

Roger, N4RR, racked up another decisive SOLP world win, this time from Bonaire as PJ4R.



Kari, OH2BP, escaping the frigid Finnish winter in his cozy SO2R RTTY shack.

Results of the 2010 CQ WPX RTTY Contest

BY ED MUNS,* WØYK

The 16th annual CQ WPX RTTY Contest once again broke the participation record with 2404 submitted logs, up 16% from last year's record number, which was up 11% from 2007. The number of different callsigns logged was similar to last year's number, around 16,000. However, there were over one-million QSOs, 27% more than in 2009 (compared to an 8% increase from 2007 to 2008) partially due to relatively good propagation conditions across 80–15 meters with a bit more activity on 10 meters than we've seen in recent years. The money band for QSO points was 40 meters. 170 countries appeared across all logs.

65% of the QSOs in the submitted logs were made by stations who made a total of less than 500 QSOs. 23% of the QSOs in the submitted logs were made with stations who did not submit a log and averaged less than 18 QSOs. There were 13,600 participants not listed in the line scores because they didn't submit logs, but who are always important to the success of the contest.

Participants interested in maximizing contacts, and perhaps new mults for various awards, were most rewarded on 20 and 15 meters. Those who sought to maximize their score made sure they got everything they could out of 40 meters where half the QSO rate nets the same points as on the high bands. Single ops, limited to 30 hours, had to strategically apply their time as one of their operating skills in this contest. For most, it was beneficial to be on 40 meters whenever it was open, supplementing with 80 meters, depending on rate and station capability. As the solar flux rises, the high bands will become more effective, despite their half-point value, and conversely the low bands will become less effective.

*e-mail: <w0yk@cqwpxrtty.com>

All of this resulted in 11 new world records and 35 new continental records. What a wonderful tribute to the continued growth of RTTY contesting with increasing numbers of both new and veteran contesters embracing the RTTY mode

Single-Operator

Single-Operator, Low Power (SOL). PJ4R (N4RR) handily took top honors once again with 5.4M, but Roger did so from Bonaire this time, sticking to the obvious advantages of a northern South America location. Wanderley, PY2MNL, a very familiar LP RTTY competitor also in South America, activated ZX2B for second place worldwide with 4.6M. Third and fourth was a photo finish (4.31M each!) with Fabi, VA2UP, moving past Filipe, CT1ILT, based on a lower error rate. Fabi broke the North America record and Filipe broke the Europe record. Mark, WE4M, broke the USA record. Steve, ZC4LI, won Asia, approaching close to the Asia record. Heijo, DJ1JO, operating EA8OM won Africa, and Felimon, DV1JM, came out on top in Oceania.

Single-Operator, High Power (SOH). This category set a new world record and five new continental records. Thanks to above normal conditions from Aruba, P49X (WØYK) broke the world record for the fourth year running by 19% with a score of 13.3M. Serge, 5B/UTØU (UT5UDX), was second worldwide and blasted the Asia record by 46% with 9.1M. Mike, K4GMH, took third by raising the North America record 15% to 7.9M. Boyan, LZ8E (LZ2BE), was fourth and broke the European record by 39% with 7.5M, a record previously held by Serge, G6PZ (UT5UDX). Fifth was the top Africa entry, Mohamed, CN2R (CN8KD), a very familiar RTTY contester with 6.5M. Massimo, KH6ZM, lifted the Oceania record 21% to 3.3M.

Single-Operator, Single Band 3.5 MHz. Salvatore, IV3YIM, took first place in Low Power and set a new world record with 1.1M points. The next 19 places were in Europe! Dai, JF2IWL, raised the Asia record he set last year.

In the High Power category Sasa, 9A1CCY, broke the world record with 2.5M and the next 12 finishes were from Europe. The first Africa record was established by Jose, CT3BD, with 158K.

Single-Operator, Single Band 7 MHz. The first nine places in Low Power were from Europe, with Ari, IQ3UD (IW3SQY), breaking the world record with 2.2M points. Pasquale, YW5RY (YV5KAJ), broke the South America record with 799K, while Jim, KC4HW, broke the North America record with 692K. In Asia, Toshi, JE2UFF, more than doubled his own record to 524K. Fadly, YB8FL, raised the Oceania record more than four times to 194K. There were no Africa entries this year.

Miha, S53M (S51FB), raised the High Power world record by 19% to 4.7M, with Europe taking the first four places in 2010. Earl, AE5AA (N5ZM), broke the North America record with 2.7M and Gennadiy, UN1L, shattered the Asia record by 107% with 2.1M.

Single-Operator, Single Band 14 MHz. Joel, VX6WQ (VE6WQ), took first place Low Power and set a new Canada record with 1.1M points. Second place with a new USA record was Bill, AKØA, with 1.0M. Third (first in Europe) was Sally, G2YL, with 620K.

Antonio, CT3EN, broke the High Power world record by 18% with 3.4M points. Krzysztof, SN7Q, was second, topping Europe with 2.1M and Don, WW4R (N4ZZ), was third, winning in the USA with 1.8M.

Single-Operator, Single Band 21 MHz. Jose, CT3KY, set a new Low Power world (and, Africa) record with 1.4M points. Peter, 6W2SC (HA3AUI), was second with 1.2M (and a very

low error rate), also breaking the prior world and Africa records. Third, with a new South America record, was Francesco, YV1FM, with 1M. Yuri, UP6P (UN6P), took fourth, setting a new Asia record with 797K. A new Europe record was set by Francisco, EA7ISH, with 659K, a new North America record was set by Gonzalo, XE3N, with 505K, and a new Oceania record was set by Nur, YB8EL, with 221K.

Ezequiel, LP2F (LU1FDU), broke the world and South America records in High Power with 2.2M points. Luis, CX4AAJ, took second with 1.7M. Nikola, 9A5W, took third with 1.5M, just short of his Europe record. Charles, KK5OQ, was fifth, with 1.1M, narrowly missing the North America record.

Single-Operator, Single Band 28 MHz. Masa, JF1RYU, set a new Low Power world and Asia record. Alisson, PU5AAD, took third with a new South America record, and Miro, YU2A, took fourth with a new Europe record.

Alexander, UAØSW, was first in High Power and Alex, RU6CQ, was second.

Multi-Operator

Multi-Operator Single-Transmitter (MS). The EE8E team (Juan, EA8CAC, Olli, EA4BQ [OHØXX], and Pekka, EA8AH [OH1RY]) operated the EA8AH station to smash the world record by 64% with 14.2M points. In second place was E73M (Boris, E73M, E73Y, E74A, and E74KC) with 8M. Sue, P41YL (AI6YL), took third with 7.9M and broke the South America record by 44% with hubby Carl, P49V (Al6V), who enjoyed sending "88" when she let him operate! In fourth, and breaking the Asia record by 34% with 7.4M points, was the RK9CWA team of Serge, UA9CGA, Mikhail, RW9CF, and Alex, RA9DF.

