Results, Fifth Annual ARRL UHF Contest

By Mark J. Wilson,* AA2Z

The 1982 ARRL UHF Contest, held the weekend of August 7-8, played host to a rather radical departure from the traditional scoring system. The system used this year rewards QSOs made over greater distances with greater QSO-point values and is sometimes called RANGE scoring. This idea, implemented at the direction of the ARRL Ad Hoc Committee on VHF/UHF Contesting, was introduced into the UHF Contest on a trial basis. Based on the results of the August contest, the Committee will be able to assess the merits of using a RANGE scoring system in future uhf contests, as well as in other ARRL-sponsored vhf/uhf operating activities. The RANGE scoring concept was introduced by the Ramapo Mountain ARC in their Spring VHF/UHF QSO Party, held last March.

Table 1 shows the top five overall scores, both for single-operator and multioperator stations, for the 1982 contest. For comparison, we've also calculated what the scores of these stations would have been using last year's scoring method. The results are interesting; the order of the top five stations in each class changes, with stations farther away from the population centers benefiting from the new system.

Although the total number of logs received this year was down from last year (128 vs. 156), overall activity was up, as witnessed by increased QSO and multiplier totals. A peek at Table 2 shows that the average number of multipliers worked on each band was up significantly from last year.

WA3RMX of the K7AUO group passed along a description of the system he designed for their 48-GHz QSO. We thought it might be of interest, so here goes:

> A major accomplishment this year was our first activity on the 48-50 GHz (6-mm) band. The transmitter is a 10-GHz surplus radar Gunn oscillator tuned down to 9.74 GHz with about 35-mW out, which drives a tuned waveguide multiplier, which multiplies by five to get 48.7 GHz at an estimated 1.5-mW out. A varactor was added to the Gunn oscillator for tuning, afc and FM modulation on transmit. For receive, the transmit system is used as the local oscillator, with the multiplier diode itself serving as the receive mixer. A dual-conversion i-f system with a threshold extension phase-locked demodulator and afc was specially designed to make the most of weak signals. W7ADV and WB7UNU spent much

Table 1

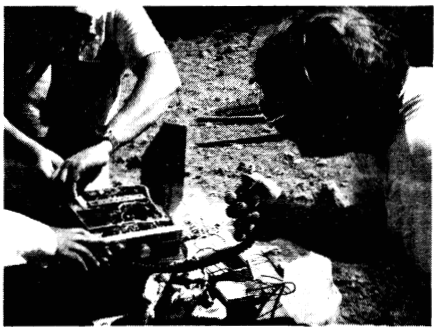
Comparison of Top Scores Using Old Method and New Method

Call	Old Method Score	New Method Score
Single Operator		
K8WW	26,910	126,477
K2UYH	28,728	98,847
WA8TXT	22,500	93,960
WB8BKC	21,735	93,366
K1PXE	27,180	79,740
Multioperator		
W2SZ/1	117,000	392,250
W3GNR/3	15,642	94,050
WA2SNA	31,320	89,100
VE3LNX	17,877	66,729
W1VD	15,840	46,656

Table 2

Multiplier Leaders

220 MHz		*432 MHz*		*1296 MHz*				*10 GHz*	
W2SZ/1*	34	K8WW	51	*W2SZ/1**	21	W1JR	3	W2SZ/1*	9
VE3LNX*	26	W2SZ/1*	46	K8WW	17	W6OAL*	2	K7AUO*	5
WB8BKC	23	K2UYH	43	K2UYH	16	K7UUH*	2	W1TKZ*	3
W6OAL*	22	WA2WVL	36	W2VC	14	*3400 MHz*		*24 GHz*	
VE3CRU	21	W3GNR/3*	35	WA8TXT	14	W2SZ/1*	7	WA3RMX/7	1
WA2SNA*	21	WB8BKC	35	K1PXE	12	K7AUO*	6	K7AUO*	1
W3GNR/3*	21	W3OZ	33	WA2WVL	11	K7UUH*	2	*48 GHz*	
W1VD*	20	W2VC	30	WA2SNA*	11	WA3RMX/7	1	WA3RMX/7	1
K1PXE	19	WB9SNR	30	W3IY/4	11	W7TYR*	1	K7AUO*	1
WA8TXT	19	K1PXE	29	W3GNR/3*	10	*5700 MHz*		*multioperator stations	
WD8ISK	18	W3IP	29	*2300 MHz*		K7AUO*	6		
K9KFR	17	WA2SNA*	28	W2SZ/1*	8	WA3RMX/7	1		
		W3IY/4	28	K7AUO*	6	K7UUH*	1		



