2004 ARRL International DX Phone Results

Break out the low bands!

"Alternating currents are dangerous. They are fit only for powering the electric chair."—Thomas A. Edison

The ARRL DX contest is one of the oldest, if not the oldest contest in existence. First run in 1928, it exemplifies the urge to push your operating and station abilities to the maximum. I'm not sure there is any deeper urge in ham radio than to make QSOs at the very limit of your range and then to extend that range. DX is!

Despite the between-cycle funk, the ARRL DX contests remain extremely popular. 929 DX stations and 1337 US stations submitted phone logs, five more than last year. The total number of stations was even higher than last year, judging from the 15 meter QSO totals of K3LR with 2421 and FY5KE with 3467.

Write-up Notes and New Features

This year, I am very pleased to be able to present a Clean Sweep of Division reviews. We also added Europe to the list of continental reviews and a special review of the Caribbean region is included. Please take a moment and thank the writer who took time out to do the analysis from your area. ARRL members can read these exciting additions on the ARRLWeb at www.arrl.org/contests/results and selecting the link for the "Web Report."

Also included are features by Jim Idelson, K1IR, who assembled the winning Multi-Single entry for both CW and Phone this year; Doug Grant, K1DG, with a retrospective on "The 1979 ARRL DX Contest—25 Years Ago" and Ken Harker, WM5R, who contributes several sets of maps that give you a new picture of how the contest played out around the US.

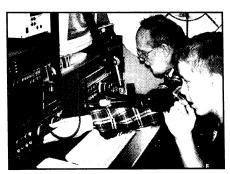
Don't forget that the QST-style line scores are available on the ARRLWeb, just like they always were in the magazine.

Records

The low-flux years of solar cycles are not the years during which lots of records



TI8M, which finished 4th in the Multi-Two category for the world, was ably manned by (back, from the left) Carlos, TI2KAC; Bob, W4BD; Eddie, K4UN, and Brian, NA4BW; (front) Mauricio, TI2MOT; Keith, W4KTR, and Bill, K4WPM.



ARRL HQ staffer Dan Miller, K3UFG, spent time Elmering aspiring ham Jordan Sakal at W1AW.

Expanded Results, Line Score Printouts Available

For complete contest results online, please visit www.arrl.org/ contsts/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. are set. (The complete set of ARRL DX records for both SSB and CW are available at www.arrl.org/contests/.) The Records Set table shows the complete list of the continental, national and district-level records set this year.

The oldest DX record broken this year was the 1988 SO-20 meter South American record previously held by HC1HC. It was convincingly snagged by KK9A operating from the sunny island of Aruba at P4ØA by a margin of nearly a third. The longest-held domestic record that vanished from the scene was the 1995 SO-40 meter record for the 6th call district. Jim, N6IG, added another 3rd to Glen K6NA's old high-water mark this year. The oldest ARRL DX records still standing are both multi-multi efforts from 1979 by KØRF (SSB—10th district) and W7FU (CW—7th district).

The largest proportion by which a record was broken was claimed by Mr Oceania, Mike, KH6ND, operating at KH6YY's station (KH6YY is the new proprietor of the KH7R station) in the SO-Assisted category. Mike's score is nearly six times the old record, set in 1996.

In "The Large Print Giveth and the Small Print Taketh Away" department, Alfredo, HC1HC, set a new record in the SOAB-QRP category, but lost his old SO-20 record to KK9A at P4ØA. Dang!

Exceptional Performances

Paul "The Energizer Bunny" Gentry, K9PG, continues to live in the #1 DX position, taking both modes SOAB-LP this year from WP3R where you may recall that Paul racked up both of the top scores in SOAB-HP last year.

No secret to regulars on the contest scene, Dan Handa, W7WA, is a formidable competitor in the single-band ranks. Low sunspots? No problem, Dan just pushes his 20 meter record up another 20 percent this year! (VE6WQ also pushed the VE 20 meter record by almost as much from the super VE6JY station.)

□5T October 2004 101

While New England isn't usually considered a tough spot for DX contesting, it can be in some categories and SOAB-QRP was that way this year. Yet Chris Merchant, KA1LMR, pushed a pair of multiband verticals and wire antennas to a score hard on the heels of perennial category champ, N4KG, less than 20 QSOs off the pace.

For sheer persistence, it's hard to beat Tim Duffy, K3LR, proprietor of one of the world's most capable stations. His crew works extremely hard to take advantage of every opportunity and this year they hit pay dirt with a convincing win over M/M archrivals KC1XX and W3LPL, leading all competitors in multipliers on four bands.

What is Jim Pratt, N6IG, doing at the #2 position with a record score, sandwiched in between K4XS (who also set another record this year) and WX4G? In fact, Jim is the only West Coast representative in the Top Ten of this Eurodependent category.

From the Old Countries, congratulations

are due Jiri Sanda, OK1RI, who placed in the SOAB-HP Top Ten with over 50 percent more points than his closest European competitor.

There are many more exceptional efforts, of course. Read the Divisional Write-ups on the ARRLWeb for detailed information about the races in all of the North American divisions, Canada, Europe, the Caribbean and South America.

US and VE Overview

In 2002, the money band was 10 meters, but the excitement has been steadily moving to lower and lower frequencies along with the solar flux.

DX contesting being the geographydependent business that it is, some things are best shown on maps. Enter Ken Harker, WM5R. Ken has applied the US Census Bureau's on-line Tiger Map Server (tiger.census.gov/cgi-bin/ mapsurfer) to place US station information on a map of the contiguous 48 states. Ken's maps make geographical trends and variations much clearer. Make sure to see Ken Harker's graphic representations in the web results.