Multi-Operator Two-Transmitter (M2). 2009's winner and Europe record holder Z37M (Z31MM, Z32ID, Z35T, Z35X, Z36N, Z36W, and Roberto) broke that record by 31% with 12.0M points. However, 403A (Ranko, 403A, Dragon, 4O4A, Bore, 4O6Z, Acim, YU1YV, Simon, S51D, and Zlatko, Z30A) broke the Europe record by 57% with 14.5M points and took first place this year. Third was captured by the RWØA team (RAØAM, RAØALM, RVØAU, RVØAUI, RWØAR, RVØAX, RUØAM, RUØAKB, RXØAE, RZØAT, and Daniil) with 9.3M and a new Asia record. OH6R (OH3CV, OH3FM, OH3MFP, OH3LQK, OH6MLC, OH6NMY, and KØSSU) was fourth with 8.9M. and EA8URL (EA8URL, EA8AXB, EA8AZM, EA8BEX, EA8BQM, EA8DP, EA8GL, EA8NL, EA8RY, EA8AKN) was fifth with 8.4M.

Multi-Operator Multi-Transmitter (MM). HG1S (HA1TJ, HA1DAC, HA1DAI, and HA1DAE) broke their own Europe record from last year by 38% with 14.5M points. LZ9W (LZ1ANA, LZ1FG, LZ1ZD, LZ2HM, LZ2UZ, LZ3FM, and YL Nesi) took second with 8.7M, and KA4RRU (KA4RRU, K3UI, N4DXS, and



Sergey, UR2QQ, supplied the only UR9 pre-

fix to many stations with just 5 watts to an inverted-Vee antenna.

KI4ZKJ) was third with 6.7M. VE7UF (VA7FC,

2010 CQ WPX RTTY CONTEST TROPHY SPONSORS AND WINNERS

Single Operator High Power

World: Sponsored by ContestRank.com (in memory of SP9ERV). Winner: P49X (Op: Ed Muns, WØYK) Africa: Sponsored by Andrei Stchislenok, EW1AR-NP3D (in Memory of EU1MM). Winner: CN2R (Op: Mohamed Kharbouche, CN8KD)

Asia: Sponsored by Tyler Stewart, K3MM. Winner: 5B/UTØU (Op: Sergey Rebrov, UT5UDX) Europe: Sponsored by DL-DX RTTY Contest Group. Winner: LZ8E (Op: Boyan Petkov, LZ2BE)

N.A.: Jeff Demers, N1SNB. Winner: Mike Sims, K4GMH

Canada: Fabi Bertolotto, VA2UP. Winner: VC2E (Op: Daniel Richer, VE2SB) USA: Sponsored by Glenn Vinson, W6OTC. Winner: Tyler Stewart, K3MM

7th Call Area (USA): Sponsored by Hank Lonberg, KR7X (in memory of Bob Wruble, W7GG). Winner: Hank Lonberg, KR7X

Single Operator Low Power
World: Sponsored by Mike Sims, K4GMH. Winner: PJ4R (Op: Roger Hoffman, N4RR) Europe: Sponsored by Trey Garlough, N5KO. Winner: Filipe Monteiro Lopes, CT1ILT

N.A.: Sponsored by Wayne King, N2WK. Winner: Fabi Bertolotto, VA2UP South America: Sponsored by Francisco "Siso" Hennessey, Jr, HK3W. Winner: ZX2B (Op: Wanderley Ferreira Gomes, PY2MNL)

Canada: Claude Duberger, VE2FK. Winner: Robert Loranger, VE2AXO
Japan: GOMAGARA Contest Club, JA6ZPR. Winner: Masaki Okano, JH4UYB USA: Sponsored by Jim Reisert, AD1C. Winner: Mark Sihlanick, WE4M

Single Operator Single Band

3.5 MHz World High Power: Sponsored by Sue Cook, Al6YL/P40YL. Winner: 9A1CCY (Op: Sasa Pokorni, 9A3NM)

7 MHz World High Power: Sponsored by ContestRank.com (in memory of SP9EWO). Winner: S53M (Op: Miha Habic, S51FB)

7 MHz World Low Power: Sponsored by Don Reed, K2OGD. Winner: IQ3UD (Op: Ari Udine, IW3SQY) 14 MHz World High Power: Sponsored by Steve "Sid" Caesar, NH7C. Winner: Antonio Duarte Costa Gomes, CT3EN

14 MHz World Low Power: Sponsored by Kenny Young, AB4GG. Winner: VX6WQ (Op: Joel Weiner, VE6WQ)

21 MHz World High Power: Sponsored by Steve Jarrett, K4FJ. Winner: LP2F (Op: Ezequiel Reinaldi, LU1FDU)

21 MHz World Low Power: Sponsored by Doug Faunt, N6TQS. Winner: Jose Duarte Sousa Goncalves, CT3KY

28 MHz World High Power: Sponsored by Steve Hodgson, ZC4LI. Winner: Alexander Ilyin, UAØSW

Multi-Op Single Transmitter

World: Sponsored by Steve Merchant, K6AW. Winner: EE8E (Ops: EA4QB [OHØXX], EA8AH [OH1RY], EA8CAC)

Asia: Sponsored by CT3 Madeira Contest Team/CQ9K/CT9M. Winner: RK9CWA (Ops: UA9CGA, RW9CF, RA9DF)

Europe: Sponsored by Toomas Soomets, ES5RY. Winner: E73M (Ops: E73M, E73Y, E74A, E74KC) N.A.: Sponsored by Whatcom Amateur Radio Society. Winner: WW4LL (Ops: WW4LL, K4ZJ, K9MUG, NP3D)

Multi-Op Two Transmitter

World: Sponsored by Nick Smith, W4GKM. Winner: 4O3A (Ops: 4O3A, 4O4A, 4O6Z, YU1YV, S51D,

N.A.: Sponsored by Ed Muns, WØYK. Winner: KF4QQY (Ops: KF4QQY, W4MYA) U.S.A.: Sponsored by CTRI Contest Group. Winner: N2BJ/9 (Ops: N2BJ, K2PAC)

Multi-Op Multi-Transmitter

World: Sponsored by Abroham Neal Software by K3NC. Winner: HG1S (Ops: HA1TJ, HA1DAC, HA1DAI, HA1DAÉ)

N.A.: Sponsored by Fred Dennin, WW4LL. Winner: KA4RRU (Ops: KA4RRU, K3UI, N4DXS, KI4ZKJ) Canada.: Sponsored by KA4RRU Contest Group. Winner: VE7UF (Ops: VA7FC, VA7RN, VE7AX, VE7FO, VE7UF)

Club Competition

World: Sponsored by Potomac Valley Radio Club. Winner: Bavarian Contest Club N.A.: Sponsored by Northern California Contest Club. Winner: Potomac Valley Radio Club



Daniel, VE2SB, operating as VC2E, pushed past VA3DX for a narrow win in Canada and is already planning for an even bigger effort in 2011!

