2008 ARRL January VHF Sweepstakes Results

A typical January VHF SS event: A 6 meter E-skip opening created some excitement; cold winter weather throughout most of North America; NFL playoff distractions.

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in previous editions of the January VHF SS competition, the combination of typically cold weather in the northern parts of North America along with the usual distractions caused by television coverage of NFL football playoff games interferes with contest participation. The 2008 running is no exception to this general observation. As Phil Miguelez, WA3NUF, of Warminster, Pennsylvania noted, "Sunday football games really kept the bands quiet late afternoon into the evening."

With the exception of some southern and western states, typical winter weather conditions were the order of the day for the 2008 running of the January VHF Sweepstakes competition. Rovers, in particular, had to deal with the cold weather conditions. Roger

Sanderson, VE3RKS/R of Waterloo, Ontario ran a Limited Rover operation, and he was so cold that the only comment he could write was "BRRRRRRRRRRR"! Joe Shupienis II, W3BC, from Moon, Pennsylvania said he made a very half-hearted effort due to the cold weather but that he still had a lot of fun. Not every participant faced cold weather, as was noted by Robin Whiting, W6DWI, of Davis, California who had nice weather near Pacific Ridge at 4500 feet elevation.

With the exception of the Single Operator Low Power category, scores were lower than those reported for the 2007 VHF SS competition. Every other entry category for 2008 had a lower top score than the previous year. I made a similar statement regarding score levels in the 2007 event in which reported scores were generally lower than those reported in



The impressive VHF/UHF antennas of Graham Huls, KE4WBO, of Jupiter, Florida, helped him work 101 QSOs this year.

the 2006 January VHF SS competition. This is not a good trend!

Another measure of participation is the number of logs submitted for the competition. These are the figures for logs submitted in the January VHF SS for the past four years: 2008–701 logs, 2007–684 logs, 2006–793 logs, 2005–718 logs.

It is good to see an increase in log submissions in this year's competition, but it is also true that log submissions were substantially larger in 2006, and somewhat larger in 2005. I hope the upward trend continues. Since participation and score levels in VHF/ UHF competitions are not as significantly influenced by the solar cycle as are the results of competitions on the HF amateur bands, we certainly can't blame low sunspot numbers for low participation levels in VHF/UHF competitions!

Propagation

Many participants indicated that conditions were generally poor. Ellen Rugowski, AF9J, of Greenfield, Wisconsin said "conditions were the worst I've ever seen in a VHF SS." Dave Petke, K1RZ, of Damascus, Maryland said "activity high, but the weather was too cold for good conditions, which showed in the results." Fred Spaulding, K1YQP, of Shingle Springs, California indicated that conditions were not good, and said "thank goodness for hardworking rovers!" The view from Florida was a bit different as Florida 6 meter stations enjoyed very good E-skip event on Saturday. Ray Czyzewski, K2DEL, of Interlachen, Florida (Knight Riders VHF Club station) indicated that on Saturday

the 6 meter band was wide open, but that on Sunday the bands were dead.

Participant comments on the two key negative issues of this year's event were virtually unanimous: winter propagation conditions are difficult and the NFL playoff games are intrusive! Nearly everyone who had a soapbox comment on the subject suggested that the January VHF SS event be moved back to the weekend prior to the Super Bowl football game. Joe Mancini, N2GCZ, of Hawthorne, New York commented, "Despite the distraction of the playoffs, we were able to post our best score yet. A big 'thank you' to all the stations who operated during the playoffs."

