

1975 CQ World-Wide DX Contest Phone Results

BY FREDERICK CAPOSSELA, K6SSS

When contest stations start working over 100 countries on 10 meters, you know it's going to be an extraordinary weekend. And the October Phone Contest sure was.

By the time the dust had settled, we had a new All-Band Champion—6.6 million, FY7AK operated masterfully by F5QQ. After finishing third last year, he vowed he'd be ready this year. Congratulations, Ron!

Two Caribbean DX-peditions came in second and third—VP2G by W5MYA and KV4IJ by K6SDR. Being in N. America, they could only claim 2 points for most contacts. But even mathematically equalizing their QSO points with FY7AK, they still come out about a million behind Ron.

You won't find OA8V's 142K score in the Top Ten, but his effort sure deserves to be there. Because in a world full of 2000-watt linears, Paul did it all running only 2 w. out!

Top USA All Band honors went to 2.2 million W7RM operated by that JA-machine, K7VPF. It was those pages and pages of JA's which provided his half million margin over W1ZM manned by WA2CLQ. Right on his heels thundered competition so tightly bunched that less than 100K separated the 3rd through the 6th place finishers.



That big smile belongs to Single-op/All-Band champ, F5QQ, pilot of FY7AK. The two tri-banders and a 40m. beam Ron added this year paid off.

So many things went wrong on the VP2M DX-pedition that they started calling themselves VP2Murphy. Nevertheless, the Western Washington Gang still ran up 5.8 million to take the top Multi-Single spot. In the Multi-Multi category, a near 8-million talkathon by DLØPG outdistanced an all-local gang at PJ1AA.



Multi-Single winners VP2M, K7JCA, VE7BD, VP2MF, W7EXM, Johnny, VE7SV. They must have used more than that to run up 5.8 million.

13 Records fall

New world marks were set by XJ3BMV on 1.8 MHz. and KV4FZ on 3.5 MHz. And congratulations are also in order to new record holders W8LRL, W1EBC, W3PHL, FY7AK, CV4CR, OH2BH, OH5NW, CN8HD, EA8CR, DLØWU and VP2M.

Logging 'em As You See 'em

Reading through umpteen thousand pages of contest logs not only tells you who was working whom and when. But you also find out exactly who was thinking what during those 48 hours. No beating around the bush. Like the VK who got up to page 17 then QRT'ed for ½ hour after which he returned and made the following log entry, "hunk of steak and 3 glasses of wine." Or the European who finally worked the KH6 and after his call noted "tin ear." But the prize has to go to the WB4 who slugged his

way to page 7 when suddenly he started adding a motto on the top of each page—"Canem devoret canem, Canem devoret canem." Latin for "dog eat dog."

Your-Secret-Is-Safe-With-Me Dept.

Many thanks to the W2 who enclosed a check for \$88.20 with his log. Unfortunately it wasn't made out to us, so we had to return it to him. Besides, if you want to tempt me, you've got to go to at least three figures. Equally anonymous will remain the writer of a tiny note that turned up out of nowhere saying cryptically "John: You talk a little too loud. Marcella wants to have a rest." It'll have to remain anonymous—the note was unsigned. The same treatment will be accorded the author of a mysterious blank postcard (no address or stamp) with only "please acknowledge receipt" written across it. We hereby acknowledge receipt.

The People Who Count

I'm extremely fortunate to have the help of a group of very dedicated individuals who serve on the Contest Committee. Quite literally, the results



When he opened his eyes, Mike, W5MYA, found he took 2nd place All-Band DX-peditioning from VP2G.

could never be done without them. They deserve a very special vote of thanks—our Chairman, Frank Anzalone, W1WY; and members Gene Walsh, K2-KUR; Bob Cox, K3EST; Bernie Welch, W8IMZ; Dave Donnelly, WB2SQN; Dick Norton, W6DGH; Larry Weaver, W6JPH; Glen Rattman, W6MAR; Jim Neiger, W6BHY; Phil Goetz, W6DQX; Larry Brockman, WA6-EPQ and Fred Laun, W9SZR. And to Kim Smith at CQ who made sure all logs got to California to start with. I'd also like to add my personal commendation to Daryl Kiebler, WB8EUN, and his wife, Olga, for their invaluable contributions to the committee. Our deep thanks.

That's it for now. Coming up next month, the C.W. Results. And coming up the weekend of October 30 & 31, the 1976 CQ WW Phone Contest.

73, Fred, K6SSS



Up and coming Multi-Single team G4DAA—G4BVH, G4-BUE, G3XBN, G3ZQW, G3MXJ, G8OS, G8KMQ, G3FXB. Operation took place from meadow on G8OS's farm.

USA QRM

"Police dropped by twice to get me to go off the air . . . W6UFJ. Having a 2-letter call is a big advantage—being old enough to have one is a big disadvantage . . . K6QX. I wish W2HPF would change his call, hi! . . . WA4HPF. W6W8FP went off the air after we called him—someone remarked, 'maybe a lion ate him.' . . . WA6FXM/9. Worked CR9AJ 11 minutes after contest was over . . . W6KYA. By-pass capacitor blew up on me and XYL threw me out in rain to get potatoes for evening stew . . . WB6OMF. Had debate as to whether or not to claim multi-op as Murphy was my co-pilot . . . WB6NHF. Worked over 20 new ones . . . WB4ZNH. Was like a kid in a candy store chasing DX—my first contest was a fantastic experience . . . WA3YGH. Many contacts thanks to good ears on the other end . . . WB2HZH. Gave phonetics as WA3 'Single Sideband.' Reply was 'of course, I'm running Single Sideband—QRZ.' . . .

USA TOP SCORES

Single-Op All Band	W7RM	2,208,980	W3CRE	1,440,373	
	W1ZM	1,685,125	K4VX	1,188,039	
	W3LPL	1,527,750	W2HMH	1,161,043	
	W6RR	1,455,772	W2GXD	1,118,725	
	W7JST	1,447,016	W4QCW	983,060	
		28 MHz	7 MHz		
		WB5HIH	13,440	W3PHL	110,799
		WA1HFN	13,052	K6QW	110,160
		K4HWW	11,515	WA6EPQ	93,438
		W8IMZ	11,450	K8LUU	44,548
		W6HX	11,312	W1FXD	43,296
		W4OZF	11,055	WB4QKE	34,470
		21 MHz	3.5 MHz		
		K1JHX	354,660	W1EBC	77,420
		WA6EKL	293,440	K8INX	64,974
Single Op Single Band	K4PHY	262,035	WA2LTQ	62,504	
	W4FDA	214,608	W7KW	52,290	
		WB9HAD	188,625	WA2EKH	39,858
		WA4OSM	182,286	WB4QNP	27,972
		14 MHz	1.8 MHz		
		K9PPY	314,440	W8LRL	2,871
		W9ZRZ	230,298	K1PBW	2,828
		WA1NKK	221,578	WB4QZT	1,425
		WA7UWE	215,380	W2BP	760
		WB7ABK	209,280	W1BB	585
		W9IRH/7	203,320		
Multi-Op Single Xmtr	W6ONV	1,660,395	W6PAA	1,091,860	
	W2HPF	1,396,747	WA1NZT	1,090,800	
	K3MNT/7	1,299,455	WA1STN	1,016,760	
Multi-Op Multi-Xmtr	W2PV	6,052,867	K6SEN	4,170,084	
	W3AU	5,494,944	WA8ZDF	4,108,115	
	WA2ZAA	5,283,540	W3WJD	4,082,784	



The potent UK5MAF gang and the reasons why. Operators UB5MCD, UY5LK, UB5-059-22, UA6HZ, UB5MDC.

WA3SSB. Suggest a team of judges monitor the contest and make a published report on unsportsmanlike conduct by U.S. ops . . . WB0FBQ. Operators on 20 very discourteous! Other bands were great fun . . . K4KEW/5. Recommend special class for those stations operated by operators other than licensee. Makes it impossible for moderately-priced stations with average class of contest operators to compete for top award . . . WB4OXD. XYL should get award for being cooped up with 2 and 5 yr. olds during rainy weekend . . . W1MDO. It sure is easier from the East Coast on 80. Would have lost 2 nights sleep to approach this year's results from the West Coast . . . W1SD (ex-W6DQ). First time I've worked Africa on 10 and I did it twice . . . WB2TLD. We all could score more points if some stateside ops used their receiver as much as their amplifier . . . WB2LOF. Hope next year that credit for Canadians is not given except for country and zone credit—at very least make them count one point . . . WA2LTQ. Having a good friend