VA7RN, VE7AX, VE7FO, and VE7UF) was fourth with 5.2M, and DL3VTA (DL3VTA, DL1DVE, and DF2CK) was fifth with 4.4M.

Club Competition

Once again the Bavarian Contest Club took top honors with over 59M points from 71 logs, which was also the highest number of club participants. Also a repeat, second place went to the Ukrainian Contest Club with 41M points and 38 logs. Third place was captured by the Potomac

Valley Radio Club with 36M and 39 logs. The Rhein Ruhr DX Association was fourth with 34.0M and the Northern California Contest Club was fifth with 33.8M. Club competition is a fun way for clubs to get more stations on the air and increase participation in the contest.

When submitting a log for any CQ contest, be sure that the club name is exactly, character by character, the same as listed on the club name list at <www.cqww.com/clubnames.htm>. Do not abbreviate, add periods, include other information in parentheses, etc. A computer program

TOP SCORES								
WORLD	*RNØSS	652.632	K4FJ	977.040	NAØCW	4.414.410	*SN2L(SP2FW0).	2,103,232
SINGLE OPERATOR HIGH POWER	*RVØAL		WQ60 (N6ML)		NC4CS			2,093,364
ALL BAND	*XE3N		W7ZR		N4CW			2,025,540
P49X (WØYK)13,300,632	*RUØANW!		KE9I	270,884	KT1I	1,935,744		2,021,760
5B/UTØU (UT5UDX)9,105,744			KK8X	218,290	WY7SS	1,137,955		1,829,016
K4GMH	14 MHZ		N7BV	196,980	NR5M	1,005,648	*GØMTN	1,794,121
LZ8E (LZ2BE)7,547,400	*VX6WQ (VE6WQ)1,I	087,788	W8WEJ	27,040	WX5S/6			
CN2R (CN8KD)6,469,920	*AKØA		W7MRC (NG7Z)		WX7P			MHZ
S5ØA (S5ØXX)6,294,750	*G2YL		WK4Y	5,/12	KUØK	658,026	*YU2A	510
K3MM6,158,748	*HA7TM *RV9CP	570,392	14 MHZ		MULTI-OPE	DATOD	FOIRG	72
RD3AF	*W4LC	542 841	WW4R (N4ZZ)	1 810 284	TWO TRANS	MITTER	21	MHZ
EO5M (URØMC)5,198,842 AA3B5,167,272	*WM5DX	471.090	KK9A		ALL BA			658,530
AA35	*CT1EEK		WV6I (N6WM)	1,496,302	KF4QQY		*UZ7H0	320,910
28 MHZ	*YU8NU	404,044	AA5AU		N2BJ/9		*Y03JF	315,792
UAØSW13,860	*EA4DB	.377,865	W040		WØIW			256,794
RU6CQ12,012	7.4417		KK700 (KL700)	1,043,385	NK7U	554,382	*RA4WC	226,950
IK3ASM420	7 MHZ *IQ3UD (IW3SQY)2,;	221 120	KZ7XN7NM		MULTI-OPE	DATOD	*M/M/QCDI	199,808
21 MH7	*E79D1,!	571 570	NG6S (W4UAT)		MULTI-TRAN			179,738
21 MHZ LP2F (LU1FDU)2,222,207	*UR7TZ1,	303.736	K4SKB	151,840	ALL BA	ND	*D06HMA	169,433
CX4AAJ1,725,636	*OK2RU1,				KA4RRU		*DL1DTL	168,960
9A5W	*EC5CSW1,		7 MHZ		=			
UXØFF1,208,832	*IK5AMB	.944,680	AE5AA (N5ZM)		EURO			MHZ
KK50Q1,146,036	*EU1AZ		K90M/4		SINGLE OPERATOR	R HIGH POWER		619,887
UW1M (UR5MW)1,066,418	*MØVAA *SP3VSE		W1TY/2 K7WP		ALL BA LZ8E (LZ2BE)	7 5 4 7 400		586,592 413,118
K4FJ	*YW5RY (YV5KAJ)		NM6K (K6AW)		S5ØA (S5ØXX)			404,044
OH7MJU821,328 WQ6O (N6ML)763,758		. ,0,,01	AE1P	425,896	RD3AF		*EA4DB	377,865
RA3SI	3.5 MHZ		W4CU	390,724	E05M (URØMC)	5,198,842	*G3YBY	356,697
	*IV3YIM1,I		AA4VV	313,196	RA3CM	5,093,424		350,910
14 MHZ	*EU8RZ		WØBR/3		SQ8ØUM (SQ9UM)	4,793,256		337,900
CT3EN3,447,686	*IQ8RB/1 (IK1DFH)	644,328	AI60	62,040	UW8I (UT2IZ)	4,/29,140	*KN6HDX	316,316
SN7Q2,079,004	*YU7YZ *OM5TX		3.5 MHZ		RG3K (UA3QDX) YO9HP	4,035,339	"UA6BJY	308,660
9A7R	*SP4ØEIY	549 626	KØPK	146 610	LY9Y	3 925 884	71	ЛHZ
WW4R (N4ZZ)	*UT5KO	502.680	K4WW		L171		*IO3UD (IW3SOY)	2,231,138
US5I (US5IQ)	*UZ2HZ		W6AEA/7		28 MH	łZ		1,571,570
S59AKR (S52X)1,538,537	*YL2GQG		W7PP/8		RU6CQ	12,012	*UR7TZ	1,303,736
WV6I (N6WM)1,496,302	*USØGH	.388,096	N2EIK		IK3ASM	420	*0K2RU	1,168,172
LN9Z (LB1G)1,465,568	MULTI-OPERATOR		N6MA/7	2,752	21 MF	17	*IVE AMP	1,114,876 944,680
DR1ØTCC (DK3DM)1,463,924	SINGLE TRANSMITTER	R	SINGLE OPERATOR LO	W POWER	9A5W		*FI I 1 A 7	836.944
7 MHZ	ALL BAND		ALL BAND	, ii i oii Lit	UXØFF			818.244
S53M (S51FB)4,715,540	EE8E14,2		*WE4M		UW1M (UR5MW)	1,066,418		806,474
14IKW4,258,738	E73M8,		*K9NR		OH7MJU		*USØMM	768,812
HF4K (SP4K)3,831,264	P41YL	904,256	*N9CK		RA3SI UA6CE		2.5	MHZ
GM3SEK2,763,834	IZ1LBG6,		*NTØF *NV2G (N2ZN)	1 162 974	Y02RR		*IV3VIM	1,085,466
AE5AA (N5ZM)2,675,616 YT1VP2,648,268	TM4P5,	973,708	*N4IG		EA1ACP		*EU8RZ	915,496
RL4R (RW4PL)2,351,076	DD1LD5,	712,470	*K8AJS		CT4NH		*IQ8RB/1 (IK1DFF)644,328
UN1L2,133,330	YTØA5,		*N2FF		DL3BQA	247,234		617,382
K90M/41,986,600	9A5D5,:		*K2DSL			_		610,000
ECEDY 1.750.104			*K7RE/Ø	813,093				
ES5RY1,752,184	SX1L5,	,254,535	K/KE/D		14 MF		*SP4ØEIY	
		,254,535			SN7Q	2,079,004	*UT5KO	472 610
3.5 MHZ	MULTI-OPERATOR		21 MHZ *K8IA/7	144,957	SN7Q 9A7R	2,079,004 1,987,925	*UT5KO *UZ2HZ	472,610
3.5 MHZ 9A1CCY (9A3NM)2,486,304	MULTI-OPERATOR TWO TRANSMITTER ALL BAND		*K8IA/7*NW1C	40,796	SN7Q 9A7R US5I (US5IQ) S59AKR (S52X)	2,079,004 1,987,925 1,546,360 1,538,537	*UT5KO *UZ2HZ *YL2GQG	
3.5 MHZ 9A1CCY (9A3NM)2,486,304 14AVG2,007,880 EMØX (UT2XQ)1,762,992	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A14,	493,792	*K8IA/7* *NW1C* *KC8ZTJ	40,796 24,823	SN7Q 9A7R US5I (US5IQ) S59AKR (S52X) LN9Z (LB1G)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568	*UT5K0 *UZ2HZ *YL2GQG *USØGH	
3.5 MHZ 9A1CCY (9A3NIM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A14, 737M12	493,792 .047.140	*K8IA/7* *NW1C* *KC8ZTJ* *KX7L*	40,796 24,823 5,994	SN7Q 9A7R US5I (US5IQ) S59AKR (S52X) LN9Z (LB1G) DR1ØTCC (DK3DM)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924	*UT5K0 *UZ2HZ *YL2GQG *USØGH	