US-VE QRP

The field size fell from 53 entries in 2003 to just 39 in 2004—QRP is tough even in the best of times and the loss of 10 meters hurts QRPers the most. Nevertheless, Tom, N4KG, continues to place at the top. Chris, KA1LMR, roared up to chase Tom and placed a strong second. N8IE moved up to third this year, displacing N1TM to 5th with WØAH between them in 4th. No West Coast entries made the Top Ten last year at all, so a tip of the cap is due K7MM and W6AQ in sixth and seventh place, respectively.

US-VE Low Power

Congratulations to Marv, N5AW, for his win from Texas in this highly competitive category. Marv traded QSO to-

Top Ten	1										
W/VE		W7AT (W7EV			rator Assisted	P4ØL (W6LD		15		YU7AV	2,640
Single Opera High Power	ator	AK2P (KC2LL		W2RE K2XA	3,948,930 3,696,819	CN2R (W7E	6,757,338 J, op)	PS2T (PY5EG,	op) 490,296	RN6BN EA1DVY	1,680 648
VY2ZM	5,647,008	VANAVAD (IZAVAV	225,303	K3WW	3,283,344		5,960,034	PT5A (PY2EM	C, op)	OM2VL	396
VE3EJ N9RV	4,572,756	WW4R (K4W	λ, ορ) 217,536	W2WB W2GD	2,492,625 2,362,572	EA8BH 8R1K (EA4B	5,812,992	GIØNWG	439,890 387,180	UT3SA LY3ZM (LY1	48 FK, op) 12
K4ZW	4,295,280 4,079,790	W7UT	194,205	K1AR	2,179,584	OTTIC (LA4D	4,696,704	GW4BLE	370,107	LY2OU	ΓΚ, ΟΡ) 12 12
W9RE	3,833,925	W7EB	192,276	N3OC	2,004,300	TO5A (NH7A		LPØH	329,583		
VE3AT	3,526,551	00		N2MM	1,960,956	14/202 (1107)	4,670,325	CS6T (CT1ILT,			ator Assisted
AA1K	3,356,298	20 VE6WQ (@ V	(E6 IV)	K9NW KØKX	1,932,336 1,738,335	WP2Z (N2TK	i, op) 4.538.226	LU7DW	326,655 318,603	KH7X (KH6N	ID @ KH6YY)
K3ZO K3CR (LZ4A	3,319,470	VLOWIG (& V	933,525	NUNA	1,730,333	OK1RI	3,150,504	LU2QC	305,613	KP4KE (DK8	6,205,416
NOCH (LZ4A	2,914,377	W7WA	767,016	Multiopera	tor Single	OA4SS	2,712,060	COSZZ	300,420	IN TILL (DIC	4,896,774
K3NA	2,914,128	VY2TT (K6LA		Transmitte		DL5YY	1,913,994	IR4T (I4UFH, o		LU1NDC	2,374,752
		N8OO	625,008 299,700	K1IR	4,051,278	0:		HI8/JÁ6WFM	285,120	ZX2B (PY2N	
Single Oper	ator	WA6O (@ N6		VE3RM KØDU	2,833,176 2,238,000	Single Oper Low Power	ator	20		DL1IAO	2,289,084 1,469,412
Low Power N5AW	1,029,231		187,488	NE3F	2,167,011	WP3R (K9P	G. op)	ZF2AH	612,684	SP8BRQ	1,433,586
N1UR	965,358	K6HNZ	176,715	WW4LL	1,752,651	(6,028,056	P4ØA (KK9A, o	p) 607,290	YT7A (4N7D	
N1SV	823,032	W9IGJ	170,775	WØZT	1,656,495	TI5A (W5AJ,		SO2R	507,408		1,387,440
N4TZ	818,730	VE3DZ W8CZN	134,112 126,999	N4BP NN2W	1,614,222 1,613,403	J88DR	5,947,722 3,107,160	MIØLLL ZX5J (PP5JR,	447,702	PY2YP	989,664
KS1J	766,800	K4BP	100,320	WB1ADR	1,403,811	VP9/W6PH	2,880,495	2000 (FF000)	438.291	SN8F (SP8F	832,506
W1JQ KG1E	704,472 694.035		,	VE3RZ	1,267,110	HK3JJH	1,189,440	DJ7EO	402,318	YL8M (YL2K	
N1PGA	692,124	40			, , ,	PV8DX	888,849	XE1L	304,560		486,975
N8WRL	687,192	K4XS N6IG	268,761 207,603	Multiopera	tor Two	HK6PSG	809,172	HP1XVH	296,826		0!!
K8IA	672,360	WX4G	127,746	Transmitte K4JA	ers 8,245,080	XE1XOE EA7RM	799,968 799,920	IU9S 4M4C (YV4GL	293,694	Multioperate Transmitter	
Single Oper	retor OPP	KBDJC	44,622	N3RS	6,967,134	EA3CI	756,525	411140 (114402	254,520	VP5B	7,461,300
N4KG	529,584	WF2W	40,044	W4RM	3,700,584		•	40	,	PJ4G	7,313,220
KA1LMR	424,032	AD8C	38,400	NK7U	3,627,018	Single Oper		F6CTT	257,220	HC8L	6,537,480
N8IE	378,336	K5GH W8JWN	34,020 33,930	KØTV K5NA	3,474,048 3,309,411	HD8A (HC1)	1,584,360	OE6Z (OE6ME	191,160	V31MD KP2A	4,474,458 4,099,104
WØAH	267,036 201,285	N2KX	32,376	K7ZSD	3,065,976	TI5N (W8QZ		S53M (S55OC		IR4X	3,063,741
N1TM K7MM	130,476	KSØT	31,098	VE1JF	3,061,320		1,246,050	(2222	178,560	CX5BW	2,892,438
W6AQ	111,321			W2XL	2,446,632	HI3TEJ	1,028,883	SN7Q	172,197	6Y8Z	2,786,085
WA8ZBT	96,159	80 AA1BU	122,553	AA5NT	2,072,340	LU1VK ZF2NT	241,302 170,748	YZ1E KL7RA	159,543 134,406	EA8ZS IR4M	2,542,590 2,457,750
K4WY	92,856	W4SVO	71,838	Multioners	tor Unlimited	F5BEG	156,375	T99W	128,790	ID4IVI	2,457,750
K3TW ·	83,880	W5PR	16,464	Transmitte		DF1DX	31,434	HA5A (HA8LL		Multioperat	or Two
10		N2GC	15,300	K3LR	11,830,950	SM5ARL	18,150		126,378	Transmitte	
K5RX	36,192	VE6JY	11,139	KC1XX	10,704,474	KL7IKV	16,692	EA1DLU	119,295	PJ2T	12,484,800
K4WI	35,400	K6OY K6OR	9,198 5,550	W3LPL K9NS	10,014,840 8,904,870	GØDCK	11,997	VK2KPP	116,280	FY5KE V26DX	11,418,069 7,262,541
W2KV KØRH	18,189 15,660	K7ZM	4,371	K1RX	6,324,624	10		80		TISM	5,464,152
W7UPF	13,674	WI9H	2,940	KB1H	5,977,128	LT1F (LU1F	AM, op)	GIØKOW	153,285	HG6N	2,634,645
N6EE	12,852	N8OL	2,871	K1TTT	5,413,356		446,220	CO8KA	135,240	RU1A	2,561,685
KØGT	11,844	400		N3AD	5,089,188	ZY5G (PP5)		YV4BU	130,200	9A7A	2,536,128
AA1ZT	9,024	160 KT1V	7,560	WØAIH W3PP	3,316,104 3,253,044	PX2W (PY2	419,253 VII on)	CT3DZ YY5YMA	125,160 89,358	DK6WL ZX3S	2,350,866 2,188,662
N6HC KC9AMM	7,029 6,390	AA4MM	7,134	**31 1	0,200,044	1 //244 (1 12	317,184	SP3GEM	74,880	RW2F	2,158,902
KCSKIVIVI	0,390	KK4SI	6,678			HP3XBS	309,024	14AVG	61,476		, ,
15		W2VO	5,586	DX		CE4PBB	223,200	LX7I (LX2AJ,			tor Unlimited
N7DD	695,196	W3GH WA9IRV	3,876 1,575	Single Op	erator	CX1AV WP4EDD	161,280 145,521	T98T SP3KFH (SP3	33,480 LIZB on)	Transmitte VQ5A	rs 10,867,860
N4PN	618,636 484,956	KD1IA	1,188	High Pow		CX4DX	131,880	OI OIGITI (OF C	26,418	VQ5A V47KP	6,850,821
KVØQ N3HBX	484,956 468.360	VE3MGY	363	8P1A (W2		LU5FII	129,108	160	•	9A1A	3,146,610
WE2F	458,832	K6SE	330		9,468,711	LU6HPF	123,585	CU2CE	23,760	LZ9W	1,555,092
	•							HA5JI	14,157	JA3YBK	1,331,190

