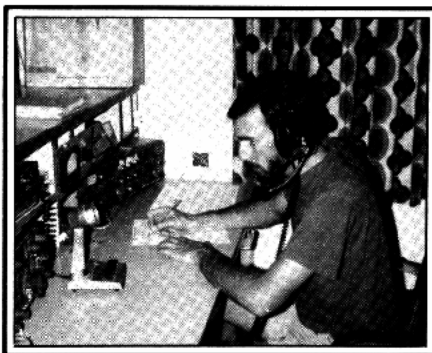




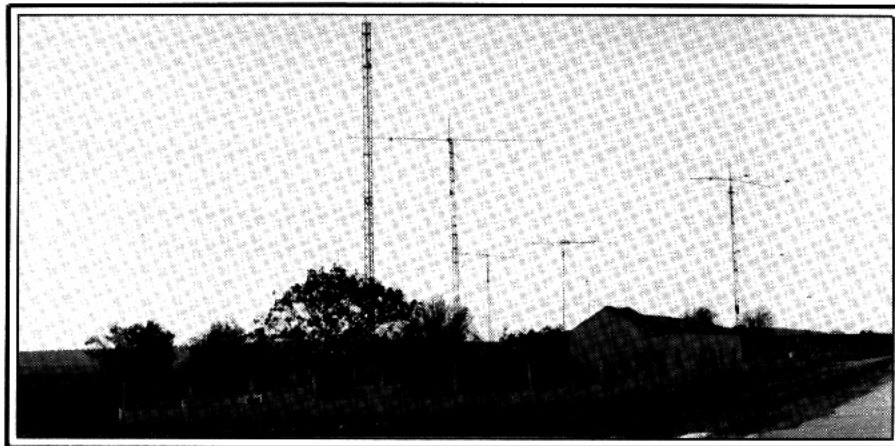
The outstanding crew at LZ7A: (left to right) LZ2DF, LZ2CC, LZ2HE, LZ2UA, LZ2PO, LZ1A-310/2.



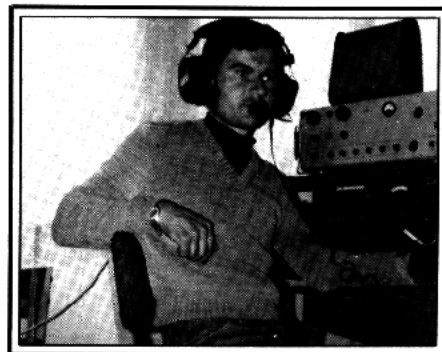
PJ2FR, with N6KT at the controls—world top score.



T11C, world top multi-multi. Front row (left to right): T12EY, T12CC, N6BV, T12JVA. Back row (left to right): T12J, N6TJ, N6ZZ, T12CF, N6AA, N6AW. Not shown: T12JCJ, T12TO, T12WI.



ED7BB, Sevilla Contest Club.



HA8IE, Feri.

1984 CQ WORLD-WIDE DX CONTEST PHONE RESULTS

BY BOB COX*, K3EST, AND LARRY BROCKMAN**, N6AR/4

Considering our position in the sunspot cycle, conditions were quite good for the 1984 CQ World-Wide SSB Contest. Even though sunspots are declining, activity in the test remained high, and many areas of the world showed significant increases. Spain, Chile, Indonesia, India, and Korea are to be congratulated for dramatic increases in contest participation.

Increased activity level, superior equipment, and a keen knowledge of propagation enabled contacts to be

made that probably were not possible during the last sunspot minimum.

All-band activity showed itself to be as hot as ever. PJ2FR (Op. N6KT), Rich, repeated last year's top effort, racking up 8.4 million points. To give heart to those who think they will never have a chance without big antennas, P44A operated by K1KI, using only an 18 AVQ and a 160 dipole on the beach, took second place honors with 7.8 million points. From Asia, EX6F broke through the Zone 9 group to capture third place.

The USA top man was K1AR. John lead the pack with an outstanding multiplier. Several hours of over 125 QSOs per hour on 21 MHz didn't hurt. Second place went to K2VV. John beat everyone, including

the USA multi-singles, in QSOs on 14MHz. Third place went to K1DG, Doug.

Single Band Scores

Conditions favored long skip on 28 MHz. Stations within 2000 miles of high population areas had restricted openings. Taking world honors was CE6EZ with 859K. He was followed by LU2FDR and LU1E, both with FB scores. In the USA, last year's winner, NU4Y, repeated his effort. Second place went to WB7FDQ. Quite a difference in location for first and second place.