WA6VNN, WB6HOZ, WB6OUZ and WA6MBZ of the Santa Barbara ARC (K6TZ) again set up operations on the top of Diablo Peak on Santa Cruz Island. The entire operation utilized solar power.

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time carefully duplicating these critical i-f systems from the prototype. Special thanks to W7TYR for his work scrounging up the surplus waveguide parts and other parts needed for this project.

This is the first time a group on the West Coast has submitted a 48-GHz QSO on their logs. The first 48-GHz contest QSO in our records was made during the June 1982 ARRL VHF QSO Party by the W2SZ/1 group.

Very few entrants bothered to note their best DX in miles, so it's pointless to put together our usual "Best DX" list. Also, the change in the scoring structure makes the listing of new Division records meaningless.

A few adminstrative notes: The scoring system for this contest is a bit more complicated than for other contests. More than half of the entrants did not use the official ARRL summary sheet with their logs, in many cases making our job more difficult by leaving out vital information. All it takes to get the right forms is an s.a.s.e. to ARRL Hq. Also, some people had trouble figuring out the scoring. If you ever have any questions on scoring procedures, give the Contest Branch at ARRL Hq. a call, or drop us a line. We're always happy to help get you on the right track — it just makes our job easier in the end.

If you have any suggestions or comments on vhf/uhf contest rules, drop the Ad Hoc Committee a line via Hq. They're always looking for ideas. Certificates will be in the mail around December 15. Until next year. . .

SOAPBOX

10 watts + 10 elements = 10 grid blocks on 432! Somebody must be feeding strange compounds to their preamps (WA3YON). The big news this year is the 48-GHz (6-mm) band operation WA3RMX/K7AUO). The distance possible with low power and poor antennas on 432 is unbelievable (K7CW/5). Not enough activity to the east on 220. Surprised that my 10 W on 432 worked out so well. Got pretty excited when I worked W2PQC on 1296. 1 with only 1.2 W at the transmitter and about 300 mW at the antenna (K8MD). This contest would have been a real drag without the grid squares and points system (KJ8J). The distance points sure added a nice twist to the contest. Lots of new stations that were not on last year showed up in the log. Wish that the maximum point limit was about 15, to include all minor enhancements on the bands. The 1 × 1 degree grids make great multipliers (WØOHU). Again this year I made the trek to the forests, hills and mountains of eastern Oregon. Over 600 miles of jeep trails, cow paths, and even some two-lane blacktop, allowed me to operate from five grids. The trip was not uneventful, requiring two stops to clear fallen trees, and another to fill in a mud hole, and yet another to herd range cattle off the road. Band conditions were not as good as in years past, but most contacts were completed. Better coordination helped speed things up, while improved equipment should help make things bigger and better next year. All in all, the DXpedition for the 'AUO group and other stations in the northwest was deemed a success (K7RUN/K7AUO). Lost my antennas to ice two weeks before the contest. Guess I didn't do too badly with my temporary antennas. This RANGE scoring isn't as easy as it looks. The first three times I calculated my score, I got three different answers (WA5VJB). The new point system for contacts is much more equitable than the old system. Equal band multipliers for 220 and 432 is probably a mistake, as it tends to keep people on 220 (W3OZ). With all those new 220-MHz rigs around, there should have been more activity (W7AZU). I know that I could have made lots more contacts on 1296 if I had a rotor on the dish (WB8BKC). We gained about 5 dB of TX power on 1296 by mast mounting the transverter and single 2C39 amplifier. The difference was quite noticeable. We used a stripline 2C39 amp, as the cavity amp proved to be too unstable with temperature changes. . .The new RANGE scoring system sure produces some BIG scores. It will be interesting to see how scores from different geographic locations compare (W3GNR/3). I totally enjoyed the relaxed quality of this contest. . .My only reservation is the scoring system. I don't expect to become more than a casual observer of these events if the rules require this level of numerical bookkeeping and computation for every QSO. I can't help thinking that the next logical (?) step will be to divide the country into circles as soon as someone discovers that the NE, SW, etc. path is longer than the N, E, S and W paths in a square system. Vhf contests should be a test of operator skill, equipment and conditions, not an arcade game of big scores. Pseudo-methods of making the operator think that he accomplished more than he really has will not sustain activity on the vhf bands as much as improved equipment and operator skill (WA3NUF). I rather like the new scoring system. Glad to see distance worked finally counts for something (WB9SNR). Finally broke the 9-QSO barrier on 1296 after five contest tries (VE3CRU).