3.5 MHZ 9A1CCY (9A3NM) 2,486,304 14AVG 2,007,880 EMØX (UT2XO) 1,762,992 D14MCF 1,530,780 OY3JE 1,269,884	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A 14, 237M 12, RWØA 9,	.493,792 .047,140 .293,220	*K8IA/7* *NW1C* *KC8ZTJ* *KX7L*	40,796 24,823 5,994 5,700	SN7Q	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754	*UT5KO* *UZ2HZ* *YL2GOG* *USØGH	
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RWØA 9, 0H6R 8,	493,792 047,140 293,220 923,150	*K8IA/7* *NW1C* *KC8ZTJ* *KX7L*	40,796 24,823 5,994 5,700	SN7Q	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304	*UT5KO *UZ2HZ *YL2GOG *USØGH MULTI-C SINGLE TR ALL	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NIM) 2,486,304 14AVG 2,007,880 EMØX (UT2XQ) 1,762,992 DL4MCF 1,530,780 OY3JE 1,269,884 IZØKBR 1,239,840 YU7AU 1,028,700	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A 14, 237M 12, RWØA 9,	493,792 047,140 293,220 923,150 419,428	*K8IA/7* *NW1C* *KC8ZTJ* *KX7L*	40,796 24,823 5,994 5,700	SN7Q	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278	*UT5KO	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M. 12, RW09A. 9, 0H6R. 8, EABURL 8, DLØCS. 7, LY2W. 6,	493,792 047,140 293,220 923,150 419,428 709,998 204,716	*K8IA/7 *NW1C *KC8ZTJ *KX7L *NSUWY *KFØIQ *AKØA		SN70 9A7R US51 (US510)		*UT5KO* *UZ2HZ* *YL2GOG* *USØGH MULTI-C SINGLE TR ALL E73M	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708
3.5 MHZ 9A1CCY (9A3NIM) 2,486,304 14AVG 2,007,880 EMØX (UT2XQ) 1,762,992 DL4MCF 1,530,780 OY3JE 1,269,884 IZØKBR 1,239,840 YU7AU 1,028,700	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 14, 237M 12, RW0A 9, OH6R 8, EABURL 8, DLØCS 7, LY2W 6, EFTR 5,	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094	*KBIA/7 *NW1C *KC8ZTJ *KX7L *NSUWY *KFØIQ *AKØA *W4LC		SN70. 9A7R. US51 (US510). S59AKR (S52X). LN92 (LB16). DR10TCC (DK3DM). IK6VXO. OK8YD. DF9ZP. OK3C (OK2ZC).	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 1,155,544	*UTSKO. *UZ2HZ. *YL2GGG. *USØGH MULTI-C SINGLE TR ALL E73M IZ1LBG TM4P DD1LD	472,610 405,594 388,096 PERATOR ANSMITTER BAND 6,678,000 5,973,708 5,712,470
3.5 MHZ 9A1CCY (9A3NM) 2,486,304 14AVG 2,007,880 EMOX (UTZXQ) 1,762,992 DL4MCF 1,530,780 0Y3JE 1,269,884 1ZOKBR 1,239,840 YUTAU 1,028,700 ESSCP 899,640 DJ3IW 800,808 SP6AXW 469,780	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RWØA 9, OH6R 8, EABURL 8, DLØCS 7, LY2W 66, EFTR 5, KF40QY 2,	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L. *NSUWY. *KFØIQ. *AKØA. *W4LC. *WM5DX		SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,264,304 1,264,304 1,264,278 1,155,544	*UTSKO. *UZZHZ. *YL2GG. *USØGH. MULTI- SINGLE TR ALL E73M. IZ1LBG. TM4P. DDILD. YTØA.	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NIM) 2,486,304 14AVG 2,007,880 EMDX (UTZXO) 1,762,992 DL4MCF 1,530,780 OY3JE 1,269,884 1ZØKBR 1,239,840 YU7AU 1,028,700 ES5CP 899,640 DJ3IW 800,808 SP6AXW 469,780 SINGLE OPERATOR LOW POWER	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 14, 237M 12, RW0A 9, OH6R 8, EABURL 8, DLØCS 7, LY2W 6, EFTR 5,	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232	*K8IA/7 *NW1C *KC8ZTJ *KX7L *NSUWY *KFØIQ. *AKØA *W4LC *WM5DX *W1277		SN70 9A7R US51 (US510) S59AKR (S52X) LN9Z (LB1G) DR10TCC (DK3DM) IK6VXO OK8VD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 1,155,544 2 4,715,540 4,258,738	*UT5KO *UZ2HZ *YL2GGG *USØGH MULTI-C SINGLE TR ALL E73M IZ1LBG TM4P DD1LD YTØA 9ASD	472,610 405,594 388,096 PERATOR ANSMITTER BAND .8,044,411 .6,678,000 .5,973,708 .5,712,470 .5,692,866 .5,396,653
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232	*K8IA/7. *NWTC. *KC8ZTJ. *KX7L *NSLWY. *KFØIQ. *4KØA *W4LC *WM5DX *W1ZD/7. *KM6Z		SN70 9A7R USSI (USSIQ) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 1,255,544 Z 4,715,540 4,258,738 3,831,264	*UT5KO. *UZ2HZ. *YL2GOG. *USØGH. MULTI-C. SINGLE TR ALL IZ1LBG. TM4P. DD1LD. YTØA. 9ASD. SX11.	472,610 405,594 388,096 PERATOR ANSMITTER BAND 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RW09A 9, 0H6R 8, EABURL 8, DLØCS 7, LY2W 6, EFTR 5, KF40QY 2, JA6ZPR 2,	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232 225,862	*K8IA/7* *NW1C* *KC8ZTJ* *KX7L* *NSUWY* *KFØIQ* *KFØIQ* *W4LC* *WM5DX* *W1ZD/7* *KM6Z* *W9ILV*		SN70 9A7R US51 (US5IQ)	2,079,004 1,987,925 1,546,360 1,538,537 465,568 1,463,924 1,352,754 1,246,278 1,155,544 Z 4,715,540 4,258,738 3,831,264 264,334	*UT5KO *UZ2HZ *YL2GGG *USØGH MULTI-C SINGLE TR ALL E73M IZ1LBG IZ1LBG TM4P DD1LD Y170A 9A5D SX1L DKØEE	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615