WORLD TOP SCORES

Single-Op All Band	FY7AK	6,636,348	W7RM	2,208,980	
	VP2G	4,245,813	UB5WE	2,016,483	
	KV4IJ	3,247,986	W1ZM	1,685,125	
	6W8FP	2,596,186	OK2RZ	1,531,868	
	G3LNS	2,595,692	W3LPL	1,527,750	
28 MHz					
Single-Op Single Band	CV4CR	668,624	OH5NW	167,751	
	CR6FW	279,680	YZ1BCD	149,600	
	CX8BE	271,353	W3PHL	110,799	
	LU8FEU	166,452	K6QW	110,160	
	PY3BXW	125,624	WA6EPQ	93,438	
	CE4EM	60,780	I5FCK	92,904	
	7 MHz				
	21 MHz				
	Single-Op Single Band	G3WJN	533,943	KV4FZ	275,319
		CX3BH	505,788	XJ3EDC	141,726
VK6CT		468,309	CN8HD	140,651	
EA8JJ		455,975	I3MAU	113,535	
YV4YC		436,08	W1EBC	77,420	
YZ0SRJ	422,816	OH1XX	71,640		
14 MHz					
Multi Op Single Xmtr	CW3BR	1,104,872	XJ3BMV	8,640	
	OH2BH	981,815	PA0HIP	3,024	
	CR6IK	842,394	W8LRL	2,871	
	G3XYP	810,434	K1PBW	2,828	
	I1GPK	710,646	VE3ECP	2,754	
G3HCT	704,459	WB4QZT	1,425		
Multi-Op Multi-Xmtr	VP2M	5,792,750	DL0WU	4,208,312	
	EA8CR	4,673,005	VP5WW	3,532,797	
	UK9AAN	4,328,390	FG0MM	3,035,840	
	DL0PG	7,930,918	W2PV	6,052,867	
	PJ1AA	6,989,316	W3AU	5,494,944	
DK2BI	6,059,119	WA2ZAA	5,283,540		

go on PJ8YFQ DXpedition and then working him for last QSO of the contest . . . WA4HEK. Would have been on longer, but had to watch the Goodyear Blimp land at our airport . . . WB9BSH. First contact on 40 was with 6W8FP—it sounded like 20 . . . WB9AJZ. Working OJ0MA was a real thrill . . . K9HKF. One bit of advice—never try to sell your car the same weekend of a DX contest!!! . . . WA9JDT. I know I didn't win, but it was the most fun I've had in years as a ham . . . WB9JIV. The use of tape recorders and programmed c.w. senders should not be allowed as this is not a part of operator skill. Maybe there should be a new class called 'Professional amateur radio stations.' . . . K8INX. Missed prime times, raking, mowing and fertilizing my yard . . . W8KOD. It was fun to a point . . . W5OSH. Wait 'til next year . . . W0EEE. Thrill to have EA8CR show up on 160 unannounced . . . W2BP. Murphy never left the shack . . . WA3VQP. Due to Penn State-Army game could only work Sunday . . . WA3UXP. It's been a long time since I've heard condx on 15 so good . . . WA5RTG. Having a General class license is a tremendous disadvantage in a DX contest—especially on 40 and 80 . . . WB2SJK. First year I didn't get called all weekend even though I was on surgery call . . . K5JZN/3. Why do stateside stations think 10 is only open during contests? . . . K3IGA/4. Surprised when 9J2GJ and ZD8RW answered my CQ on 10 . . . WA4JQS. Missed Rhodes due to city-wide power failure . . . WA0HFW/4. QRM extremely bad from XYL . . . K4SGL. QRN on 160 was 59 plus 10 until W8LRL told me what a beverage antenna was. Put up a 700 foot one in middle of night and QRN reduced to nothing—thanks to W8LRL . . . WB4QZT. Neighbor's burglar alarm going off and a funeral didn't help matters . . . W5OSJ. Utilized all 3 drivers during European opening on 15 as Murphy kept striking

DX QRM

"The South Americans and Africans on 80 were about as rare as a W3AU QSL card . . . G3HTA. Biggest thrill: in the middle of the second night with propagation completely closed, 9N1MM gave me a call with S9 plus . . . 3A2GX. Score would have been 5.5 million if in 3-point area only 85 miles away—frustrating . . . W5MYA opr. of VP2G. Largest log ever!—2 QSOs . . . VP8NX. Without doubt, this contest is one of the most important events for every radio amateur . . . LU4MBI. Hard work . . . ZL1BKX. Thank you, Henry & Bea . . . WA7UQV opr. of XJ7WJ. Not a good year for me—had to work on the 25th and lost beam on the 26th . . . VP9AD. I'm surprised to hear so many W6 stations using 3.8 MHz. beam antennas! . . . JA4BKL. Sure missed my HS2AIG call of last year . . . KA6DX. Glad to get 10 new countries . . . JA0TKU. No band condx for nearly 15 hours; no beer; no bread; otherwise another good contest, hi . . . CR6IK. Conditions were too good on 10, we weren't prepared for it . . . DK2BI. VE2AQS/TG9 is a mouthful especially when you have been yelling for 48 hours . . . VE2AQS/TG9. Hope to be on 160 and have a beam on 40 to work stations heard . . . 9Y4NP. Greatest handicap was my call sign . . . WB9AJF/6Y5. Being a new country, we wanted to hand-out maximum contacts, not search out multipliers and our score



HV3SJ went Multi-Single in a big way. That's JA4CBP, DF2GX and DJ3HJ who joined Brother Ed.

BAND-BY-BAND BREAKDOWN — TOP ALL BAND SCORES

Number groups indicate: QSO's/Zones/Countries on each band.

WORLD TOP SINGLE OPERATOR — ALL BAND

Station	160	80	40	20	15	10
FY7AK	11/5/5	320/17/44	438/22/66	1165/33/112	1999/27/89	634/22/56
VP2G		348/14/39	535/19/53	970/28/92	1629/27/90	868/19/48
KV4IJ	8/3/6	518/11/42	480/15/39	856/25/76	1350/22/64	905/16/38
6W8FP		12/8/8	220/16/25	720/32/85	959/29/90	350/22/74
G3LNS	3/1/3	166/11/34	214/17/60	1172/25/66	1098/28/75	23/8/18
W7RM	15/6/6	139/22/40	417/23/50	484/28/73	1019/27/72	21/9/9
UB5WE		268/10/40	169/16/47	1061/33/102	637/23/73	89/12/37
W1ZM		225/22/68	76/16/40	533/29/84	493/27/97	63/11/31
OK2RZ		279/8/34	156/13/35	729/26/87	625/31/87	30/11/24
W3LPL	10/4/5	117/20/63	106/20/60	426/29/84	495/25/99	52/11/30

WORLD TOP MULTI-OPERATOR — SINGLE TRANSMITTER

VP2M	39/5/13	564/18/52	713/22/61	1267/32/104	1983/27/97	779/18/44
EABCR	12/3/5	486/19/70	389/19/59	785/30/96	1115/27/89	240/22/84
UK9AAN		340/18/63	556/30/84	1031/35/126	527/28/92	320/18/51
DL0WU	11/2/11	191/14/45	576/19/72	1144/32/104	1230/31/101	85/13/34
VP5WW	13/3/5	730/12/45	453/14/46	1627/22/66	1678/20/58	91/15/27
FG0MM	2/1/2	546/10/29	444/17/44	1243/28/88	1484/19/48	686/12/22

WORLD TOP MULTI-OPERATOR — MULTI-TRANSMITTER

DL0PG	105/3/14	787/21/72	975/24/84	2600/36/135	929/33/132	139/17/46
PJ1AA	14/5/9	481/15/54	401/18/51	1698/32/113	1532/25/87	929/21/48
DK2BI	94/2/11	454/12/54	603/26/81	1700/35/116	1588/34/122	89/14/40
W2PV	60/11/18	654/23/83	360/28/92	1461/36/130	949/32/120	94/13/43
W3AU	35/6/12	280/22/74	302/27/86	1055/37/134	1206/32/128	177/16/55
WA2ZAA	32/7/12	455/22/81	247/23/75	1547/35/133	801/32/123	111/11/42

shows this . . . VX9A. Please find enclosed 4 entries from Greater Peterborough ARC. We hope our acorn will grow to a 54 Megapoint oak in a few years! . . . G4BBA. USA cross-band on 3.8 MHz, that was a surprise and 59+ most of them, second shock was VP5WW on a CQ . . . VK3AAO. Number of improvements paid off this year—shorter call sign; speech processing; beam on 40; 2-hour nap before contest; and hunting multipliers a lot; but major improvement was the YL who kept me company, fed me and kept me going until the end . . . F5QQ opr. of FY7AK. Worked 9V1SH more than 12,000 miles away—5,000 miles per watt . . . OA8V. SRI to send in such a poor log—but I tried! My own rig failed a week before—not fixed yet. Elec. failed Sat. P.M.; poured (rain) entire weekend; Sat. & Sun. work days in my profession (priest). Finally borrowed rig with bad ant. with 2 hrs. to go; couldn't crack QRM; finally got started & had to QRT for work . . . CE9AE. "Europeans don't copy me—believe that they don't have good receivers. Hi . . . 4M4GD. This is my first contest . . . YV5YL. Poor conditions. (Band) only open 11 hours the first day, and 10 hours the second day. In the South Pacific I could only work 5W1AU . . . CV4CR. 5J4 was a special prefix used during two weeks by the stations of Medellin, Colombia in commemoration of 300 years foundation of the city. My congratulations for the finest contest in the world. After ten years of not being active in ham radio, I came back and found the contest more interesting than ever . . . 5J4EB. The antenna stuck east and two local amateurs had to climb up the 65 foot tower . . . EA8JJ. Very difficult to work W stations on 20 m. with my vertical antenna . . . TU2DF.



Single Band Million-pointer, CW3BR, had a field day on 20.

