,274       Peterborough Amateur Radio Club     4     71,474 <t< td=""><td>Delara Contest Team</td><td>5</td><td>885,248</td></t<>	Delara Contest Team	5	885,248
Nidgara Fronuer Radiosport773,748North Carolina DX and Contest Club5Murgas ARC4499,752Midland ARC4Metro DX Club4Contoccook Valley Radio Club6West Park Radiops6State ARA7Caraoto Valley RAC5Granite State ARA7Contourb Arateur Radio Service345,368Brazos Valley ARC5Granite State ARA7Columbia-Montour ARC201,168Sterling Park ARC4163,216West Allis RAC6161,282South Jersey DX Assn3158,268Athens County Amateur Radio SocietyBergen ARA7Pottstown Area ARC6Ventura County Amateur Radio SocietyRappahannock Valley Amateur Radio SocietyClub7Vertura County Amateur Radio ClubWiraless Association of South Hills249,104	Meriden ARC	5	755,410
Murgas ARC     4     499,752       Midland ARC     4     478,588       Metro DX Club     4     411,278       Contoccock Valley Radio Club     6     401,398       West Park Radiops     6     382,554       Portage County Amateur Radio Service     4     345,368       Brazos Valley ARC     5     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     30,782       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     6     90,258       Rappahannock Valley Amateur Radio     47,474       Peterborough Amateur Radio Club     3     70,280	North Carolina DX and Contest Club	5	533,416
Mildialio ARC   4   476,358     Metro DX Club   4   411,278     Contoccook Valley Radio Club   6   401,398     West Park Radiops   6   382,554     Portage County Amateur Radio Service   4   345,368     Brazos Valley ARC   5   345,368     Granite State ARA   7   258,204     Athens County ARA   5   204,814     Columbia-Montour ARC   3   201,168     Sterling Park ARC   4   163,216     West Allis RAC   6   161,282     South Jersey DX Assn   3   158,268     North Fulton ARL   6   135,566     Skyview Radio Society   6   104,242     Bergen ARA   7   30,782     Pottstown Area ARC   6   90,258     Ventura County Amateur Radio Society   84,722     Rappahannock Valley Amateur Radio   70,280     Club   4   71,474     Peterborough Amateur Radio Club   3   70,280	Murgas ARC	4	499,752
Contoccook Valley Radio Club     6     401.398       West Park Radiops     6     382,554       Portage County Amateur Radio Service     4     345,368       Brazos Valley ARC     5     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     161,282       South Jersey DX Assn     3     158,268       North Fulton ARL     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     30,783       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     84,722     84,722       Rappahannock Valley Amateur Radio Club     3     70,280       Viraless Association of South Hills     2     49,104	Metro DX Club	4	478,588 411,278
North Altri NationNote of an anticipationNote of an anticipationBrazos Valley ARC5315,710Granite State ARA7258,204Athens County ARA5204,814Columbia-Montour ARC3201,168Sterling Park ARC4163,216West Allis RAC6161,282South Jersey DX Assn3158,268North Fulton ARL6135,566Skyview Radio Society6104,242Bergen ARA793,782Pottstown Area ARC690,258Ventura County Amateur Radio Society84,722Rappahannock Valley Amateur Radio71,474Peterborough Amateur Radio Club370,280Viraless Association of South Hills249,194	Contoocook Valley Radio Club	6	401,398
Brazos Valley ARC     5     315,710       Granite State ARA     7     258,204       Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     161,282       South Jersey DX Assn     3     158,268       North Fulton ARL     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     30,783       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     3     84,722       Rappahannock Valley Amateur Radio     71,474     70,280       Wireless Association of South Hills     2     49,104	Portage County Amateur Radio Service	4	345,368
Athens County ARA     5     204,814       Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     161,282       South Jersey DX Assn     3     158,268       North Fulton ARL     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     30,782       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     84,722       Rappahannock Valley Amateur Radio     70,280       Club     4     71,474       Peterborough Amateur Radio Club     3     49,104	Brazos Valley ARC Granite State ABA	5	315,710 258 204
Columbia-Montour ARC     3     201,168       Sterling Park ARC     4     163,216       West Allis RAC     6     161,282       South Jersey DX Assn     3     158,268       North Fulton ARL     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     93,782       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     84,722       Rappahannock Valley Amateur Radio     71,474       Peterborough Amateur Radio Club     3     70,280       Wiraless Association of South Hills     2     49,104	Athens County ARA	5	204,814
West Allis RAC     6     161,282       South Jersey DX Assn     3     158,268       North Fulton ARL     6     135,566       Skyview Radio Society     6     104,242       Bergen ARA     7     39,782       Pottstown Area ARC     6     90,258       Ventura County Amateur Radio Society     3     84,722       Rappahannock Valley Amateur Radio     4     71,474       Peterborough Amateur Radio Club     3     70,280       Wiraless Association of South Hills     3     49,104	Columbia-Montour ARC Sterling Park ABC	3	201,168
South Jersey DX Assn 3 158,268   North Fulton ARL 6 135,566   Skyview Radio Society 6 104,242   Bergen ARA 7 33,782   Pottstown Area ARC 6 90,258   Ventura County Amateur Radio Society 3 84,722   Rappahannock Valley Amateur Radio 4 71,474   Peterborough Amateur Radio Club 3 40,201	West Allis RAC	6	161,282
Skyview Radio Society 6 104,242 Bergen ARA 7 93,782 Pottstown Area ARC 6 90,258 Ventura County Amateur Radio Society 3 84,722 Rappahannock Valley Amateur Radio Club 4 71,474 Peterborough Amateur Radio Club 3 70,280 Wirgless Association of South Hills 2 49,104	South Jersey DX Assn North Fulton ABL	3	158,268 135,566
bergen AHA   7   93,782     Pottstown Area ARC   6   90,258     Ventura County Amateur Radio Society   3   84,722     Rappahannock Valley Amateur Radio   71,474     Peterborough Amateur Radio Club   3   70,280     Wireless Association of South Hills   3   49,104	Skyview Radio Society	6	104,242
Ventura County Amateur Radio Society 3 84,722 Rappahannock Valley Amateur Radio Club 4 71,474 Peterborough Amateur Radio Club 3 70,280 Wirglass Association of South Hills 2 49,104	Pottstown Area ARC	6	93,782 90,258
Happanannock Valley Amateur Hadio Club 4 71,474 Peterborough Amateur Radio Club 3 70,280 Wirglass Association of South Lills 2 49 104	Ventura County Amateur Radio Society	3	84,722
Peterborough Amateur Radio Club 3 70,280 Wireless Association of South Hills 3 49,184	Happahannock Valley Amateur Radio Club	4	71.474
	Peterborough Amateur Radio Club Wireless Association of South Hills	3	70,280

