

# Results of the 2003 CQ WW DX 160 Meter Contests

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**W**e now can add Prince Edward Island and Cape Verde Islands to the places to be for a 160 meter contest. Alex, 4L5A, operated D4B to a new contest record 1.5 million points CW. His SSB effort was second in the world Single Operator, too. Jeff, K1ZM, activated his VY2ZM super station for world high CW Multi-Operator, and then went Single Op SSB to achieve the high Single Op score. His Single Op effort was second only to UA9MA's Multi-Op effort from Cyprus. Gena calculates that once he can break into the U.S. midwest and west, he will break 1 million points on SSB. Jeff figures he can reach both Europe and North America for most of the day from Prince Edward Island at the sunspot minimum. So look out for bigger scores to be heading our way.

Both modes had a record number of logs with, 1148 CW and 519 SSB logs received. This is a whopping 30% increase over 2002. Throw in the check logs, and the total number of logs received broke 1700. Certainly the CQ 160 Meter Contests are the most popular 160 contests by a wide margin.

The master logs (after weeding out unverified uniques and busted calls) show 5132 different CW calls and 5120 SSB. This is another record and probably the cleanest master log we have ever had. The bonus is that this allows the scoring to be the most accurate, too. This is aided by electronic submission in Cabrillo format and the ability to convert the non-Cabrillo logs so that all but hand logs are checked in the same manner. RN6BN put 89 countries in the log, so the time is fast approaching for someone to make DXCC during the CW weekend. 141 countries are in the master log for CW and 133 for SSB, so the possibility is there.

## CW

D4B had the world high CW score (both Single and Multi-Op). His 1.5 million points set a new record for a score in either contest. FM5GU placed second with 741K. Bill, W4AN, again operated W8JI to top U.S. and placed 4th world Single Op. John, VE3EJ, placed 10th. It's nice to see the U.S. and Canada make the top 10. SN7Q (SP7GIQ) was high Europe and 3rd in the world. ZF2NT topped North America (outside W/VE) with his 5th place score. SO2R (SP2FAX), HA8DU, OZ7YY, and LY7Z placed 6th to 9th. 4X3A (4X4NJ) topped Asia



The antennas at RU3DX for the CW contest.

and just missed the top 10. Riki will be Stateside for the next five years assisting at the N7JW multi-op station. KH6ND operated KH7X (the Pacific Contest Club) to a new high Oceania score. W5SJ traveled to PYØFF and topped South America as PRØF.

The VY2ZM station ran up the high Multi-Op score and had the second overall contest score. PJ2X finished second not far behind, and CT3FN led by HB9CRV placed 3rd from Africa. KC1XX was the top U.S. Multi-Op, with W2GD and W1FJ in top 10 scores.

The top low power scores came from Europe, with VE3NE coming in at number 3. GU4YOX claimed the world high low power score while providing a rare multiplier for many. SP4TKR topped a European field in the QRP category. However, WA4PGM broke up the European lock by placing 5th and also high U.S. QRP. Virginia's K7SV was the high U.S. low power scorer. Close races in California and Virginia (Multi-Op) show that a little extra effort does pay off.

RN6BN was the top CW country scorer with a record 89. Forty-two different CW contestants worked 70 or more countries. Again Europe dominated with VY2ZM slipping in

with 75, followed by KC1XX (73), D4B (72), and W2GD (71). W8JI led the Single Ops with 67 countries. W8JI also lead the QSO parade with 1406. North Americans dominate the high QSO scorers, with VY2ZM, W2GD, KC1XX, and AA1K making up the top 5 QSO places. D4B with 1255 was 6th, and a record 39 stations made 1000 or more QSOs. Still many complained about running out of stations to work on Sunday and spending hours calling CQ. A word to the wise: Get

## 2002 Corrections

OK1CZ operated as **OLØA** not **OL1A** in the CW section.

Jim, ON5UM, operated **OT2A** as Single Operator not Multi-Operator. **OT2A** placed second to OT2T (ON4UN) CW in Belgium.

The CW QRP log of Alex, **VA3TTT** (now VE3XAX) was left out of the listings. His score of 58,144 is the QRP winner from Ontario.

Brian, **VY2MGY/VE3**'s log was also left out of the CW section. His score of 40,205 places him second in Ontario QRP. Brian is now VE3MGY.

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on on Sunday and give out some QSOs and you will make a host of friends.

## SSB

VY2ZM was the high Single Op scorer, followed by D4B and EA8/OH2BYS. In Europe LY2FY edged out OR3T (ON4UN) by a scant 3000 points. They placed 4th and 5th, respectively. W4MYA recorded the U.S. high score and settled into 6th Place. DJ4PT had a solid 7th-place finish, followed by VE3PN in 8th as the Canada high. SY8A (SV8CS) and LY3UM rounded out the top 10. Bob, W4MYA, seems to have settled into the top US. score position. Bob led runner-up ND8DX by 86K. ND8DX's score is very good from the near Midwest. N0FW placed 4th high U.S. while placing first worldwide on low power. Another remarkable Midwest score. VE3KZ continued the Canadian tradition by topping the QRP entrants. WA3HQK broke through the European block to top the U.S. QRP entrants and place 4th. The combined score by D4B makes Alex the champion for this year's contests.

Gena traveled to Cyprus, and his 5B4/UA9MA effort was the top SSB Multi-Op. His score was also the highest overall on SSB. Gena says it's much easier from Cyprus than Siberia! The EI7M group made a fine score and placed second. K9NR operating from WB9Z's station came in third and was the U.S. Multi-Op winner, remarkable from the Midwest. XE1RCS made another strong effort for 4th place, just 700 points behind K9NR. Europeans dominate the rest of the top 10 Multi-Ops.

Only five stations made 1000 QSOs or more this time, but that will change when North America finally gets a full weekend without overwhelming QRN. K9NR and W4MYA led the QSO parade with 1217 and 1103 QSOs, respectively. 5B4/UA9MA topped the DX with 1100. Thirty-two contestants worked at least 50 countries, led by LY2FY at 63. VY2ZM beat the old North America record by 6 by working 58 countries. No other North American broke the 50 country plateau. Every year we have an unusual entry, and the W5DJW, Mississippi Multi-Op entry takes the cake this time. They made 241 QSOs in 49 states and provinces plus 6 countries while loading up a bridge! It's not every day that you work a bridge.

## Clubs

The Potomac Valley Radio Club (PVRC) made a terrific effort and placed first by 600K. The Bavarian Contest Club (BCC) also improved and moved into second place. The Frankford Radio Club (FRC) remained consistent with a solid third-place finish. The Yankee Clipper Contest Club (YCCC) and the Society of Midwest Contesters rounded out the top 5. Watch out for that new Contest Club Ontario, too!

The club scores are a "for fun" competition as intended by the founders of the CQ 160 Meter Contests. This does not stop clubs from making major efforts each year. At least three logs are required to make the club list. Why not get your gang out in 2004?

## PLAQUE WINNERS AND DONORS

### SINGLE OPERATOR CW

**WORLD BY W4ZV (DJ8WL Memorial):** Winner Alexander Teimurazov, D4B (4L5A op)  
**USA BY K4TEA:** Winner Charles T. Rauch Jr., W8JI (W4AN op)  
**CANADA BY K8FC:** Winner John Sluymmer, VE3EJ  
**ZONE 3 BY N5IA:** Winner Ken Keeler, N6RO  
**ZONE 4 BY K4WA:** Winner John W. Battin, K9DX  
**ZONE 5 BY N4PN:** Winner Jon Zaimes, AA1K  
**AFRICA BY WS9V:** Winner Manuel De Aguilar, EA8ZS  
**ASIA BY K4SX:** Winner Riki Kline, 4X3A (4X4NJ)  
**EUROPE BY K9DX:** Winner Krzysztof Sobon, SN7Q (SP7GIQ)  
**OCEANIA BY K9DX:** Winner Pacific Contest Club, KH7X (KH6ND op)  
**SOUTH AMERICA BY W4NU (W4UUH Memorial):** Winner Bill Priakos, PR0F (W5SJ)  
**JAPAN BY W4ZV (JA1XAF Memorial):** Winner Masaki Okano, JH4UYB  
**NORTH AMERICA BY CQ (N4IN Memorial):** Winner Dennis Clement, FM5GU

### SSB

**WORLD BY N4NX:** Winner Jeffery T. Briggs, VY2ZM (K1ZM)  
**USA BY K4JRB:** Winner Robert S. Morris, W4MYA  
**CANADA BY W0ETC:** Winner Peter Barron, VE3PN  
**ZONE 3 BY N4TMW:** Winner J. C. Stevens, KG7H  
**ZONE 4 BY N4XMX:** Winner Karl Brandt, ND8DX  
**ZONE 5 BY K4ODL:** Winner Steve Sussman, W3BGN  
**AFRICA BY WB4ZNH:** Winner Alexander Teimurazov, D4B (4L5A)  
**ASIA BY NT4TT/AH2BE:** Winner Alexander Timkin, RA9MJ  
**EUROPE BY WS9V:** Winner Rolandas Jokubauskas, LY2FY  
**OCEANIA BY D4B/4L5A:** No Entry.  
**SOUTH AMERICA BY D4B/4L5A:** Winner Edgar Ochoa, YV2IF  
**NORTH AMERICA BY CQ (K2EEK Memorial):** Winner Dennis Clement, FM5GU

### MULTI-OPERATOR CW

**WORLD BY N4RJ:** Winner Jeffrey T. Briggs, VY2ZMM (K1ZM)  
**USA BY W8UVZ and K8GG:** Winner Matthias Strelow, KC1XX  
**Zone 3 BY 4X4NJ:** Winner Jim Wilson, N7JW

### SSB

**WORLD BY SOUTHEASTERN DX CLUB:** Winner Gena Kolmakov, 5B4/UA9MA  
**USA BY WB9Z:** Winner Don Kerouac, K9NR  
**Zone 3 BY 4X4NJ:** Winner Jacks Peak Amateur Radio Association, N7GP

Remember that DXpeditions by club members count for the club score, and this has been leveraged well in the past.

## The 2004 Contests

For the 2004 e-mailed contests logs that are not fully in Cabrillo format will be rejected by the robot. However, a message telling you what needs to be changed or how to submit a conforming log will be sent in reply. The contest log checking has been slowed down by logs that are not fully Cabrillo. Please don't homebrew your log, but instead use one of the converter programs available to convert the old logging format to acceptable Cabrillo. Remember the contest name must be exact. Make sure the contest name is either **CQ-160-CW** or **CQ-160-SSB**. Please insert a claimed score in the Cabrillo summary so we can test the final score against the claimed score in case of difficulty. We will reinstate having the top 200 high-claimed scores on the CQ web page in 2004, so a value in the claimed score line is required for proper listing, too. Remember that power levels only apply to Single Operator categories. All Multi-Operators are considered high power, and if you use any assistance (packet or web spotting nets) then your log is Multi-Op.

Please leave duplicates in your Cabrillo

log. Somehow the rumor has gotten around that you must remove duplicates, but this is just a throwback to the old way of log checking where duplicates were often counted for points and thus the log-checkers removing them caused a penalty. There is no penalty for duplicates.

A word on uniques: There is nothing wrong with uniques, and the well-equipped stations will always have them. However, with the new log-checking programs, busted calls can now be pinpointed. Over 60% of so-called uniques turn out to be busted calls! The other problem is unverified uniques. The log-checking program spotlights logs with 3% or more uniques, which is twice the average for the CQ 160 Meter Contests. Over 7% uniques will bring your log under higher scrutiny. Thanks to Jim, AD1C, and Eddie, W6/G0AZT for their help in overcoming problem logs.