USA TOP SINGLE OPERATOR — ALL BAND

Station	160	80	40	20	15	10
W7RM	15/6/6	139/22/40	417/23/50	484/28/73	1019/27/72	21/9/9
W1ZM		225/22/68	76/16/40	533/29/84	493/27/97	63/11/31
W3LPL	10/4/5	117/20/63	106/20/60	426/29/84	495/25/99	52/11/30
W6RR		49/13/23	160/20/48	310/27/76	849/26/75	73/14/31
W7JST	1/1/1	52/18/32	295/26/50	355/33/83	570/30/69	46/13/26
W3CRE	3/2/2	100/15/46	86/18/53	831/33/107	177/22/73	44/10/26
K4VX	10/3/6	94/14/43	63/17/39	265/24/71	597/27/100	77/13/36
W6MH		111/13/48	107/17/56	392/27/76	365/27/83	78/15/40
W2GXD		77/12/37	71/17/43	323/25/73	547/22/87	63/14/35
W4QCW	8/3/6	117/18/56	112/19/56	275/25/69	326/24/77	49/13/32

USA TOP MULTI-OPERATOR — SINGLE TRANSMITTER

W6ONV		57/18/30	444/25/44	285/27/79	838/27/77	20/8/12
W2HPF	7/2/4	150/19/67	82/21/58	461/27/83	366/24/101	43/11/34
K3MNT/7	5/3/3	73/15/26	403/20/35	406/30/78	645/23/50	12/4/6
W6PAA	4/4/4	96/16/28	276/22/43	380/25/62	462/22/56	30/11/15
WA1N2T		134/17/53	84/16/51	313/27/81	390/23/83	62/13/36
WA1STN	6/3/4	94/12/47	71/17/42	445/28/72	307/23/83	56/10/29

USA TOP MULTI-OPERATOR — MULTI-TRANSMITTER

W2PV	60/11/18	654/23/83	360/28/92	1461/36/130	949/32/120	94/13/43
W3AU	35/6/12	280/22/74	302/27/86	1055/37/134	1206/32/128	177/16/55
WA2ZAA	32/7/12	445/22/81	247/23/75	1547/35/133	801/32/123	111/11/42
K6SEN	36/7/8	261/24/62	438/29/72	380/25/62	1157/31/87	132/16/39
WA8ZDF	51/6/11	378/22/69	405/28/85	1080/36/116	651/28/111	124/13/40
W3WJD	23/5/8	439/23/80	239/27/82	844/34/110	920/27/112	116/14/46

No opening from Morocco to South America on 3.5 . . . CN8HD. Nothing at all heard on 40 & 80 . . . VQ9D. Had good fun. Not enough activity on 21 MHz . . . ZS6YK. Very hard to break through the JA wall to the states, otherwise great. Fancy having BV2B as a duplicate . . . VS6AF. Noticed a bit too late, at the fag end of the contest, that only the rotator was moving & not the Telrex—the lock pin had snapped! . . . VU2DK. Beautiful conditions and good European discipline for change, hi . . . EP2SN. Biggest thrill was being called in pileup by stations like 3B9DA and HV3SJ . . . EP2OD. Picked up 6 new countries for DXCC. Think more should try 28 MHz more often as the band was open most of the daylight hours in the Middle East . . . EP2EJ. Unbelievable opening to W6, W7 on 20 meters Saturday night, but since operating single band 21 it didn't matter . . . WA2KGY/4X. U.S. Operators very good on 80 & 40 this direction—very strong signals this way from W6's. Did

(Continued on page 69)

TROPHY WINNERS

Single-Operator Single Band

Martin Laine, OH2BH (14 MHz)

World Phone Trophy

Donor: Bill Leonard, W5SK

R.T. Nash, VE3KZ (21 MHz)

Canadian Phone Trophy

Donor: Gene Kriebel, 9E1D

Herbert Schoenbohm, KV4FZ (3.5 MHz)

Carib./C.A. Phone Trophy

Donor: Bill Leonard, W5SK

Mario Pablo Rebutello, CV4CR (28 MHz)

So. American Phone Trophy

Donor: Bill Leonard, W5SK

Single-Operator All Band

FY7AK (Opr. Ron Delcourt, F500)

World Phone Trophy

Donor: Bill Leonard, W5SK

W7RM (Opr. Chip Margell, K7VFP)

USA Phone Trophy

Donor: Piedmont Valley Radio Club

X13HUM (Opr. D.W. Dudley, VE3BVD)

Canadian Phone Trophy

Donor: Jack Halton, VE3B

G. Beasley, G31NS

European Phone Trophy

Donor: WABV Operator

James R. Perry, T12VIX

Carib./C.A. Phone Trophy

Donor: Harold Fox, W4AP

Rutilo Ferreira Graca, CUMIZ

African Phone Trophy

Donor: Bill Leonard, W5SK

Norio Syter, EP2SN

Asian Phone Trophy

Donor: Bill Leonard, W5SK

Katashi Nose, KH6IJ

Oceania Phone Trophy

Donor: Bill Leonard, W5SK

Multi-Operator Single Transmitter

VP2M (VE7SV, K7JCA, VE7BD, W7E XM

VP2MF)

World Phone Trophy

Donor: Bill Leonard, W5SK

Multi-Operator Multi-Transmitter

DL0PG (DK7UL, DK3BJ, DJ9FE, DJ5KY,

DJ9TD, DK1QV, DK1FW, DJ1FC, DK1OC)

World Phone Trophy

Donor: Bill Leonard, W5SK

Expedition Trophy

VP2M (VE7SV, K7JCA, VE7BD

W7E XM, VP2MF)

Donor: Bill Leonard, W5SK

Special CQ Plaque

Rafael Ponce de Leon, CW3BR

Zai Kabral, VU2DK

Number groups after call letters denotes following: Band, (A-all) Final Score, Number of QSTs, Zones and Countries. Certificate winners are listed Bold Face.

**PHONE RESULTS
SINGLE OPERATOR
NORTH AMERICA**

United States

W1ZM	A 1,685,125 1390 105 320	(Opr. WA2QLQ)
W5UDK/1	A 624,102 645 84 270	
W1ARHA	A 529,878 673 72 210	
W1DAL	A 340,752 550 59 170	
W1SKV	A 286,220 458 57 163	
W1NRF	A 207,438 340 62 169	
W1B1H	A 149,504 223 68 188	
W1HWM	A 110,188 249 48 115	
W1SQB	A 80,730 225 34 96	
W1JFL	A 76,486 170 54 113	
W1WY	A 71,868 184 54 105	
W1JDE	A 52,932 160 38 94	
W1GPK	A 38,744 130 37 79	
W1SCX	A 6,480 48 17 31	
W1PLU	A 6,264 60 10 26	
KIAGB	A 4,750 36 16 34	
W1HAA	A 4,067 33 17 32	
W1HFN	28 13,052 97 12 40	
W1UAD	" 10,339 90 11 38	
K1JHX	21 354,660 875 26 112	
W1MDO	" 120,536 346 24 78	
W1HDI	" 24,948 108 22 62	
W1IUVB	" 17,472 101 17 47	
K111K	" 11,712 70 17 44	
W1UIZH	" 2,288 33 7 19	
W1ANKZ	14 221,578 630 29 90	
W1RGR	" 44,416 237 14 50	
W1HON	" 41,965 190 19 58	
W1FXD	7 43,296 178 24 72	
W1WYN	" 27,043 121 20 64	
W1EBK	3.8 77,420 330 22 76	
W1JMP	" 17,226 139 11 43	
W1FBX	" 6,952 62 12 32	
W1SD	" 6,532 56 12 34	
K1PBW	1.8 2,828 48 9 19	
W1BB	" 585 16 6 7	
W2HMH	A 1,161,043 1040 99 304	
W2GXD	A 1,118,725 1081 90 275	
W2RHE	A 489,985 650 65 200	
W2HNO	A 425,986 551 75 214	
W2HBT	A 397,898 504 67 216	
W2BCKS	A 353,073 428 81 220	
W2RFL	A 346,104 537 65 163	
K9EGA/2	A 344,760 509 69 186	
W2EHB	A 272,076 391 65 181	
W2BJUN	A 202,560 327 62 178	
W2HHB	A 152,298 313 52 127	
W2AX	A 148,782 292 47 134	
W2LEJ	A 138,284 275 52 129	
W2S5G	A 113,386 241 50 128	
K2BK	A 109,178 258 48 110	
W2LYL	A 102,660 253 40 105	
W2HZH	A 92,002 226 51 106	
W2ADLV	A 79,946 210 36 106	
W2RRKK	A 77,312 215 38 90	
K2JOC	A 76,035 225 31 80	
W2ZLJ	A 73,780 196 41 99	
W2AZWH	A 69,978 226 31 78	
K2SNK	A 66,674 218 31 75	
W2NDR	A 57,400 165 42 98	
W2VFT	A 54,912 152 41 102	
W2QCF	A 52,628 166 37 81	
W2FGY	A 43,641 141 31 86	
W2PFO	A 42,356 139 31 85	
W2EAH	A 38,313 110 42 87	
W2ZHN	A 29,539 107 31 78	
W2MB	A 27,100 106 29 71	
W2BJHW	A 17,050 98 18 44	
W2UYL	A 4,869 30 16 23	
W2AEJZ	A 4,089 35 18 29	
W2FXN	A 1,029 19 9 12	
W2TLD	28 5,400 56 11 29	
W2AUB	" 3,744 41 11 28	
W2NIN	21 180,880 473 25 108	
W2PWW	" 90,871 261 27 94	
W2ZGI	" 59,590 209 22 79	
W2TKY	" 48,500 173 26 74	
W2ZLOF	" 31,680 142 21 59	
W2WRR	" 4,625 49 11 26	
W2FDE	" 2,958 33 10 24	
W2FVS	" 1,628 30 7 15	
W2BIWH	" 864 19 4 14	
W2DT	14 44,737 200 18 59	
K2QB	" 34,710 191 20 45	
W2JGR	" 17,202 123 14 33	
K2DQT	" 7 646 22 6 11	
W2LITQ	3.8 62,504 254 25 79	
W2EKH	" 39,858 234 16 57	
W2LCC	" 2,968 51 8 20	
W2EAH/M2	" 220 11 4 7	
W2BP	1.8 760 16 6 13	
W3LPL	A 1,527,750 1206 109 341	(Opr. WA3HRV)
W3CRE	A 1,440,373 1241 100 307	
W3VT	A 646,170 650 92 270	
W3GRF	A 555,788 700 75 209	
K3FF	A 352,500 459 79 203	