— formally called Choropleth maps. One map was created for each 30-minute period during the contest and then assembled into animated 2-minute movies that can be viewed at **Vimeo.com** (https://vimeo. com/124625915 through 124625918).

Some of these movies start out kind of slow. For example, the European movie does not show anything for a while because the first QSOs between the US and Europe don't happen until many hours into the contest. Have patience and allow each movie to play through.

#### **Evening Activity in the US**

One thing I do in preparing to write each year's article is read the soapbox comments everyone wrote. I came across many references to the quality of the evening opening in the US on Saturday night versus Friday night. Some typical comments were:

The E-skip finally got hot around 0230 [Saturday night], but most of the casual ops had long since QRTed. — *Bill, K4XS* 

Best part of the contest was on Saturday night, when 10 turned into 6 meters for a while.— *Jamie, NS3T* 

Big Es late Saturday night but hardly anyone around to work it! — W9XG (operator Bob, K2DRH)

Starting about 0300 UTC on Sunday (Saturday night in the US), operators started to make many more QSOs than they did on the first night. The peak of the opening appears to be the 30 minutes starting at 0400 UTC, when over 1500 QSOs were logged — a rate of almost one per second. The band remained open through the rest of the night until the QSO rate dropped to zero around 0700 UTC or 2 AM local time on the East Coast.

#### **New World Records**

2014 may be the last time for several years in which any new world records are achieved during this sunspot cycle. If so, 2014 certainly will have left its mark in the record book. Let's take a look at what happened. (All world records and W/VE/XE records can be found online at **www.arrl.org/contest-records**) Congratulations to all the new record holders. You have set the bar high.