The rules for plaques and certificates are changed to meet conditions every so often. Only one plaque per section is awarded per entrant, so a runner-up may then get a plaque. No plaque is awarded for a score of less than 30K. Minimums for low power and QRP certificates are 5K for low power and 1K for QRP. Exceptions are made by CQ 160 Contest Committee decision (Japan low power, for instance). The CQ 160 Committee or the Contest Director can decide to

not award a certificate if sufficient effort is not shown (usually a very low score). A runner-up in either a state, province, or country can be awarded a second-place certificate if there are eight or more entries and the score is 100K or more. Have patience, as all plaques and certificates are handled by volunteers and hopefully we will get caught up by the 2004 contest.

The dates for the 2004 CQ WW 160 Meter Contests are set for CW, January 24-25, and SSB, February 28-29 (leap year). The contests run from 0000Z the first date to 2359Z the second date. Logs may be sub-

mitted in Cabrillo format via e-mail. This year logs go to two separate e-mail addresses: CW logs go to <cq160cw@kkn.net> and SSB logs go to <cq160ssb@kkn.net>. If you send both in March, please use two e-mails! Remember to put your call in the subject area of the e-mail. You may also submit electronic logs on diskette (3.5 inch, please, with a printed summary sheet, Cabrillo format requested) or hand-written logs. Both of these should be mailed to CQ 160 Meter Contest, 25 Newbridge Road, Hicksville, NY 11801 (please mark CW or SSB on the envelope). We must hold everyone to our required deadlines of February 28, 2004 for CW or March 31, 2004 for SSB. The exception is if both logs are submitted together, and then the date is March 31, 2004.

For complete rules for the CQ WW 160 Meter Contests see the November issue of CQ, or go to the CQ web page, <www.cq-amateur-radio.com>. Good luck in the 2004 contests!

73, Dave, K4JRB

### CW W/VE QRM

Surprised how many assumed a W as the first letter of the prefix. I was called WC6QV and WA6QV far too often... AC6QV. Ran into feedback in my computer so had to switch to hand logging... K7QBO. A better antenna helped my score this year. Thought I had Alaska but then he signed portable 7 so no 50th state yet... N2FY. Only computer I have is an old Apple IIe that uses 5-1/4 inch diskettes... W2LRO. Missed Wyoming and never did find KH6 or KL7. Heard a VK3 but he was mobbed... W5TVW. Do away with the meaningless RST and let's go with year of first license or something more meaningful... W8IM. Poor conditions in western Canada... VE6BF. Things have changed since the last time (1978) I enter the CQ 160 CW test... W0NFL. Close to my best QRP effort. New receiving antenna really helped... W4TMR/QRP. Worked VY2ZM on the first call with my 100 watts to my 80 meter dipole... WA1LAD. Biggest achievement was stringing an antenna on Saturday and having it work... KC7QY. Surprising that 90% of the time I could work the DX through a pile-up. (Maybe it was the Rhode Island QTH.—ed.)... K1DFT. Biggest thrill was working KH7X at the greyline... AC4G. Thanks to everyone who heard my QRP... N8A/QRP. Amazed to work the East Coast, VE, and ZF2NT. Band is very quiet here in rural Utah... KB7NZG. Everyone was polite, patient, and helpful... KA6UMQ. Worked Hawaii to complete my 160 WAS... K4DGJ. As always nearly everyone worked well together... WA9TZE.

I know it is not much of a score but I had a heckuva of a good time... AA0A. Europe came in waves with the best run coming at 0600Z the first night... AA1K. Great conditions blew away last year's score. Still have some work to do on the transmit antennas though... K0TV. Neighbors turned off their electric fence; thank you... K0UK. First time to operate this contest from Florida. Band was quiet each night... K1TO. Operated at the new QTH of NQ4I. Thanks, Rick... K4BAI. Limited operating due to family and 40 over 9 line noise... K4CNW. Paul's 4-square really works... K4JA (K4MA op). Things started well but fell flat, as no JA's were heard... K4VX (N9JF op). Band was good and the operators the best... K5GO (N5OE op). Great preparations for working 26 hours fell by the wayside when the PC got hit with a virus... K5PTC (N1LN op). DX activity was great but USA activity seemed down... K5ZD. Used a balloon-supported vertical over a dry lake bed 50 miles from the home QTH... K6SE. Propagation west on the sunrise greyline was poor... K7UIR. Enjoyed the contest but where were the islands, XE, and Central America?... K8AB. First time in the contest. Worked 27 states and 3 provinces. Will definitely put the contest on my calendar next year... KA6R.

Hot competition from W2GD and W1FJ at W1KM. This contest rocks... KC1XX. Working new countries mobile becomes very difficult without the DX window... KH6DX/W6. Really like the new hours. Great to get on Sunday afternoon... KZ1M. Did much better than expected with 80 watts... N1DC. First try with a 4-square but nobody hears me off the back. Next year need an omni antenna too... N2NT. At 2359 the band was crowded on Sunday. At 0045 on Monday the band was empty... VE3BNO. Conditions good both nights. The problem was the number of high-power stations calling CQ... VO1HP. Conditions better than expected. I do miss the window... W8CAR. Best DX in a long time. My European antenna did have a high line noise though... W9SE. Band was great. Too bad I had the flu... WA4AOS. Since I don't do CW I look for hired guns. If the guns don't learn to S&P and use packet for mults I will find new ones... WD5R. Big surprise was being called by XQ6ET... WA7LT.

### CW DX QRM CW

VERON never did get the time change. (The rules were on the CQ web page—ed.) I prefer the old times... PA8LOU. UT1YW wrote a long note but the only thing in English was "so QRP" at the end. Eugen did run QRP... K4JRB (for UT1YW). Using the old KH6CC rig that made 160 DXCC. Worked Field Day style from Laupahoe Point Beach Park... KH6B. This is my fifth CQ 160 CW, and although I enjoy the contest, I am limited by my poor antenna and low power... LU1EWL. I worked all that could hear me. Most had good ears... KH6ZM. Heard many more U.S. stations but with poor transmitting antenna they did not hear me... OH3WD. Not able to produce a Cabrillo log as I use the "Swisslog" which is a DOS program... HB9QA. With the "legal" German power of 75 watts it's very difficult to work across the Ocean... DJ5AA. Really like the new 48-hour format but we need the DX window back... VK6VZ. Easy to reach Europe from here but not North America... 4L1FX. Conditions were much better this year especially for North America. We lost our 26-meter-high ground plane three days after the contest... CT3FN. Balloon-supported 41 meter vertical was great on transmit... DJ0MDR. Worked two new ones in D4B and EY8MM. Still was hearing VY2ZM at 9:30 AM Sunday morning... DJ2MX. Thanks to Roger, DL5RBW, and his wife Gabi. Without their support this operation would not be possible... DL0XAX. Intermittent S9 noise made receiving a problem... DU9/N0NM.

Good opening to North America on Saturday morning did not reoccur on Sunday... EA5BY. D4B was very loud. Glad to see VU2BGS get on and work 16 stations... EY6MM. Slept through the Saturday morning opening to North America... F6CWA. Worked three new countries and two new states with 400 watts to a 25 meter wire in downtown Paris... F6GOX. It's the dry season in Martinique so I sent the wife to pray for rain. It poured—HI... FM5GU. First time on Top band in 39 years... G3SEK. Five watts to a K2 transceiver. Not record breaking, but exceeded expectations... G3YMC. My first CQ 160 CW. Hard to make it across the pond with low power even with a semi-rare call... GU4YOX. Better score this time as I did not go to sleep... GW3JXN. Happy to work nine states... IK4AUU. Conditions poor to USA so many did not hear my low power. VK6VZ was very loud and every JA was calling him... JE1SPY. The former times are more convenient for Europe... LX5A. More relaxing to operate with two operators. At 67, G3LZQ sure needs it... M2D. Enjoyed the contest. My first on 160. Did better than expected with my modest station... YU1WC. Please North America don't forget to listen to the south... YV5MBX. Our first serious effort in the CQ 160 CW. We will do better next time... Z36W. Thunderstorms the second day... ZC4DW. We got off to a great start on Saturday but conditions went downhill the second and we did not break our old record... ZL6QH.

### SSB W/VE QRM SSB

Got my TS-940 back in service in time... AA6EE. It was great to get out that far with a simple dipole in my first 160 contest... KB0ARZ. Too much QRM this

## TOP 10 SCORES

### SINGLE OPERATOR

#### USA CW

W8JL	641,576	W4MYA	320,862
AA1K	540,096	ND8DX	234,324
K4JA	481,740	W3BGN	219,978
W3BGN	446,576	N0FW	169,324
N2NT	446,538	N3HBX	160,310
W4ZV	398,460	W3TS	152,554
NO2R	361,990	K1VW	145,986
K9DX	327,318	K3NM	126,252
K4BAI	317,645	W3GH	107,120
WE3C	294,000	K4JA	103,411

#### USA SSB

### VE (TOP 5)

CW		SSB	
VE3EJ	543,998	VE3PN	272,049
VE3AT	317,475	VA5DX	198,250
VE3QAA	256,022	VE3ESE	108,072
VE3PN	252,588	VE3NE	106,731
VE3NE	245,847	VE6JY	84,111

### QRP (TOP 5)

CW		SSB	
SP4TKR	96,800	VE3KZ	41,160
S57IIO	86,940	HF70I	39,376
OK1FKD	75,118	OK1ES	14,147
YU1RA	72,471	WA3HQK	11,894
WA4PGM	70,977	OK1CZ	7,775

#### DX CW

D4B	1,513,105	VY2ZM	727,088
FM5GU	741,684	D4B	627,715
SN7Q	681,757	EA8/OH2BYS	565,222
W8JL	641,576	LY2FY	381,133
ZF2NT	604,395	OR3T	378,102
SO2R	585,758	W4MYA	320,862
HA8DU	559,800	DJ4PT	307,276
OZ7YY	555,758	VE3PN	272,049
LY7Z	549,500	SY8A	253,595
VE3EJ	543,998	LY3UM	244,732

#### DX SSB

### LOW POWER (TOP 5)

CW		SSB	
GU4YOX	299,896	N0FW	168,324
YU1EA	298,076	G4VGO	135,730
VE3NE	245,847	HA8BE	131,274
EA4ML	218,862	VE3ESE	108,072
YU1ZZ	207,328	VE3NE	106,731

### W/VE LOW POWER (TOP 3)

VE3CSK	207,298
VE3OSZ	171,864
K7SV	145,704

### MULTI-OPERATOR

CW(WW)		SSB(WW)	
VY2ZM	1,180,010	5B4/UA9MA	796,288
PJ2X	1,085,729	E17M	351,370
CT3FN	855,621	K9NR	295,862
9A1P	700,980	XE1RCS	295,070
KC1XX	700,050	SO2R	278,208
OM7M	665,680	LX9UN	257,790
W2GD	665,250	HG1S	251,454
W1FJ	624,980	YZ1W	234,360
RN6BN	613,180	UU7J	216,450
RW2F	579,168	IV3OWC	215,941



**RU3DX and UA3DPX multi-op in the CW contest using the call RU3DX.**

time. Rain and snow storms both . . . **N8XA/QRP**. Being in the middle of the country (Kansas) I could hear many stations who couldn't hear me. Will have an amp for the next one . . . **W0NEB**. Great conditions for QRP . . . **K3TW**. My antenna failed Saturday evening and I finally fixed it in time for the last 5 minutes . . . **AF1T**. Getting FM5GU on the first call . . . **KA1BXB**. I like the new 48-hour format. This gives me three chances at the Midwest/East coast . . . **WA9TZE**. Excited to work all the stations with my antenna which was high in the center, but since I never got to put up poles, ends were almost on the ground . . . **W8KNO**. D4B called me . . . **N7ZT**. Next year we need to get out of the city and away from the noise . . . **N7WL**. Working all continents in less than 4 hours . . . **W4DR**. Stayed within the ARRL Bandplan for the whole contest. This was a big mistake . . . **W3TS**. Hard work on QRP but working Mexico and Canada made it worthwhile . . . **KK0G**. I had to install a filter to get rid of AM broadcast interference . . . **WB6FRM**. Low Windom was not very effective for transmit . . . **AJ6T**. High SWR on my L was caused by the wind blowing the vertical portion into my guy wires . . . **K0BJ**. Lots of loud signals from close in but needed a receiving antenna for those farther out . . . **K1KO**.