W3USS	A 319,176 464 59 195
K37AW	A 314,084 455 55 178
K3ZOL	A 210,897 346 61 158
WA3WRD	A 209,898 371 57 150
W3KT	A 207,460 333 61 169
K3AWZ	A 196,650 322 64 166
W3GRS	A 196,075 295 69 184
W3KFG	A 154,682 307 49 129
W3KV	A 153,153 301 53 134
WA3YGH	A 143,234 297 54 128
W3GID	A 136,422 248 57 141
WA3NNA	A 124,450 242 58 132
W3MFX	A 119,886 374 43 116
W3JSX	A 115,392 235 58 134
W3GL	A 114,270 233 60 135
WA3SZI	A 96,850 278 31 99
WA3SSB	A 91,377 206 38 105
K3BNS	A 87,216 219 38 100
K3WOK	A 86,724 220 42 104
W3ZNT	A 79,566 168 55 123
W3JPT	A 78,150 201 42 108
W3YHR	A 54,511 139 43 108
W3GZQ	A 49,320 160 39 81
W3CGS	A 47,082 142 39 79
W3EVS	A 42,572 132 39 77
W3HVM	A 39,936 142 27 77
WA3WNU	A 32,342 120 32 71
W3ML	A 28,200 108 30 70
W3BB	A 27,548 135 19 52
W3YFV	A 24,995 106 27 58
W3ZJ	A 19,926 97 26 55
W3AEL	A 3,405 61 11 27
W3GQ/3	A 616 18 6 8
W3ZSR	A 513 10 9 10
WA3HMM	28 9,894 194 13 38
K3AIG	21 65,835 218 25 80
W3EVL	" 59,900 219 20 75
WA3RRS	" 57,268 198 22 81
W3ZPO	" 33,803 156 19 58
W3OPX	14 190,653 628 25 78
W3AQP	" 182,800 624 25 75
W3DBT	" 118,335 355 31 84
WA3UXP	" 2,295 30 7 20
W3PHL	7 110,799 337 29 88
K5IZN/3	" 14,732 104 15 43
W3KMY	3.8 10,123 83 13 40
K4VX	A 1,188,039 1106 98 295
W4QCW	A 983,060 887 102 296
(Opr. WA8ZT)	
W4UPJ	A 815,915 875 83 248
K4PQL	A 600,357 748 67 226
W4UQE	A 560,320 643 82 238
W4MYA	A 555,772 640 86 236
K4EKJ	A 469,660 710 59 171
WA4HPF	A 430,014 556 82 216
W4OSSH	A 401,250 471 85 236
K4KZJ	A 396,342 508 75 216
W4ZSH	A 354,716 441 73 211
W4OSN	A 354,060 485 76 205
WA4EYR	A 341,288 415 84 212
W4ORT	A 320,144 445 73 199
W4WRY	A 316,799 440 71 200
K4IWD	A 314,662 442 70 192
W4PRO	A 289,200 441 60 180
K4EZ	A 248,235 378 73 174
W4BYV	A 237,669 381 61 166
W4UYD	A 227,470 378 57 158
W4OXD	A 205,110 288 104 161
W4ZTW	A 198,720 351 58 158
K4ZRK	A 191,864 303 62 170
W4KNW	A 187,368 305 61 161
K4UUL	A 174,070 311 53 153
WA4CQJ	A 173,582 275 69 160
K4CL	A 172,380 314 58 146
W4ZNH	A 170,495 309 64 151
W4BAU/4	A 152,914 288 55 147
W4UFW	A 152,453 284 61 142
W4UYC	A 134,008 279 43 121
LUBAGT/WA	A 128,710 238 68 143
W4KTR	A 115,624 236 55 139
W4UAZ	A 113,740 229 54 134
W4TBO	A 106,248 257 42 110
W4HJ	A 101,536 218 59 108
W4FOT	A 74,250 187 38 97
W4IQ	A 70,704 186 40 104
W4KFC	A 67,800 206 31 89
K4ND	A 65,258 173 43 91
K4NJM	A 62,823 181 35 94
W4LVM	A 55,062 166 41 92
W4ELW	A 52,959 159 35 92
W4NQA	A 48,732 145 37 87
K4UEE	A 48,026 149 42 76
W4WEG	A 45,024 141 33 79
K4GFX	A 41,300 150 25 75
WA0MYM/4	A 33,078 101 33 78
K4TBN	A 30,555 108 29 76
W4KMS	A 22,632 86 31 61
K4JYM	A 19,422 94 23 55
W4ILR	A 16,280 81 18 56
K4PHE	A 15,410 71 20 47
W4DRU	A 13,020 58 31 53
W4ZM	A 12,608 74 18 46
W4UVP	A 10,703 64 24 53
W4HVV	A 9,300 51 22 40
W4GAB	A 7,743 107 26 47
W4WHE/4	A 6,328 52 21 35
K4ZA	A 4,592 43 14 27
W44CWU	A 4,508 41 17 29
W4HOS	A 2,440 42 21 35
W4GF	A 1,782 25 9 18
K4KA	A 1,696 23 10 22

W4UIW	A 1,137 43 10 27
W4I7	A 775 16 10 15
K4HWW	28 11,515 90 14 33
W4OZF	" 11,055 78 15 40
K3IGA/4	" 10,506 83 15 36
WA4JQS	" 5,355 76 11 24
K4TWJ	" 3,663 44 10 23
K4PHY	21 262,035 674 29 106
W4FDA	" 214,608 546 29 107
WA4OSM	" 182,286 511 27 96
W4WSF	" 154,759 438 23 98
K4ISV	" 151,927 390 31 108
K4DJC	" 141,771 395 27 102
W4BIUX	" 118,625 330 25 100
W8FAW/4	" 87,108 252 28 95
WA0HFV/4	" 63,444 220 24 78
K4SCL	" 60,162 193 25 86
W4AHEK	" 22,100 130 19 46
W4BATEL	" 11,343 72 16 37
WA4ANF	" 10,100 73 13 37
W4SIU	14 105,408 307 28 94
W4BYPT	" 63,296 242 21 71
W4AFMS	" 28,842 151 16 50
W8IIN/4	" 19,244 108 18 50
W4EEO	" 2,074 22 13 21
W4AQE	7.0 34,470 136 23 67
W4KSE	" 20,935 98 21 58
W4DJD	" 17,219 101 18 49
W4BV	" 12,122 81 14 44
W4QNP	3.8 27,972 136 19 65
W4BA	" 17,010 109 17 46
W4RZ	" 9,724 82 16 36
K4KZP	" 5,625 54 12 33
W4BQZT	1.8 1,425 56 10 15
K5PFL	A 616,400 704 96 239
W5ARTG	A 581,828 640 93 241
K5FYA	A 550,500 573 97 278
W5NMA	A 484,484 589 88 220
K5KLA	A 244,464 351 76 188
K5VTA	A 238,280 356 74 185
W5KZK	A 218,550 366 66 169
K5EJW	A 199,440 328 73 167
W5KHP	A 190,209 334 63 150
W5JWM	A 162,720 271 72 154
W5UCS	A 134,848 265 58 138
W5WMC	A 128,154 247 56 130
K4KEW/5	A 108,942 201 66 135
W5BIFV	A 101,325 216 51 124
W5HIC	A 60,207 166 45 96
W5KTA	A 53,958 146 46 92
W5OB	A 49,764 143 46 97
W5EZY	A 48,910 142 45 89
W5EZW	A 28,672 107 38 74
W5ORS	A 25,410 93 42 68
W5OSH	A 16,716 74 29 55
W5UT	A 16,650 88 26 49
W5BMSX	A 14,195 67 35 50
W5AYOQ	A 12,600 76 34 50
W5VU	A 10,521 64 20 43
W5NLU	A 10,150 64 20 38
W5ASTX	A 9,387 63 23 40
W5ASNDV	A 9,135 55 25 38
W5FXQ	A 8,607 56 22 35
W5EJZ	A 6,136 47 15 37
K5LZJ	A 5,824 47 20 32
W5AE	A 3,595 52 20 33
W5ONL	A 3,008 39 8 24
W5OOG	A 2,040 25 13 21
W5AIEV	A 1,100 16 10 15
W5EDX	A 252 9 9 9
W5H5H	13 4,400 127 15 41
W5VDH	" 8,560 86 11 29
W5ASDT	21 143,637 393 27 100
W5UOJ	" 88,400 317

- (c) W9LUO, SSTV Monitor Mk I, QST March 1972, Mk II QST, March 1973
- (d) WB9LVI, Slow to Fast Scan Converter, QST March 1975, May 1975
2. (a) Protoboard 100 series, Continental Specialties Corp. P.O. Box 1942, New Haven, Ct. 06509
- (b) Micro-Vector plugboards, Vector Electronics Co., Inc. 12460 Gladstone Ave., Sylmar, Ca. 91342
- (c) *Electronics* magazine, February 19, 1976, Special issue on "Breadboards".
3. WB9LVI, Slow to Fast Scan Converters, QST, May 1975 page 30, figure 11.
The 2521 MOS shift registers are returned to -8 volts.
4. Signetics Data Book, C1974 pg. 2-87.
5. Fairchild Manual "MOS Integrated Circuits," C1974 pg. 5-17.