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tals for multipliers, leading the category in multipliers on 40 through 10 meters. N1UR moved way up this year—from seventh to second—and had the highest LP QSO total. New to the LP Top Ten this year are all five of the 6th through 10th place finishers: W1JQ, KG1E, N1PGA, N8WRL and K8IA.

US-VE High Power

Who is that way in front, Lance Armstrong? No, but it looks like Jeff, K1ZM, in the guise of VY2ZM is going to make a run at Lance's record of wins. Jeff is going to be mighty tough to beat as he increased his score by 10 percent this year. Another Canadian station took the 2nd spot this year as John, VE3EJ, pushed his 2003 total almost 20 percent! There must have been something in the Indiana drinking water this year! N9RV and W9RE rocketed to 3rd and 5th this year from the flat farming country, bracketing K4ZW, a new call to the HP Top Ten this year.

US-VE Assisted

As in the SOAB-HP category, the top scores improved slightly, despite the lack of 10 meter propagation. The term "packet" is really a misnomer in many areas of the world as packet radio clusters are replaced with packets on the 'net.

Congratulations to Ray, W2RE, for coming out on top of this tough category by just a few percentage points. Hotly pursued by Saul, K2XA, and Chas, K3WW, the Assisted category had the closest finish among the Top Ten this year. To give you an idea of how hard these guys were working, the top six HP stations (W2RE, K2XA, K3WW, W2WB, W2GD and K1AR) all logged DXCC on both 20 and 15 meters. K1LD was the runaway leader of the LP group, outdistancing NØFW and WA1Z who were quite close.

Don't forget—if you peek at the spots or your software monitors Internet spotting traffic, you're in the Assisted class. It's okay to send your own spots and chat, as long as you don't receive spots or information about the frequencies of other stations. "Running spots" is fun, but it's not fair to the Single-Op entrant who doesn't have the same advantage. Don't be a "packet poacher."

US-VE Single-Band

As expected, the single-band log total increased to 199. The exodus from 10 meters is on and folks seem to be headed to 15, 20, and 40 meters. 20 meters had the biggest increase and is probably the most popular single-band category throughout the cycle, followed closely by

15 meters. I think 10 meters is the most fun when it's open, but it's not much fun to listen to receiver hiss in the off years. We haven't reached optimum conditions for 80 and 160 meters, but you'll see more logs on those bands in 2005 through 2007. The next few years will be a great opportunity to go after the low-band multipliers to round out a DXCC or add to your band-entity totals.