Please place me in 4-land this time . . . **K3KO** (*K3KO and K3000 are a YL/OM team—ed.*). Managed to get in 4 hours through the heavy QRN . . . **K4WI**. High noise level at Kitty Hawk, but the balloon worked fine. Next time maybe Maritime Mobile . . . **K4YFR**. Limited time to operate so I only called multipliers . . . **K5RX**. Make the contest 24 hours rather than 48 . . . **K5ZD**. Good conditions the second day gave me my highest score in ever on SSB . . . **K6TIM**. Lost the amp before the start of the contest. Working with 100 watts humbles you . . . **K7OX**. I still enjoy the CW section more . . . **K7RE**. Had some fun with my HF2V vertical which is not much on 160 . . . **K7ZO**. Tried low power this year with good results . . . **K9FO**. QRN was mind-boggling both nights . . . **K9NR**. Could not operate Saturday night as my shack is in the barn and we had a blizzard . . . **K9SG**. First time on Top band and in spite of the QRN I am hooked . . . **KC4PX**. This is the contest where the entrants are good and polite . . . **KE4SCY**. It always amazes me that you can follow one QSO in 10 minutes with a run of 10 more QSOs in just over a minute . . . **KH7H**. KO8HIO was a special event call . . . **K8ZT,op**. Stations in the south were

59+20 but both coasts were barely heard . . . **N0FP**. I made 90% of my 1000 QSO gold standard this year running 100 watts . . . **N0FW**. I switched from a dipole to a full-wave loop but still had receiving problems. See you next time from the hills of western Maine . . . **N1YIS**. New antenna still not good enough for hearing the West Coast . . . **N2VR**. The voice keyer hung up the computer and had to be abandoned, so I got hoarse . . . **N3HBX**. Low static on Sunday from 22 to 2400 allowed me to work three new mults including EA8 . . . **N3UM**. Set up a portable operation with a blimp-held 1/4-wave vertical. Will be back next year . . . **N7X**. QRN made this a real test of operator skill . . . **N8YEL**. A little casual DXing . . . **VE1JF**. Nice opening to Europe on Saturday . . . **VE3PN**. Would like to have heard and worked more DX but I am on a small lot . . . **VE7JKZ**.

## SSB DX QRM

My half-wave dipole went with the wind . . . **HA5FA**. Top band and this contest is my lifestyle since 1970 . . . **OK1TP** (also **OK1JDX**). Sorry no computer or internet here . . . **UA9ACJ**. Next year I will try to break my lowest score in the contest record . . . **WP4LNY**. Bad propagation this time . . . **CU2AF**. My first try at the CQ 160 SSB. QRN and QRM made it very hard to hold my frequency . . . **D4B**. Please return to the old schedule . . . **DK2OY**. Only one hour of operation . . . **DL6FBL**. Hard work with 100 watts . . . **DL9NDS**. We really enjoy this contest. Working ZL was a first for us . . . **E17M**. There should be a special restricted class for France as we only have 1810 to 1840. Too narrow for either CW or SSB . . . **F5PYJ**. Poorest conditions I have ever seen. I was more interested in watching TV . . . **FM5GU**. Full-size delta loop 300 feet up with the bottom at 60 feet held by a balloon . . . **G4VGO**. Used a balloon vertical for my first try at the CQ 160 SSB . . . **IC8POF**. A must contest . . . **IK8UND**. Very hard going on SSB . . . **M3C**. Worked D4B and VY2ZM with my QRP . . . **MU3EFP**. Very good signal from XE1RCS. Hope to QSO next year . . . **OE1TKW**. Not a serious operation this time. Just testing the antennas . . . **OK1RF**. Hope this log makes it . . . **OR3T** (**ON4UN op**). We came no where near our QSO or multiplier goals but enjoyed the hospitality of host 5B4AGN . . . **P3F** (**G3UEG op.**). It takes a mathematician to design the Cabrillo format . . . **S54A**. Finally got the vertical over salt water . . . **V31MD**. Best European opening in the past seven contests . . . **XE1RCS**. We had no cluster help either night so missed some DX and USA mults . . . **LX9UN**.

## Station Ops CW Multi-Op

**3Z0PRK**: SP9ADU, ANDY. **9A1A**: 9A5W, 9A5E, 9A6A, 9A7R, 9A9A **9A1P**: 9A5AEI, 9A6NDX, 9A6XX, S56A. **9A5Y**: 9A3LG, 9A5AGL, 9A3NM. **AA0A** & **PACKET**. **AA4V** & **N4SF**. **CT3FN**: HB9CRV, DK7YY. **DF0SAX**: DL8DYL, DL7FER, DL3DXX. **DF9ZP** & **PACKET**. **DH1NFL** & **DL2MDZ**. **DJ2YA** & **PACKET**. **DJ5IW** & **PACKET**. **DJ9MH** & **PACKET**. **DJ9NMH** & **DJ9MH**. **DK0IW**: DF9MV, DJ9WH, DL6KO, DL9CHR. **DK0NS**: DJ9MH, **PACKET**. **DK3GI** & **PACKET**. **DL0AO**: DJ3TF, DJ5RE, DJ6RN, DK1RP, DL3RAH, DL5PRO. **DL0MB**: DJ2UU, **PACKET**. **DL2MY**: DJ9MH, **PACKET**. **DL6LAU** & **DJ6TK**. **DL7YX** & **DF1HF**, DK5XG. **EA1WX** & **EA1CS**. **EA5BY** & **EA5FID**, EA5KW, EA5ERV, EA5XC. **EA6IB**: EA3AIR, EA6ACC. **EI6IZ** & **PACKET**. **ES5Q**: ES5MC, ES5RY, ES5TV, ES5QX. **FY5KE**: FY5FY, FH5RY. **HG1R**: HA1ZZ, HA1DRR, HA1XU, HA1ZN, HA1ZV. **HG1S**: HA1TJ, HA1DAI, HA1DAC, HA1DAI, HA1AG, HA3LN, HA1AV, HA1SN, HA1AR, HA1AH. **HG3DX**: HA3LN, HA3MY, HA3PW, HA3UU, HA4WU, HA5MY. **HG5A**: HA5IW, HA5FM, HA6WX, HA5HL, HA5OM, KISS TIBOR, HA5ZD, HA5UA, HA6GK, HA5DQ, HA5YI, HA5BGG. **IK2NCJ** & **IK2JUB**, IK2FIL, IZ2ABI. **IV3TDM** & **IV3IHF**, IV3YDD, IV3FHH. **JA0ZRY**: JA1GGO, JE5UMJ, JH5XDD, JA8DGK, JS3JSB, JL1GJE, JH1JVA. **JA3YBK**: JF4FUF, JH3PRR, JO3LDN. **JG2ZUP**: 7N4VPG, JJ0BRG, JA3-34192. **JY9QJ** & **PACKET**.

## CLUB SCORES

(Minimum of three entries required for listing.)

CLUB	SCORE	CLUB	SCORE
POTOMAC VALLEY RADIO CLUB	6,172,206	SOUTHERN CALIFORNIA CONTEST CLUB	509,670
BAVARIAN CONTEST CLUB	5,289,414	URE (SPAIN)	509,407
FRANKFORD RADIO CLUB	5,090,450	VRHNIKA CONTESTERS (S5)	481,938
YANKEE CLIPPER CONTEST CLUB	4,511,751	HUDSON VALLEY CONTEST DX CLUB	475,818
SOCIETY OF MIDWEST CONTESTERS	3,706,595	URAL CONTEST GROUP	474,801
CONTEST CLUB ONTARIO	3,453,936	NORTH COAST CONTESTERS	457,633
SLOVENIAN CONTEST CLUB	3,301,260	SOUTHWEST OHIO DX ASSN.	428,982
CONTEST CLUB FINLAND	2,869,246	LATVIAN CONTEST CLUB	402,446
RHEIN RHUR DX ASSN.	2,685,478	GRAND MESA CONTESTERS	402,253
SP DX CLUB	2,493,061	FOX CONTEST CLUB	379,621
ATCC (RUSSIAN FEDERATION)	2,487,095	CENTRAL ARIZONA DX ASSN.	336,800
HA DX CLUB (HUNGARY)	2,065,031	KANSAS CITY DX CLUB	332,635
SOUTHEASTERN DX CLUB	1,890,046	DARC	328,333
KTU RADIO CLUB (LY)	1,767,804	OKLAHOMA DX ASSN.	311,072
CDXC (ENGLAND)	1,519,130	C. TEXAS DX CONTEST CLUB	304,150
RUSSIAN CONTEST CLUB	1,476,402	LNDX (SPAIN)	233,684
MAD RIVER RADIO CLUB	1,309,112	WILAMET VALLEY DX CLUB	220,618
FLORIDA CONTEST GROUP	1,242,680	WESTERN WASHINGTON DX CLUB	178,779
UA2 CONTEST CLUB	1,075,428	TEXAS DX CONTEST CLUB	152,065
SKY CONTEST CLUB	878,486	NW FLORIDA DX GROUP	139,314
TENNESSEE CONTEST GROUP	871,904	MLDXCC (CALIFORNIA)	127,362
WWYC	825,132	NORTHERN ARIZONA DX ASSN.	100,500
CRIMEA CONTEST CLUB	727,376	UARL (UKRAINE)	98,317
UKRAINIAN CONTEST CLUB	714,544	NNY CONTEST CLUB	85,105
MARCONI CONTEST CLUB	603,787	CENTRAL SIBERIA DX ASSN.	80,519
NORTH TEXAS CONTEST CLUB	596,547	ROCHESTER DX ASSN.	71,437
CAROLINA DX ASSN.	570,496	WEST PARK RADIO OPS	47,622
MINNESOTA WIRELESS ASSN.	553,447	KENTUCKY CONTEST GROUP	38,928
		BARA (NEW YORK)	32,821