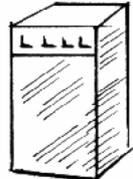
Phone Contest Story (from page 29)

anyone work zones 34, 35, 36? . . . HL9TB. It was very hard to break through the JA "radio wall" to the Stateside; on the other hand, JA gave me lots of QSO points . . . BV2B. Finally got my 10 meter opening to Europe. 21 new countries! . . . 9V1SH. Really enjoyed the contest, my first CQ WW DX Phone. Could have done better if I got my 3 el beam up, but beam was on the ground due to bad weather and storm out here. So have to try on the 19-year old folded dipole. Great difficulty copying during the daytime due to very bad splatter from a nearby B'cast station (less than 1/4 mile away radiating 100 KW on 7250 kHz. I hope to try my best in the CQ CW 'test with my beam up . . . 9M2FK. I hope my income tax is easier to complete than this log!! . . . WA6LRG/KB6. Pleased to QSO Paraguay after 35 years. Always a wonderful contest to take part in. One of the supreme joys of ham radio . . . VK5MF. Fantastic condx. Wrk 3 new ones. VX9A ans. my CQ . . . VE3ECP. Terrible line noise up to 10 over 9—stopped just B4 end of contest . . . XJ3BMV. Just dabbled for new countries this year. Last yr. operated from Fiji as 3D2DD. Some difference! . . . VE3EZM. What happened to 40 m? . . . VE2AYU. No fun at all to get the logs to you in time with the mail strike in Canada. Trying to locate a friendly U.S.-bound stewardess to mail my logs from Boston . . . VE1AIH. Good contest as always—sure wish 10 m. had been open . . . KL7IDH. 7P8AC called me in one of my pileups. Africa tough from here . . . KL7HCN. Too big a pile-up on 21MHz. U.S. East coast stations breaking every moment when I tried to pick-up a W6 or W7 . . . LX1BW. One QSO every 5 minutes from 8R1G operator, because there were 1000 calls everytime he called, Hi . . . HB9ZE. Operating from a temporary position in the living room with the kids playing around did not bring in a high score . . . PA0TO. 160 meter activity way down compared to last year. I think 160m should get a special multiplier to stimulate activity . . . PA0HIP. My first go at the phone contest . . . 9H1CH. The special callsign increased my usual number of QSO's, but it was hard to understand by the people working me . . . IV3VLS (Opr. I3PRK). QRM, QRM, QRM on 80!!! . . . I4ZSQ. It's always the best contest . . . I2TTL. Fantastic discipline of JA's enabled HL, VR1, VS6 and DU stations through the pile-ups . . . VZ0SRJ. Big surprise when a YB in Indonesia came through 59 on 10 meters—an otherwise dead band . . . LA5JS. The USA Boys are very good operators . . . SM7TV. S 7 to 8 noise level from leaky insulator—fixed 2 days after contest . . . VE4SN. Very good condx. from Central Canada . . . never thought the bands could be so crowded. Like good old times . . . VE4RP. Rotator problems—rotobrake broke—pulled coax from balun—had to butcher balun from 40 m and install on TH6DXX—3A0HF, FR8AH, VR1AA, JW5NM, 9H1DZ, HB0LL, 5B4ES, all answered my CQ's . . . XJ3GCO. Lots of competition in VE3 (XJ3??) this yr. A pleasure to use long yagi for first time. My first contest since the ant farm was leveled in



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the Bermuda Contest . . . VE3KZ. Condx to Europe this year were unsurpassed. VE7BWK/3 was wiping me out into Europe so I spent lot of time with W/K to make up . . . XJ3EDC. I am very glad, I could QSO 4 new countries . . . JA2HLX. May these good condx continue forever!! . . . JR2FNL. I wonder how many JA's send their results of the contest to you? I hear more than 300 stations in the contest every year . . . JA1BII. Cndx very poor on 28 MHz but we could QSO with OH3X2 and K6SEN . . . JH7KUP. The propagation was especially beautiful to Europe. EU's coming through all the afternoon until the sunset. I appreciate this contest . . . JH2IXQ. This is my very first experience and felt interest! . . . JR2HDS. I am happy to play contest. JA5PXG. It seems that the propagation was very good compared with last year . . . JG1UNF. I am certainly pleasantly surprised that my peanut whistle is getting out much points for me . . . JR1RWZ. Happy New Year . . . PY3CFP. Tremendous operating experience . . . PY2DOF. I had no plans to work the contest but worked quite a lot of stations . . . after contest, I asked a friend to tell me how to do the log and where to send it . . . PY2JY. Although having worked with a limited schedule . . . I was lucky enough to work a few new prefixes & countries . . . PY1FI. In the midst of the contest had to relay emergency traffic (accident) where were the Europeans? QSO's on 1.8, 3.5 & 7 MHz ought to be worth more than 3 points . . . CP1AT. It's a great contest. Sleepiness overcame my willpower after 2400 GMT . . . LU1ADI. Had sked with HL9TB on 80 hrd him 5/7 but I had to transmit on a different freq . . . worked VK6 at the last minute but someone said 'Your watch is 3 mins. slow' . . . LU2AFH. Poor operating caused my low score—condx were fantastic. KV4FZ was a great help. During my stay at St. Croix next yr. it'll be different . . . LU2DC/KV4. Propagation very poor for long periods during contest, particularly Oct. 25. . . VK3ARY. Last run into Europe just like JA's generally are . . . VK5SM. Thanks for a fine contest, but lucky condx were good that weekend. The two following weekends were very flat from here . . . VK2CW. Best October weekend and I had to miss it for your flaming Contest. At least I can count to ten in Japanese! . . .

Phone Contest Results
(from page 32)

UO50AK	14	40,256	283	22	52
UO5GR	7	3,230	73	6	28
Eu. Russia					
UA3VAF	A	596,097	995	84	237
UA3DFK	A	568,013	1,214	63	188
UA4HAA	A	421,776	971	58	144
UV3DN	A	250,475	659	59	156
UW1AE	A	190,082	494	59	143
UV3EQ	A	156,023	423	58	159
UA6GL	A	78,585	369	38	117
UA6JAD	A	77,172	426	36	82
UA3TN	A	72,048	324	43	115
UA3FT	A	63,360	144	36	108
UA6LWI	A	57,582	379	31	95
UA3ST	A	52,644	308	31	76
UA47A	A	49,005	271	37	84
UW6LC	A	48,120	222	37	83
UV3FD	A	45,150	261	39	66
UK3ABX	A	32,554	224	19	63
UK3DBT	A	30,096	216	23	65
UA3VCC	A	17,794	201	15	47
UA3XAW	A	14,910	170	16	55
UA3IAM	A	13,860	81	27	43
UA3LAB	A	13,350	86	25	50
UA4CO	A	9,906	75	26	52
UV3CS	A	9,513	101	21	42
UA4DL	A	8,670	99	15	36
UK3DDF	A	6,426	99	15	39
UW3RR	A	5,704	65	20	42
UA6JG	A	4,200	62	13	37
UA3WZ	A	520	23	7	13
UA6LBC	A	520	23	7	13
28 20,661 190 19 52					
UA4WPF	A	6,084	114	10	29
UA3TCH	A	4,708	71	12	32
RA3DQP	A	4,640	92	11	29
RA4HDE	A	3,312	75	9	27
RA3AKX	A	1,815	40	10	23
UA3DDV	A	476	26	4	13
UA1CS	21	205,683	739	31	80
UW3EH	A	91,300	610	21	62
UA3ERD	A	52,614	323	22	57
UA3BU	A	52,416	402	21	57
UA6BV	A	42,240	378	21	59
UA6HU	A	33,418	252	19	47
UW6CV	A	16,688	206	19	33
UA1QB	A	8,702	167	9	29
UW3TP	A	4,104	66	12	24
UA6DL	14	455,796	1,749	33	99
UA3GM	A	65,312	253	29	75
UA3GEA	A	11,468	188	8	39
UW1AX	A	1,856	34	12	20
UA3AAK	A	1,352	44	7	19
UW3IN	A	572	12	9	13
UA6RB	A	486	12	8	10
UA4UAZ	A	486	12	8	10
3.8 10,879 219 9 33					
UA6CQ	A	4,544	119	6	26
Ukraine					
UB5WF	A	2,016,483	2,224	94	299
UY5EG	A	748,322	1,277	83	211
UY500	A	496,016	1,033	65	167
UB5AAF	A	384,076	850	76	225
UB5VB	A	43,587	427	21	66
UB5LU	A	41,736	249	31	80
UB5PS	A	9,585	107	52	135
UB5ABJ	A	6,708	113	14	31
UB5VAL	A	3,713	43	16	31
UB5LAY	A	1,820	35	10	25
UB5WAD	A	1,080	39	7	20
UB5VAZ	A	1,080	39	7	20
28 14,310 216 15 38					
UB5VAF	A	7,788	171	11	33
UB5ARK	A	4,752	108	10	26
UB5MET	A	2,040	54	10	20
UB5DAE	A	476	18	6	11
RB5IOV	A	2	1	1	1
UK5JAA	A	2	1	1	1
21 143,350 633 33 89					
UY50Q	A	51,340	431	18	50
UB5SJ	A	30,450	248	19	56
UB5GBD	A	18,531	134	21	50
UY5HF	A	13,334	119	18	41
UB5EC	14	400,862	1,175	36	118
UK5WBG	A	154,562	776	30	79
UY5HV	A	72,150	410	29	82
UB5YV	A	34,800	348	18	57
UB5DD	A	23,184	151	23	61
UTSLY	A	12,000	203	8	42
UK5AA	A	384	19	6	10
UB5YAR	A	384	19	6	10
3.8 9,576 245 7 31					
UB5YBC	A	6,016	176	6	26
UR5UBJ	A	4,488	111	8	25
UK5YAR	A	3,164	102	6	22
UB5CAT	A	288	19	4	12