3.5 MHZ 9A1CCY (9A3NIM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232 225,862	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L. *NSUWY. *KFØIQ. *AKØA. *W4LC. *WM5DX. *W12D/7 *KM6Z. *W9ILY. *N7JDB. *NZAK.	40,796 24,823 5,994 5,700 3,680 	SN70 9A7R US51 (US5IQ) S59AKR (S52X) LN92 (IB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YTIVP RL4R (RW4PL)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076	*UTSKO. *UZ2HZ. *YL2GGG. *USØGH MULTI-C SINGLE TR ALL E73M IZ1LBG TM4P DD1LD YTØA 9A5D SX1L DKØEE OFSØRR	472,610 405,594 388,096 PERATOR ANSMITTER BAND 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M. 12, RWW0A. 9, 0H6R 8, EABURL 8, DLØCS. 7, LY2W 6, EF7R 5, KF40QY 2, JA6ZPR 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S. 14,	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232 225,862	*K8IA/7 *NW1C *KC8ZTJ *KX7L *NSUWY *KFØIQ *AKØA *W4LC *WM5DX *WM5DX *W1ZD/7 *KM6Z *W9ILY *N7DB *N2ZAK *KC1UX	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 167,760 104,854 100,200 74,909	SN70 9A7R US51 (US510) S59AKR (S52X) LN9Z (LB1G) DF19TCC (DK3DM) IK6VXO OK8VD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,278 1,155,544 2 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076	*UT5KO . *UZ2HZ . *YL2GGG . *USØGH . MULTI-C SINGLE TR ALL E73M . IZ1LBG . TIM4P . DD1LD . YTØA . 9A5D . SX1L . DKØEE . OF5ØRR . OH31 .	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232 225,862 R	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L. *NSUWY. *KFØIQ. *AKØA. *W4LC. *WM5DX. *W12D/7 *KM6Z. *W9ILY. *N7JDB. *NZAK.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 167,760 104,854 100,200 74,909	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,544 Z 4,715,540 4,258,738 4,258,738 4,264,268 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670	*UT5KO *UZ2HZ *YL2GG *USØGH MULTI-C SINGLE TR ALL L2TLBG TMAP DD1LD Y170A 9A5D SX1L DKØEE OF5ØRR OH31 MULTI-C	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RWØA 9, OH6R 8, EABURL 8, DLØCS 7, LY2W 6, EFTR 5, KF40QY 2, JA6ZPR 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S 14, LZ9W 8, KA4RRU 6,	493,792 047,140 293,250 293,150 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 702,370 617,322	*K8IA/7 *NW1C *KC8ZTJ *KX7L *NSUWY *KFØIQ *AKØA *W4LC *WM5DX *WM5DX *W1ZD/7 *KM6Z *W9ILV *N7DB *N2ZAK *KC1UX *K4FPF	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 167,760 104,854 100,200 74,909	SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR1ØTCC (DK3DM) K6VX0 OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ES5RY AN1A (EA1AST) IW1PNJ	2,079,004 1,987,9251,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,278 1,155,544 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,0761,752,1841,691,6701,455,98	*UTSKO . *UZENT . *YL2GGG . *USØGH . MULTI-C SINGLE TR ALL E73M IZ1LEG TMAP DDILD YTØA 9A5D SXTL DKØEE OFSØRR OH31 MULTI-C TWO TRA TW	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,294,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M. 12, RWW0A. 9, 0H6R 8.8, EABURE 8. DLØCS. 7, LY2W 6.6, EF7R 5, KF40QY 2, JA6ZPR. 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S 14, LZ9W 8.8, KA4RRU 6, VE7UF 5,	493,792 047,140 293,220 923,150 419,428 709,7094 713,225,862 R 452,038 702,370 617,322 221,755	*K8IA/7 *NW1C *KC8ZTJ *KX7L *NSUWY *KFØIQ *AKØA *W4LC *WM5DX *WM5DX *W1ZD/7 *KM6Z *W9ILY *N7DB *N2ZAK *KC1UX *K4FPF *MHZ	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 167,760 104,854 100,200 74,909 42,182	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST)	2,079,004 1,987,9251,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,278 1,155,544 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,0761,752,1841,691,6701,455,98	*UT5KO *UZ2HZ *YL2GGG *USØGH. MULTI-C SINGLE TR ALL E73M IZ1LBG TIM4P DD1LD YTØA 9A5D SX1L DKØEE OF5ØRR OH31 MULTI-C TWO TRA ALL	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 702,370 617,322 221,755 398,732	*K8IA/7. *NWTC. *KC8ZTJ. *KX7L. *NSUWY. *KFØIO. *AKØA. *W4LC. *WM5DX. *W12D/7 *KM6Z. *W9ILY. *N7DB. *N2ZAK. *CGUX. *K4EUX.	40,796 24,823 5,994 5,700 3,680	SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR1ØTCC (DK3DM) IK6VYO OK8YO DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW. HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,278 1,155,544 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,251,076 1,752,184 1,691,670 1,445,598 1,435,980	*UT5KO *UZ2HZ *YL2GG *YL2GG *USØGH MULTI-C SINGLE TR ALL L2TLBG TMAP DD1LD Y10A 9A5D SX1L DKØEE OF5ØRR OH31 MULTI-C TWO TRA ALL 403A	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792
3.5 MHZ 9A1CCY (9A3NIM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,250 923,150 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 702,370 617,322 221,755 338,732 142,428	*K8IA/7. *NWTC. *KC8ZTJ. *KX7L *NSUWY. *KFØIQ. *AKØA *WHLC. *WMSDX *W1ZD/7 *KMØZ *WIJU/7 *KMØZ *WIJU/7 *KMØZ *W9ILY *N7DB *N2ZAK *KC1UX *K4FPF 7 MHZ *KC4HW *AB1J.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 167,760 104,854 100,200 42,182 692,040 415,872 334,536	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 4Z 2,486,304	*UT5KO *UZ2HZ *VL2GG *USØGH MULTI-C SINGE TR ALL E73M IZ1LBG TMAP DD1LD YTØA 9A5D SX1L DKØEE OF5ØRR OH31 MULTI-C TWO TRA ALL 403A 237M OH6R	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792 12,047,140 8,923,150