Scores List:

Call sign, total score, QSOs, multipliers, bands operated (C = 220 MHz, D = 432 MHz, E = 1296 MHz, F = 2.3 GHz, G = 3.4 GHz, H = 5.7 GHz, I = 10 GHz, J = 24 GHz, K = 48 GHz, L = light) and ARRL section. Example: VE3CRU had a total score of 60,390 with 25 QSOs and 21 multipliers on 220 MHz, 41 QSOs and 26 multipliers on 432 MHz, and 12 QSOs and 8 multipliers on 1296 MHz. He is located in the Ontario Section.

Canadian Division

VE3CRU 60,390-25-21-C-ON
-41-26-D
-12- 8-E

VE3LNX (+VE3ADJ)
66,729-32-26-C-ON
-39-23-D
-13- 9-E
- 1- 1-F

Atlantic Division

W3IP 46,800-20-14-C-MDC
-67-29-D
- 9- 7-E

WA2WVL 36,918-46-36-D-WNY
-12-11-E

W3OZ 27,720-75-33-D-MDC

WA3NZL 24,990- 6- 2-C-MDC
-47-24-D
-11- 9-E

W2EIF 19,992-22-12-C-SNJ
-39-17-D
- 7- 5-E

W3CXU/2 14,496-16-12-C-SNJ
-14-12-D
-11- 8-E

WB2RVX 12,615-17-10-C-SNJ
-38-17-D
- 2- 2-E

W3ZZ 10,872-47-24-D-MDC

WB3LJK 6840-33-20-D-MDC

WA3YON 5820-12-10-C-EPA
-15-10-D

N3BHS 4860-15- 6-C-EPA
-24-12-D

K4CHE/3 4788-16- 9-C-DE
-22-12-D

WA2ABN 3906-23-14-D-WNY

W3ETB 3552-16- 9-C-EPA
-14- 7-D

W3CL 2700-16- 5-C-EPA
-16-10-D

KS2T 2604-24-14-D-SNJ

WA3NUF 1872- 5- 4-C-EPA
-17- 9-D

WA2OMY (AA2Z, opr.)
9- 1- 1-D-EPA

W3GNR/3 (+K3PS,KA3DWR, W3GNR,WA3s FFC,JBV)
94,050-27-21-C-WPA
-53-35-D
-13-10-E

Central Division

WB9SNR 52,479-17-13-C-IL
-42-30-D
- 6- 6-E

K9KFR 34,866-25-17-C-IN
-27-16-D
-11- 6-E

N9BWB 2562-23- 9-C-IN
- 8- 4-D
- 1- 1-E

WD9EME 1368- 9- 6-C-IN
- 7- 6-D

KB9NM 567- 2- 2-C-WI
- 5- 5-D

WB9NTL 483- 5- 3-C-IN
- 7- 3-D
- 1- 1-E

K9XY 255- 2- 2-C-WI
- 6- 3-D

Dakota Division

WØOHU 3648-21-16-D-MN

WØSD 348- 5- 4-C-SD

WØVB (+WØRGU)
2745- 7- 6-C-MN
-13- 9-D

KCØP (+KAØCRO)
6- 1- 1-C-MN

Delta Division

AA4ZZ 6732-20- 6-C-TN
-18-16-D

WA4QYK 1584- 5- 5-C-TN
- 9- 7-D

W5UKQ 1008-12- 6-D-LA