It seems that 21 MHz was in excellent shape. More multipliers were worked on 21 than on 14 MHz. The world high score

*c/o CQ magazine

**P.O. Box 1225, Windermere, FL 32786

was HC10T with 1.1 million points. Pedro was followed by KG6DX with 1.08 million points. Top USA honors went to K2EK and K7JA, respectively.

As always, 14 MHz provided lots of excitement in strange band openings and reliability. In the logs submitted, over 20 VU's, 30 YB's, and 18 HL's were counted. Three stations broke the million point mark. KØGU/8R1 lead the way, followed by 5N24AMA and LU6ETB. In the US, W2YV (KQ2M Op.) ran away with honors. Second place went to the fine effort of W7IL.

With decreased conditions on the high frequencies, the low frequencies showed continued signs of increased activity and openings. With signals pounding in from all over the world on 7 MHz, Fernando, EA8AK, edged out Frank, 9Y4VU, for world top honors. Fernando and Frank had 115 and 110 countries, respectively! The midwest took all three top spots in the USA. KJ9D was the winner, followed by KVØQ and N8RA.

The 3.7 MHz band was outstanding. Many stations had over 70 countries. YV3AZC had 82 and won world top score over NE4G/6Y5. More and more people are putting in real efforts to increase their signal strength on 3.7 MHz. There were probably 25 real beams or quads on this band during the contest! Using one of those beams, W6RJ took top USA honors, the first time in memory that a west coast station was number one in the USA. He was followed by WØMJ/5 down in Louisiana.

LZ2CJ was the world top 1.8 MHz scorer. Wally says if you don't believe that it is possible to work 1400 stations, come on over and try it yourself! The only prerequisite is that you speak Russian. Second place went to HB9AMO, an outstanding job from Zone 14. USA laurels went to K5UR down in Arkansas. Rick edged out AA1K/3 in Delaware.

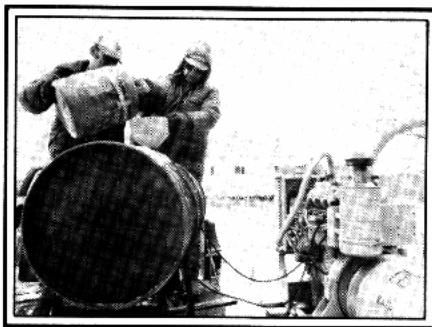
Multi-Single

The multi-single efforts always have a lot of stories behind them. Lots of work, lots of people, lots of time, a little recreation. Each station you see listed deserves a doff of our hats for their efforts. The world high winner was 4V2C, followed by LZ7A, the LZ2KTS boys, and ED9CM. In the US, K2BU just edged out N4CC for the top spot.

A special mention should go out to the boys who put VK9MR on the air especially for the contest. What a thrill they provided for lots of amateurs throughout the world.

Multi-Multi

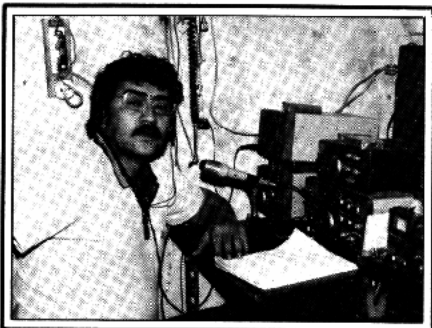
In the battle of the giants, T11C won first place over the fellows from VP2VCW. Operating from T11CF's QTH, a combined group of W6's and T1's lead all groups in total multipliers and QSOs.



VE7WWW and VE7AV fueling 20 kw generator for VE7ZZZ effort.



K7JA at the helm.



CE3DNP, Carlos.



VE2USA, with valuable Zone 2. Left to right are K8AQM, KD8SF, KA8POW, KA8SEW, AC8W, WD8CRY, N8CQA, K8DD.

Third place went to VP9AD, while a fine effort by ZY5EG rounded out the top four.

In the US, N2AA had more of everything than anyone else and with 7.4 million points won top honors. Special mention should be made of their 3.7 multiplier, 100. The first time ever on SSB that 100 countries were worked. W3LPL in Maryland and W4DR in Virginia finished second and third, respectively.

Team Contesting

This new category is being tried on an experimental basis. Its purpose is to generate interest between stations, promote activity, and increase competition. The winner of the first SSB team was the Frankford Radio Club + one, consisting of 6Y3M, N4NW/3D6, N3AD, W3BGN, and N2LT. They were followed by the Q-Processors: KJ9W/KH2, KG6DX, KD7P/KH2, and OH6JW.