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RWØA 9, OH6R 38, EABURL 8, DLØCS 7, LY2W 66, EFTR 5, KF40QY 2, JA6ZPR 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S 14, LZ9W 8, KA4RRU 6, VETUF 5, DL3VTA 4, J38XX	493,792 047,140 293,220 293,250 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 452,038 617,322 221,755 398,732 142,428	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L. *NSUWY. *KFØIO. *AKØA. *W4LC. *WM5DX. *W12D/7. *KM6Z. *W9ILY. *N7DB. *N2ZAK. *KC1UX. *K4FPF. *T MHZ *KC4HW. *AB1J. *KK1X.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 167,760 104,854 100,200 74,909 42,182 692,040 415,872 334,536 275,850	SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR1ØTCC (DK3DM) K6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ES5RY AN1A (EA1AST) W1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 47 2,486,304 2,2486,304 2,2486,304 2,207,880	*UT5KO . *UZ2HZ . *YL2GG . *USØGH . MULTI-C SINGLE TR ALL E73M . IZ1LBG . TM4P . DD1LD . YTØA . 9A5D . SX1L . DKØEE . OF5ØRR . OH3I . MULTI-C . TWO TRA ALL . 403A . Z37M . OHØR . DLØCS .	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792 12,047,140 8,923,150 7,709,998
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 293,250 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 452,038 617,322 221,755 398,732 142,428	*K8IA/7. *NWTC. *KC8ZTJ. *KX7L. *NSLWY. *KFØIQ. *4KØA. *W4LC. *WM5DX. *W12D7. *KM6Z. *W91LY. *N7DB. *N2ZAK. *KC1UX. *K4FPF. *K4FPF. *T MHZ *KC4HW. *AB1J. *KK1X. *K2PO/7 (K2PO/7).	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 100,200 74,909 42,182 692,040 415,872 334,536 275,850 177,408	SN70 9A7R US51 (US5IQ) S59AKR (S52X) LN92 (LB1G) DR1ØTCC (DK3DM) IK6VYO OK8YO DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW. HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ)	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,304 1,246,278 1,155,544 Z 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 42 2,486,304 2,486,304 2,076,880 1,762,992	*UT5KO . *UZ2HZ . *YL2GOG . *USØGH	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,250 923,150 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 702,370 617,322 221,752 142,428	*K8IA/7. *NWTC. *KC8ZTJ. *KX7L. *NSUWY. *KFØIO. 14 MHZ *AKØA. *W4LC. *WM5DX. *W12D/7. *KM6Z. *W9ILY. *N7DB. *N2ZAK. *CC1UX. *K4FPF. 7 MHZ *KC4HW. *AB1J. *KK1X. *K2PO/7 (K2PO/7). *NN7SS (K6UFO).	40,796 24,823 5,994 5,700 3,680	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (IB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 42 2,486,304 2,007,880 2,486,304 2,007,880 1,762,992 1,753,0780	*UTSKO. *UZSHZ. *YLZGGG. *USØGH. MULTI-C SINGLE TR ALL E73M. IZ1LBG. TM4P. DDILD. Y10A. 9A5D. SX11. DKØEE. OF5ØRR. OH3I. MULTI-C TWO TRA ALL 403A. Z37M. OH6R. DLØCS. LYZW.	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792 12,047,140 8,923,150 7,709,998 6,204,716 5,907,094
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M. 12, RWØA. 9, OH6R. 38, EABURL 3, LU0CS. 7, LY2W. 66, EFTR. 55, KF40QY 2, JA6ZPR. 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S. 14, LZ9W. 8, KA4RRU. 66, VETUF 5, DL3VTA. 4, J38XX. UNITED STATES SINGLE OPERATOR HIGH P ALL BAND K4GMH. 7,	493,792 047,140 293,220 293,250 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 702,370 617,322 221,755 339,732 42,428	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L. *NSUWY. *KFØIO. *AKØA. *W4LC. *WM5DSX. *W1ZD/7. *KM6Z. *W9ILY. *N7DB. *N2ZAK. *KC1UX. *K4FPF. *KC4HW. *AB1J. *KK1X. *K2PO/7 (K2PO/7). *NN7SS (K6UFO). *K2PAL. *N3TG/4.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 100,200 74,909 42,182 692,040 415,872 334,536 275,850 177,408 134,460 61,500	SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR1ØTCC (DK3DM) K6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ES5RY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF OY3JE	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,278 1,155,544 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 47 2,486,304 2,007,880 1,762,992 1,530,780 1,269,884	*UT5KO . *UZ2HZ . *YL2GGG . *USØGH . MULTI-C SINGLE TR ALL E73M . IZ1LBG . TM4P DD1LD . YTØA 9A5D . SX1L DKØEE OF5ØRR . OH3I MULTI-C TWO TRP ALL . 403A 237M OH6R DLØCS LY2W EF7R IK1TWC	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 114,493,792 12,047,140 8,923,150 7,709,998 6,204,716 5,997,094 1,842,880
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,150 419,428 709,998 204,716 907,094 718,232 225,862 R 452,038 702,370 617,322 221,755 398,732 142,428 6 POWER 876,920 158,748	*K8IA/7. *NWTC. *KC87TJ. *KX7L *NSUWY. *KFØIQ. *MACOA. *WHEC. *WM5DX. *W12D/7. *KM6Z. *W91LY. *N7DB. *N2ZAK. *KC1UX. *K4FPF. *K4FPF. 7 MHZ *K64HW. *AB1J. *KE4PW. *N37DS. *K2PAF. *K1V2PO/7 (K2PO/7). *NN7SS (K6UFO). *K2PAL. *N31G/4.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 100,200 104,854 100,200 42,182 692,040 415,872 334,536 275,850 134,460 61,500 61,500	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF OY3JE IZØKBR	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,445,598 1,435,980 42 2,486,304 2,007,880 42 2,486,304 2,007,880 1,762,992 1,530,780 1,269,884 1,269,884	*UT5KO . *UZ2HZ . *YL2GG . *USØGH . MULTI-C SINGE TR ALL IZ1LBG . TMAP . DD1LD . YTØA . 9A5D . SX1L . DKØEE OF5ØRR . OH31 MULTI-C TWO TRA ALL 403A . Z37M . OH6R . DLØCS . LY2W . EF7R . IK1TIVC .	472,610 405,594 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792 12,047,140 8,923,150 7,709,998 6,204,716 5,907,094 1,842,880 1,214,400