10 meters: Without belaboring the obvious, 2004 was a very different contest than in previous years. Jim, K5RX, and Courtney, K4WI, did battle from the southern states of TX and AL to a nipand-tuck finish with K5RX coming out on top 36 to 35 kpoints—a 2.2% difference. Stations farther north and west found the going pretty difficult.

15 meters: One of the most popular bands for DX-ing and contesting, 15 meters kept everyone busy with plenty of action and multipliers to hunt. Making a move from 40 meters last year, Larry, N7DD, picked up a convincing singleband win from AZ on 15 this year with 695 K, outdistancing N4PN's 615 K from NFL and KVØQ's 484 K from CO. There were seven DXCCs logged by the Top Ten—along with the top three finishers, hats off to N3HBX, WE2F, W7UT and N5TW in the hands of KC5YKX.

20 meters: Twenty is a band that's always there, year in and year out, to the point where we kind of take it for granted. Two in particular stand out this year: VE6JY (operated by Joel, VE6WQ) and Dan, W7WA. Not content to just win, Joel

Category	Call District	Call	New Record	Old Record	Year Set	
SOAB-HP	VE	VY2ZM	5.647,008	5,513,712	2000	
SO-Assisted	Ø	KØKX	1,738,335	1,576,368	2000	
SO-20	7	W7WA	767,016	577,866	2003	
SO-20	VE	VE6WQ @ VE6JY	933,525	715,428	1998	
SO-40	4	K4XS	268,761	245,127	2000	
SO-40	6	N6IG	207,603	164,016	1995	
Category	Continent	Call	New Record	Old Record	Year Set	
SOAB-LP	NA	K9PG @WP3R	6,028,056	6,011,520	1999	
SOAB-QRP	SA	HC1HC	1,584,360	1,223,388	1993	
SO-20	SA	KK9A @P4ØA	607,290	486,330	1988	
SO-40	EU	F6CTT	257,220	240,096	1993	
SO-Assisted	OC	KH6ND @KH6YY	6,205,416	1,078,680	1996	

Continenta	l Leaders				
Single Operator QRP			Oceania	YBØECT	23,436
Asia	JA2MWV	10,815	South America	P4ØA (KK9A, op)	607,290
Europe	F5BEG	156,375			
North America	TI5N (W8QZA, op)	1,246,050	Single Band 15		
South America	HD8A (HC1HC, op)	1,584,360	Africa	EA8LS	215,586
South America	11004 (1101110, 00)	1,504,500	Asia	JA7NVF	179,640
Single Operator	Single Operator Low			GIØNWG	387,180
Africa	EA8/DJ1OJ	3,864	North America	CO8ZZ	300,420
Asia	JM1LPN	207,090	Oceania	KH6GMP	71,073
Europe	EA7RM	799,920	South America	PS2T (PY5EG, op)	490,296
North America	WP3R (K9PG, op)	6.028.056		(
Oceania	FK8HN	250,368	Single Band 10		
	HK3JJH	1,189,440	Asia	JH1OCC	90
South America	пколоп	1,109,440	Europe	CU2AF	5.922
01	III-b		North America	HP3XBS	309,024
Single Operator		E 000 004	South America	LT1F (LU1FAM, op)	446,220
Africa	CN2R (W7EJ, op)	5,960,034	Coulii Ailiollou	2111 (201171111, 04)	,
Asia	JH4UYB	1,135,428	Single Operator	Assisted	
Europe	OK1RI	3,150,504	Asia	UAØSE	39,432
North America	8P1A (W2SC, op)	9,468,711	Europe	DL1IAO	1,469,412
Oceania	VK4UC	413,478	North America	KP4KE (DK8ZB, op)	4.896,774
South America	P4ØL (W6LD, op)	6,757,338	Oceania	KH7X (KH6ND @KH6YY	
			South America	LU1NDC	2,374,752
Single Band 160		00.700	South America	2011100	2,074,702
Europe	CU2CE	23,760	Multionerator S	ingle Transmitter	
			Africa	EA8ZS	2,542,590
Single Band 80			Asia	JI2ZJS	642,003
Asia	RWØMM	2,565		IR4X	3,063,741
Europe	GIØKOW	153,285	Europe	VP5B	7,461,300
North America	COBKA	135,240	North America	DU9DWV	23,352
Oceania	KH6QJ	105	Oceania		7.313,220
South America	YV4BU	130,200	South America	PJ4G	7,313,220
Single Band 40			Multioperator T	wo Transmitter	
Asia	JA8NFV	51,450	Asia .	JA1YPA	27,081
Europe	F6CTT	257,220	Europe	HG6N	2,634,645
North America	KL7RA	134,406	North America	V26DX	7,262,541
Oceania	VK2KPP	116,280	Oceania	AH6NF	23,520
South America	YW5NN (YV5NWG, op)		South America	PJ2T	12,484,800
	, , , , , , , , , , , , , , , , , , , ,		Multionerator II	nlimited Transmitter	
Single Band 20	=>40.4	405 700	Asia	JASYBK	1,331,190
Asia	EX2M	135,720	Europe	9A1A	3,146,610
Europe	SO2R	507,408	North America	VQ5A	10,867,860
North America	ZF2AH	612,684	Notus America	VGOA	10,007,000

W/VE Single Operator Region Leaders

Tables list call sign, score and power (A = QRP, B = Low Power, C = High Power).