QRPp

Using less than 5 watts input, UP2BIM was the world top low-power champion. Second place went to 4X6IF, while K7SS and K3WS finished third and fourth, respectively.

DXpedition Thanks

A special thanks goes out to the following stations who went on DXpeditions to make the contest more fun for all of us: W14K/C6A, ZF2IM, ZF2HP, 6Y3M, N4WF/6Y5, NE4G/6Y5, XX9CS, 9K2BE, 9M2RT, CT2FH, OHØBH, K4YT/DU9, PJ2FR, P44A, KØGU/8R1, YV5TK, 4V2C, VP2MW, A22ME, D44BC, 3D6DX, 5B4ES, VK9MR, HBØBHA, HBØAON,



ZY5EG, number 4 in the world multi-multi. Left to right back: PY5CA, PP5ABW, PY5NW, PY5VV, PY5BAB, PY1RR, PY5ZBU, PY5VM. Left to right front: PT9ZE, PY5IW, PY5EG.

OE2VEL/HBØ, 9H3DN, V2ARS, VP9AD, VP2VCW, VE2USA, T11C, XE2SI, ZK1XC.

Reminder

Please remember that duplicate QSOs can be grounds for disqualification. Dupe check your logs! Computer checking is fine. Any checking method actually is fine as long as your log is clean of dupes. Remember that the penalty for dupes left in the log is stiff. See the rules in this issue.

We would like to thank the CQ Contest Committee whose time and expertise are used in large amounts to check the logs: Frank, W1WY; John, K9DX; Terry, N6CW; Rick, N6ND; Dave, K2SS; John, K1AR; Ed, N3ED; Fred, AD6C; Jan, N6AW; Glenn, K6NA; Jim, W7EJ; Gene, N2AA; John, K2VV; and Doug, KR2Q.

Congratulations to all the winners. CU in 1985 tests.

73, Bob, K3EST, and Larry, N6AR/4



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RS-35A 13.8 VDC, 35 Amp Int., 25 Amp Cont.	125.60
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RS-20M Same As RS-20A, With Meter	98.76
RS-35M Same As RS-35A, With Meter	141.46
VS-20M Same As RS-20M, Adj. Volt./Curr.	117.06
VS-35M Same As RS-35M, Adj. Volt./Curr.	159.76
VS-50M 13.8 VDC, 50A Int., 37A Cont., Adj.	226.86

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PJ2FR (Opr. Richard J. Smith, N6KT)*
Donor: Special CQ Plaque

World

P44A (Opr. Thomas Frenaye, K1KI)
Donor: Bill Leonard, W2SKE

World QRPp

Saulius V. Zalnerauskas, UP2BIM
Donor: Adrian Weiss, K8EEG/Q

U.S.A.

John Dorr, K1AR
Donor: Potomac Valley Radio Club

Canada

Gary Vernon Hammond, XN3XN
Donor: Jack Baldwin, VE7RG

Carib./Central America

John Troost, TG9VT
Donor: Alex M. Kasevich, VP2MM

Europe

Tom Stiehl, PA2TMS
Donor: Thomas J. Peruzzi, Jr., W4BVV

Africa

Charles A. Jones, CN8ES
Donor: Gordon S. Marshall, W6RR

Asia

A.M. Karamyan, EX6F
Donor: Japan CQ Magazine

Japan

Tadao Katsuta, JH7DNO
Donor: Japan Crazy Contesters Club

Oceania

David Patton, KJ9W/KH2
Donor: Northern California DX Club

South America

Thomas Koppel, YV5TK
Donor: David Novoa, KP4AM

SINGLE OPERATOR, SINGLE BAND

World

James Kesterson, KØGU/8R1
Donor: K2HLB Memorial (NJDXA)

World—21 MHz

Pedro Katz, HC10T
Donor: Lee Wical, KH6BZF

World—3.8 MHz

Alberto Llavina, YV3AZC*
Donor: Special CQ Plaque

World—3.8 MHz

G. Edwin Grooms, NE4G/6Y5
Donor: Fred Capossela, K6SSS

USA—28 MHz

James R. Iori, NU4Y*
Donor: Special CQ Plaque

USA—28 MHz

Michael S. Cortright, WB7FDQ
Donor: Donald Thomas, N6DT

USA—3.8 MHz

Robert Ferrero, W6RJ
Donor: Arnold Tamchin, W2HCW

USA (21 MHz)