Next, congratulations as well to the nine stations establishing world records in the new Single Operator Unlimited categories. Seven are stations in North or South America, with the remaining two from Europe. Note that in all cases the Unlimited category record scores

# **Top Ten** U

US	K4FC
Single Operator Mixe	d N1WF
K1LZ 2,674,99 N8II 2,077,66 W6YX (N7MH, op)	92 Singl 60 Only, W6Ql
1,713,1: N3OC 1,621,5: W1WMU 1,558,2: KØTT 1,473,9 NN1N 1,431,2: WX4G 1,323,4: NR3X (N4YDU, op) NR3X (N4YDU, op)	50 36 KB5K 38 KKØC 78 KK7E 50 K2GM 50 KA5P KS4G 80 WBØI 54 KL44
Single Operator Mixe	NO4F
Mode, Low Power       KU2M     1,446,8       KB3WD     1,436,8       K6AM     1,200,9       KH7M     (KH6ZM, op)       1,184,0     1,184,0       K2PS     1,178,7       KI6RRN     1,160,2       W3EP     1,090,1       WO40     1,081,6       N6ZFO     981,3       KTØK     861,7	Singl       70     Only,       50     N2IC       14     K1TO       KD4E     K04E       56     K8IA       48     WX0E       80     22       22     K4BA       32     N4AF       76     W.99E       32     W6PH       K6NA     K6NA
Single Operator Mixe Mode, QRP	d Single
WA6FGV 327,5 N1CC 325,7 K1WHS 316,5 W7YAQ 310,3	02 <b>Only</b> , 04 WA12 90 N4WV
N9NE     278,2       W1WBB     246,1       KB8U     211,5       K3TW     187,0       NK8Q     182,6       WB2AMU     155,9	16 KIDC 60 WB41 72 AE5G 00 WD44 88 K9QV 58 W5M W2E0
Single Operator Phor	e NA8V
NR5M     933,9       WB9Z     930,3       W5PR     885,3       NC1I     (K9PW, op)	66 <b>Singl</b> 36 <b>Only</b> , 50 W6JT K6OC
K5TR (WM5R, op) 788.1	KSØN 80 AD4Z
K4ZA 707,4 K2SSS 639,8 K4NV 561,2 N1IXF 537,0 NQ4I (W4DD, op) 510,6	76 WA3I 80 K9AY 46 K4FT 96 N5OE KM6Z 24
Single Operator Phor Only, Low Power	e Unlim High
703,2 ACØRA 278,6 W1TJL 262,4 WB5O 261,2	96 K7RL 40 K3WV 32 WØAI
KA7PNH 204,8 WA5IYX 191,9 KB9TQO 159,0 N2MUN 154,9	78 N4PN 40 W8M 00 K1RC 36

4FCG (K	1KNQ, op)	W4
1WRK	147,360	N4
Single Oper	ator Phone	Sin
V6QU (W8	BQZA, op)	Un
(B5KYJ	69,488 69,264	K90
(KØQ (K7EL	52,140 41,426	N5I K8E
(2GMY (A5PVB	38,480 34,932	K3I K2I
(S4GW VBØIWG	30,456 26,586	W5 K7)
(U4A IO4FX	23,760 23,528	WV K6l
ingle Oper	ator CW	AB
<b>Dnly, High P</b> 12IC	ower 1,627,008	Sin
(1TO (D4D	1,621,928	QR K2l
(8IA VXØB (NM	1,195,200 I5M, op)	N6I N3I
(4BAI	1,153,040 1.082,400	NF K4`
I4AF VJ9B	1,060,752 1,049,420	N1I WE
V6PH K6NA	1,026,740	W3
Single Oper	ator CW	N4(
<b>Dnlý, Low P</b> VA17	ower 886 008	Sin Un
14WW (N4	IKM, op) 874 608	Hig K4)
(1DC VB4TDH	634,480 629,248	K3I W3
NE5GT VD4AHZ	589,280 585,552	K1 WV
(9QVB V5MT	479,400 422,532	K3I KD
V2EG A8V	406,692 386.048	KI7 N8
Single Oper	ator CW	N82
Dnlý, QRP V6.ITI	268 256	Sin Un
(600 A1CA	228,664 203,200	Lov W9
SØMO	156,672	(K
VASIIA	145,248	N9 WP
4FT ISOE	126,852 120,048	KE
M6Z	110,864	KD- W1
Single Oper Inlimited M	ator ixed Mode,	KK KG
ligh Power	2 577 568	ΚĽ.
(7RL (3WW	2,281,216	Sin
VØAIH (NE	E9U, op)	QR
J4PN V8MJ	1,977,054	WB K7
(1RO	1,874,708	