## GUEST OPERATORS

### CW

Call	Operator	OH7A	OH7UE
4N7M	YT7AW	OH9W	OH2BYS
4X3A	4X4NJ	OL0A	OK1CZ
7S3E	SM2DMU	OL5Y	OK1FUA
7S7V	SM7VZX	OL6M	OK2BOB
8S0	SM0NJO	P3F	5B4AGN
DL0DX	DL5JMS	P40RH	W6FRH
DL0MFL	DL2JRM	PI4ALK	PI1VW
DL0XAX	DL6RDR	PR0F	W5SJ
EA2URD	EA2AAZ	RD4M	UA4LU
EA4ML	UY7CW	SM3X	SM3CVM
G6PZ	G3TJE	SM7E	SM7BHM
HF70G	SP2DNI	SN1A	SP1EG
HF70I	SP6IHE	SN3R	SP3RBR
K4JA	K4MA	SN7Q	SP7GIQ
K4VX	N9JF	SN8M	SP8MI
K5GO	N5OE	S02R	SP2FAX
KH7X	KH6ND	UW7F	UR5FEO
KS0T	KR0B	V31YN	DJ4KW
LY7Z	LY2TA	W0AIIH	K0TG
N4AO	WC4E	W2MU	WA2JQK
N8A	N8XA	W7RM	KI7Y
NF4DX	W4TMM	W8JI	W4AN
NH7O	N6KB	WA5AAA	K5KA
NR3X	N4YDU	YE0X	OK1JR
OH0R	OH2TA	YO5KAD	YO5AJR
OH0Z	OH5DX	YU1AB	YZ1EW

### SSB

Call	Operator	SM7E	SM7BHM
CN2R	W7EJ	S02R	SP2FAX
D4B	4L5A	SY8A	SV8CS
K0BHO	K82T	T31MY	KF4TUG
N6VOA	WB9AUJ	UR5E	UR5EDX
OR3T	ON4UN	W1CTN	W1CRS
RD4M	UA4LU	YO5KAD	YO5ORF
RK9CZO	RX9CGD		

US4LGV, UY5LW. **UU7J:** UU4DD, UU8JV, UU0JM, UU0JBL, **VA3EC** & PACKET. **VE20J** & VE3NJ, VE3EDR, VE30P, VE3FFK, VE3IAY. **VE7SV** & VA7NT, VA7CW. **VY2ZM:** K1ZM, WW2Y, K1PX. **W1FJ** & W1KM, K1XM, NB1B. **W1QA** & NC1I. **W1QK** & PACKET. **W2GD** & K2TW, K8NZ, N200, W1GD, W2CG, W2NO, W2RQ. **W2GDJ** & PACKET. **W2XL** & K4HA. **W3VF** & PACKET. **W3VFT** & PACKET. **W3GG** & PACKET. **W3HVQ** & PACKET. **W4MYA** & PACKET. **W4WNT** & PACKET. **W5TM** & W5AO, W5KA. **W6TER** & WD7Z. **W8BAR:** W8WEJ, W1TO, W8VVE, WA8SDA, KF8NW, AA4VU. **WA1Z** & NE1I. **WA8WV** & PACKET. **WB9CIF** & PACKET. **WB9Z** & AE9B, AK9F, K9CS, K9FO, K9NR. **WD5R:** KV5D, N5ECT. **WS4Y** & K4WA. **WY3T** & N3JRX. **YL0A:** YL2KA, PACKET. **YZ7A:** YT7DQ, YU7KC, YU7BW, YU7CM, YU7JDE. **YZ7A:** ROBY, LACY. **Z36W** & Z32ID, Z31GX. **ZL6QH:** ZL2BSJ, ZL1AZE.

## Station Ops SSB Multi-Op

**406A:** Y6GA, YU1EU. **4U1WB:** AJ3M, PACKET. **5B4UA9MA** & RZ9UA. **AA0A** & PACKET. **AA1K** & PACKET. **AA4V** & PACKET. **AF8C** & PACKET. **AG4MX** & K54YT, KV4T. **DH1NF** & DH1NH, DL5RMH. **DJ5IW** & PACKET. **DJ9MH** & PACKET. **DK0DO** & PACKET. **DK2OY** & PACKET. **DL0MB:** DF2UU, DJ5IR, DK9P. **DL5RMH** & DH1NF, DH1NH. **DL0DRI** & PACKET. **EA4URE:** OPS. **EA5BY** & EA5FD, EA5GRV, EA5KW, EA5XC. **EA5E** & PACKET. **EA6CA** & EA6NY. **ED5GCT** & EA5GKC, EA5AT, EA5GKB. **ED7VG:** EA7ATX, EA7HY, EA7TL, EA6AR. **E17M:** E18GS, E18IR, E13JE. **F5PYJ** & F6IIT. **G3UEG** & PACKET. **G4IY** & PACKET. **G6PZ** & G3TJE. **HA5KHC/7:** HA5BH, HA50J, HA5ZA, HG50LQ, HA5TBK, HA7PC. **HB9CXZ** & HB9BL, HB9OCR, YL PIERA, HB9FA. **HG1S:** HA1TJ, HA1DAE, HA1DAC, HA1AG, HA1DAI, HA1SN, HA1AH, HA3LN, HA3MY. **I2OKW** & IK2FI. **IT9EOG** & IT9CHU, IT9LGV, IW9GHI. **IV30WC** & IV3SKB, IV3WKI, IV3RIK, IV3DBU, IV3ZQX, IV3ZIZ. **K0LIR:** N0IS, W0SLW, W0IYY, N0PKX. **K0XD** & PACKET. **K1DAM** & W1JMM. **K1RV** & PACKET. **K2FL** & PACKET. **K2PS** & PACKET. **K2SB** & PACKET. **K3DI** & PACKET. **K3IXD** & PACKET. **K300** & PACKET. **K3000** &

**PACKET. K3SKE** & PACKET. **K3V0A:** K3NJ, K1HTV, W3GA. **K3WW** & PACKET. **K4BP** & PACKET. **K4UZ** & K4BIJ, K4FRR & W4AVN. **K4YT** & PACKET. **K5BAT:** N5QJ, W5B5HS, WU5X, W5RZ. **K80OL** & PACKET. **K9NR** & WB9Z, K9CS. **K9CRY** & PACKET. **KD2I** & KN2T, N20RM, W2MF.

**LX4A:** LX1NO, LX1NW. **LX9UN:** LX1UN, LX2AJ. **LY7A:** LY3BA, LY3NUT, LYR346. **LZ8T:** LZ2CJ, LZ2JE. **M3C:** G0VQR, M3XTN. **N0FP** & PACKET. **N0KOV** & WB0LBF, WB0SRP. **N3AM** & PACKET. **N3DL** & PACKET. **N4ION** & N4JDB, K54B. **N4VV** & PACKET. **N7GP:** W7MCO, N5IA, N7QK, K7LON, NA5S, K7JEM. **N7KO:** W7GNP, N1KQ, KJ7RX, TODD. **N7PWZ** & N7IZM, K87YEB, AC7KV. **N7X:** NK7C, N7CQQ. **N8TR** & PACKET. **NE3F** & K53F. **NF1A** & PACKET. **NK7U** & KW7J. **NZ1U:** N1XS, KB1H. **OE1TKW** & PACKET. **OE2VEL** & PACKET. **OK1KMG:** OK1UDJ, OK1ULE. **OL1C:** OK1IEG, OK1TIC, OKAN, OK1FPO, OK1DUG, OK1IPS, OK1UZW. **OL5T:** OK1DUO, OK1PAT, OK1QM. **OM3KZA:** OM3TYC. **OZ5ESB:** OZ1CWP, OZ1INN, OZ4AFQ. **P3F:** G3SJJ, G3SVL, G3UEG. **PY3MHZ** & PACKET. **RN6BN** & RA6CO. **RW3WWW:** UA3WHS, RA3WJ. **RZ9AYA:** UA9AT, UA9AZ, UA9AFZ. **SN8V:** SP8BLK, SP8NCF. **S02R:** SP2FAX, US5WDX. **SP3KFH:** SP3GTS, SP3JZR, SP3GXH. **SP4PI:** SP4Z, PETER. **T18/K4UN** & W4BD. **US8IZM:** MAX, MARK, VITALY. **UU7J:** UU4JMG, UU0JM, UU4JDD, UU4JGR, UU5JBO, UU8JK, UU5JIB, UUJ079. **UZ4E:** UR7UE, IGOR, SERGE. **V31MD** & W0CP. **VE1JF** & PACKET. **VE2UMS:** VE2FAB, VE2CVB. **VE3DC:** VE3BK, VA3DJ, VE3VZ, VE3SS, VE3VMO, VE3STT. **VE6JY** & PACKET.

**W0NO** & ABOS. **W1TO** & PACKET. **W2GG** & PACKET. **W2MF** & KD2I, KN2T, N20RM. **W3VF** & PACKET. **W3VFT** & PACKET. **W3HVQ** & PACKET. **W4GFA** & N4IQ, AC4Q, W8KMX, W4OSS. **W4HJ** & PACKET. **W4HZ** & PACKET. **W4NF** & PACKET. **W4UNP** & PACKET. **W5DJW** & W4ZWF, W5YS, KD5RVX. **W6YRA:** WA6AYI, K6LDO, IK3ZAW, K6GLD, KU6T. **W7WA** & PACKET. **WA1Z** & NE1I. **WA9IRV** & PACKET. **WB9CIF** & PACKET. **WD5H** & N5ECT. **WE3C** & KQ3V. **WY3T** & N3JRX. **XE1RCS:** XE1JG, XE1KK, XE1ME, XE1VIC, XE1YU. **YL0A:** YL2KA, PACKET. **YZ7W:** 4N7ZZ, YT7DQ, YU7AR, YU7CM, YU7KC, YU7ZZ.

(Continued on page 105)

**K0LIR:** K0RAY, W0IYY, W0BBH, K0NNH, N0IS, W0SLW, N0LIK, K0BTO, K0B0Y. **K0SX** & KJ0G. **K0TV** & N11W, W01N. **K1NU** & PACKET. **K1TTT** & N20W, KB1W. **K3DI** & PACKET. **K3KO** & PACKET. **K3NM** & PACKET. **K3WW** & PACKET. **K4BP** & PACKET. **K5NA** & PACKET. **K5PTC:** N1LN, PACKET. **K7FL** & PACKET. **K8SM** & PACKET. **K8XX:** N8CC, ND5S, K8AQM, K8KS, NU8Z, K8DD, K8ECG, AC8W, K8JM, W8MC. **KB9CRY** & PACKET. **KC1XX** & W1FV, KM3T, K1GQ. **KD2I** & KN2T, N20RM, W2MF. **KS4YT** & KV4T, WN4C, MURPHY. **LA8W:** LA6MP, LA8SDA, LA9VDA. **LX5A:** DK2OY, DK6WL. **LY1YK:** LY3CI, LY2CO, LY2FY. **LY2CX** & LY2HN. **LY2WJ:** LY3DA, LY3NUT. **LY7A:** LY2UF, LYR-346. **M2D:** G3LZO, G4BYG. **N3BB** & PACKET. **N3II** & PACKET. **N3OC** & PACKET. **N3ZA** & PACKET. **N4IQ** & W4GFA. **N4RV** & N4GG. **N4VV** & PACKET. **N4WW** & KOLUZ. **N5TW** & KE5C, W5TA. **N6KI** & PACKET. **N7GP:** N5IA, N15L, W7MCO. **N7JW** & K7CA, W7UT. **N8KM** & PACKET. **N8PR** & PACKET. **N8RA** & PACKET. **N8TR** & PACKET. **N8UZE** & PACKET. **N9RV** & PACKET. **NF1A** & PACKET. **NO8C** & PACKET. **NS7K** & PACKET. **NU4Y** & K4EL, N4KE, N4UF. **NX5M** & RACHEL. **OD5/OK1MU** & PACKET. **OE1TKW** & PACKET. **OE2LCC** & PACKET. **OE2VEL** & PACKET. **OH3BU** & PACKET. **OH4AB:** OH4JFN, OH4KBC, OH4KEC, OH4MDY, OH4MFA, OH4YR. **OK2KRT:** OK2DW, OK2MJ, OK2AUZ, OK2BJS, OK2PAD, OK2STK. **OK5DX:** OK1TN, OK1CW, OK1DF, OK1DX, OK1DUO, OK1PAT. **OL1C:** OK1IEC, OK1TIC, OK1FPO, OK1DUG, OK1IPS, OKAN, OK1UZW. **OL2U:** OK1FMG, OK1MPM, OK1FMX. **OL4W:** OK1DXB, OK1IW, OK1DTP, OK1MQ. **OL5Q:** OK1HRA, OK1FFU. **OL7Q:** OK2MWR, OK2SS, OK2PEA, OK2ZB, OK2IWN.