K5MWH 690- 6- 3-D-AR
- 3- 2-E

W5UCY 81- 3- 3-D-MS

WD4DGF 63- 4- 3-D-TN

Great Lakes Division

K8WW 126,477- 1- 1-C-OH
-77-51-D
-26-17-E

WA8TXT 93,960-25-19-C-OH
-46-26-D
-25-14-E
- 1- 1-F

WB8BKC 93,366-35-23-C-MI
-56-35-D
-12- 5-E

W8DJY 38,880-24-16-C-OH
-44-27-D
- 6- 5-E

WA8VPD 25,080-18-14-C-MI
-29-17-D
-11- 7-E

KC4EG 11,340-10- 7-C-KY
-31-21-D

K8DIO 11,040-42-23-D-OH

K8MD 9315-16-10-C-MI
-18- 9-D
- 8- 5-E

WA8IAU 7800-32-20-D-OH

KD8Z 6954-25-19-D-OH
- 6- 5-E

K8DW 6237-11- 9-C-OH
-17-12-D

WA8ZCO 5049-18- 7-C-MI
-15- 7-D
- 9- 5-E

WA8EUU 3318- 8- 6-C-MI
-14- 4-D
- 8- 4-E

WB8KAY 2046-20-11-D-MI

WB8TGY 342- 7- 6-C-MI

WD8ISK (+WA8LXJ)
22,002-30-18-C-OH
-39-20-D

Hudson Division

K2UYH 98,847- 6- 4-C-NNJ
102-43-D
-22-16-E

W2VC 40,260-71-30-D-NNJ
-19-14-E

WB2WIH 9144-24-11-C-NNJ
-35-13-D

K2OVS 3330-28-15-D-NLI

WA2TIF 3216-25-16-D-ENY

K2ULR 1023- 6- 5-C-NNJ
-11- 6-D

KB2AH 756-15- 9-D-NNJ

WA2SNA (K2BJG,WA2s JSW,UPK, WB2RFB, oprs.)
89,100-63-21-C-NNJ
-77-28-D
-17-11-E

N2BOW (+KA2MKD,N2CEI)
6489-22- 9-C-NNJ
-30-11-D
- 3- 1-I

Midwest Division

WBØTEM 819- 3- 3-C-IA
- 5- 4-D

KBØKM 432- 7- 6-D-MO

WØRT 345- 3- 2-C-KS
- 5- 3-D

New England Division

K1PXE 79,740-37-19-C-CT
-80-29-D
-17-12-E

WB1CJT 32,103-27-16-C-NH
-48-22-D
- 5- 3-E

K2LNS/1 27,063-16-10-C-ME
-34-16-D
-14- 5-E

W1JR 15,042-25-14-C-EMA
-48-22-D
-10- 6-E
- 3- 3-F
- 1- 1-I

K1VYU 5457-35-17-D-CT

WA1WXV 4914- 6- 5-C-CT
-24-15-D
- 1- 1-E

W1AIM/1 4674-15- 8-C-VT
-20-11-D

WA1UQC 4294-20-10-C-CT
-16- 9-D

W1FAJ 2784-12- 7-C-CT
-15- 9-D

W1GXT 1170-16-10-C-EM

N1BC 648-14- 8-D-EM

K8UR/1 399-11- 7-D-EM

KL7WE/1 135- 5- 3-D-ME

W2SZ/1 (AG1M,WA1WTC,WB1CBH, AG2X,K2MM,W2ARQ,WA2s AAU, GFP,SPL,WB2s PKO,QCJ,WA8USA, oprs.)
392,250-72-34-C-WM
118-46-D
-27-21-E
- 5- 8-F
- 3- 7-G
- 9- 9-I