William Gioia, K2EK
Donor: Southern California DX Club

Canada (7 MHz)

Yuri Blarovich, XN3BMV
Donor: Gene Krehbiel, VE7KB

Carib/Central America Garry Murphy, KG4DX

Donor: Pedro Piza, Jr., NP4A/KP4ES
Memorial

Europe—28 MHz Zone 14

Helmut Winter, DJ1ZU

Donor: A.G. Anderson, GM3BCL

Japan—21 MHz

Masanori Kawakami, JR1CBC

Donor: DX Family Foundation

MULTI-OPERATOR SINGLE TRANSMITTER

World

**4V2C (Oprs. AA4GA, AA4NC, HH2MC,
N4DVV, NQ4I, W5VUX)**

Donor: Don Wallace, W6AM Memorial from
Frank Anzalone, W1WY

U.S.A.

K2BU (Oprs. K2BU and WA2HGM)

Donor: Carolina DX Association

Canada

**XN3BVD (Oprs. VE3BVD, VE3KZ,
VE6DU)**

Donor: Calgary Amateur Radio Association

Europe

**LZ7A (Oprs. LZ2HE, LZ2DF, LZ2PO,
LZ2CC, LZ2UA, LZ1A310/2)**

Donor: Bob Cox, K3EST

MULTI-OPERATOR MULTI-TRANSMITTER

World

**T11C (Oprs. N6AA, N6AW, N6BV, N6TJ,
N6ZZ, T12CC, T12CF, T12EY, T12J,
T12JCJ, T12JVA, T12TO, T12WI)***

Donor: Special CQ Plaque

World

**VP2VCW (Oprs. K1RX, K3EST, KB2XZ,
KT6V, N3ED, N6CW, N7ZZ, WA3LRO)**

Donor: Radio Club Venezolano

U.S.A.

**N2AA (Oprs. N2AA, K2BQ, K2NG, K2SS,
K2TT, K2TW, K2UR, KR2J, KR2Q,
KU2M, WB2BHC, K5NA, K8TD)**

Donor: Dale Hoppe, K6UA

Europe

**YT7W (Oprs. YU1NZV, YU6ZAX,
YU7AD, YU7AU, YU7BB, YU7KW,
YU7PFR)**

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CONTEST EXPEDITIONS

World—Single Operator

P44A (Opr. Thomas Frenaye, K1KI)

Donor: Stuart Meyer, W2GHK

World—Multi-Operator

**VK9MR (Oprs. VK2CIA, VK2WU, VK3CE,
VK5ARO)**

Donor: DJ3NG & DJ4EI Memorial
(SDXG & CDXG)

*Winner from previous year. See rules.

ZONE WINNERS

Table with columns: Zone, Call, Score, and Contestant. Lists winners for zones 1 through 20.

Team Contesting

- 1. Frankford Radio Club + one (6Y3M, N4NW/3D6, W3BGN, N2LT, N3AD) 10,418,669
2. Q-Processors (K9JW/KH2, KD7P/KH2, KG6DX, OH6JW) 7,212,262

Main contesting table with columns: Call, Score, and Contestant. Lists various call signs and their scores.

Table with columns: Call, Score, and Contestant. Lists various call signs and their scores.

BAHAMAS

Table with columns: Call, Score, and Contestant. Lists BAHAMAS contesting results.

CANADA

Table with columns: Call, Score, and Contestant. Lists CANADA contesting results.

CAYMAN ISLANDS

Table with columns: Call, Score, and Contestant. Lists CAYMAN ISLANDS contesting results.

CUBA

Table with columns: Call, Score, and Contestant. Lists CUBA contesting results.

DOMINICAN REPUBLIC

Table with columns: Call, Score, and Contestant. Lists DOMINICAN REPUBLIC contesting results.

GREENLAND

Table with columns: Call, Score, and Contestant. Lists GREENLAND contesting results.

GUANTANAMO BAY

Table with columns: Call, Score, and Contestant. Lists GUANTANAMO BAY contesting results.

GUATEMALA

Table with columns: Call, Score, and Contestant. Lists GUATEMALA contesting results.

HAITI

Table with columns: Call, Score, and Contestant. Lists HAITI contesting results.

HONDURAS

Table with columns: Call, Score, and Contestant. Lists HONDURAS contesting results.

JAMAICA

Table with columns: Call, Score, and Contestant. Lists JAMAICA contesting results.