4ML	(W4MYA, op)	Si
4UU	1,842,640 1,689,000	Hi
3UA	1,684,296	NS
ngle (	Operator	Ke
w Po	wer	N3 K9
	1,427,090	N4
BBL	673,932	KC
2DFC	630,336 557,388	W
5ZO	542,592	N2
W2P	360,396	Si
31VIIVI 31J	326,928 315,138	Lo
nale (	Operator	Ke
nlimite	ed Mixed Mode,	N/
2FF	130,784	W
6MA 3HCN	26,404 21 840	N4
F1R	18,748	W
1RLR	17,748	K3 KØ
E9R 3IBT	10,584 (W3WH op)	K3
402	8,064	Si
+QA	000	QF
ngie (	ed Phone Only,	N7
igh Po	1 062 260	NØ
BEST	946,792	W
3LL 1RH	599,274 492,656	KV N4
	459,612	KL
DØFW	329,472	K4
3BI	323,806 303,048	М
BZFM	267,960	Hi
ngle (	Operator	N2
w Po	wer	A/ K6
9XG K2DB		AA
	333,760	KE
BØTE	V 132,912	Wa
2201 26R	84,836 82.838	N
D4SN	82,536	Mu
(4LGC	53,728	NØ
J5AN	52,052 50,752	W
ngle (	Operator	N4
nlimite	ed Phone Only,	W
9RPN	41,064	KC N1
B6CZ 7ATN	G 8,544 6,364	NØ

Single Ope Unlimited (	rator CW Only,	Canada
High Powe N9NC K9CT K6LL N3RS K9RS N4BP N5FO K07AA WU2X (K	r 1,495,988 1,349,800 1,331,840 1,320,120 1,294,944 1,267,692 1,254,192 1,205,892 5GO, op) 1,193,264	Single Operator Mode, High Pov VE3AT 2 VE3DZ 1 VA2EW 1 VE1JBC VE1JBC VE3TW VA2QR (VE2E
N2PP	1,102,360	VA3MTT VE1ZAC
Single Ope Unlimited C Low Power K6WSC W3KB NA5NN (\ WA1FCN N4EEB W0ERP W9XT K3SV K0RI K3WI	rator CW Only, 551,600 419,052 N5UE, op) 383,544 311,040 303,408 279,896 262,524 252,296 250,920 250,920 250,920	Single Operator Mode, Low Pow VE4GV 1. VE1RSM VE3WG VE3WG VE3FH VE5UO VE2AWR VE4YU VE3BR VE5SF Sincle Operator
Single Ope Unlimited ( QRP	erator CW Only,	Single Operator Mode, QRP VE6UM VA3RKM
N7IR K5KJ N0UR N2KW WC7S KW3F N4UW KU7Y N6RO K4EQ	225,548 211,008 156,032 147,744 98,000 89,688 76,464 54,180 49,932 38,976	Single Operator Only, High Power VO1KVT VE2JM VE2GSO VE6CMV VA2OBW VE9FX VE3HED
Multiopera High Powe NX5M AA9A K6ND AA1JD W5KFT KDØS K4FJ W8TK NX6T	tor, r 3,216,840 3,146,688 2,297,552 2,084,608 2,029,900 1,970,024 1,895,296 1,883,752 1,740,354 1,391,500	Single Operator Only, Low Powe VO2NS VE7ZR VA6NJK VE1JS VE1PEW VE3TU VE5AAD VE2PDT VA7IR VE1SQ
Multiopera Low Power NØNI WW4LL WØDLE N4SVC W7TVC WA1S KO3T N1WW NØHJZ KGØUS	tor, 1,498,754 1,495,844 1,066,394 1,007,124 981,046 718,592 683,936 574,896 506,160 481,740	Single Operator Only, QRP VA3VF VE3BKM VE7ETS VE7GNR VE7GNR VE3CBK Single Operator Only, High Power VE3OI