The National Scene

Although the total number of logs submit-



| Single Opera | tor, | Multioperator | | | | | | |
|------------------|------------------|-------------------|----------------|--|--|--|--|--|
| Low Power | | N3NGE | 545,160 | | | | | |
| K2DRH | 163,009 | K5QE | 402,651 | | | | | |
| WA3NUF | 158,464 | K8GP | 351,260 | | | | | |
| W3SZ | 127,864 | N2PA | 170,460 | | | | | |
| N1DPM | 88,375 | K3EOD | 96,138 | | | | | |
| AF1T | 63,800 | N8KOL | 35,496 | | | | | |
| WB2SIH | 57,728 | KBØHH | 33,015 | | | | | |
| WB5ZDP | 53,489 | N2BJ | 28,329 | | | | | |
| N2LIV | 48,280 | AG4V | 23,760 | | | | | |
| WA3GFZ WA3QPX | 46,464 34,554 | N2GCZ | 23,360 | | | | | |
| | | Rover | | | | | | |
| Single Opera | tor, | W6XD/R | 185,790 | | | | | |
| High Power | | K1DS/R | 136,224 | | | | | |
| K1TEO | 431,100 | N6MU/R | 124,432 | | | | | |
| WA2FGK | 257,108 | N5AC/R | 120,120 | | | | | |
| (K2LNS, op) | | WB6IDK/R | 104,858 | | | | | |
| K3TUF | 247,828 | WDØACD/R | 99,144 | | | | | |
| K1RZ | 203,196 | K2TER/R | 91,476 | | | | | |
| K1JT | 121,075 | K2QO/R | 90,090 | | | | | |
| WZ1V | 119,190 | N1XKT/R | 44,720 | | | | | |
| WB2RVX | 87,668 | VE3OIL/R | 36,792 | | | | | |
| K3DNE | 82,296 | | | | | | | |
| WA3DRC | 77,440 | Limited Rover | | | | | | |
| WØRSJ | 62,244 | K6NC/R | 31,257 | | | | | |
| ODD D4-1-1- | | KC6SEH/R | 27,022 | | | | | |
| QRP Portable | | NN3Q/R | 10,368 | | | | | |
| W6DWI | 6,048 | (K3WGR, op) | = 00= | | | | | |
| NN4AA | 3,068 | K4GUN/R | 7,335 | | | | | |
| KQ6EE | 1,664 | VE3RKS/R | 3,380 | | | | | |
| K3EGE | 576 | N2SLN/R | 2,139 | | | | | |
| KA1LMR | 350 | KC2QZF/R | 1,558 1,554 | | | | | |
| WA7MLD | 168 | N6ZE/R | | | | | | |
| KB2AYU | 162 | K9JK/R W3STU/R | 1,458 1,122 | | | | | |
| N3EXA N2NRD | 156 132 | W33TU/N | 1,122 | | | | | |
| NØJK | 56 | Unlimited Roy | er | | | | | |
| Limited Multi- | onerator | KB7DQH/R | 17,064 | | | | | |
| | - | | | | | | | |
| W3SO | 213,696 | | | | | | | |
| K9NS KW1AM | 190,491 | | | | | | | |
| KB1DFB | 48,555 46,123 | | | | | | | |
| KA2LIM | 37,345 | | | | | | | |
| W1QK | 36,600 | | | | | | | |
| W3HZU | 24,765 | | | | | | | |
| N8ZM | 24,763 | | | | | | | |
| KI4SNY | 12,446 | | | | | | | |
| N1JEZ | 11,570 | | | | | | | |
| | ,- , | | | | | | | |

Affiliated Club Competition

| Club Name | Score | Entries |
|--|---|--|
| Unlimited Mt Airy VHF Radio Club | 2,163,226 | 63 |
| Medium North East Weak Signal Group Potomac Valley Radio Club North Texas Microwave Society Rochester VHF Group Murgas ARC Society of Midwest Contesters Northern Lights Radio Society Roadrunners Microwave Group Contest Club Ontario Yankee Clipper Contest Club Pacific Northwest VHF Society Frankford Radio Club Northern California Contest Club Six Meter Club of Chicago Mad River Radio Club Grand Mesa Contesters of Colorado | 1,059,914 985,655 667,421 445,391 284,425 253,707 141,993 127,673 69,967 56,954 51,197 24,663 24,299 20,129 20,129 19,172 17,381 | 23 29 11 20 5 26 17 5 13 11 12 4 7 11 3 3 |
| Local Mt Frank Contesters Connecticut AM Society Florida Weak Signal Society Badger Contesters Chippewa Valley VHF Contesters Crawford County ARC Nacogdoches ARC Bergen ARA Granite State ARC Raritan Bay Radio Amateurs Eastern Connecticut ARA Dauberville DX Assn Maui ARC CTRI Contest Group West Park Radiops Eastern Panhandle ARC 10-70 Repeater Assn Mobile Sixers Radio Club Burlington County Radio Club Portage County Amateur Radio Servi | 214,306 97,036 83,066 77,970 51,222 37,378 20,371 19,999 17,669 16,750 8,972 8,299 7,490 5,664 4,781 3,442 2,455 1,767 1,130 (ce 642 | 4 3 7 9 9 3 3 4 4 7 6 7 5 4 4 3 3 3 3 3 4 4 3 3 |