**OM7M:** OM3PA, OM5RW, OM5ZW. **ON4ATW** & W0AIIH. **OT3A:** ON5UM, ON4DB. **PA3BAS** & PA3AUC, PA3DSB, PA3QCE, PA3BPL, PA3CLH. **PA3FDO** & PACKET. **PA5MW** & PA0RCR, PA0SHY, PA1MRK, PA3FGA, PA4TU, PA5EA. **PI4ALK:** PA1VW, PA0XAW, PD0NQD. **PJ2X:** W8UVZ, K8GG, KD9SV. **PY2FUS** & PACKET. **RK3VYA:** RU3VD, RX3VA, RZ3VA, UA3VFS. **RK4FWX:** RA4FG, RK4FW, RW4FO. **RK4UWR:** RA4UF, RW4UU, UA4UDF. **RN6BN** & RA6AX, RA6CM. **RT9W:** RU9WX, RX9WR. **RU1A:** UA1ARX, RA1ACJ, RV1AW, RA1AIP. **RU3DX** & UA3DPX. **RV2FW** & RA2FA, RA2FW, RN2FA. **RW0AR** & PACKET. **RW2F:** UA2CC, UA2FB, UA2FF, UA2FX. **S50C:** S51TA, S53MM, S5300, S57MM, S53BB. **S57M** & S58A, S51RE. **SP3KFH:** SP3GTS, SL3JZR, SP3GKH, SP3GXH. **UA6LV** & PACKET. **US0Q:** UR3QT, UR2QT. **UT4UXW** & PACKET. **UT7L:** UR4LRG, UX0LL,

## A Motorized Antenna Controller that Really Works

### The Antenna BOSS™



**\$179**  
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**SIMPLE TO INSTALL! SIMPLE TO USE!**  
Now you can use essentially any motorized antenna with your **FT-100/D, FT-847, FT-857, & FT-897** and experience the fun of autotuning!

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- Dynamic motor braking
  - Works with 6-12 VDC motors
  - Motor stall sensing & braking
  - User selectable stall current sensing
  - No special sensors in antenna required
  - No programming or computer required
  - Works with linear amps to full legal limit
  - Works fine with antennas having a shunt coil
  - Provides manual motor control for tuning 60-160 m
  - Radio powers both Antenna BOSS and antenna motor
- The Antenna BOSS makes motorized antennas "look like" the Yaesu ATAS-100/120 to these radios. You use the radio's tune button for automatic tuning.

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## DSP for FT-817 & TS-50S



### Hear-It DSP Module

bhi Ltd. NA Distributor: GAP Antenna Products

The Hear-It DSP module provides outstanding noise cancellation technology integrated inside the FT-817 and TS-50 for which users have been waiting. Features 4 levels of noise cancellation, single button operation, low-power consumption, low distortion of audio signal, internal mounting - no external leads, visual and audible indication of filter level, and two demonstration modes. The Hear-It DSP module utilizes the bhi Ltd. dynamically-adaptive neural-network technology to achieve noise and tone reduction that is remarkably more impressive than other noise reduction technologies available. Installation of the Hear-It DSP Module involves modifications of the radio and drilling holes in the transceiver cover. Only a qualified technician should perform this installation.

**W4RT Electronics offers professional installation.**

**\$179 (Installed FT-817) • \$189 (Installed TS-50)**  
Hear-It DSP Module is also available for user installation (\$149). \*\*

### User Comments!

"The Hear-It exceeded my expectations and my compares favorably, even exceeds, the performance of the ClearSpeech unit that I have used with the FT-817 previously. I can highly recommend Hear-It for a clean, self-contained enhancement that really pulls the weak ones out of the noise."  
Bill Gerth, W4RK, Brentwood, Tennessee

"The Hear-It module and my TS-50 were made for each other! Long trips are better with less white noise and QRM. The Hear-It with IF shift performs like a champ."  
Michael Thigpen, AB4MT Anderson, Alabama

**W4RT Electronics Offers a Wide Range of Accessories for the FT-897, 857, 817, 847, and 100/D Batteries, Filters, Speech Processors, Tuners, Chargers, and More!**

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# Results of the 2003 CQ WW DX 160 Meter Contests (from page 29)

Number groups after calls denote scores, total QSOs, W/E multiplier, countries worked. Total multiplier is the addition of the W/E and countries. Multi-op scores follow single-op listings. An asterisk (\*) denotes low power. State, province, and country certificate winners are listed in bold.

## CW RESULTS SINGLE OPERATOR NORTH AMERICA UNITED STATES

<b>CONNECTICUT</b>				
K1VW	199,836	667	54	37
W1CU	161,100	641	54	36
K1K1	148,584	448	48	34
W1AMF/GRP	19,160	208	37	3
W1JQ*	18,120	188	34	6
W1CTN*	17,472	175	38	4

<b>MASSACHUSETTS</b>				
K5ZD	167,943	406	48	41
K1GU	140,560	652	52	28
W1TW/GRP	28,959	249	42	7
K21M	19,040	208	38	2
N1D*	17,766	176	37	5
K1EP*	12,736	175	32	0
K1RV	6,075	101	23	2
K1M2/GRP	3,496	70	23	0
K2LP	3,268	20	2	17

<b>MAINE</b>				
W1CEK/GRP	17,685	166	40	5

<b>NEW HAMPSHIRE</b>				
W1ECT	253,170	785	52	45
WC1M	27,324	204	42	22
K1HT*	20,070	175	38	7

<b>RHODE ISLAND</b>				
K1DFT	112,104	503	51	30
AB18X*	12,615	192	28	1
WA1LAD*	1,548	37	18	0

<b>VERMONT</b>				
K1KD*	36,288	335	47	1

<b>NEW JERSEY</b>				
N2NT	446,538	1055	55	59
N02R	361,990	858	52	54
N2ED	146,334	642	54	33
K1NK*	102,970	623	54	29
KR2Q	88,396	386	47	30
N2NC*	69,168	391	46	20
W200	33,335	226	48	11
K2PS	29,988	267	44	5
W5KI	17,296	147	41	6
K2YLH*	16,605	173	37	4
W2LRO*	11,050	143	34	0
W2CVW*	8,225	95	32	3
W2JEK/GRP	6,291	103	27	0
N2LK*	3,344	67	22	0
WA2TWS*	3,048	56	24	0
K2JZ/GRP	230	10	10	0

<b>NEW YORK</b>				
N2BA	174,680	728	55	33
K2FU	104,984	603	51	21
W21B	70,720	480	53	11
K2NV	60,187	324	45	23
NA2M	42,588	248	47	16
W2MU*	39,710	317	50	5
WB2HJV	31,772	257	44	8
K2SX	28,254	239	45	9
NY6DV/GRP	19,135	199	40	3
WB2DXX*	15,392	183	34	3
NS2P*	13,579	164	37	0
W3BW	12,669	134	38	3
K2CS*	6,222	77	32	2
N2CK*	4,175	73	25	0
WB2ART*	2,750	58	22	0

<b>DELAWARE</b>				
AA1K	540,096	1262	56	60
N8NA*	67,275	425	48	17
NY3C*	1,940	44	20	0

<b>MARYLAND</b>				
K3Z0	238,900	646	52	48
N3UM	139,806	634	50	31
W3EF*	64,170	422	49	13
A13M*	63,669	499	48	9
NS3T*	31,467	272	46	5
N3AM	28,662	234	41	10
W3CP*	28,150	231	43	7
W3AZ	24,745	219	45	4
W2GG*	21,032	192	37	7
K3DSP*	20,572	251	36	1
N3FX*	18,207	154	45	6
K2PLF	12,852	150	32	4
W3ZMN/GRP	5,256	96	24	0
WK3H*	3,960	69	24	0

<b>PENNSYLVANIA</b>				
W38GN	446,576	1046	55	58
WE3C	294,000	901	54	46
W3TS	258,588	884	57	42
W3GH	249,696	818	56	46

W3TDF	91,323	461	50	23
K4JLD	78,570	309	49	32
K3WSZ*	59,830	407	50	12
W3WS3*	59,400	469	48	7
AD8J*	33,744	310	42	6
NA3V*	23,092	215	40	6
KB3IEO	22,815	210	39	5
W3JHP*	22,419	220	45	2
K3QOF	16,650	157	42	3
WA3AAN*	15,155	191	32	3
W3AP	13,832	157	37	1
AA3TL	4,150	80	24	1

<b>ALABAMA</b>				
KA9EKJ*	75,980	593	50	8
K4WI*	68,922	480	52	11
AF40D*	44,880	363	49	6
N4JF*	40,252	297	50	8
W4NTI*	33,150	298	44	6
K4IQJ*	20,064	177	43	5

<b>FLORIDA</b>				
N4PN	271,690	979	56	45
K1T0	208,923	804	54	38
W4AA*	95,095	472	53	24
N4UM	72,657	442	51	18
N4A0	64,722	346	48	19
K5KG	61,446	371	47	19
K4GK0*	59,995	383	50	15
N4PSE*	30,305	224	43	12
N4BP	28,992	274	43	5
K9ES*	25,900	313	40	10
W7QF	25,551	220	44	7
K9HUY	23,322	227	40	6
KN4Y*	23,288	266	38	5
W4SAA*	22,589	207	44	5
K4MM*	14,696	145	40	4
W4TMM	10,140	110	34	5
NF4A*	9,176	112	35	2
K4GR*	5,190	82	30	0
K4JAF*	5,152	65	29	3
W8IM*	4,350	72	28	1
W4UM	3,654	49	26	3
NF4DX	470	15	8	2

<b>GEORGIA</b>				
W8J1	641,576	1406	57	67
K4BA1	317,645	1163	55	46
N4NX	90,948	433	51	27
K4UEE	69,190	436	50	24
KU8E*	36,134	263	49	9
N4WD*	19,264	202	40	3
WB6BWZ/GRP	14,292	184	33	3
N4MXM*	9,180	120	34	2
K40GG*	8,832	122	29	3

<b>KENTUCKY</b>				
WB4ZDU	30,078	245	50	4
K4WV*	21,264	198	46	2
K4SAC*	16,992	162	46	2
K040L*	1,672	35	22	0

<b>NORTH CAROLINA</b>				
W4ZV	398,460	1000	56	60
N4AF	258,978	793	52	46
N4CV	186,490	853	55	30
N4XD	151,384	576	50	39
K4CIA	129,948	500	54	17
WJ9B	94,192	636	52	14
NR3X*	73,776	558	47	11
WA4DOU*	39,102	302	51	6
W4TMR/GRP	37,338	355	44	5
WB4MSG*	34,800	321	48	2
AD4TJ*	32,880	310	46	4
NX9T	18,864	173	44	4
K4QPL*	12,432	130	42	5
K4DGJ*	11,703	112	42	5
N4UH	9,912	90	36	6
N4TL	7,840	112	31	1
N4NTO*	7,050	104	27	3