W1VD (+K1JX,K1ZZ,WA1STO)
46,656-41-20-C-CT
-57-26-D
- 3- 2-I

W1TKZ (K1s TK,UR,WA1PQY, oprs.)
30,186-15-11-C-VT
-45-25-D
- 3- 3-I

Northwestern Division

W7TYR 5265-19-13-C-OR
-15- 9-D
- 4- 3-E
- 1- 1-F
- 1- 1-G

K7HSJ 2499-17- 6-C-OR
-16- 9-D
- 2- 2-E

K7KOT 864- 6- 4-C-WA
- 8- 5-D

WA3RMX/7 525- 1- 1-C-OR
- 1- 1-F
- 1- 1-G
- 1- 1-H
- 1- 1-I
- 1- 1-J
- 1- 1-K

KK7B 414- 2- 1-C-WA
- 9- 4-D
- 1- 1-E

W7AZU 6- 2- 1-C-WA

K7AUO (WA3RMX,W7s ADV, UDM,WB7CDQ, oprs.)
28,779-26-12-C-OR
-21-11-D
- 6- 5-E
- 6- 6-F
- 6- 6-G
- 6- 6-H
- 5- 5-I
- 1- 1-J
- 1- 1-K

Pacific Division

K6UQH 2190-15- 4-D-SCV
-11- 5-E
- 1- 1-F

WD6CHL 1512-19- 5-D-EB
- 7- 4-E

AJ6T 372-19- 4-D-SCV

Roanoke Division

W3IY/4 72,105-27-16-C-VA
-69-28-D
-12-11-E

K4QIF 22,848-38-21-D-VA
-10- 7-E

K4CAW 12,900-40-25-D-NC

K4LHB 12,600-19-11-C-VA
-22-13-D

KØRI/4 3621-16-11-C-VA
- 6- 6-D

N4CD 2592-17-12-D-VA

WA4LDU 1110-11-10-D-SC

KJ8J 735-10- 7-D-WV

WA4WZQ/4 (Multiop)
5985-10- 6-C-NC
-22-13-D

Rocky Mountain Division

N7BHC 18- 4- 3-C-UT

Southeastern Division

WA4NJP 8136-11- 9-C-GA
-20-14-D
- 1- 1-E

W4ISS 2196-17-12-D-GA

W4ODW 1230- 2- 2-C-NFL
- 9- 7-D
- 1- 1-E

WD4MBK 720-10- 8-D-GA

WA4CQG 450- 5- 4-C-AL
- 2- 2-D

Southwestern Division

AC6C 6360-32- 8-C-LAX
-17- 9-D
- 3- 3-E

N6DBA 1242-35- 6-C-LAX

K2DNR/7 480- 8- 4-D-AZ
- 3- 1-E

K1VOW 300- 3- 3-D-AZ
- 1- 2-I

W6OAL (+K6HXW,WB6YQN)
36,660-59-22-C-SBAR
-27-18-D
- 8- 7-E
- 2- 2-F
- 2- 2-I
- 1- 1-L

K6TZ (WA6s MBZ,VNN,WB6s HOZ,OUZ, oprs.)
14,250-72-11-C-SBAR
-26-11-D
- 1- 1-E
- 2- 2-I

KD6R (+WB6OKK)
924- 8- 6-C-SDGO
-10- 6-D
- 2- 2-E

West Gulf Division

WA5VJB 2808-28- 6-C-NTX
- 8- 3-D
- 3- 3-E
- 1- 1-I

N5EM 1755-12- 3-D-STX
-10- 6-E

KR5F 1512-10- 5-D-STX
- 9- 4-E

W5UWB 1026- 6- 3-D-STX
- 7- 3-E

WB5AFY 405- 6- 5-D-NTX

K7CW/5 288- 8- 6-D-OK

W5NZS 108- 4- 3-D-OK

WB5LUA (+WA5TKU)
29,502-12- 7-C-NTX
-32-18-D
-14- 7-E
- 1- 1-F

DXpeditions

K7UUH (+WB7UNU) (5 Locations)
3432- 7- 4-C-OR/WA
- 4- 2-D
- 2- 1-E
- 2- 2-F
- 2- 2-G
- 1- 1-H
- 1- 1-I

K7RUN (5 Locations)
1890-10- 8-C-OR
-14-10-D

Checklogs

WA3JUF,K4EJQ,WA6OYS