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)	Southeast Region (Delta, Roanoke and Southeastern Divisions)	Central Region (Central and Great Lakes Divisions; Ontario Section)	Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)	West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections)	
VY2ZM 5,647,008 C	K4ZW 4,079,790 C	VE3EJ 4,572,756 C	WØGG 893,700 C	K7RL 2,710,950 C	
AA1K 3,356,298 C	WA4TII 982,800 C	N9RV 4.295.280 C	NØVD 755,580 C	W7GG 1,866,240 C	
K3ZO 3,319,470 C	KZ2I 811,125 C	W9RE 3,833,925 C	KTØR 597,534 C	WA7LT 1,171,500 C	
K3CR (LZ4AX, op)	N8II 756,750 C	VE3AT 3,526,551 C	WØBH 592,371 C	N6AA 1,047,360 C	
2.914.377 C	N4NW 714,063 C	VE3XN 1,082,880 C	K5XR (W5ASP, op)	K5RR 917,448 C	
K3NA 2,914,128 C	,,,,,	7,002,000	302,679 C		
N1UR 965,358 B	N8WRL 687,192 B	N4TZ 818,730 B	N5AW 1,029,231 B	K8IA 672,360 B	
N1SV 823,032 B	KC8FS 616,998 B	K8NVR 511,500 B	ACØW 660,600 B	N6NF 574,560 B	
KS1J 766,800 B	N4IG 568,080 B	VE3CR 508.542 B	VE5SF 530,550 B	W7YAQ 400,020 B	
W1JQ 704,472 B	WB3BEL 478,590 B	KD9MS 360,855 B	WD5K 508,254 B	VE7NS 377,058 B	
KG1E 694,035 B	KT4Q 474,948 B	K9JE 320,742 B	KE5LQ 323,637 B	N6RV 352,152 B	
KA1LMR 424,032 A	N4KG 529,584 A	N8IE 378,336 A	WØAH 267,036 A	K7MM 130,476 A	
N1TM 201,285 A	K4WY 92,856 A	N8XA 57,960 A	WA8ZBT 96,159 A	W6AQ 111,321 A	
K3TW 83,880 A	KR1ST 26,730 A	VA3JFF 20,520 A	NØUR 77,922 A	N6AZR 44,376 A	
WB7OCV 17,136 A	WB6BWZ 25,833 A	K9WIS 7,920 A	KBØYH 40,194 A	N7IR 44,370 A	
N2JNZ 10,335 A	KQ4YY 19,998 A	KT8K 6,552 A	WWØWB 25,086 A	WO7T 20,178 A	

and Dan both pounded their old records silly, bagging 135 and 134 multipliers, respectively. Both stations are located well away from the traditional "sweet spots"—could it be that operator skill also has something to do with it?

40 meters: As noted in the "Exceptional Efforts" section, the SO-40 Top Ten leapt from coast to coast as Bill, K4XS, ran the table from the WCF section, followed by Jim, N6IG, from SV, and back to Bob, WX4G, in SFL. K4XS and N6IG both set new records for their call districts on 40 meters, an inkling of what's to come in future years. SO-40 log entries were up and I expect that trend to accelerate next year. All three of the top finishers either logged or flirted with a DXCC's worth of multipliers.

80 meters and 160 meters: It was a little surprising that 80 meter scores didn't take off this year, with what should have been better band conditions. As it was, Joe, AA1BU, pushed last year's total up a tad to 122 kpoints, 459 QSOs (29 fewer than last year), and a whopping 89 multipliers (6 more than last year) from WMA. Joe was followed by W4SVO in the SFL section. Two brave souls entered SO-80 running QRP (N8VW in OH) and LP (K2HT in MO)—way to scratch, fellas!

Last year's number two finisher in SO-80, Ted, KT1V, decided to punch the "1.8" button this year and led the pack in SO-160. He was hotly pursued by Leo, AA4MM, and Stan, KK4SI, both down in NFL. 160 Phone is tough in the best of years and we're still a year away from the best conditions.

Multi-Operator Overview

What did I say last year? Something about team operating becoming more popu-

lar due to demographics (a kinder, gentler way of saying that we like to sleep), conditions, and better station design options. Well, it didn't play out that way in 2004 as multi-op entries dropped from 110 back to 84. The relative percentages of MM vs M2 vs MS did not change, however.

Multi-Single

K1IR's crew can be proud of themselves this year with a FB score from EMA, more than one-third higher than 2nd place finisher VE3RM. Third-place went to KØDU out in CO, the most westerly of any MS Top Ten score.

Multi-Two

This category turned into a slugfest between the two fine stations of Paul, K4JA, in VA and Sig, N3RS, a few miles north in EPA. Both were just a little off last year's pace. W4RM, another VA station, came in 3rd just ahead of NK7U's OR crew, moving up a place from last year. In fact, both West Coast entries in the Top Ten are from OR as Brad, K7ZSD's teams debuts in the box. VE1JF was another welcome presence for the MAR multiplier in eighth place.

Multi-Multi

The usual suspects led the way in the Clash of the Titans category, with K3LR's crack team successfully shoveling their way to the #1 position just miles from the Ohio border in WPA over KC1XX in NH and W3LPL in MDC. Not nearly as close as last year, 'LR was about 10 percent better than 'XX and you can be sure Matt and Frank will be gearing up to take back the walnut in 2005.

K9NS in 4th place from IL was closer than ever to their East Coast rivals. A win

from the Land of Lincoln is not out of the question if the conditions are right, so watch your tails! WØAIH cracked the Top Ten from WI in ninth place and the remaining spots were all from the Atlantic seaboard or New England.

W1AW made an appearance in the MM category with Bob Heil, K9EID, and Joe Walsh, WB6ACU, and a number of ARRL staffers sharing a good time. No word on who had to cook the post-contest dinner in Newington!

Affiliated Club Competition

You can really tell that the club contest chairs were working overtime this year. We had a new winner in every category.

At the top of the Unlimited list, Frankford Radio Club and Yankee Clipper Contest Club traded places from last year with an even closer finish. The 164 FRC scores held off the challenge from 231 YCCC entries by a whisker and take the gavel—only 1.9 percent separates these two vigorous, motivated clubs! Another club—Contest Club Ontario—made the leap to Unlimited from the Medium ranks after placing 3rd in the 2003 Medium category.