ted this year (701) compared to 2007 (684) was up slightly, the total number of reported contacts was down from that in 2007 by over 14,000, or about 16%. One possible reason for the downturn in contact totals may be that there were fewer sporadic E openings than occurred during the 2007 event. When the only mechanisms for propagation of VHF/ UHF signals are by means of ground wave or troposcatter, the opportunities for contacts beyond about 400 miles are limited, unless you have EME capability. Also, those who live in low population density regions and those who live along the coastline where opportunities for contacts out in the ocean are extremely limited will experience fewer opportunities for achieving high scores. Your author fully understands that problem!

Single Operator

Bob Striegl, K2DRH of Albany, Illinois returned to the top spot in the Single Operator, Low Power category after a year's absence with 163,009 points. This score is up by 7% from the top SOLP score last year. Bob achieved the victory operating on the bottom eight bands with 476 contacts and 203 multipliers. Phil Miguelez, WA3NUF, moved up from the fifth spot last year to second place in the SOLP category with 158,464 points. Third place goes to Roger Rehr, W3SZ from Reading, Pennsylvania with 127,864 points, down from his first place finish last year. It is interesting to note that the top two SOLP scores this year are both higher than the top score last year. There were a total of 431 entries in the SOLP category for 2008.

The Single Operator High Power winner is Jeff Klein, K1TEO from Trumbull, Connecticut, who finished with 431,100 points, up from this second place finish in this category last year. Jeff's 10 band score is up by 35k points from last year, with a total of 994 QSOs. The second place position was taken by WA2FGK in Wilkes-Barre, Pennsylvania operated by Herb Krumich Jr, K2LNS, with 257,108 points on 8 bands. Third place is claimed by Philip Theis Jr, K3TUF, Ephrata, Pennsylvania with 247,828 points on 10 bands. The total number of SOHP entries was 134.

Multioperator

The Limited Multioperator category fielded a total of 32 entries for 2008. Entrants in this category can only operate on a maximum of four bands. The top scoring entry in the LM category is the W3SO club station, the Wopsononock Mountaintop Operators from Altoona, Pennsylvania with a score of 213,696 points on the bottom four VHF/UHF bands. They made a total of 850 QSOs in 192 grids. A close second in the LM category is the Mount Frank Contesters club station, K9NS, from Hampshire, Illinois with a score of 190,491 points. Third place