OCEANIA

American Phoenix Islands					
WASLRG/KBS					
14 299,556 1,012 33 73					
Australia					
VK4UR	A	242,951	672	40	87
VK4FH	A	183,300	630	37	63
VK5MF	A	159,063	489	39	72
VK3ARY	A	123,541	355	43	78
VK3SM	A	42,016	141	35	66
VK2OW	A	24,024	106	33	55
VK4PJ	A	18,522	101	24	39
VK3VQ	A	11,346	65	25	37
VK4UU	A	7,943	57	16	31

VK6CT	21	468,309	1,427	29	82	
VK4DO	14	18,428	104	24	44	
VK5BS	14	3,900	38	13	26	
VK5WO	14	2,352	30	11	17	
VK4LX	7	22,412	153	20	32	
VK3XB	3.5	8,379	145	10	11	
Gilbert Islands						
VR1AA	A	261,052	522	76	111	
Guam, Mariana Islands						
KG6JFY	A	392,730	1,169	54	60	
KG6JAJ	A	462	16	5	6	
Hawaii						
KH6J	A	1,334,236	2,395	76	112	
KH6ABF	A	30,720	162	29	35	
KH6IPY	A	13,284	139	16	20	
28 18,336 134 16 32						
KH6CKJ	A	21,112,280	926	16	24	
KH6IJA	A	21,109,872	665	19	37	
KH6IAC	A	14,328,776	1,355	29	55	
KH6BZF	A	14,226,009	955	26	57	
KH6GQW	A	3.5 36,050	364	13	22	
Indonesia						
YB0ABV	A	212,984	464	55	103	
Marshall Islands						
KX6LQ	A	126,854	380	47	72	
New Hebrides						
YJ8AN	A	177,572	630	39	64	
New Zealand						
ZL1BKK	A	1,074,674	1,453	80	174	
ZL1AGO	A	402,270	856	61	104	
ZL1TB	A	8,478	59	19	35	
ZL2BCO	21	30,899	200	17	36	
ZL1AMM	A	21	17,346	145	13	29
ZL1AAS	14	189,960	541	31	89	
ZL1AMO	A	3.5 48,384	295	21	35	

SOUTH AMERICA

Argentina					
LU2FAH	A	771,390	1,009	88	182
LU7MAY	A	725,109	1,103	81	150
LU8FEU	28	166,452	715	21	57
LU7MAO	A	28	12	2	2
LU4MBI	21	39,300	332	17	33
LU8PM	21	25,772	259	13	21
LU1ADI	14	3,218	48	17	17
Bolivia					
CP1AT	A	150,824	431	55	81
Brazil					
PY7AZO	A	132,912	321	41	101
PY2GNR	A	85,085	228	46	97
PY1BAR	A	67,973	239	30	71
PY1CHP	A	67,322	283	32	50
PY2BJ	A	56,250	262	26	49
PY1FI	A	52,593	171	46	95
PY2JY	A	36,900	169	29	45
PY2OB	A	23,650	89	35	51
PY2FXU	A	10,445	75	22	17
PY1BOL	A	2,059	25	12	17
Chile					
CE3EZ	A	18,620	100	34	36
CE4EM	28	60,780	355	20	40
CE2MZ	14	39,900	247	21	49
Colombia					
5J4A0Y	A	605,085	1,419	49	96
HK6BRK	A	16,259	84	29	42
HK1CMX	A	14,194,208	681	22	74
5J4EB	1.8	460	16	5	5
Easter Island					
CE0AE	14	140	8	5	5
Ecuador					
K4ERO/HC1	A	3.5 6,851	135	7	10
Falkland Islands					
VP8ON	A	24,480	124	38	58
VP8NX	A	7	2	1	2
French Guiana					
FY7AK	A	6,636,348	4,568	126	372
(Opr. F5QQ)					
Peru					
OA8V	A	142,785	305	53	118
OA4VR	7	28,478	178	18	40
Trinidad & Tobago					
9Y4NP	A	1,000,692	1,530	58	170
Uruguay					
CW3BR	14	1,104,872	2,285	37	130
CV4CR	28	668,624	1,745	30	101
CX8BE	A	271,353	1,063	22	65
CX3BH	21	505,788	1,528	25	88
Venezuela					
YV5ENI	A	247,270	530	45	113
YV5YL	A	31,714	125	40	61
YV4YC	21	436,008	1,339	25	86
YV2AMM	A	14,608,069	1,404	35	114
YV1EJ	A	25,263	151	20	43
YV3AC	A	17,263	101	19	42
4M4GD	7	55,704	209	19	47
YV4EI	A	27,652	160	18	44

Multi-Operator Single Transmitter UNITED STATES

WA1NZT	1,090,800	983	96	304
WA1STN	1,016,760	979	93	277
W1MXX	760,377	811	77	262
WA1QNF	1,596,800	300	54	146
W2HPF	1,596,747	1109	104	347
K2BML	809,600	811	97	255
K2ZFI	461,760	553	81	231
W2YD	405,285	685	58	147
W2UI	185,730	341	65	140
K2GXT	59,782	268	46	96
K3GJD	852,110	874	95	275
W9SZR/3	685,308	814	70	229
K3WB	468,963	577	73	224
W3NX	317,746	420	71	215
K3AVT	308,264	448	69	179
K3RIE	238,005	414	62	153
W4ALZR	1,004,350	940	95	284