In the Medium category, what turmoil! The North Coast Contesters really turned it on this year and zoomed from 10th place to a gavel-grabbing 1st with a 45 percent margin and five fewer scores than the 2nd place Hudson Valley Contesters. Woof! Pretty convincing smackdown, NCC! The North Texas Contest Club also bulked up by 50 percent and leapfrogged to 4th place with the Tenneessee Contest Group in 3rd.

More turnover awaits you in the Local category as the top four spots are all occupied by new names and the gavel was

Sponsored Plaques

Category	Winner	Sponsor
W/VE High Power Phone	VY2ZM	Frankford Radio Club
W/VE Low Power Phone	N5AW	Jeffrey Briggs, K1ZM
W/VE Single Operator Assisted Phone	W2RE	Pete Carter, K3VW Memorial
W/VE Multioperator Single Transmitter Phone	KIIR	Steve Adams, K4RF
W/VE Multioperator Unlimited Phone	K3LR	Western New York DX Association,
·		W2DXA
W/VE 1.8 MHz Phone	KT1V	Butch Greve, W9EWC Memorial
W/VE 3.5 MHz Phone	AA1BU	K1ZM Communications, Inc
W/VE 14 MHz Phone	VE6WQ (@VE6JY)	William F. Beyer Jr, N2WB
World Single Operator Phone High Power	8P1A (W2SC, op)	North Jersey DX Association
World Single Operator Phone Low Power	WP3R (K9PG, op)	Jerry Rosalius, WB9Z
World Single Operator Phone QRP	HD8A (HC1HC, op)	Southern Arizona DX Association
World Single Operator Assisted Phone	KH7X (KH6ND @KH6YY)	
World Multioperator Single Transmitter Phone	VP5B	Carl Cook, Al6V/P49V
World Multioperator Two Transmitters Phone	PJ2T	W6NL and K6BL
World Multioperator Unlimited Phone	VQ5A	Stanley Cohen, W8QDQ
World 1.8 MHz Phone	CU2CE	Fred Race, W8FR, in Memory of
World 1.0 Will2 I Hone	COZOL	ZL2BT
World 3.5 Mhz Phone	GIØKOW	Northern Illinois DX Association
World 14 MHz Phone	ZF2AH	Don Wallace, W6AM, Memorial
WORLD 14 WILLS PROTE	ZI ZAII	Award
World 21 MHz Phone	PS2T (PY5EG, op)	Long Island DX Association
World 28 MHz Phone		North Shenandoah DX Association
WORD 26 MINZ PROTE	LT1F (LU1FAM, op)	
Asia Cinala Onavetas Phana High Dawes	ILIALIVE	NS4DX
Asia Single Operator Phone High Power	JH4UYB	Tim Coad, NU6S
Asia Multioperator Single Transmitter Phone	JI2ZJS	Yankee Clipper Contest Club
Europe Single Operator Phone High Power	OK1RI	Jerry Griffin, K6MD/YI9MD
Europe Multioperator Unlimited Phone	9A1A	Operators at K1TTT
North America Multioperator Single Transmitter	\\D=D	NE LA LACIGIE
Phone	VP5B	Nick Lash, K9KLR
Oceania Single Operator High Power Phone	VK4UC	W7EW in honor of W7BX
Oceania Multioperator Single Transmitter Phone	DU9DWV	AH9B/V73B, D. Craig Boyer
South America Multioperator Two Transmitter	PJ2T	Operators at K1TTT
Phone	N9RV	Conjety of Midwest Contestors
Central Division Single Operator High Power All	Naur	Society of Midwest Contesters
Band Phone Central Division Multisporator Single Transmitter	N9DT	Society of Midwest Contesters
Central Division Multioperator Single Transmitter Phone	14901	Society of Midwest Contesters
Central Division Single Operator Low Power	N4TZ	Society of Midwest Contesters
All Band Phone	14-12	Society of Midwest Contesters
Rocky Mountain Division Single Operator	W5GZ	Grand Mesa Contesters
Low Power Phone	Wooz	Grand Moda Compositio
Japan Single Operator Low Power Phone	JM1LPN	Western Washington DX Club
Canada Single Operator Low Power Phone	VE5SF	Contest Club Ontario
World Single Operator Combined Score—	8R1K (EA4BQ/OHØXX,	Daniel K. Robbins—KL7Y
High Power	op)	Robbins Memorial
World Single Operator Combined Score—	WP3R (K9PG, op)	C. Sharp, K5DX Memorial by the
Low Power	o (a, op)	Texas DX Society
World Multioperator Unlimited Combined	9A1A	W2PV Memorial—Schenectady ARA
W/VE Single Operator High Power	K3CR (LZ4AX, op)	National Contest Journal
Combined Score	(LE 11 11, OP)	riational contoct coarnal
W/VE Single Operator Low Power	KS1J	Rochester DX Association K2FR
Combined Score		Memorial Plague
Rocky Mountain Division Single Operator	N6ZZ	Albuquerque DX Association
Combined		
	I National and ADDI Divisi	

Minnor

Plaques are available for most Overall Continental, National and ARRL Divisional winners for most categories. Unsponsored plaques may be purchased for \$67 (includes shipping) by contacting the ARRL Contest Branch at 860-594-0295, or contests@arrl.org.