Division Leaders

| Division Leaders | 3 | |
|--------------------------------|--------------------|--------------------|
| Single Operator Low F | Power | |
| Atlantic | WA3NUF | 158,464 |
| Canada Central | VE3SMA K2DRH | 8,888 163,009 |
| Dakota | NØKP | 25,690 |
| Delta Great Lakes | N4QWZ WZ8T | 31,500 18,075 |
| Hudson | WB2SIH | 57,728 |
| Midwest | WB0NQD | 10,653 |
| New England Northwestern | N1DPM W7DHC | 88,375 3,125 |
| Pacific | WE6T | 15,288 |
| Roanoke Rocky Mountain | W4SHG NJ7A | 25,125 1,848 |
| Southeastern | K2DEL (WA2SEI, op) | 16,359 |
| Southwestern West Gulf | K6TSK WB5ZDP | 7,140 53,489 |
| Single Operator High | | , |
| Atlantic | WA2FGK (K2LNS, op) | 257,108 |
| Canada | VE3ZV | 27,753 |
| Central Dakota | KB9TLV WØZQ | 41,310 42,432 |
| Delta | W5MRB | 9,834 |
| Great Lakes Hudson | K8MD N2GHR | 45,360 49,544 |
| Midwest | KMØT | 1 |
| New England Northwestern | K1TEO N7EPD | 431,100 16,027 |
| Pacific | KC6ZWT | 19,604 |
| Roanoke | K4QI | 50,304 |
| Rocky Mountain Southeastern | NØKE KØVXM | 230 45,720 |
| Southwestern | N6KN | 16,254 |
| West Gulf | K9MK | 42,930 |
| Limited Multioperator | W000 | 040.000 |
| Atlantic Central | W3SO K9NS | 213,696 190,491 |
| Dakota | WØMR | 1,184 |
| Delta Great Lakes | WD4OAR N8ZM | 11,183 24,564 |
| Hudson | WA2VUN | 2,800 |
| New England Pacific | KW1AM KR7O | 48,555 10,478 |
| Roanoke | KI4SNY | 12,446 |
| Rocky Mountain Southeastern | KE7DCJ K4NGA | 209 3,038 |
| West Gulf | AB5GU | 2,449 |
| Multioperator | | |
| Atlantic | N3NGE | 545,160 |
| Canada Central | VE3LCA N2BJ | 5,952 28,329 |
| Delta | AG4V | 23,760 |
| Great Lakes Hudson | N8KOL N2GCZ | 35,496 23,360 |
| New England | W1AIM | 9,300 |
| Pacific Pacific | K6LRG KI6MPQ | 15,708 2,700 |
| Rocky Mountain | WØEEA | 15,333 |
| West Gulf | K5QE | 402,651 |
| Single Operator QRP | | |
| Atlantic Canada | K3EGE VE2PIJ | 576 1 |
| Delta | N3AWS | 1 |
| Hudson | KC2JRQ | 48 |
| Midwest New England | NØJK KA1LMR | 56 350 |
| Northwestern | WA7MLD | 168 |
| Pacific Roanoke | W6DWI WA4A | 6,048 15 |
| Southeastern | NN4AA | 3,068 |
| Southwestern | KQ6EE | 1,664 |
| Rover | K1DC/D | 106 004 |
| Atlantic Canada | K1DS/R VE3OIL/R | 136,224 36,792 |
| Central | W9FZ/R | 25,324 |
| Delta Great Lakes | W4RXR/R NE8I/R | 1554 7416 |
| Hudson | KJ1K/R | 23,980 |
| New England Pacific | WW1M/R W6XD/R | 1600 185,790 |
| Roanoke | KC3WD/R | 16,008 |
| Rocky Mountain Southeastern | NK5W/R WA2IID/R | 120 15,648 |
| Southwestern | N4TZH/R | 253 |
| West Gulf | N5AC/R | 120,120 |
| Limited Rover Atlantic | NN3O/R | 10.269 |
| Atlantic Canada | NN3Q/R VE3RKS/R | 10,368 3,380 |
| Central | K9JK/R | 1,458 |
| Hudson Northwestern | K2DSL/R N6ZE/R | 60 1,554 |
| Pacific | K6NC/R | 31,257 |
| Roanoke Rocky Mountain | K4GUN/R KK6MC/R | 7,335 392 |
| Southeastern | WA4JA/R | 798 |
| Southwestern West Gulf | W6KA/R K6LMN/R | 480 864 |
| Unlimited Rover | | 30 / |
| Northwestern | KB7DQH/R | 17,064 |
| | | |