STATION OPERATORS
Multi-Operator Single-Transmitter

CT10Y & K7CBZ. CY6AO: CY6AGV, CY6GN, CY6CCB, CY6AVO, CY6AP, CY6ANO, CY6BK, CY6TK, CY6JD, CY6ASA, CY6CEC, CY6AMR, CY6AMU, CY6CFR, CY6CDA, CY6AYX. **XJ3AA:** VE3FFA & VE3ABG. **DL0WU:** DK4TP, DK5EZ, DJ4AX, DJ8SW. **DL0JK:** DK1DU, DK2XX, DK8ZK, DK8ZL, DF1FL, DF2FK. **DL0KL:** DJ2EH, DK7NM, DK6NN, DJ4BE, DK9NV, DK9NU. **DJ0EK & DJ0BA. DL0UE:** DL3LU, DJ5FW, DJ4GO, DK4OV, DK2SS, DL8RL, DL8HA & DL8CM, DL8CH, DL8FR. **DL0IB:** DF1SD, DF1SR, DF2SJ, DF2SR, DF4SN, DJ3SR, DJ0RO, DJ0YI, DL1SE. **DK9RM & DL3RJ:** DL2RM, DK3RY, DL08W: DF3FB, DF3FD, DF2FJ. **DM2DUK & DM2AYK. EA8CR & EA8LO, OH2MM. F6DWW & F6DXF. F6GMM:** WA1JKJ, WA1JYY. **G3WYX & G3HTA, G3RUV, G3TJW. G4DAA:** G3FXB, G3MXJ, G3XBN, G3ZQW, G4BUE, G4BVH, G8KMQ. **G3RCV:** G3XMD, G3RZP, G3ZAY, G8KNW. **G3RAC:** G3XVR, G4BRK, G4ASV, G3ZJI, G8DMJ. **G8JC:** G3RMF, G3TOD, G3TZO, G4BXS, G4CXM, G4DXD, G4DXE, G8JBU. **G5YC:** G5AQQ, G8IPX, G4CEC, G4CEK, G8JQE, G8JON, G6VF, G3PAF. **G3KMI:** G3ZYW, G3WIE, G4AMI, G4CEN, G4AMH, G8KGG, G4DMY, G4ATU, G3ZER, G4DZC. **G3UNU:** G4BVY, G4DUJ, G8EXI, G8FXO, G8KDO, G8KYE, G8HNF. **G3EBH & G3TGK. GM3ZRC:** GM3HZN, GM3LRZ, GM3LYI, GM3XNJ, GM4DGE. **GW4ENT:** GW3LDC, GW3NWS, GW4BLE. **GW3XNY & GW3YFD. HA3KMA:** HA3ME, HA3MG, HA3PG, Laszlo, Egon. **HA5KFN/5:** HA5HY, HA5GF, H5-513, H5-503, H5-504. **HA5KC/7:** HA5MA, HA5MD, HA5MO. **HA9KLE:** HA0LO, HA0LZ, HA0MJ, HA0LJ, HA0543. **HA5KDO:** HA5KO, HA5HO, HA5FM. **HA4KYH:** HA4YL, HA4YO, Zoltan, Antal. **HA9KOL:** HA9OT, Geza, HA9PB. **HA6KNI:** HA6NN, Vegerti, Denesi, Tozer Gy. Szaboj. **HA0KDA:** HA0DI, HA0DV, HA0LK. **HA2KR8:** Dezzo, Csaba. **HA3KHC:** Arpaio, Ferenc. **HA6KVB:** Laszlo, Ferenc. **HA9KOV:** Istvan, Csaba. **HV3SJ:** DJ3JH, JA4CBP, DF2GX. **I1DSG & I1ANF, I1GUB, I1GJC, I1PCT, I1RBP, I1UW, I1VZ, I1VTB, & I1ZOLW. I2ECV, I1KN & I1LBH, I1FNX, I1JEK & I1DZ, I1NO, I1MFA, I1BRC, I1YGG, I1MNY, I1MEY, I1CKM, I1XTD, I1ZRP. I1XZC & I14IY, I1GZN, I1DLS. J1ZAY:** JA2JW, JA2IYJ, JA2JFS. **KA6GYL & KA6GRI. JA6YAP:** Kondo, Tsutsumi, Sato, Watanabe. **JA9YBA:** JH1GUO, JH2FKX, JH2SGU, JA3VEN, JA9DZS, JA9FSU, JA9GGH, JA9DPR, JA9GLL, JA9GOE. **JA1ZO:** Club. **JA3YCZ:** JA2UET, JH2FQW, JA3OGF, JA3XGF, JH3CFG, JA8JLT. **JA2ZAP:** Club. **KP4AXM:** K10TI, WB2POJ, K1DPG, Grant McCartney. **LZ2KKZ:** Christo, Danko, Penkoen. **LZ1KDP:** LZ1-A-508, LZ2H57, LZ1F84. **LZ0BFR:** LZ1QC, LZ1KX, LZ1-E-198. **OE7UU & OE3GSA, OE4SZW. OH2BM & OH2BPC. OH6DX & OH6JP. OH6JW, OH6KN, OH6KT, OH6UM, OH4RH & OH4RF. OH3EW & OH2CG. OH2BNP. OH3KAP:** OH3TFN, OH3CWU, OH3TPV, OH3TFM. **OH1KSO:** OH1WT, OH1AMF, OH1JWA, OH1ADL, OH1SF. **OH1KCP:** Seti, Taclar. **OK1KSL:** OK1AQ, OK1AHG, OK1FAE. **OK1KRO:** OK1IDK, OK1AYO. **OK3KFO:** OK3TFH, OK3CTY. **ON6MP & ON6NL, PA0MJK, PA0EDN, PA0MFM, P11PT:** van Kessel, Saalbrink, Kokee, Klok, Bloem. **PJ8YFQ:** K4YFQ, WB4VVF. **PY1EMM:** PY1TC, PY1ZBJ, PY1ZAE, PY7APS, F3TA. **PY3AS & PY3AHF, Jacobus. SM5A0E & SM6BJ. SK6AB:** SM2CUD, SM6AGR, SM6CCZ, SM6ASB, SM7EAN. **SK2AU:** SM2DOS, SM2DYS, SM2BFL, SM2FG. **SM5AUZU & SM0MC, SM0ATN. SP6FZB:** SP6FAF, SP6FHF, SP9KRT: SP9HMF, SP9FQ, SP9ZW. **SP6KDA:** Club. **SP3GEM:** Club. **SP2DVM:** Club. **SP9KOT:** SP9ZW, SP3FYI. **SP3QUA:** Club. **UK9AAN:** UA9AN, UA9AEN, UV9AB, UW9BY, RA9AF, UA9-165516, UL7-02671. **UK9QAA:** UA9RR, UA9-134-11, RA9QE, RA9QAO, UA9QAX, UK9OAO: UA9OAO, UA9ODD. **UK9CNE:** UA9BE, UA9-154-940. **UK9AAB:** UA9ABY, UA9AEE, UA9-103294. **UA9-10340, UA9-103344, UA9-10343. UK9FAA:** UA9FE, UA9FBE, UA9FSA, UA9FBW, UA9-153-69, **UK9SAA:** UA9SCF, RA9SCO, UA9SBO. **UK9CBE:** Frolov, Turkin, Rubinshtein, Vlasov, Krivosheev. **VP2A:** WA2BCK, K2IGW. **VP2M:** VE7SV, K7JCA, VE7BD, W7EXM, VP2HFM, **VP5WW:** WB4EYX, WB4IAE, **W4EV/VP9 & W4IRFM. W4INZT & K1YXK. W41STN & W41NNC. W1MX:** WB2MZE, WB8WNU, WA0UCU, **W41QNF & W41OCU. W2HPF & W2I1J, W2MBP, W2UBM, W2SWF. K2BMI & W2RWW. W2WID, K2FL & W2POG, K3KNH. W2YD & W2RKK, W2UOO. W2U1J & W43KRD. K2GZT:** W43YBT, W43YQ, W42FOE, **K3GJD & W43VUQ, W42KWB, W43LQV, W3GHR. W5SZR/3 & W2EXK, K3BW & W3SS. K3JLK, W3NX & K3NEZ, W3DRD. K3RLE & W43YH. W44LZ:** W4LBT, W4LKG, WB4HYN, W44FCT, WB4JRM, W44AZP, WB4OGW, **W4YWX & W4BTZ. K4LRO. W44BTC & W44UZT. W44CTC & W44TFU. K4WAR:** W6HGF, K7LSU, WB4GCL, K4EYB & K4LDR. **WB5EYP & K5TSR. WB5HYV & WB5JWB, W44BPK, WB5NSC, WB5NQS. W5RRR:** W5LSZ, W5TFC. **W60NV & W49UCF. W6PAA & W6OWQ, W6VEF, W6GAIN, K6GRS, OH1VR. WB6K8K & W6PCB. WB6GFJ & WB6KRW, K6COF, W6OAT. W6KG & W6DOD. W6UA & W6UM. K3MNT/7 & W41KMM, W5QQQ, WNT7AGN, W47TLK, W4UJQG. W7VRO & W7EKM, W7DQM, W47ZWG. **K8YZW & K8D9V. WB8LDH & WB8LM, W8PPF, WB8RXN, W8ILO, W41DXS, WB8DFK, W8CNL. WB8IAY & W8LXW, W8IMZ, B8VLG. WB8QJL & WB8NSF, WB8HNB, WB8RMD. W9LT & W9BKA, K9UF, K9UWA. W9P8K & W9UDK, W9DOB, W9NDP, W9SPUL, W9LGT. W9B9WU & W9B9XN, W9B9JR, W9A9IB. W9A9IV & W9MLG, W9A9CO, W9A9LZA. **K9KWK & W9A9FWY. W0MNY & W0QCM, W0HBS, W0MS. WB0NHG & WB0LEX, WB0HAD. W0EEE:** WB0GQP, WB9FAT, Miller, Mery. **W0CIV:** WB0MHL, WB0KFM, WB0CQL, W40USW, K0YVI. **Y08KAN:** Y08ME, Y08MI, Y08GV, Y08AGZ. **Y04KBJ: Y04WU, Y04CT. YZ3TDX:** YZ3BU, YZ3EY. **YU4EXA & YU1DIQ, YU1OIF, YZ4RS6633. YZ1FJK:** Club. **YZ2CBM:** Grubisic, Kojatic. **ZL1AA:** ZL1ACG, ZL1ATX, ZL1TB, YZ1ABF. **YU1OBH, YU1OBK, YU1OFT, YU1OIF, YU1NTG, 4U1IUT:** K4IIF, OH2KH. **4M7AA:** Club. **ZS6ERB:** ZS6BNT, ZS6AJA, ZS6VA. **5LZA & 5LZFT. GD2MX:** XE2MB, W6DQX, W6GLD. **UR2AAB:** Vlad, Al & Lenja. **UK20AA:** Club. **UK2RBA:** UR2REN, UR2REO, UR2RDI, UR2FAB: Endel, Tonis, Margis, **UK6FAA:** UF601274, UF6FCO, UF601254. **UK7LHA:** UL7LEZ, UL7026133, UL7026177, UL7026233, RL7LAH. **UK7AAF:** Club. **UK7LAF:** UL7LBM, UL7026091, UL7026203. **UK7FAP:** UL7FAF, UL7FAE, UL702780. **UR2GKW:** UQ2ON, UQ2JP, UQ2GBJ, UQ2OC. **UK2GAG:** Alex, Val, Alex. **UK2GJB:** UQ2MU, UQ2OP, UQ203791. **UK2BAS:** UP2PAJ, UP2PAO, UP2038609, **UK2PAF:** UP2BCI, UP2BCR, UP2PAQ, UP2PAV. **UK2PAT:** UP2BCW, UP2BCO, UP2BCT. **UK2BAV:** UP2NC, UP2MC, Jonas, Kestas. **UK2P8K:** UP2BCQ, UP20381518. **UK2BAB:** UP2BAF, UP2BFB, UP2CG, UP2038214. **UK6APA:** UA6APW, UA6101081, UA6APP, UA6ARD. **UK2AAO:** UV3CC, UA3147-19, UA3142303, UA3EAI, UA6150363, UA3ADM. **UK3AB:** UW3BO, UV3CO, UW3FI. **UR3SAB:** UA3SCR, UA3SF, UA3SAQ, UA315117, UA315125. **UK6LAZ:** UB50731024, UA6150262, UA6101152, UB5073470. **UK3AAC:** UA3KH, UA3AAH, UA9154139, RA3ACE, VA3AGX. **UK3ABO:** Club. **UK3QAA:** UA3QCR, UA3QAO, UA3QDW. **UA3QAE:** UA3GO, UA3GBW, UA3GBJ, UA3QAX, UA3QDC, UA3RH. **UK3WAC:** Club. **UK4WAB:** Boris, Vlad, Gene. **UK3TBF:** Club. **UK3AAI:** Club. **UK3YAI:** Yuri, Alex, Nick. **UK3ACM:** Andrey, Andrey, Boris. **UK3MAA:** Club. **UK3EAA:** UA3EAL, UA3147146, UA3147115. **UK4LAC:** Yury, Harry. **UK3D8A:** UA3142141, UA3142531. **UK1WAA:** Boris, Igor, Oleg. **UK4AAA:** UA44AK, UA4156366,****