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M. 12, RWØA. 9, OH6R. 38, EABURL 3, LU0CS. 7, LY2W. 66, EFTR. 55, KF40QY 2, JA6ZPR. 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S. 14, LZ9W. 8, KA4RRU. 66, VETUF 5, DL3VTA. 4, J38XX. UNITED STATES SINGLE OPERATOR HIGH P ALL BAND K4GMH. 7,	493.792 047.140 293.250 923.150 419.428 709.998 204.716 907.094 718.232 225,862 R 452.038 452.	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L. *NSUWY. *KFØIO. *AKØA. *W4LC. *WM5DSX. *W1ZD/7. *KM6Z. *W9ILY. *N7DB. *N2ZAK. *KC1UX. *K4FPF. *KC4HW. *AB1J. *KK1X. *K2PO/7 (K2PO/7). *NN7SS (K6UFO). *K2PAL. *N3TG/4.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 167,760 104,854 100,200 74,909 42,182 692,040 415,872 334,536 177,408 134,600 61,500 61,500 61,500 61,500 68,0000	SN70 9A7R US5I (US5IQ) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO 0K8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF OY3JE 1ZØKBR YU7AU ESSGP	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,264,304 4,715,540 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 42 2,486,304 2,007,880 1,762,992 1,530,780 1,269,884 1,239,840 1,028,700	*UT5KO . *UZ2HZ . *YL2GGG . *USØGH	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,220 923,150 419,428 709,998 204,716 9070,998 204,716 9070,998 718,232 225,862 R 452,038 702,370 617,322 221,752 142,428 6 6 6 6 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7	*K8IA/7. *NWTC. *KC8ZTJ. *KX7L. *NSUWY. *KFØIO. 14 MHZ *AKØA. *W4LC. *WM5DX. *W12D/7. *KMØZ. *W9ILY. *N7DB. *N2ZAK. *CC1UX. *K4FPF. 7 MHZ *KC4HW. *AB1J. *KK1X. *K2PO/7 (K2PO/7). *N3TS (K6UFO). *X2PAL. *N3TG/4. *K2PAL. *N3TG/4. *KEØIL. *WA7BME. *KMØI.	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 167,760 104,854 100,200 74,909 42,182 692,040 415,872 334,536 177,408 134,600 61,500 61,500 61,500 61,500 68,0000	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (IB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF92P OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YTIVP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF OY3JE IZØKBR YU7AU ESSCP DJ3IW	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,435,980 1,435,980 1,435,980 1,762,992 1,530,780 1,269,884 1,239,840 1,028,700 899,640 899,640 880,808	*UT5KO . *UZ2HZ . *YL2GG . *USØGH . MULTI-C SINGLE TR ALL . E73M IZ1LBG TMAP	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792 12,047,140 8,923,150 7,709,998 6,204,716 5,907,094 1,842,880 1,214,400 1,034,990 PERATOR
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RWØA 9, OHGR 38, EABURL 3, LUOCS 7, LY2W 6, EFTR 5, KF40OY 2, JA6ZPR 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S 14, LZ9W 3, KA4RRU 6, VE7UF 5, DL3VTA 4, J38XX UNITED STATES SINGLE OPERATOR HIGH P ALL BAND K4GMH 7, K3MM 6, A33B 5, K1SFA (@K1TTT) 4, N2WK 4, K4RO 3, K1SFA (@K1TTT) 4, N2WK 4, K4RO 3,	493,792 047,140 293,250 479,428 709,998 204,716 907,094 718,232 225,862 R 452,038 452,038 702,370 2371 8572 221,755 338,732 221,755 338,732 142,428 670WER 876,920 158,748 167,272 749,976 412,529	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L *NSUWY *KFØIO. *AKØA *W4LC. *WM5DSX *W12D/7. *KM6Z *WM5DX *W12D/7. *KM6Z *W9ILY *N7DB *N2ZAK. *KC1UX *K4FPF 7 MHZ *KC4HW *AB1J *KK1X. *K2PO/7 (K2PO/7). *NN7SS (K6UFO). *K2PAL. *N3TG/4 *KE0L *KK6L *KK6L *KK6L *KK6L *KK6L *KEMARANIA (KAMARANIA	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 100,200 74,909 42,182	SN70 9A7R US5I (US5IQ) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO 0K8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF OY3JE 1ZØKBR YU7AU ESSGP	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,435,980 1,435,980 1,435,980 1,762,992 1,530,780 1,269,884 1,239,840 1,028,700 899,640 899,640 880,808	*UT5KO . *UZ2HZ . *YL2GGG . *USØGH . MULTI-C SINGLE TR ALL E73M . IZ1LBG . TM4P DD1LD . YTØA 9A5D . SX1L DKØEE OF5ØRR . OH3I MULTI-C TWO TRA ALL 403A . Z37M OH6R DLØCS LY2W EF7R IK1TWC IQ8MD RF3T MULTI-C MULTI-TR MULTI-TR MULTI-TR MULTI-C MULTI-TR	472,610 405,594 388,096 PERATOR ANSMITTER BAND 8,044,411 6,678,000 5,973,708 5,712,470 5,692,866 5,396,653 5,254,535 5,039,615 4,673,378 3,874,360 PERATOR NSMITTER BAND 14,493,792 12,047,140 8,923,150 7,709,998 6,204,716 5,907,094 1,842,880 1,214,400 1,034,990 PERATOR ANSMITTER