MEXICO

Table with columns: Call, Score, and Contestant. Lists MEXICO contesting results.

PANAMA

Table with columns: Call, Score, and Contestant. Lists PANAMA contesting results.

ALASKA

Table with columns: Call, Score, and Contestant. Lists ALASKA contesting results.

TOP SCORES

WORLD Single Op All Band		USA Single Op All Band	
PJ2FR	8,420,220	K1AR	2,662,116
P44A	7,814,839	K2VV	2,389,164
EX6F	6,362,000	K1DG	2,358,850
YV5TK	6,107,744	W1ZM	2,160,082
KJ9W/KH2	4,337,092	W3BGN	1,992,977
CN8ES	4,195,706	K2XA	1,971,549
6Y3M	3,615,344	W2RQ	1,807,491
FR0FLO	3,172,668	K1TO	1,799,548
CE3DNP	2,956,080	N2LT	1,670,514
ZP5JCY	2,873,404	W0ZV	1,666,281
		W7EJ	1,642,410

Single Op Single Band 28 MHz		Single Op Single Band 28 MHz	
CE6EZ	859,165	NU4Y	38,078
LU2FDR	589,572	WB7FDQ	26,496
LU1E	573,138	W8WPC	19,560
CX5AO	498,386	NG6W	12,031
CX4HS	326,616	AA4M/6	11,424
LU5MDO	261,250	KB8LM	10,664

21 MHz		21 MHz	
HC1OT	1,112,820	K2EK	498,648
KG6DX	1,080,576	K7JA	429,769
9Y4AT	697,125	N4UM	424,853
EA4LH/CE3	643,710	N0AJ	406,120
I1KN	605,382	K6LY	272,150
YC0DPO	587,340	K1VUT	246,312

14 MHz		14 MHz	
K0GU/8R1	1,251,096	W2YV	640,640
5N24AMA	1,057,264	W7IL	391,035
LU6ETB	1,033,659	NB2P	315,972
CT2FH	887,656	KV4P	300,824
G3FXB	821,028	W6BH	282,321
KD7P/KH2	781,550	K2WK	255,860

7 MHz		7 MHz	
EA8AK	776,700	KJ9D	103,362
9Y4VU	700,488	KV0Q	55,610
T32AF	677,844	N8RA	43,935
XN3BMV	546,615	K1MM	41,912
XL1CV	391,629	N6ADI	38,000
I2VRN	309,672	K5NW	34,528

3.7 MHz		3.7 MHz	
YV3AZC	351,324	W6RJ	92,910
NE4G/6Y5	278,520	W0MJ/5	91,952
ZL1BIL	142,560	K1UO	89,200
HA8IE	117,819	WB2ITR	38,048
XN3EEW	103,870	N7DF/0	31,980
OH1RY	101,088	W9RN	31,244

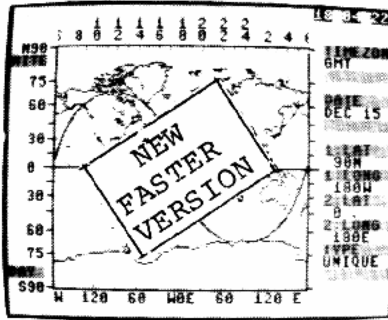
1.8 MHz		1.8 MHz	
LZ2CJ	107,818	K5UR	11,600
HB9AMO	42,092	AA1K/3	10,258
I4JMY	28,969	AE6U	4,200
SP3IBS	28,892	WA1SR	3,510
IK0BYO	28,152	N4SU	3,360
YV2IF	18,291	KG7D	3,248

Multi-Op Single Transmitter		Multi-Op Single Transmitter	
4V2C	8,448,099	K2BU	2,791,019
LZ7A	7,243,456	N4CC	2,718,682
ED9CM	6,860,565	NA8V	2,677,584
KP4BZ	6,804,200	N4ZC	2,653,413
VP2MW	6,509,970	N4RJ	2,305,635
ED7BB	5,095,400	K4VX/0	2,283,966

Multi-Op Multi-Transmitter		Multi-Op Multi-Transmitter	
T11C	22,157,695	N2AA	7,418,328
VP2VCW	17,842,662	W3LPL	6,402,844
VP9AD	16,794,200	W4DR	6,270,623
ZY5EG	13,342,416	N5AU	5,173,860
XE2SI	9,984,236	N6RZ	4,003,272
V2ARS	8,762,040	K0RF	3,576,748

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.. .. 80, 40M	40 ft. ..	\$ 35 ..
.. .. NO-TRAP DIPOLE - 160, 80, 40M	113 ft. long	\$ 71 ..
.. 80, 40M	85 ft. ..	\$ 55 ..