| Northeast Re (New England Atlantic Division and Quebec | d, Hudson a sions; Mariti | | Southeast Re (Delta, Roano Southeastern | ke and |) | Central Reg (Central and Divisions; O | Great Lake | | Midwest Reg (Dakota, Mid Mountain an Divisions; M Saskatchew | west, Rocky d West Gulf anitoba and | | West Coast (Pacific, No Southweste Alberta, Bri NWT Section | rthwestern ern Division tish Colum | s; |
|--|---|----------------------|--|--|------------------|---|--|------------------|--|--|----------------------------|---|---|----------------------|
| WA3NUF W3SZ N1DPM AF1T WB2SIH | 158,464 127,864 88,375 63,800 57,728 | A A A A | N4QWZ W4SHG K2DEL (WA2SEI, op) WD4MGB K4FJW | 31,500 25,125 16,359 12,597 8,536 | A A A A | K2DRH WZ8T N8BI WA9FIH WO9S | 163,009 18,075 15,525 10,038 9,945 | A A A A | WB5ZDP NØKP NØVZJ NG0R WB0NQD | 53,489 25,690 16,461 12,508 10,653 | A A A A | WE6T W6OMF K6TSK KE6GLA W7DHC | 15,288 14,640 7,140 5,696 3,125 | A A A A |
| K1TEO WA2FGK (K2LNS, op) K3TUF K1RZ K1JT | 431,100 257,108 247,828 203,196 121,075 | B B B B | K4QI KE2N KØVXM W4WA W4ZRZ | 50,304 47,328 45,720 40,595 38,223 | B B B B | K8MD KB9TLV KB8U K9EA VE3ZV | 45,360 41,310 28,310 28,300 27,753 | B B B B | K9MK WØZQ KA5BOU K5LLL WA5TKU | 42,930 42,432 32,452 23,217 8,424 | B B B B | KC6ZWT N6KN N7EPD NU6S KI7JA | 19,604 16,254 16,027 9,810 8,862 | B B B B |
| K3EGE KA1LMR KB2AYU N3EXA N2NRD | 576 350 162 156 132 | Q Q Q Q | NN4AA WA4A WA1ZMS N3AWS | 3,068 15 8 1 | Q Q Q Q | | | | NØJK | 56 | Q | W6DWI KQ6EE WA7MLD K6RM | 6,048 1,664 168 1 | Q Q Q |
| W3SO KW1AM KB1DFB KA2LIM W1QK | 213,696 48,555 46,123 37,345 36,600 | L L L L | KI4SNY WD4OAR K4NGA W5SCR | 12,446 11,183 3,038 595 | L L L | K9NS N8ZM AB8XG | 190,491 24,564 544 | L L L | AB5GU WØMR KE7DCJ | 2,449 1,184 209 | L L L | KR7O K6TWT K7XC | 10,478 3,925 1,364 | L L L |
| N3NGE K8GP N2PA K3EOD N2GCZ | 545,160 351,260 170,460 96,138 23,360 | M M M M | AG4V N4JQQ | 23,760 13,454 | M M | N8KOL N2BJ W9RM K8ZIZ VE3LCA | 35,496 28,329 22,327 9,964 5,952 | M M M M | K5QE KBØHH WØEEA W5LCC | 402,651 33,015 15,333 1,056 | M M M | K6LRG W6YX KI6MPQ VE6AO | 15,708 9,594 2,700 210 | M M M |
| K1DS/R K2TER/R K2QO/R N1XKT/R KJ1K/R | 136,224 91,476 90,090 44,720 23,980 | R R R R | KC3WD/R WA2IID/R W4RXR/R KD4NOQ/R N4TZH/R | 16,008 15,648 1,554 352 253 | R R R R | VE3OIL/R W9FZ/R NE8I/R K9TMS/R WB2AIV/R | 36,792 35,420 7,416 2,603 285 | R R R R | N5AC/R WDØACD/R KCØIYT/R AE5BN/R KE5EXX/R | 120,120 99,144 25,324 15,686 5,840 | R R R R | W6XD/R N6MU/R WB6IDK/R K6JRA/R W6GMT/R | 185,790 124,432 104,858 4,020 2,304 | R R R R |
| NN3Q/R N2SLN/R KC2QZF/R W3STU/R K2DSL/R | 10,368 2,139 1,558 1.122 60 | RL RL RL RL | K4GUN/R | 7,335 | RL | VE3RKS/R K9JK/R N9YH/R | 3,380 1,458 32 | RL RL RL | K5MRA/R KK6MC/R K5ZSJ/R KD5IKG/R KD5TDP/R | 522 392 375 360 288 | RL RL RL RL RL | K6NC/R KC6SEH/R K6MI/R W6KA/R KB7DQH/R | 31,257 27,022 1,003 480 17,064 | RL RL RL RL |

was claimed by the Connecticut AM Society club station, KW1AM, from Danielson, Connecticut with 48,555 points. All top three LM category stations operated only on the bottom four bands.

The Multioperator category includes a total of 27 entries for 2008. Stations in this category are not limited to any specific number of bands. The top scoring station in the M category for 2008 is N3NGE, operated by Leonard Martin of Morgantown, PA with a score of 545,160 points and a total of 1324



Not everybody suffered in the cold rain and snow! James Duffey, KK6MC/R, wisely took a southern route. Here he is setting up in DM61 in southern New Mexico.

From July 2008 QST © ARRL

QSOs and 220 grid squares on 11 different bands. Second place in the M category is claimed by Marshall Williams, K5QE of Hemphill, Texas with 402,651 points, followed by the K8GP station, owned by the Delmarva VHF and Microwave Society of Washington, DC in third place with 351,260 points.

QRP Portable

The QRP Portable category produced a total of 18 entrants this year. It's quite amazing what can be done with low power equipment, even on the VHF/UHF bands if you can find a good location from which to operate. The QRP portable participants keep pounding away every year and are to be commended for their dedication to the sport!