	VE7GL	(VA7OO, op) 630.016
. Mixed	VE6BBP	532,356
ver	VESPIN	411,600
,335,110	VE3FGU	388,608
,360,040	VESKT VY2SS	278,008 91,044
762,078	VE3EY	63,360
231,312		57,610
SU, op) 81,534	Only, Low	Power
45,232	VE1RGB	368,316
7,120	VA3DF VE7CA	342,616 306.360
r, Mixed er	VASATT	147,052
,014,948	VE3KP VE7NX	108,704 98,864
507,300	VA7MM	93,940
346,580	VE3ZY	59,200
246,782	VO1BQ	58,292
214,728	Single Op	erator, CW
214,616 188,454		207 702
176,834	VE3KZ	61,992
, Mixed		34,776 17 544
101000	VE3HG	14,976
104,920	VE6EX VE3IGJ	14,400 5 460
Phone	VA7AD	704
er	Single Op	perator
349,920	Unlimited High Pow	l, Mixed Mode,
120,228	VE7UF	(VE7JH, op)
66,722 23 430		1,881,264
21,228	VE4EA	990,510
1,536		716,800
, Phone	VE7XT	296,808
158.400	VE3RZ VE3NBT	275,044 240 112
146,540	VE7AX	202,224
145,084 102,270	VE3ZZ	94,500
84,968	Single Op	perator
78,000	Low Pow	er
60,030	VE9OA	217,710
48,192	VE3AAI VE2EBK	193,760
. Phone		50,468
,	VE7TJF	3,906
33,892 3,328	Sinale Or	perator
1,558	Unlimited	l, Mixed Mode,
936 40	VA3PAW	18.952
. CW	Single Or	perator
er	Unlimited	l, Phone Only,
937,848		75 400
	VA3PC VA2AM	75,438 74,592
	VE6KD	48 422

are lower than those in the classic Single Operator categories, but they are still great scores and may live until the next sunspot peak. In the long run, expect Single Operator Unlimited category records to eventually exceed the classic scores.

There were also three new world records in the established categories set by ZF2DX (SOLP-Mixed), V31MA (SOQRP-Phone), and FY5KE (MH). That's pretty good for a year in which conditions were not anywhere near as good as in the years 2000 - 2002, at the peak of the prior sunspot cycle.

#### **Predictions for 2015**

The 43rd annual ARRL 10 Meter Contest will be held on December 12 and 13, 2015. If there is one truth about how an ARRL 10 Meter Contest will behave, it has to do with propagation: Good propagation brings out more operators. Good propagation means each participant can make more QSOs more easily. These two factors build on themselves in an almost exponential way, driving up the overall fun quotient.

48,422

The April 2015 forecast by NOAA's Space Weather Prediction Center for December 2015 is for a smoothed sunspot number in the 44 to 64 range, with corresponding 10.7 cm radio flux levels in the 99 to 117 range. Their single predicted numbers are for a smoothed sunspot number of 54 and flux of 108. These levels, though down from the last 2 years, should still allow for reasonable 10 meter

Single Operato Unlimited, Pho Low Power	or one Only,	Single Operato Only, Low Pow
VE2PIJ VE6SPS VA2MO	11,790 8,584 1 320	XE2O XE3DX XE2AA
Single Operator		XE1RF XE2PXZ XE1/N4DMH
High Power	007 5 4 4	XE1GZU
VETOP VE5UF	897,544 896,896	XE2YWH XE3D
VE3EJ VE5MX	457,056 390,688	Single Operato
VE2FK	373,056	Only, High Pow
VE7XF	299,224	XE1MM XE2S
VA3DX VE7IO	282,492 202,920	Single Operato
VE7JKZ	166,000	Only, Low Pow
Single Operato	or Only Low	XE2X XE1AY
Power	Only, LOW	XE1UYS
VE6WQ	621,760 569 400	4A5XX
VE3GFN	165,200	XE1RZL
VE6UX	69,264	XE2N
VA7HZ VE3CV	11,592 7,740	Single Operato
VE3AJ	6,608	Low Power
Single Operato	or	XE2JS
QRP	Only,	Single Operato
VE3KI VA2SNL	299,592 6,256	High Power XE2K
Mulitoperator,		Single Operato
VE5ZX	977,244	Unlimited, Pho Low Power
VE3YAA VC3M	612,582 176 800	XE3N
VE6AO	13,188	XE2ST
Mulitoperator,		Single Operato Unlimited, CW
VE9ML	885.920	Power
VA7BEC	785,460	XE2FGC
	001	Multioperator, High Power
Mexico		XE2B
Incalor		Multioperator,
Single Operate Mode, High Po	or, Mixed wer	XE1CRG
XE1H	63,826	
Single Operato Mode, Low Por	or, Mixed wer	DX
XE1HG XE2AU	594,638 199 692	Single Operato
XE1ZTW	61,812	NP2P (N2TTA
Single Operate Only, High Poy	or, Phone ver	EF5T (EA5H)
XE1B	816,216	YT8A (YU1E
XE2IC XE1OGG	359,618 104,346	