<b>SOUTH CAROLINA</b>				
K4DLJ	191,672	659	52	45
K4CNW*	73,644	446	53	15
N2FY	66,941	334	51	22
WA4AOS*	20,010	198	44	2

<b>TENNESSEE</b>				
K0EJ	178,524	897	55	26
K4RO	124,575	556	51	24
N4IR	105,501	647	52	17
K4LTA	97,444	617	52	16
W4NZ*	81,496	611	51	10
K4WX	48,756	437	45	6
NY4N*	40,749	405	47	2
AC4G*	32,028	264	45	6
N4DW*	28,305	237	44	7
K4BEV*	27,404	234	47	5
W4HZD*	24,525	253	43	2
NY4T*	16,380	198	37	2
WA4AA*	15,312	150	39	5
KE4OAR*	14,820	175	38	1
K4AMC*	9,360	147	30	0
WA4GLH*	7,210	90	34	1
W4TDB*	2,160	45	24	0
W40GG	2,000	40	25	0
W4BCG*	1,760	41	20	0

<b>VIRGINIA</b>				
K4JA	481,740	1107	55	56
K40AQ	232,290	998	55	33

K7SV*	145,704	775	53	25
W4DF*	107,540	565	53	23
WF3J	78,065	505	49	16
W4YE	76,383	443	50	19
WA4PGM/GRP	70,977	541	50	9
K4ZW	64,239	352	47	22
K4ORD*	61,047	475	50	7
K4SV	58,194	394	46	15
N4MM	54,940	315	50	17
W4PM*	54,864	460	46	8
N3JB	43,896	299	47	12
W2YE	37,791	272	46	11
WK4Y*	36,920	317	47	5
K1K0	29,106	254	41	8
W3BP	24,297	258	34	5
WA3SXX*	18,744	184	42	2
W4HJ	15,523	145	37	6
K4EU*	15,008	212	32	0
K3MZ*	4,590	73	27	0
K4RDU*	4,340	57	28	3
N4JED*	3,328	61	26	0
WR4I/GRP	1,760	41	20	0

<b>ARKANSAS</b>				
W50N	122,256	745	55	17
N5SAN*	10,240	122	40	0
K5ACO*	10,218	119	38	1

<b>LOUISIANA</b>				
W5TVW*	35,955	319	47	4
KC5R*	11,020	139	36	2

<b>MISSISSIPPI</b>				
N15F*	27,092	227	46	6

<b>NEW MEXICO</b>				
N5UL	95,832	632	54	12
N6ZZ	57,737	435	54	13
K5AM	8,320	84	36	4

<b>OKLAHOMA</b>				
K7LFY	91,874	545	54	17
K5YAA	62,776	478	52	7
K2BA*	46,475	386	48	37
WA5AAA*	7,289	97	37	0
AB5ZA*	3,520	76	21	1
NE0P*	2,525	46	23	3

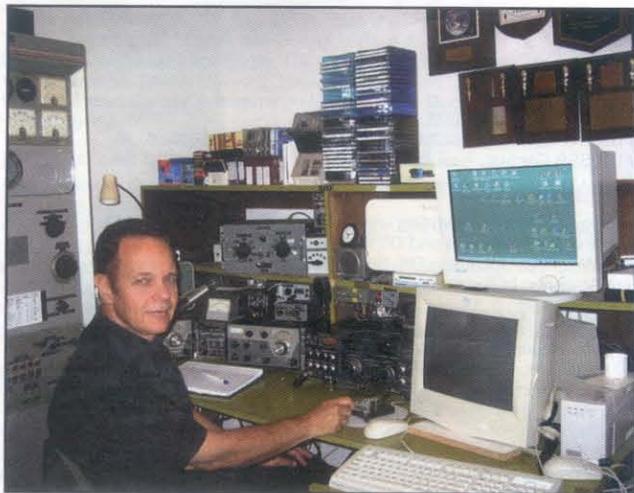
<b>TEXAS</b>				
K5RX	229,768	1070	57	31
N5RG	159,042	854	56	22
W0UO*	126,735	783	55	16
K5NZ	61,760	396	49	7
K5G0	60,704	494	49	7
N5ZK	36,750	344	44	5
W5Z0*	22,150	201	45	5
AC5HF	21,667	207	42	5
KB5NUJ*	16,785	165	40	5
NA4M	16,512	139	40	8
W50DD*	11,180	107	38	5
W5GA1*	1,827	32	17	4

<b>CALIFORNIA</b>				
N6R0	180,026	912	57	20
K6SE	157,425	782	57	18
K6Q0	75,911	448	52	15
W6IXP	66,965	504	53	6
N6MU	65,260	421	53	12
W6J1	60,769	338	51	10
N6NF*	58,528	389	50	12
W6JTI*	55,860	388	50	10
K6NA	45,940	277	51	13
NF6S*	42,630	297	49	9
K6NR	39,788	265	51	13
KN9Y	32,966	268	48	5
K6LNR	31,300	250	46	



<b>OM30M*</b>	<b>205,986</b>	<b>597</b>	<b>7</b>	<b>59</b>	<b>WALES</b>	<b>234,186</b>	<b>630</b>	<b>15</b>	<b>54</b>	<b>NORTH CAROLINA</b>	<b>107,723</b>	<b>526</b>	<b>50</b>	<b>27</b>	<b>EUROPE</b>	<b>74,568</b>	<b>278</b>	<b>0</b>	<b>52</b>	<b>SLOVENIA</b>	<b>529,290</b>	<b>942</b>	<b>23</b>	<b>75</b>					
OM6TY*	99,300	398	2	48	<b>GW3JXN</b>	6,972	67	0	21	<b>K3KO</b>	26,350	223	42	8	<b>AUSTRIA</b>	59,820	175	5	55	<b>SPAIN</b>	<b>217,987</b>	<b>504</b>	<b>22</b>	<b>55</b>					
OM7JG*	80,650	320	3	47	<b>GW4ALG/QR</b>					<b>W3GQ</b>	2,808	57	24	0	<b>OE2LCK</b>	11,850	339	9	56	<b>EA1WX</b>	<b>154,650</b>	<b>357</b>	<b>21</b>	<b>54</b>					
OM4DN*	90,850	400	0	46						<b>W4WNT</b>					<b>OE1TKW</b>					<b>EA5BY</b>									
OM1LA*	80,605	327	4	45	<b>YUGOSLAVIA (SERBIA)</b>					<b>AA4V</b>	<b>332,896</b>	<b>1052</b>	<b>56</b>	<b>47</b>	<b>EA6IB</b>	<b>431,431</b>	<b>827</b>	<b>30</b>	<b>61</b>	<b>UKRAINE</b>	<b>348,832</b>	<b>702</b>	<b>11</b>	<b>77</b>					
OM3BA*	36,610	217	0	35	<b>YT6T</b>	<b>449,236</b>	<b>872</b>	<b>26</b>	<b>66</b>	<b>N4IQ</b>	<b>38,586</b>	<b>274</b>	<b>49</b>	<b>10</b>	<b>BALEARIC IS</b>	<b>431,431</b>	<b>827</b>	<b>30</b>	<b>61</b>	<b>UU7J</b>	<b>180,230</b>	<b>491</b>	<b>4</b>	<b>63</b>					
OM7PY*	23,384	126	0	37	<b>YU7AV</b>	<b>386,302</b>	<b>852</b>	<b>16</b>	<b>66</b>	<b>N4IV</b>	<b>7,425</b>	<b>102</b>	<b>33</b>	<b>0</b>	<b>BELGIUM</b>	<b>384,744</b>	<b>735</b>	<b>25</b>	<b>67</b>	<b>UT7L</b>	<b>40,385</b>	<b>197</b>	<b>0</b>	<b>41</b>					
OM1AF*	14,432	135	1	21	<b>YU1EA*</b>	<b>298,076</b>	<b>637</b>	<b>15</b>	<b>71</b>	<b>K4BP</b>					<b>OT3A</b>	<b>284,240</b>	<b>687</b>	<b>20</b>	<b>56</b>	<b>US0Q</b>	<b>1,638</b>	<b>23</b>	<b>0</b>	<b>14</b>					
OM3DG*	6,422	36	6	20	<b>YU1ZZ*</b>	<b>207,328</b>	<b>511</b>	<b>14</b>	<b>62</b>	<b>N4RV</b>	<b>35,600</b>	<b>288</b>	<b>0</b>	<b>43</b>	<b>ON4ATW</b>					<b>UT4UXW</b>									
OM7VF*	4,629	263	0	36	<b>YU1AB</b>	<b>130,036</b>	<b>419</b>	<b>6</b>	<b>53</b>	<b>W4MYA</b>	<b>9,984</b>	<b>59</b>	<b>2</b>	<b>30</b>	<b>9A1P</b>	<b>700,980</b>	<b>1133</b>	<b>31</b>	<b>74</b>	<b>YUGOSLAVIA (SERBIA)</b>	<b>404,460</b>	<b>810</b>	<b>18</b>	<b>72</b>					
					<b>4N7M*</b>	<b>124,152</b>	<b>431</b>	<b>7</b>	<b>49</b>	<b>W4DR</b>	<b>2,546</b>	<b>24</b>	<b>0</b>	<b>19</b>	<b>9A5Y</b>	<b>513,968</b>	<b>1005</b>	<b>20</b>	<b>71</b>	<b>OCEANIA</b>	<b>97,155</b>	<b>200</b>	<b>36</b>	<b>15</b>					
					<b>YU7DP*</b>	<b>106,029</b>	<b>403</b>	<b>8</b>	<b>43</b>	<b>N5TW</b>	<b>216,644</b>	<b>1052</b>	<b>57</b>	<b>25</b>	<b>9A1A</b>	<b>501,504</b>	<b>920</b>	<b>24</b>	<b>72</b>	<b>NEW ZEALAND</b>									
					<b>YU1RA/QR</b>	<b>72,471</b>	<b>283</b>	<b>1</b>	<b>50</b>	<b>K5PTC</b>	<b>143,364</b>	<b>744</b>	<b>56</b>	<b>22</b>	<b>CZECH REPUBLIC</b>	<b>496,248</b>	<b>953</b>	<b>24</b>	<b>69</b>	<b>SOUTH AMERICA</b>									
					<b>YU1WC*</b>	<b>61,619</b>	<b>288</b>	<b>0</b>	<b>43</b>	<b>K5NA</b>	<b>88,478</b>	<b>396</b>	<b>53</b>	<b>29</b>	<b>OK5DX</b>	<b>328,713</b>	<b>892</b>	<b>17</b>	<b>60</b>	<b>BRAZIL</b>	<b>2,957</b>	<b>68</b>	<b>28</b>	<b>19</b>					
					<b>4N1JA*</b>	<b>35,600</b>	<b>226</b>	<b>0</b>	<b>40</b>	<b>N3BB</b>	<b>50,960</b>	<b>310</b>	<b>48</b>	<b>17</b>	<b>OL5O</b>	<b>220,184</b>	<b>662</b>	<b>10</b>	<b>58</b>	<b>CURICAO</b>	<b>1,085,729</b>	<b>1028</b>	<b>56</b>	<b>51</b>					
					<b>YU1CC*</b>	<b>9,984</b>	<b>59</b>	<b>2</b>	<b>30</b>	<b>N8SM</b>	<b>40,635</b>	<b>251</b>	<b>51</b>	<b>12</b>	<b>OL4W</b>	<b>217,971</b>	<b>647</b>	<b>13</b>	<b>56</b>	<b>FRENCH GUIANA</b>	<b>405,195</b>	<b>475</b>	<b>51</b>	<b>34</b>					
					<b>YU1UA*</b>	<b>2,546</b>	<b>24</b>	<b>0</b>	<b>19</b>	<b>NX5M</b>	<b>20,034</b>	<b>138</b>	<b>41</b>	<b>13</b>	<b>OL1C</b>	<b>145,114</b>	<b>697</b>	<b>2</b>	<b>51</b>	<b>CW CHECK LOGS</b>									
										<b>OK2KRT</b>	<b>119,650</b>	<b>514</b>	<b>0</b>	<b>50</b>	<b>OL2U</b>	<b>119,650</b>	<b>514</b>	<b>0</b>	<b>50</b>	<b>THANKS TO THE FOLLOWING STATIONS FOR THEIR VALUABLE CW CHECK LOGS:</b>									
										<b>OL7Q</b>	<b>14,621</b>	<b>514</b>	<b>5</b>	<b>54</b>	<b>OK2KRT</b>	<b>14,621</b>	<b>514</b>	<b>5</b>	<b>54</b>	<b>DJ6TK, DK5OS, DL6R0, FBATS, HA5PT, NH70D, NO2D, OH6XX, OK1ADM, OL1JDC, OM1ADN, PA0RBS, PA5TT, RA3DNC, RA4AI, RU3DG, RV3ID, RW3SU, RX3AEX, SM7DLK, SP3CUG, SP8HKT, UA9ZZ, W7LR, WA9YAZ</b>									
															<b>ENGLAND</b>	<b>408,070</b>	<b>880</b>	<b>19</b>	<b>67</b>	<b>GERMANY</b>	<b>370,014</b>	<b>898</b>	<b>19</b>	<b>64</b>					
										<b>M2D</b>					<b>ESTONIA</b>	<b>345,280</b>	<b>784</b>	<b>8</b>	<b>72</b>	<b>DL0AO</b>	<b>327,976</b>	<b>745</b>	<b>22</b>	<b>54</b>					
										<b>ES5Q</b>					<b>FINLAND</b>	<b>172,197</b>	<b>590</b>	<b>2</b>	<b>55</b>	<b>DF0SAX</b>	<b>317,772</b>	<b>852</b>	<b>16</b>	<b>62</b>					
										<b>OH4AB</b>					<b>OH3BU</b>	<b>23,590</b>	<b>135</b>	<b>1</b>	<b>34</b>	<b>DL9YX</b>	<b>261,408</b>	<b>625</b>	<b>17</b>	<b>67</b>					
										<b>OH3BU</b>					<b>DL0MB</b>	<b>239,538</b>	<b>665</b>	<b>15</b>	<b>74</b>	<b>DL6LAU</b>	<b>233,475</b>	<b>643</b>	<b>12</b>	<b>63</b>					
															<b>DH1NFI</b>	<b>178,620</b>	<b>588</b>	<b>12</b>	<b>53</b>	<b>DL9MH</b>	<b>86,435</b>	<b>295</b>	<b>8</b>	<b>51</b>					
															<b>DK0IW</b>	<b>150,192</b>	<b>518</b>	<b>11</b>	<b>52</b>	<b>DJ2YA</b>	<b>55,252</b>	<b>95</b>	<b>12</b>	<b>64</b>					
															<b>DF9ZP</b>	<b>129,980</b>	<b>387</b>	<b>16</b>	<b>49</b>	<b>DL2MY</b>	<b>52,765</b>	<b>217</b>	<b>5</b>	<b>46</b>					
															<b>DJ9MH</b>	<b>86,435</b>	<b>295</b>	<b>8</b>	<b>51</b>	<b>DJ9NMH</b>	<b>49,860</b>	<b>237</b>	<b>1</b>	<b>44</b>					
															<b>DJ2YA</b>	<b>55,252</b>	<b>95</b>	<b>12</b>	<b>64</b>	<b>DK0NS</b>	<b>41,536</b>	<b>199</b>	<b>1</b>	<b>43</b>					
															<b>DK3GI</b>	<b>4,000</b>	<b>43</b>	<b>0</b>	<b>20</b>	<b>HUNGARY</b>	<b>523,712</b>	<b>958</b>	<b>20</b>	<b>78</b>					
															<b>HG1S</b>	<b>434,142</b>	<b>893</b>	<b>19</b>	<b>70</b>	<b>IRELAND</b>	<b>131,089</b>	<b>400</b>	<b>12</b>	<b>49</b>					
															<b>HG5A</b>	<b>389,752</b>	<b>856</b>	<b>13</b>	<b>73</b>	<b>ITALY</b>	<b>399,556</b>	<b>732</b>	<b>28</b>	<b>64</b>					
															<b>HG1R</b>	<b>128,010</b>	<b>498</b>	<b>5</b>	<b>48</b>	<b>IV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
															<b>WEST VIRGINIA</b>	<b>196,779</b>	<b>881</b>	<b>53</b>	<b>36</b>	<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
															<b>W8BAR</b>	<b>39,150</b>	<b>347</b>	<b>45</b>	<b>5</b>	<b>IK2NCJ</b>	<b>399,556</b>	<b>732</b>	<b>28</b>	<b>64</b>					
															<b>WA8WV</b>					<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					
																				<b>IRV3TDM</b>	<b>117,320</b>	<b>423</b>	<b>2</b>	<b>54</b>					
																				<b>IK2WXX</b>	<b>42,504</b>	<b>203</b>	<b>2</b>	<b>40</b>					