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A great tuner is now even better!

We Added:
• Taut band Jewell meters.
• Beefed up internal shielding.

Auto-switching meter to 3,000 watt scale.
Higher voltage input capacitors.

Our MB-TV line carries the same improvements.
Also New - ALL BAND antenna for use with our tuners.

25-1 VERNIER DIAL AUTOMATIC SWR PUSH-BUTTON ANTENNA SELECTION CONTINUOUS POWER MONITORING PUSH-BUTTON CAPACITOR SWITCH EASY GRIP TUNING

MB-V: NYE VIKING RUGGED 3KW ANTENNA TUNER

Discover this durably built, feature packed MB-V Antenna Tuner. You'll find operating conveniences that make antenna tuning a snap. The MB-V is value engineered to do the job over wide operating ranges. Complete quality features and the exclusive NYE VIKING TWO YEAR WARRANTY!

Maximize Power Transfer. Match your transmitter output impedance to almost any antenna system for maximum power transfer.

PI Network. Low Pass PI Network tuning - 15 to 30MHz. Heavy duty, silver plated continuously variable inductor with 25:1 vernier dial. 7000 volt variable capacitor and 15,000v switch selected fixed capacitors on output side. Tunes 40 to 2000 ohm antennas. Also provides harmonic suppression.

Automatic SWR. Hands free metering of SWR. No reset or calibration needed. Separate power meter - 300 or 3000 watts. Easy to read 2 1/2" recessed, backlighted meters show SWR and power continuously.

Antenna Switch. New! PUSH-BUTTON antenna switching to 4 antennas (2 coax, single wire and twin lead). Tuner bypass on first coax output. We designed this rugged switch to handle the power.

3KW Balun. Trifilar wound, triple core toroid gives balanced output to twin feeders from 200 to 1000 ohms and unbalanced output down to 20 ohms.

Model Options. MBV-01 includes all MB-V features less antenna switch and balun. MB-TV-02 is identical to MB-V-01 with the addition of a double core balun.

OTHER NYE VIKING PRODUCTS:
Straight Keys, Squeeze Key, Code Practice Set, Electronic and Memory Keyers, Phone Patches, 2kW Low Pass Filter, Automatic SWR and Power Meters for HF and 2m (plus a model for the blind), 200w PEP antenna tuner...and more!

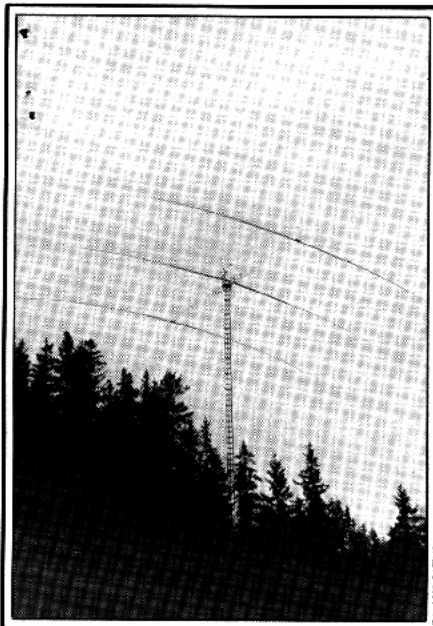
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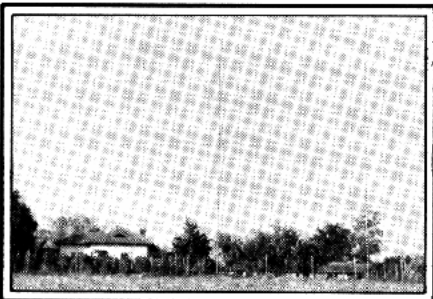
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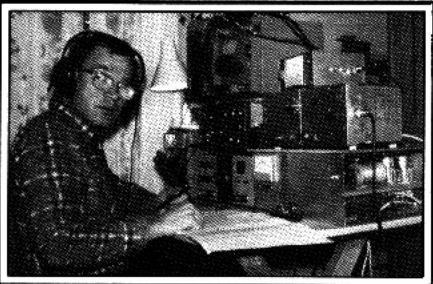
CIRCLE 7 ON READER SERVICE CARD



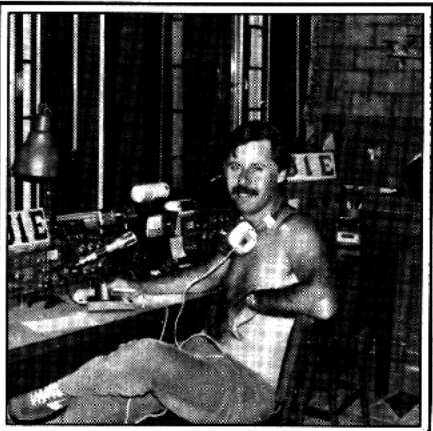
OH1RY on top of his 80 meter beam.