rator, Phone	JH1GBZ (JH50
Power 227,868 214,368 116,460 59,392	S51YI JA7NVF JR2GRX OG6N
53,196 H 48,048 27,376 22,000 11,656	Single Operat Mode, Low Po ZF2DX YS1YS (JA6
10,890	JS6RGJ HC1WDT
Power 688,012 431,568	RW7M EF8O PY2NY 9A5ST
erator, CW Power	UI5F RW4WA
82,176 80,696 72,704 54,752 41,412 13,500 1,156 18	Single Operat Mode, QRP ON6QRP 23 IZ8JFL URØHQ 9A2EY EA2DPA DK1IZ EF1M (EB1F
Mixed Mode,	RW3AI
316,356	UT3IT
Phone Only, r	Single Operat Only, High Por HK1T
erator	PJ4DX DR1D (DL3K
Phone Only,	CT3FQ LU6ETB (VE
140,676 27,140	VR2XAN (IV
erator CW Only, Low	HK3C M6T (G0AE\
42,228	TM7F (F6GL
tor, r	EF8S (OH1L
1,189,656	Single Operat
<b>tor,</b> 53,040	EA8AH YY1YLY EA8MT CO6LC
	KP4BD KP4EU
erator Mixed	EE7Y (EC7V
<b>Power</b> 2TTA, op)	TG9ANF EA1DR
2,245,304 (5HT, op)	Single Operat
J1EA, op) 1,116,416 966,038 943,228	Unly, QRP V31MA TG9ADQ CO2CW CT7AIX

GHM, op) 882,392 881,742 823,680 820,488 700,440	EA2QU PC1EMR US5ZCW CE3WYZ WP4DT EA5IFY
or Mixed wer 2,957,580	Single Operato Only, High Pow KP2M (KT3Y,
WFM, op) 1,235,390 922,658 857,280	9A5X DL1VJ (VK2I DR1A)
566,784 564 120	LZ9W (LZ5FF
415,548 412,274 354,354 or Mixed	S53A ES5RY JH3AIU C08ZZ C4Z (5B4AIZ
6,610	S51DX
88,192 69,936 69,550 68,388 63,474 L, op) 56,848 54,538	Single Operato Only, Low Pow NP3A WP3C YT6A EA8CN M6O (G3WG
52,826 46,648	J35X OK4RQ
ver	
1,503,252 1,244,516 (O, op) 701,220 677,504 3AP, op)	Single Operate Only, QRP LT7H JA1YNE (JR1
3TAN, op) 572,352 548,772 (, op) 502,320 H, op) 496,332	G3SXW HSØZIA HA3HX JQ1NGT ZS6DX GM3WUX YL2CV
EG, op) 495,762	IV3DRP
or Phone	Unlimited Mixe
847,700 785,880 604,230 517,374 494,928 485,556 436,488	NP2X EA8DBM P40CX EA7KW HA3NU EA6URA (EA
423,384	7M1A (7L2C)
407,376 385,732	LIW2M (LIPO
or Phone	OL5Y
388,750 103,664 95,424 55,076	