WK3H*	4,750	86	25	0	AJ6T	7,945	100	34	1	KI0II/GRP	1,764	39	20	1	KIRGHIZIA	9,450	53	0	21	LY2TA	32,164	143	2	41					
KC3T*	3,294	55	27	0	WAG6VGV*	5,400	105	23	1	K0CO*	85	7	5	0	EX8AA*	1,500	14	0	12	LY2BW	17,070	109	0	30					
K3TW/GRP	429	18	11	0	W6VM*	5,049	71	31	2					EX8MK*					LY3BA*	3,648	42	0	19						
<b>PENNSYLVANIA</b>																													
W3BGN	219,978	710	59	42	N6VOA*	2,134	41	20	2	W0PT*	34,170	308	50	1	LEBANON	8,190	40	0	21	PA3GVI*	38,764	168	4	40					
W3TS	152,554	773	59	24	K66QR*	2,115	66	15	0	K0RH*	13,120	148	41	0	OD5/OK1MU					PA0JUM	36,482	198	0	37					
K3NM	126,252	595	58	26	W6BFRM*	1,665	47	13	2	N0AG	4,200	60	27	3	EUROPE					PA3AAV*	5,720	43	0	26					
W3GH	107,120	528	58	22	K16PG*	1,176	36	13	2	W0NEB	1,160	26	20	0	AZORES	12,020	61	7	26	PA8KW*	1,417	23	0	13					
K3WW	55,920	394	46	14	K6NA	1,062	22	15	3					CU2AF*					PA0MRN*	1,300	20	0	13						
K4JLD	41,152	247	50	14	AAG6E*	192	16	6	0																				
W3AP	18,213	211	37	2						N7AIN*	66,965	511	57	2															
AA3TL	16,691	37	19	1	ARIZONA	34,599	265	49	8	K0KX*	28,611	242	47	4	OR3T	378,102	781	28	59	BELGIUM	378,102	781	28	59	SP7MTF/7	131,727	440	10	47
K300	13,640	99	30	14	NF7E	20,706	175	46	5	K4IU	3,267	50	27	0											SP6LUV*	99,800	399	2	48
WW3S*	9,628	148	28	1	K6TIM*	16,284	152	41	5	MISSOURI	63,744	446	57	7	93A5*	2,414	28	0	17	BOSNIA	2,414	28	0	17	SP9OMP	86,802	385	1	45
K3000	7,968	106	29	3	KCV7	8,995	115	34	1	K0JPL	33,337	289	51	2						BULGARIA	1,104	17	0	12	HF70V/GRP	39,376	200	1	38
K3MD	5,720	95	25	1	W7ZMD*	288	13	8	1	K0QGG	14,444	139	44	2						LZ2U*	1,104	17	0	12	SP5NZA*	12,852	98	0	27
W1NN*	4,470	70	30	0	NN7D*	216	12	7	1	AE9B	24,420	195	49	6											SQ7BCH*	11,088	84	0	28
AA3B	4,296	82	24	0	W7YS*					K17W0*	14,444	139	44	2											SP9CIG*	9,725	82	0	25
W3FVT	2,760	63	20	0	IDAHO	68,904	529	53	5	AA0A	7,735	100	35	0											SP1RWK*	9,204	75	0	36
W03X*	1,080	33	15	0	KG7H	1,272	50	11	1	N0TT	2,925	51	25	0											SP6EKS*	8,775	66	0	27
<b>ALABAMA</b>																													
AF40D*	15,552	142	44	4	KZ70					NEBRASKA	928	26	16	0	9A3B	142,320	452	8	52	CROATIA	142,320	452	8	52	SP6CJ*	8,568	62	1	27
K4WI*	15,456	148	41	5	MONTANA	26,936	223	48	4	9A4X	136,080	467	5	51						SP4CQU*	7,682	71	0	23					
W4NTI*	456	19	12	0	KK7DP	3,276	57	25	1										SP9CLO*	6,624	60	0	23						
<b>FLORIDA</b>																													
KC4PX	52,509	308	51	18	NB7V*					SOUTH DAKOTA	2,862	50	27	0	OK1RF	218,025	538	16	59	CZECH REPUBLIC	218,025	538	16	59	SP9HZF/GRP	6,160	59	0	22
AA4MM	43,810	270	48	17	NZ7T					K7RE*	1,870	41	22	0	OK2WM	105,000	427	4	46						SQ9FMU*	5,757	43	0	19
K4PB	7,128	80	32	4	NEVADA	54,044	402	52	7	K0HW*					OK1TP	93,636	357	3	51	BOSNIA	19,618	117	1	33	SP6GTN*	5,616	48	0	24
K9HU	5,824	68	22	10	W7ACD					CANADA					OK2BEN*	19,618	117	1	33	SQAMP*	3,822	27	0	26					
<b>GEORGIA</b>																													
N4NX	43,776	289	53	11	UTAH	7,614	125	25	2	PRINCE EDWARD ISLAND	727,088	973	58	58	OK1ES/GRP	15,147	99	0	33	SP3GTS*	1,824	24	0	16					
W4ATI	22,302	179	49	5	NS7K					NEWFOUNDLAND	15,040	90	22	10	OK1FWJ*	14,849	99	1	30	SP3CUG*	1,808	25	0	16					
K4JRB	20,923	182	44	5						VO1TA					OK1WWJ*	12,000	74	0	32	SP5AKG/GRP	1,326	21	0	13					
K4BAI	7,848	100	33	3	WASHINGTON	48,950	393	49	6	VE9XA*	10,726	69	26	5	OK2SG	11,563	73	0	31						CT1AHU	38,587	149	8	39
<b>KENTUCKY</b>																													
W4KP	18,834	198	41	2	K70X	10,693	122	33	4	NEW BRUNSWICK	10,726	69	26	5	OK1CZ/GRP	7,775	82	0	25	DENMARK	177,016	617	3	53	Y0SKAD*	64,814	270	1	42
KD4ULE	658	22	14	0	N7L0X*	8,520	93	38	2	VE3PN	272,049	620	58	29	OZ1HX0	137,392	415	12	50	Y09HP	19,512	100	1	35					
<b>NORTH CAROLINA</b>																													
NX9T	40,229	375	44	9	K7UIR	4,860	77	25	2	VE3E*	108,072	394	57	6	OZ2AE*	6,350	50	0	25						RV1CC	67,725	362	0	43
KE4SCY	32,270	201	49	13	K7QR*	3,354	57	24	2	VE3NE*	106,731	381	52	7	OZ40	1,455	20	0	15						RU6LA	48,024	208	2	44
K3KO	27,612	200	52	7	W7SNH*	2,832	50	24	0	VE3KZ/GRP	41,160	205	42	0	ENGLAND	135,730	350	21	49						RN30G*	14,308	108	0	28
K4SV	27,246	197	47	10	K7AWB*	2,622	51	22	1	VE3KP	22,542	120	46	3	G4VGO*	42,144	163	9	39	RA6DB	12,930	83	0	30					
KG4NEP*	11,193	130	36	3	W7SAW*	175	11	6	1	VE3GL0*	9,288	84	24	0	G3VA0*	26,956	102	8	38	RU3SD*	11,250	77	0	30					
K4MA	5,304	100	23	1	W7KTY*					VY2MGV/3	5,980	58	23	0	G3XTT	26,956	102	8	38	RA35A0*	7,040	61	0	22					
N4UH	5,216	74	31	1	WYOMING	650	22	11	2	VE3NM*	4,136	40	22	0	G3NAS	26,312	105	8	36	RA3Y0*	6,960	60	0	24					
WB4MSG*	4,030	73	26	0	MICHIGAN	21,000	192	48	2	VE3ON*	3,518	45	18	0	G0MTN*	128	7	0	4	RN1A0/GRP	5,083	44	0	23					
N4CW	3,920	64	28	0	N8LJ	15,834	171	41	1	VA3IX*	3,276	40	18	0	ES1AJ	84,960	338	1	47	UA3DPX*	4,998	48	0	21					
KR4LO*	3,725	64	23	2	N8YL*	15,265	161	42	1	VE3EJ*	1,166	22	10	1	ES6PZ*	17,391	101	0	33	UA1WBV*	3,870	46	0	18					
<b>SOUTH CAROLINA</b>																													
K4CNW*	12,056	122	41	3	AB8PD*	8,575	112	35	0	VE30L*	240	8	6	0	ES6KW*	670	13	0	10	UA3BZ*	2,812	31	0	19					
NC4SC	6,816	102	32	0	WB8NXG*	2,100	48	20	0	MANITOBA	17,936	98	37	1	OH5NE	49,335	252	0	39	RA6LBS*	2,210	24	0	17					
<b>TENNESSEE</b>																													
WB4YDL	49,440	371	52	8	N8DGD*	1,738	35	22	0	SASKATCHEWAN	198,250	630	54	11	OH6NIO	40,872	206	0	39	UA3LHL/GRP	1,742	28	0	13					
K4JNY	41,152	344	48	7	OHIO	234,324	1014	59	33	VA5DX	20,862	114	36	2	OH3JR	19,476	105	0	36	R43TYA/GRP	75	3	0	3					
W4PV	26,124	296	41	1	N0FV*	168,510	893	58	24	VE5SF*					OH2B0	17,176	85	1	37	RZ3TWW/GRP	75	3	0	3					
K0EJ	19,110	225	38	1	N0FV*	23,091	242	42	1	VE6JY	84,111	331	49	4	FRANCE	33,558	153	3	39	RV6ASU*	10	1	0	1					
K0BJ*	18,411	154	45	6	N4GXP*	20,276	259	37	0	VE6BF*	7,743	57	28	1	F58BD	4,462	37	1	22	OM0WR	215,280	633	8	57					
AC4G*	8,103	102	36	1	WB8TCT*	19,787	180	42	5	BRITISH COLUMBIA	12,209	88	26	3	F6GOX					OM6TY*	20,842	121	0	34					
WN4M*	5,250	80	30	0	K8NVR*	10,600	83	46	4	ALASKA	4,930	56	14	3	DJ4PT	307,776	715	24	60	SLOVENIA	240,312	589	16	60					
K4WX*	1,460	35	20	0	N8KM	8,514	170	31	2	NL7Z					DJ6QT	114,426	462	7	47	S57M	161,370	464	9	57					
WA4JA*	1,380	33	20	0	W8KNO*	4,560	70	30	2	COSTA RICA	14	2	0	2	DH6LS*	106,201	368	13	48	S57DM	146,340	483	7	53					
W40GG*	1,160	29	20	0	K08HIO	2,806	55	23	0	TI2KAC*					DK6WL	52,875	273	6	39	S57NX*	55,982	240	3	43					
<b>VIRGINIA</b>																													
W4MYA	320,862	1103	59	47	NA8W*	2,664	51	24	0	MARTINIQUE	53,265	194	33	20	DL9NDS*	32,760	174	4	36	S57NDT*	33,320	167	1	39					
K4JA	103,411	454	53	26	N8UZE*	2,016	42	21	0	FM5GU					DJ6TK*	32,308	162	4	37	S59AA	27,900	155	0	36					
N4DSL	26,544	295	40	2	K8MR	1,005	32	15	0	WEST VIRGINIA	11,894	133	35	3	DK5JM*	18,655	115	1	34	S5710*	27,892	149	1	37					
N4GG	22,231	229	40	3	N8XA/GRP	700	25	14	0	ILLINOIS	61,389	504	53	4	DF0WE*	9,334	79	0	26	S51D1*	15,748	103	0	31					
K4YT	21,062	200	50	3	WEST VIRGINIA	11,894	133	35	3	N2BJ	29,811	230	53	4	DL6FB	6,348													