Affiliated Club Competition

	Score I	Entries		Score	Entries
Unlimited Category					
Frankford Radio Club	261,812,385	164	Empire Contest Club	2,771,055	3
Yankee Clipper Contest Club	256,750,851	231	Western Illinois ARC	2,583,666	13
Potomac Valley Radio Club	162,647,469	138	Western New York DX Assn	2,561,172	6
Society of Midwest Contesters	58,312,050	80	Spokane DX Association	2,455,509	7
Northern California Contest Club	46,076,880	86	Salt City DX Assn	2,406,816	8
Minnesota Wireless Assn	35,367,486	77	BC DX Club	2,185,764	6
Florida Contest Group	32,880,186	63	Oklahoma DX Assn	1,593,396	8 6 8 4
Contest Club Ontario	32,864,382	54	North Alabama DX Club	1,150,842	
			Bergen ARA	1,065,198	13
Medium Category			West Park Radiops	813,093	10
North Coast Contesters	48,486,720	14	Northern Arizona DX Assn	796,542	5
Hudson Valley Contesters and	33,654,663	31	Mother Lode DX/Contest Club	762,468	5
DXers			Southern California DX Club	728,841	5 7 3 7
Tennessee Contest Group	29.025.750	45	Texas DX Society	699,516	3
North Texas Contest Club	25,869,462	26	Eastern Iowa DX Assn	576,450	7
Willamette Valley DX Club	21,244,347	17	South Jersey Radio Assn	359,808	6 7
Mad River Radio Club	19,675,260	26	Loudoun ARG	346,527	
South East Contest Club	18,824,274	29	Green River Valley ARS	259,980	4
Central Texas DX and Contest	18,768,789	19	Burlington County Radio Club	222,570	3
Southern California Contest Club	17,401,272	40	•		
Rochester (NY) DX Assn	12,290,160	13	Local Category		
Western Wireless Contest Club	10,022,868	3	Wireless Association of South Hills	2,047,458	5
Southwest Ohio DX Assn	9,303,747	4	Medina 2 Meter Group	1,180,056	3
Western Washington DX Club	7,818,324	20	Northern Rockies DX Association	803,292	5 3 5 3 4
Central Arizona DX Assn	7,107,666	33	Stafford (VA) ARA	795,414	3
Grand Mesa Contesters of Colora	do 6,686,970	23	Sterling Park ARC	728,436	
Carolina DX Assn	6,569,034	31	Northern Ohio DX Assn	699,003	4
East Coast Canada Contest Club	4,048,692	3	American Red Cross Emergency	588,396	4
Northern Illinois DX Assn	3,794,070	15	Northern New York Contest Club	388,209	5
Kansas City DX Club	3,630,825	6	Cherryland ARC	357,246	4
Kentucky Contest Group	3,623,973	13	Old Barney ARC	177,894	4
Order of Boiled Owls of New Yorl	k 3,116,043	11	Redmond Top Key Contest Club	92,004	3

taken by last year's 5th place finisher, Wireless Association of South Hills. Second and 3rd places are occupied by the Medina 2 Meter Group and the Northern Rockies DX Association, respectively.

DX

As a "targeted" contest, ARRL DX gives the DX stations a chance to "set and forget" the rotator azimuth and focus on the US and VE pileups. This gives everyone a chance to take advantage of odd or short openings to North America that are foregone in the "everybody works everybody" format.

DX QRP: As you might imagine, the DX QRPers tended to do a little better than their NA compadres due to that 20 dB a DX prefix tends to impart. Some do a whole lot better. The top three finishers—HD8A (by HC1HC), TI5N (by W8QZA), and HI3TEJ—all broke a million points and would have qualified for the LP DX Top Ten. In the end, Alfredo rode 20 and 15 meters to the top this year from the Galapagos, overcoming the proximity advantage enjoyed by Bill, W8QZA, at Keko's fine station in Costa Rica. Given more difficult east-west propagation, the first EU appearance in the Top Ten comes at the sixth spot, where F5BEG delivered a nice score from the Western edge of the continent again in 2004. JA2MWV just missed the Top Ten boxes with the highest Asian QRP total.

DX Low Power: The top four stations in the SOAB-LP category were all from NA this year. In a very close race, Paul, K9PG, at WP3R claimed the #1 spot over Bob, W5AJ, at TI5A and the pair would have claimed 3rd and 5th in the world, regardless of category! Dave, J88DR, moved up a notch from 4th last year to claim the bronze, followed by Kurt, VP9/ W6PH, in the mid-Atlantic. The remainder of the Top Ten are all new entries this year—congratulations! HK3JJH is the top SA station in LP this year. EA7RM and EA3CI represent Europe and round out the Top Ten. FK8HN is the top OC entry at #18 and JM1LPN leads the Asian contingent at #22. EA8/DJ1OJ and ZS4BS were the only Africans in this category. LP is the most popular category for DX stations, as well as the US/VE crowd, with 251 entries.

DX High Power: Six out of the Top Ten HP operators were on an expedition this year and three changed continents to do so. The Top Ten were also fairly well distributed: 3 from NA, 3 from SA, 2 from EU, and 2 from AF. With the exception of the two EU entries (from OK and DL), all of the Top Ten were on or within the warm water "Atlantic Rim."

Tom, W2SC, really dominated the HP category from 8P1A this year with a solid multi-Megapoint victory that just missed record territory. John, W6LD, is new to the Top Ten this year, placing second from P4ØL. John was followed by the two Africans, Jim, W7EJ, as CN2R moved up from the LP category and Martti, EA8BH, in 3rd and 4th, respectively. Jiri, OK1RI, led all European HP entries, a long way from the sunny beaches in the Czech Republic—see the European analysis in the Divisional write-up sidebar on the Web for more about this score.

Other noteworthy scores in HP include KL1V's #13 finish from chilly Alaska, JH4UYB's top Asian score, and VK4UC leading the pack from Oceania.

DX Assisted: I already mentioned that Mike, KH6ND, walloped the old record and all competition using the call KH6X from KH7YY (got all that?). Quite an effort by Mike, don't you agree? I hope he's not getting blase about his #1 streak, because he's fun to listen to on the air. If you're wondering how to improve your technique, listening to KH6ND run a pileup is a great place to start. This was the only category in which the winner was from Oceania.