42,720	Single Opera	tor	Single C
R 29,014	Unlimited Mix	ked Mode,	Unlimite High Po
Z 18,744	PY307	1 816 580	KP2Q
18,528	UX1AA	636,300	
10,000	CE2MVF MW/5B (MW/	625,860	EITY (
Operator CW		625,356	EA8/IK1
(KT3Y on)	JA1BPA	547,334	
1,329,996	21190 (2001	523,440	ZL2B
1,042,756	EA2NN	450,528	SN2M
(Then i, op e	PE2HD	393,926	YU7AV
952,536 (LZ5EE op)	S56A	382,392	EI2CN
931,972	Single Opera	tor	2101210
753,616	Unlimited Mix	ked Mode,	Single (
692,048	RT4W	311 538	Unlimite
666,596	RUØLAX	150,800	Low Po
661,656		115,566	KP4EJ CN8KD
602,736	LZ3ZZ	40,404	EA4TX
Operator CW	PA9M	23,936	PP1CZ PP5KB
ow Power	UN7JID	10,506	KP3W
1,268,256	R6FAA	2,500	PY2NA
580,068		526	EF8X
502,500 G3WGN op)	Single Opera	tor one Only	VTOW
433,160	High Power	one only,	
396,864	9A1UN	790,500	Single C
382,296	9A5Y (9A7L	0X, op) 735 644	QRP
364,760	OK7K (OK1	BN, op)	UA4Z
510,120	TM7G (F4C	684,944	370X
Operator CW	1111761 (140	649,128	EU6DX
406 992	OM7M (IT9F	RGY, op)	RD3ARU RZ9CJ
(JR1NKN, op)	DL2ARD	566,488	SDØT
189,312		448,740	9A2VX
157,248	LZ2HM	420,854	VU2UR
133,500 T 127 920	IW2HAJ	407,880	IV3CTS
124,000	Single Opera	tor	Multiop
JX 87,696 85,200	Unlimited Ph	one Only,	High Po
76,112	YN57 (K770	(ao C	CW5W
Operator		701,964	PJ2T
ed Mixed Mode,	PU5FJR VP9/KU9C	391,710 386 124	LT1F
ower	TG9AJR	328,152	PX2A
3,690,296 M 3.030.698	HA4XH	283,200 235 760	EF80 EI7M
2,578,110	G7Y (MØZD	Z, op)	CX4AT
2,336,116	F4660	228,960	P131
A (EA3AIR, op)	IK3TPP	184,032	Multiop
1,692,688 (YU1AU op)	PY8WW	183,138	
1,685,554	Single Opera	tor	VP2VG0
(ZL3CW, op) 1,664 064	Unlimited Ph	one Only,	ZW8T
(UR0MC, op)	IZ8GNR	101.640	HB9ON
1,622,206 1,313,216	G7KXZ	51,152	JR2SCJ
.,010,210	TA1L	8,170	DL1NKS
	BD9XE	3,286	OA40
	PD5WL	2,470	CWIDC

e Operator nited CW Only, Power (K3TEJ, op) 1,601,312 (EI3KG, op) 1,178,880 (1PMR 1,110,780 K1PMR 1,026,780 878,480 ÂO 874,920 (SP2XF, op) ; op) 863,400 860,928 ٩V N 763,656 (ZL3IO, op) 751,936 le Operator nited CW Only, Power 919,080 906,660 750,924 577,220 573,040 572,628 492,440 IA iO 472,868 (EA8AY, op) 406,788 397,184 e Operator nited CW Only, 283,752 122,464 120,328 D . DX ARU 58,280 32,384 Ĵ 28,448 20,440 (SMØTHU, op) 27,720 23,000 22,372 19,624 /X JR TS 18.624 operator, Power 4,457,120 Έ 3,987,674 3,437,992 3,232,920 2,985,660 w 2,634,792 2,505,188 2,487,108 2.306,496 ١T 2,135,824 operator, Power 2,010,820 1,888,416 1,131,822 677,250 /GG DN SCJ Q IKS 502,304 371,742 351,002 317,856 315,944

297,564

propagation. History shows that as long as the sunspot number is above 50 and flux levels are above 100, there will be plenty of good openings on 10 meters.

LY9Y

CT7ACG

Compared to recent years, 2015 conditions should be fairly similar to 2012. Most importantly, these conditions will almost assuredly be better than any year for the rest of the decade! As Alan, KF3B, observed, "It's unlikely that we will have such good conditions next year, but the contest will be great fun in any case." Exactly!

# **10 Meters is Open Online**

Look to the online extended version of this article (www.arrl.org/contestresults-articles) for more commentary, more action photos, features, and analysis:

- An expanded view of the magazine article with more stories, photos, and charts.
- Expanded tables of all Division and Regional Winners.
- Line scores and the all-time record tables.
- Description of how the propagation movies were made.
- Stories on three Close Race finishes.
- A look at logging programs being used.
- Estimates of total contest activity.
- Predictions for the 2015 contest.