Riki, 4X4NJ, operated as 4X3A in the CW contest and came away with the Single Op, Asia plaque for his effort.

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UT8EL	1,316	19	0	14	MISSISSIPPI	29,095	241	49	6	DENMARK	73,931	305	4	47	
UR5ZLK.ORP	432	11	0	8	W5DJW					OZ5ESB					
<b>YUGOSLAVIA (SERBIA)</b>					<b>CALIFORNIA</b>					<b>ENGLAND</b>					
Y21GD*	13,552	96	0	28	W6YRA	11,222	172	30	1	G6PZ	140,427	441	18	44	
YU1EA*	6,526	51	0	24						G4IY	10,368	61	1	31	
<b>OCEANIA</b>					<b>ARIZONA</b>					<b>M3C</b>					
<b>CENTRAL KIRIBATI</b>					N7GP	103,224	672	55	13		6,270	57	1	21	
T31MY*	525	9	3	4	N7PWZ	37,632	350	47	2						
<b>SOUTH AMERICA</b>					<b>NEVADA</b>					<b>FRANCE</b>					
<b>BRAZIL</b>					N7X	70,150	508	52	9	F5PYJ	63,699	246	8	43	
PY3CEJ	3,864	24	6	15	N7WL	168	14	6	0						
PY3CAL	76	5	0	4						<b>GERMANY</b>					
PY3PA	4	2	0	1	NK7U	45,942	353	51	6	DJ5IW	162,096	501	12	54	
<b>VENEZUELA</b>					<b>WASHINGTON</b>					<b>DL0MB</b>					
YV2IF	32,852	83	25	18	W7WA	31,790	246	48	7	DK2OY	93,995	375	8	47	
YV5LIX/QRP	205	7	0	5						DL5RMH	74,160	359	4	44	
<b>MULTI-OPERATOR NORTH AMERICA UNITED STATES MASSACHUSETTS</b>					<b>OHIO</b>					<b>DH1NFL</b>					
W1TO	16,154	141	31	10	N8TR	54,239	268	53	20	DH1NH	54,234	259	2	44	
K1RV	13,760	136	40	3	A8C	506	20	11	0	DJ9MH	24,805	128	2	39	
<b>NEW HAMPSHIRE</b>					<b>WEST VIRGINIA</b>					<b>DK0DO</b>					
WA1Z	51,805	319	50	15	K8OQL	28,950	249	45	5	DL0DRI	710	18	1	9	
<b>RHODE ISLAND</b>					<b>ILLINOIS</b>					<b>HUNGARY</b>					
K1DAM	135,000	555	56	34	K9NR	295,862	1217	59	39	HG1S	251,424	654	11	61	
<b>NEW JERSEY</b>					K9CRY	7,140	83	29	5	E17M	351,370	701	30	52	
KD2I	163,936	649	59	35	WISCONSIN	16,335	158	43	2	IV30WC	215,941	635	11	56	
<b>DISTRICT OF COLUMBIA</b>					WA9IRV	136,008	817	57	15	YL0A	16,236	94	0	33	
K3VOA	4,175	76	25	0	W0NO	MINNESOTA	9,400	100	38	2	LATVIA	125,161	516	2	45
4U1WB	420	21	10	0	N0FP	MISSOURI	18,286	211	40	1	LY7A	257,790	772	10	55
<b>DELAWARE</b>					K0LIR	CANADA	137,032	471	9	47	LX4A	137,032	471	9	47
AA1K	47,637	234	44	23	NOVA SCOTIA	5,928	29	3	21	LX9UN	278,208	745	10	62	
<b>MARYLAND</b>					VE1JF	QUEBEC	98,226	351	7	47	SP4PBI	62,883	240	2	49
K3DI	68,657	399	55	16	VE2UMS	52,120	278	39	1	SP3KFH	98,226	351	7	47	
K3IXD	7,385	88	32	3	VE3DC	ONTARIO	62,883	240	2	49	SP4PBI	62,883	240	2	49
<b>PENNSYLVANIA</b>					V31MD	52,120	278	39	1	RUSSIA	77,616	260	4	52	
WE3C	194,582	730	59	38	TI8/K4UN	6,624	39	25	7	VE1JF	5,928	29	3	21	
WY3T	66,882	382	54	17	XE1RCS	MEXICO	295,070	556	54	41	VE2UMS	52,120	278	39	1
W3FV	19,229	210	38	3		ASIA				VE3DC	201,853	581	55	16	
<b>ALABAMA</b>					584/UA9MA	796,388	1100	12	62	V31MD	62,744	196	47	15	
N4ION	28,350	242	50	4	P3F	180,127	315	5	54	COSTA RICA	6,624	39	25	7	
<b>KENTUCKY</b>					EUROPE				ED5GCT	80,653	255	11	48		
K4UZ	46,740	382	55	2	AUSTRIA	55,507	228	2	45	EA5BY	60,648	202	7	49	
<b>NORTH CAROLINA</b>					OE2VEL	19,800	105	1	35	ED7VG	14,553	84	3	30	
K4YFR	13,040	130	32	8	OE1TKW					SWITZERLAND	166,808	558	8	50	
<b>SOUTH CAROLINA</b>					EA6CA	7,750	58	0	25	UKRAINE	216,450	818	5	60	
AA4V	55,327	392	49	12	CZECH REPUBLIC	114,393	457	7	44	US8IZM	16,089	124	0	31	
W4UNP	26,657	172	49	12	DL1C	11,004	83	0	28						
W4GFA	19,082	182	42	5	OK1KMG					YUGOSLAVIA (SERBIA)	234,360	629	12	58	
<b>TENNESSEE</b>									ZY7W						
K4BP	27,700	253	46	4											
N4VV	6,624	83	27	5											
<b>VIRGINIA</b>															
W4DR	69,840	198	43	37											
W4HZ	57,680	468	48	8											
W4NF	30,052	302	38	6											
<b>ARKANSAS</b>															
W5DR	83,008	593	54	10											