UA4156296. **UK6YAB:** UA610210, UA610280, UA6YAS. **UK6LKP:** UA6LLT, UA6150331, UA6150330. **UK6AAJ:** UA61011055, UA6101945, UA6101720. **UR4PAE:** Victor, Vlad, Mike. **UK4YAN:** UA4YAW, UA4YAL, UA409791. **UR3DCC:** UA3DBR, UA3DFT, UA3142370. **UK4PNZ:** Germ, Vlad. **UK5MAF:** UY5LK, UA6HZ, UB505922, UB5MDC, UB5MAK, UB5MCD. **UK5IAA:** Vlad, Valery, Valery. **UK5QBE:** Club. **UK5MAG:** UB5059610, UB5059611, UB505924. **UR5WAZ:** UB5068227, UB5WCW, UB5068398. **UK5EDB:** Vitaly, Vlad, Yury. **UK5VAD:** UB5VAO, UB5VBM, UB5VAL. **UK5IAI:** UA6LAC, UT-5AL, UB5073912. **UK5ZAK:** UB5ZAW, UB5ZAL, UB5069150. **UK5VAH:** Club. **UK5EDQ:** Club. **UK5LAS:** Club.

Multi-Operator, Multi-Transmitter

DK2BI: DK5WL, DK5WM, DK5WN, DK6WA, DK6WL, DK9WB, DC2WM, DK0KX: DJ1FG, DJ4PT, DJ6KA, DJ7YP, DK1AG, DK1QH, DK3RG, DK4QT, DK6QA, DK6QO, DK8BB, DK9BO, DL8OH, DL8QE, DL0II: DJ2YE, DJ5PE, DJ4TJ. **DLOPG:** DK2QL, DK3BJ, DJ9IE, DJ5KY, DJ9TO, DJ9QV, DK1FW, DJ1FC, DK7QO. **DL0WW:** DA2BD, DJ4OO, DJ5NR, DK7FO, DK3ZC, DL3ZA, DL6NK, DL6OE, DB2FZ, DC6CK, DC6FF, DC6VD, DC8DE. **G83MCG:** G3UKS, G4AYL, G3WGN, G3YPW, G3SJK, G3VCT, G4CDZ, G3RYV. **H3IKO:** HP1KC, HP1AC, HP1PM, HP1TS, **H89H:** HB9LG, HB9EA, HB9AGC, HB9AIB, HB9AIG, HB9AJM, HB9ALM, HB9ALX, HB9AQS, HB9AL, HB9BCD. **JA1YFL:** JR1GVZ, JE1TSD, JF1SMV, JG1CVR, JH2KKW, JA4JBT, JR6GD, JA0JCJ, JH1VLJ, JH2NXZ, JF1HKY, **JH1YDT:** JH1BBT, JH1GDU, JH1AGH, JR1BSM, JH1KLA, JR1EYB, JR1FNR, JR1FVK. **JA3YDS:** JA3UOQ, JA3DDJ, JH3HRW, JR3PYW, JA4KPJ, JA9EBA, JA9FR, JA9GLT, JA9OZG. **JA3YKC:** JA2VUP, JA3LDH, JA3ODC, JA3QJD, JA3REU, JA3RZN, JA3TRO, JA3UHW, JA3UPK, JH3AIU, JH3BBQ, JH3FZB, JH3GLP, JH3HBI, JH3KWQ, JH3LIJ, JH3NYM, JH3PLE, JH3VES, JR3BVB, JR3WLK, JE3JBI, JE3KCK, JA5GZB. **JA6YTU:** JA6PEZ, JA6AD, JA6RCB, JA6QET, JH6AKT, JA6AAB, JA6BPA, JA6RLM, JA6BSM, JA6SVP, JA6QW, JA6ER, **JATYRR:** JA7CFB, JA7CLN, JA7CLX, JA7CXV. **K2CW/2 & W2LSX, K2BPP, K2JAO, K2JQR, W2BCU, W43BNF, W2B2YW, W2FHN. K3TGM:** WA3VVV. **K4CG:** K3UWU, WB8EAS, WB4BQX. **K6SEN:** W6VPB, WB6YBL, WB6XPX, K6BCE, K6SVL, W6BHY, K6SSN, WB6OLD. **KS6FF:** KS6DV, ZL1BTU, W56FG, K6SFN. **L01BAR/W3:** WA3UTA, KOCMF, LU2DU/W3. **OH1AA:** OH1NH, OH1NK, OH1NL, OH1LW, OH1W, OH1SS, OH1SY, OH1XB, OH1ZK, OH1MD, OH1TV, OH2FS, OH3NB, OH3ZC, OH6QY. **OH2AW:** OH2BR, OH2BD, OH2BM, OH2BCV, OH2BFS, OH2BGA, OH2BIA, OH2BMV, OH2BPB, OH2BPI, OH2BPN, OH2EO, OH2KA, OH2YB, OH5XL. **PJ1AA:** PJ2ARL, PJ2BT, PJ2CL, PJ2CR, PJ2CW, PJ2DB, PJ2JW, PJ2MP, PJ2YD, PJ3BB, PJ9EE. **SK5AA:** SM5EJU, SM5FUG, SM5LEP, SM5FOS, SM5FYA, SM5FGU, SM5GRG, SM5FLO, SM5BVS, SM5FEF, SM5EDX, SM5FDD, SM5BFB, SM5AQC. **VX9A:** VE3MJ, VE3MR, VE3GNT, VE3IAA. **W2PV:** WA5ABV, W1GNC, W1GQQ, WA1KID, K1OME, K1ZND, WA2AYC, W2OEU, WA2SPL. **W2AZAA:** K2GL, W1GYE, K2KUR, K6SSS, W2SKE, K2UYG, W2GUH/O, W1HFB, K2B00, W2B0N, W2DHF, W2GLM. **W3AU & W3ZKH, K3EST, W3ADT, W43AMH, W3IN, CX1EK/W4, W3AZD, WB2JYM, W43TAI. W3BWZ:** K4CFB, W6AAX, W43AFO, W43KSO, W43NGS, W43ANE. **W3DHM:** WA3JLT. **W3FA:** W3ABC, W3GZO, K3URZ. **W3FRY:** K3HTZ, K3DZB, W3KFK, WA3LNM, WA3RID, WA3IYB, WN3ZLU, WN3ZLV. **W3GPE:** K3CY, K3OIO, K3WIV, WA3GUL, WA3PHO, WA3WIM, W3GM, W3GHM, WN3VYD, T12CC. **W3TV:** W3AOH, W3VW, K3GL. **W3WJD:** K3YUA, W43LRO, W3BGN, W3DOG. **W43ATX:** W5SCO, W43COJ. **W4BVV:** K3ZNV, K4GKD, K5CIT, K6UA, KODDA, WA3UHO, WB4BGV, WB4MRI, W3BOV, W4OCW. **W4MII:** W40QB, K5WTA. **W4OAW:** W4RVE, K4GTS. **W4USN:** W4DM, W4EZ, W44JVO. **W44YBV:** WB4GON, WB4GHF, WB4BAB. **W4SLES:** K5LZO, K5BGB, K5KYU, WB8FUO, W45WCT, W45ZNY. **WB5DTX:** WA5UCT, W5BJA, W5ZSA, W5FOF, K6MGO, W5BEE, W5QWF. **WB500E:** WA5IMK, W41F7/5, W5R1ZN, W5TMN, K5KSI, W45QXD, W5KVM, W45WVH. **W7SFA:** VE7ZZ/W7, K7HTZ, W470TT, CR6M/W7, W7APD, W6BXO, W47ME, **W48ZDF:** K3HLZ, W43GUJ, W3GXF, K8HLR, K8IDE, K8EJU, K8RMK 11MOI, W48IUN, W48VMO, W48RWU, W48YVR, W48TBQ, W8KFL, W8RIJ. **YZ2CBV:** YZ2RTG, YZ2RKE. **ZF1WW:** K3DPO, K3JGI.

QRP (from page 50)

off the sides. Gain has not been measured, but judging from comparison with a dipole for receiving, it should be conservatively 4db. The small pieces of wood at both ends of the elements (see picture) support wire elements for 15 meters. Spacing is rather wide for optimum 15 meter operation, but it seems that the predictable gain is realized despite the use of #18 copper wire elements. A separate feedline and matching balun is used, and tuning procedures are the same as noted above for 20 meters. And the antenna really works on both bands. The first station that I called with the new beam on 20 meters was UA1PAA—I got him and had a solid ten minute QSO. That's not too impressive until you learn that was my first QRP DX and what a thrill! Over 20 countries have been worked with the minirig so far. I've really been bitten by the DX bug and gone QRO to four watts. The list stands at 54 countries now and WAC. And during a past SS contest, I racked up 27 QSO's in one hour—with 700 milliwatts. As far as stateside work is concerned, I'm thinking seriously of dropping to the 100 milliwatt level—it's too easy with 700 milliwatts and this beam. All I can say is that for about \$9.00 and an afternoon's work, I've been working stations that I never dreamed of working with QRP before. What's more, the antenna has held up beautifully under 60 mph gusting winds. And on top of that, this antenna is