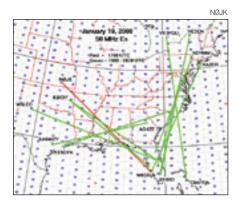
The leading score producer in the QRP Portable category for 2008 is Robin Whiting, W6DWI of Davis, California with a total of 6,048 points, which nearly doubled his score from last year. Second place in QRP Portable goes to NN4AA, James Hagan of Malabar, Florida with a total of 3068 points. Hon Chu, KQ6EE of Arcadia, California is awarded the third position with 1664 points.

Rover

There are three Rover categories for the

2008 January VHF SS competition. The three categories are Rover (R) with 34 entries; Limited Rover (RL) with 24 entries and Unlimited Rover (RU) with only one entry.

In the Rover (R) category, no more than two operators are permitted, but operation on all bands is allowed. The top scoring operator in the (R) category is Art Goddard, W6XD/R of Costa Mesa, California with a score of 185,790 points. The second place spot goes to Richard Rosen, K1DS/R of Blue Bell, Pennsylvania with 136,224 points. John Desloge



For a lucky few, this 6 meter opening in the first 2 hours of the contest was the only decent propagation to be had all weekend.

Jr, N6MU/R of Cypress, California took the third position with 124,432 points.

Operators in the Limited Rover (RL) category may use no more than four bands of their choosing. The top entry in the RL category this year is Michael West, K6NC/R of Wilton, California with a score of 31,257 points. The second RL position goes to John Collins, KC6SEH/R of Broderick, California with 27,022 points. Russell Lamm, NN3Q/R with operator Al Zimmerman, K3WGR of Wernersville, Pennsylvania took third place with 10,368 points.

There was only one entry in the Unlimited Rover (RU) category, which allows more than two operators. Eric Smith, KB7DQH/R of Port Orchard, Washington and his team scored 17,064 points.

Affiliated Club Competition

The largest radio club that focuses on the world above 50 MHz is the Mt Airy VHF Radio Club, a very old and extremely active organization based in southeastern Pennsylvania. This year, the Mt Airy organization fielded entries from 63 members with a combined total of 2,163,226 points, up slightly from last year's 1.97 million entry from 61 members. This is the only club reporting an Unlimited Club score.

Competition at the top two positions

Expanded Reports Available

For complete results, participant soapbox and the complete scores in a user-searchable database, please visit www.arrl.org/contests/results. ARRL members without Internet access may obtain a printout of the complete line scores by sending a self-addressed, stamped envelope to ARRL Contest Results, 225 Main St, Newington, CT 06111. Please be sure to include the contest name and year.

in the Medium Club group was close with the Northeast Weak Signal Group (NEWS Group) posting 1,059,914 points from 23 member entries. The Potomac Valley Radio Club (PVRC) came in a close second with 985,655 points from 29 members. Third place was taken by the North Texas Microwave Society with 11 members reporting a total score of 667,421 points.

Except for the top spot, competition in the Local Club category was tight this year. The top spot was taken by the Mount Frank Contesters group with 214,306 points reported from a total of four participating

members. The Connecticut AM Society posted the second highest score at 97,036 points from three participating members. The number three spot was claimed by the Florida Weak Signal Society with 83,066 points from seven members.

The total number of clubs reporting combined member scores is 37. This total includes 20 entries in the Local (L) category, 16 entries in the Medium (M) category and one club in the Unlimited (U) category. Club totals reported for 2007 were 35, 40 in 2006 and 30 in 2005. We appear to be on an upward trend, and I am hopeful that the 2009 January VHF SS competition will bring the total number of Clubs reporting scores ever closer to the 50 figure!

Going Forward

I hope that active HF contesters reading this report will discover an interest in contesting on the VHF and higher bands. Begin with the 6 meter band. Many of the late model HF radios include 6 meter coverage, and adding an effective 6 meter Yagi to your HF stack is usually an easy task. The bottom of the current solar cycle is a great opportunity to enjoy the world above 50 MHz, while you are waiting for the European and JA runs to return on the HF bands.



2008 ARRL August UHF Contest

1800 UTC Saturday, August 2 – 1800 UTC Sunday, August 3

- 220 MHz and up is the place to be! Catch some propagation and work stations hundreds of miles away!
- Take the show on the road operate from your car as a "rover" or from your favorite hilltop!



Complete rules can be found at www.arrl.org/contests