The world number one 160 location of LZ2CJ, Wally.



SP5INQ.



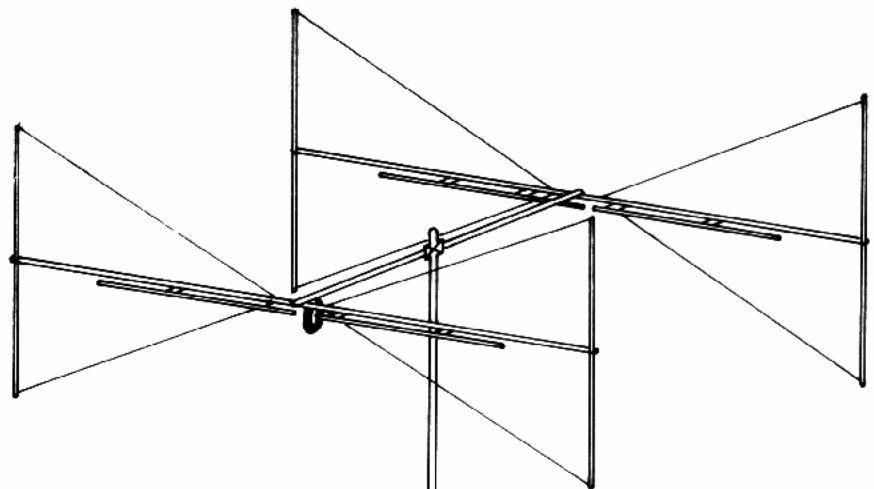
LU1E (Bob, LU3AJW).

OH4ML	82,485	201	57	178
OH7NW	24,966	180	27	87
OH1TD	20,952	172	26	71
OH5MQ	17,615	233	13	52
OH2BYS	15,318	98	26	85
OH2BBF	12,922	60	35	56
OH5JJ	11,022	150	16	50
OH6LL	9,055	133	24	55
OH1PY	6,385	54	24	41
OH2BLC	740	22	7	13
OH1AF	422,295	1579	32	109
				(Opr. OH1TW)
CH6HD	40,950	188	25	66
CH6MU	10,605	270	10	25
OH6PW	7,248	87	14	34
OH6CD	3,842	100	8	26
OH7PT	3,081	60	12	27
OH9UW	3,036	70	10	23
OH5WA	2,759	78	7	24
OH3AT	1,344	50	6	18
				(Opr. DH3MP)
OH5JC	460	17	7	13
OH3XZ	246,704	1151	34	102

OH6ZH	9,540	139	12	41	
OH1RY	3.7	101,088	787	26	78
FRANCE					
F6A0J	A	544,187	812	73	216
F6AWW		79,105	429	29	92
F3VX		67,410	290	36	90
F6API		31,824	126	41	95
F6AJA		29,890	127	38	57
F6CLM		10,656	100	25	49
F6GDK		5,408	73	16	36
F6KLN		4,440	97	13	27
F9JS	21	52,512	218	24	72
F6CQU	14	165,270	726	29	76
F9DK		31,930	319	17	45
F6FVA	7	2,130	71	5	25
F6BVB	3.7	6,384	151	5	37
GERMAN DEMOCRATIC REP.					
Y33ZB	A	539,976	1259	70	232
Y38YK	2	279,486	636	56	177
Y41ZH	3	202,440	629	59	151

Y54XL	169,830	577	49	136
Y49ZF	165,900	562	55	155
Y37UF	152,866	717	39	140
Y54VA	143,252	560	32	86
Y58ZA	134,697	531	43	134
Y22WD	122,500	332	55	141
Y28XL/A	118,904	558	40	127
Y36YM	111,758	383	47	126
Y36UE	105,967	433	57	142
Y4200	90,013	445	39	128
Y240H	87,423	266	53	108
Y21HB	61,102	304	38	99
Y22HF	54,750	204	45	105
Y24SK/A	54,150	241	45	105
Y32PH	53,676	334	32	94
Y51W0	50,184	280	36	100
Y78XL	46,056	336	27	87
Y48ZA	45,981	279	32	85
Y23YK	42,588	201	37	89
Y49NK	42,224	210	35	77
Y24NG	41,382	183	38	83
Y63VG	41,208	368	26	75
Y45VJ/P	39,567	272	26	95

Introducing the BUTTERFLY™ Beam from Butternut!