In 2nd place, with an amazing LP effort, Barney, DK8ZB, operated as KP4KE and was the only LP effort in the Assisted Top Ten. Indeed, the next LP score is in 13th place! LU1NDC and PY2MNL at ZX2B dueled to 3rd and 4th places from SA only 200 QSOs and 6 multipliers apart. DL1IAO led the way from Europe.

DX Single-Band

Single-band entries were up a bit, reversing last year's trend, 396 to 383. This is still down from 2002's 428, but is a sign that activity is holding steady, even with shorter openings to NA on the higher bands. The most popular band was 15 meters, just as in the US and VE, with 171 logs, followed by 20 meters with 112. 40 meters showed the biggest increase from last year's 16, tripling to 48 entries.

10 meters: Three familiar calls grace the 10 meter Top Ten, LT1F (op LU1FAM), ZY5G (op PP5WG), and PX2W (op PY2YU). Taking advantage of the almost exclusively north-south propagation on 10, these guys ran like the wind when the band was open, racking up some big QSO totals of 2479, 2291, and 1792 respectively. NA dented the listings in the form of HP3XBS, on the heels of PX2W, but just a little bit too far north this year. WP4EDD, LW3DX and PJ4/KG9QX submitted the top LP scores on 10 meters this year. KG9QX ran 5 W into a Hamstick on his rental car. FB work! EU and AS were under-represented and AF was entirely absent this year.

15 meters: South America prevailed once again, but this time the competition was from Europe. Brazil was both 1st and 2nd on 15, with PY5EG winning from PS2T and PY2EMC right behind him from PT5A. PY5EG is obviously getting the bands warmed up for WRTC-2006! Both scores had identical multiplier totals (62), but Oms must have talked a little faster with 71 more QSOs. The UK was home to the next two entries by GIØNWG and GW4BLE to lead the way in Europe. A real dogfight followed between LPØH at #5 and CS6T (op CT1ILT) at #6, only 16 QSOs behind. The only NA entry in the Top Ten was CO8ZZ from Cuba. EA8LS was tops in Africa, JA7NVF in Asia, and VK3GK in Oceania. XE1KK was the QRP winner and CO8LY the LP

20 meters: Where did all those 10 meter stations from last year go? Many of them wound up on the Queen of the Bands, 20 meters where entries increased by 50 percent to 112. As mentioned earlier, ZF2AH's 77 extra QSOs more than made up for the single multiplier advantage of P4ØA, operated by KK9A, to eke out the narrow victory. Europe was represented by SO2R (the station, not the category) in 3rd place with twenty-seven hundred QSOs from Poland. The Top Ten finishers bounced between SA, NA and EU in roughly equal proportions, so the band was open widely this year. XE1L and PY2NY finished one-two running LP.

40 meters: Coming to life in a hurry, but still a tough place to do business, 40 meter phone was the domain of Europe. Operating split and sharing the band with multi-megawatt SWBC stations is no picnic, but F6CTT came out on top, pulling away from the pack. OE6Z (op OE6MBG) and S53M (op S55OO) battled to 2nd and 3rd place from the picturesque mountains of Central Europe. The lone NA occupant of the Top Ten was Rich, KL7RA, in his final operation from Fairbanks. Oceania appears in the #10 spot as VK2KPP. Low power scorers were led by CT3IA and CO2JD.

80 meters and 160 meters: You might think that proximity to NA is pretty much required for a top score on these tough two bands. You would be wrong. GIØKOW was top dog on 80 meters with a great effort, making nearly a thousand QSOs. CO8KD came in second, running LP, and YV4BU 3rd, but seven of the Top Ten are from Europe. All of the 160 meter entries are European, led by CU2CE from the Azores, the westernmost point of land considered European. RN6BN nearly doubled his QSO total of last year to 40 from the far eastern edge of Europe.

DX Multioperator

Multi-Single: The first five finishers in this category were travelers, on a contesting vacation to the Caribbean or other warm water ports of call. VP5B prevailed (just barely) over PJ4B, trading propagation advantages on the low bands (VP5B) versus 10 meters (PJ4G) in a hotly contested victory. Dave, W6NL, and Barb, K6NL, Leeson traded their California mountaintop for one on the equator to place 3rd as HC8L on San Cristobal Island. IR4X was the top European entry and 6Y8Z cracked the Top Ten with low power to claim the 8th spot. African entry EA8ZS was 9th.

Multi-Two and Multi-Multi: The twotransmitter category heated up dramatically with FY5KE challenging PJ2T for bragging rights. They came close, but PJ2T prevailed, very nearly setting a new SA record in the bargain.

Multi-Multi remains a difficult challenge for traveling teams and so remains under-represented in the DX listings. The VQ5A team re-activated the old Kenyan colonial prefix and made some serious noise from the Turks and Caicos. V47KP was a welcome new entry to the MM category, finishing second, but equaling the VQ5A multiplier total—now for some QSOs! 9A1A and LZ9W club stations kept the bands hot from Europe and the JA3YBK team from Asia.

Concluding Remarks

"Happiness is not a state to arrive at, but a manner of traveling."—Margaret Lee Runbeck

I am always amazed at the breadth and variety of the submitted scores from all corners of this big round ball we play with called Earth. Even though the solar cycle is waning, you all found new ways to have fun, new bands that were open, and new challenges to overcome. That bodes well for contesting.

I'm sure that every contester can think of at least one ham—new or old—who would enjoy being invited over for a multiop or being "given the keys" for a weekend. Don't complain about new blood if you haven't given any!

Until next year, I'll be spinning the globe, wondering where my signal will land and who will answer my "CQ Contest"!