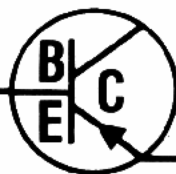


The HF4B Compact, 2-element Beam for 20-15-12-10 meters

Compact Size

The HF4B's 12½-foot elements and 6-foot boom are ideal for home-station use and for weekend retreats, condos, apartments and other places where oversized beams are prohibited. Its light weight (17 pounds) means it can be turned with a tv rotator, yet it is robustly constructed in the best tradition of our world-famous Butternut verticals.

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Performance

The HF4B BUTTERFLY™ has not sacrificed performance for compactness. Its unique design with fanned elements and L-C circuits avoids use of power-robbing traps yet provided high-efficiency operating on all bands. The BUTTERFLY™ outperforms anything in its class.

The HF4B offers an SWR of 1.5:1 or less at resonance. Its 2:1 bandwidth is 200 kHz on 20 meters, 450 kHz on 15, 1.7 MHz on 10, and across the entire 12 meter band. And it will handle the legal power limits both CW & SSB. Gain is at least 3 dB on 20, 4.5 dB on 15 and 5 dB on 10 & 12 meters. Front-to-back is up to 18 dB on 10, 12 and 20m, and up to 15 dB on 15m.

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So many people have discovered our products and publications that we simply can't hide our success any longer. In fact, our commitment to quality merchandise and personalized service has made us one of the worst-kept secrets in communications monitoring.

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UB4MZF 1,518,475 1792 105 332
UB4IZA 862,730 1122 82 259
UB4MWA 347,355 767 75 204
UB4MZZ 312,936 895 62 174
UB4EWB 282,940 833 59 176
UB4LXA 132,404 648 42 116
UB4MXR 129,808 559 40 112
UB4IXQ 103,452 603 28 120
UB4MWU 46,020 270 29 89
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UB4EXZ 8,358 165 15 27
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UT4UWC 4,747 96 13 34
UB4LZJ 4,301 69 9 17
UT4UWL 2,390 41 11 17

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W4DR 6,270,623 3318 157 526
NSAU 5,173,860 3068 162 474
N6RZ 4,003,272 2855 147 357
K8RF 3,576,748 2325 146 410
K3ZZ 2,259,590 1641 130 380
W3GM 2,131,920 1433 137 403
AD8P 1,868,500 1359 130 370
K5LZD 1,850,331 1684 143 354
K1NG 1,765,632 1291 128 356
N2RM 1,745,550 1447 107 324
AA4S 1,396,831 1027 137 366
N8DLR 992,192 833 136 283
W8NGO 557,034 577 103 250

ALASKA

KL7Y 3,349,000 3970 119 216
KL7RA 2,951,144 3990 104 198

ANTIGUA

V2ARS 8,762,040 8081 126 378

BERMUDA

VP9AD 16,794,200 11004 155 500

BRITISH VIRGIN ISLANDS

VP2VCW 17,842,662 12432 150 484

CANADA

VE7ZZZ 2,390,553 3699 100 197
VE2USA 1,890,472 3454 81 187

COSTA RICA

TI1C 22,157,695 13948 167 518

MEXICO

XE2SI 9,684,236 8952 143 450

ASIA

JAPAN

JA9YBA 3,843,017 2818 139 340
JA3YKC 2,740,904 2065 144 328
JA7YFB 2,203,278 1888 138 280
JA7YRR 1,975,500 1841 134 241
JA7YFH 1,581,822 1849 108 189
JH1YTX 86,516 187 57 115

EUROPE

ENGLAND

GB4ANT 4,737,051 4597 104 427

FEDERAL REP. OF GERMANY

DF8DX 5,866,732 4886 146 497

NETHERLANDS

PA6WW 2,252,432 4732 117 359
PI4DEC 842,400 1158 75 250

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SP9KAD 78,312 382 42 114

SPAIN

EA1MH 593,952 1083 77 192

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YT7W 7,196,000 5448 152 548
YU4EJC 62,828 357 37 101

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