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,220 923,150 419,428 709,998 204,716 9970,094 718,232 225,862 R 452,038 702,370 617,322 221,1755 398,732 142,428 COWER 158,748 167,272 749,976 412,529 766,375 617,046	*K8IA/7. *NWTC. *KC8TJ. *KX7L *NSUWY *KFØIQ. 14 MHZ *AKØA *WHLC. *WM5DX *W12D/7 *KM6Z *W91LY *N7DB *N2ZAK *KC1UX *K4FPF 7 MHZ *K4FPF *K4FPF *K8HX *K9DY *K8HX *K9DY *K8HX *K9DY *K9DY *K9DY *K9DY *K10DY *K	40,796 24,823 5,994 5,700 3,680	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP R14R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XQ) DL4MCF OY3JE IZØKBR YUTAU ESSGP DJ3IW SP6AXW	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,445,598 1,435,980 42 2,486,304 2,007,880 1,762,992 1,530,780 1,762,992 1,530,780 1,269,884 1,299,840 1,028,700 899,640 800,808 469,780	*UT5KO . *UZ2HZ . *YL2GG . *USØGH . MULTI-C SINGE TR ALL E73M IZ1LBG	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,250 923,150 419,428 709,998 204,716 9907,094 7718,232 225,862 R 452,038 702,370 617,322 221,755 398,732 142,428 S OWER 876,920 158,742 749,976 417,272 749,976 417,576 617,046	*K8IA/7. *NW1C. *KC8ZTJ. *KX7L *NSUWY *KFØIO. *AKØA *W4LC. *WM5DSX *W12D/7. *KM6Z *WM5DX *W12D/7. *KM6Z *W9ILY *N7DB *N2ZAK. *KC1UX *K4FPF 7 MHZ *KC4HW *AB1J *KK1X. *K2PO/7 (K2PO/7). *NN7SS (K6UFO). *K2PAL. *N3TG/4 *KE0L *KK6L *KK6L *KK6L *KK6L *KK6L *KEMARANIA (KAMARANIA	40,796 24,823 5,994 5,700 3,680	SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YTIVP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UTZXQ) DL4MCF OY3JE IZØKBR YUTAU ESSGP DJ3IW SP6AXW SINGLE OPERATOR	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,246,278 1,155,544 Z 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 HZ 2,486,304 2,007,880 1,762,992 1,530,780 1,269,884 1,239,840	*UT5KO . *UZ2HZ . *YL2GG . *USØGH . MULTI-C SINGLE TR ALL IZ1LBG . TM4P . DD1LD . Y10A . 9A5D . SX1L . DKØEE . OF5ØRR . OH3I . MULTI-C TWO TRA ALL . 403A . Z37M . OH6R . DLØCS . LYZW . EF7R . IK1TWC . IQ8MD . RF3T . MULTI-TR ALL . HG1S .	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,220 923,150 419,428 709,998 204,716 9070,094 718,232 225,862 R 452,038 702,370 617,322 221,755 398,732 142,428 876,920 158,748 167,272 749,976 6417,529 766,375 617,046 570,750 617,046 570,750	*K8IA/7. *NWTC. *KC8TJ. *KX7L *NSUWY *KFØIQ. 14 MHZ *AKØA *WHLC. *WM5DX *W12D/7 *KM6Z *W91LY *N7DB *N2ZAK *KC1UX *K4FPF 7 MHZ *K4FPF *K4FPF *K8HX *K9DY *K8HX *K9DY *K8HX *K9DY *K9DY *K9DY *K9DY *K10DY *K	40,796 24,823 5,994 5,700 3,680 989,280 542,841 471,090 211,104 199,584 100,200 74,909 42,182 692,040 415,872 334,536 275,850 177,408 8,000 6,160 2,916 1,998	SN70 9A7R US5I (US5IQ) S59AKR (S52X) LN92 (LB1G) DR10TCC (DK3DM) IK6VXO 0K8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XO) DL4MCF OY3JE LZØKBR YU7AU ESSCP DJ3IW SP6AXW SINGLE OPERATOF ALL BA	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,264,304 4,715,540 2 4,715,540 4,258,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 42 2,486,304 2,007,880 1,762,92 1,530,780 1,269,884 1,239,840 1,028,700 899,640 800,808 469,780 R LOW POWER	*UT5KO *UZ2HZ *UZ2HZ *VL2GGG *USØGH MULTI-C SINGLE TR ALL E73M JE1LB JE1LB JE1LB JE1LB JENE JENE MULTI-C TWO TRP ALL 403A 237M OHOR DLØCS LY2W EF7R IK1TWC (08MD RF3T MULTI-T MULTI-T ALL HG1S LZ9W	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A. 14, 237M 12, RWØA 9, OHGR 8, EABURL 8, LØCS. 7, LY2W. 6, EFTR 5, KF40OY 2, JA6ZPR 2, MULTI-OPERATOR MULTI-TRANSMITTER ALL BAND HG1S 14, LZ9W 8, KA4RRU 6, VE7UF 5, DL3VTA 4, J38XX UNITED STATES SINGLE OPERATOR HIGH P ALL BAND K4GMH 7, K3MM 6, A33B 5, K1SFA (@K1TITT) 4, N2WK. 4, K4RO 3, W3FV 3, W3FV 3, WB9Z 3, WB9Z 3, WB9Z 3, WB9Z 3, WB9Z 3, WB9Z 3, WWPK. 3,	493,792 047,140 293,220 923,220 923,150 419,428 709,998 204,716 9070,094 718,232 225,862 R 452,038 702,370 617,322 221,755 398,732 142,428 876,920 158,748 167,272 749,976 6417,529 766,375 617,046 570,750 617,046 570,750	*K8IA/7. *NW1C. *KK8IA/7. *NW1C. *KC8ZTJ. *KX7L *NSUWY. *KFØIO. 14 MHZ *AKØA *W4LC. *WM5DX *W12D/7. *KM6Z *W9ILY *N7DB *N2ZAK. *KC1UX. *K2FPL *AKEPF. 7 MHZ *KC4HW. *AB1J. *KK1X. *K2FPL *K2FPL *K2PA/7 (K2PO/7). *NN7SS (K6UFO). *K2PAL. *N3TG/4. *K2PAL. *N3TG/4. *KEØL. *WA7BME. *KM6I. *W1CSM. *K7MH. *WUCSM. *K7MH.	40,796 24,823 5,994 5,700 3,680	SN70 9A7R US51 (US51Q) S59AKR (S52X) LN92 (LB1G) DR1ØTCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ES5RY AN11A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XO) DL4MCF OY3JE 1ZØKBR YUTAU ES5CP DJ3IW SP6AXW SINGLE OPERATOR ALL BA *CTILLT *E76C	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2,175,540 4,278,738 3,831,264 2,763,834 2,648,268 2,351,076 1,752,184 1,691,670 1,445,598 1,435,980 47 2,486,304 2,007,880 1,762,992 1,530,780 1,269,884 1,239,840 1,028,700 899,640 899,640 899,640 899,640 899,640 899,640 899,640 899,640 880,808 469,780 R LOW POWER ND	*UT5KO *UZ2HZ *UZ2HZ *VL2GGG *USØGH MULTI-C SINGLE TR ALL E73M JE1LB JE1LB JE1LB JE1LB JENE JENE MULTI-C TWO TRP ALL 403A 237M OHOR DLØCS LY2W EF7R IK1TWC (08MD RF3T MULTI-T MULTI-T ALL HG1S LZ9W	472,610 405,594 388,096 PERATOR ANSMITTER BAND
3.5 MHZ 9A1CCY (9A3NM)	MULTI-OPERATOR TWO TRANSMITTER ALL BAND 403A	493,792 047,140 293,220 923,220 923,150 419,428 709,998 204,716 9970,094 718,232 225,862 R 452,038 702,370 617,322 221,1755 398,732 142,428 6 POWER 158,748 167,272 749,976 412,529 766,375 617,046 570,750 5562,221 474,838	*K8IA/7. *NWTC. *KK9IA/7. *NWTC. *KC8ZTJ. *KX7L *NSUWY. *KFØIO. 14 MHZ *AKØA. *WHCD. *WM5DX *W12D/7 *KMØZ *W9ILY *N7DB *N2ZAK *CC1UX *K4FPF 7 MHZ *KC4HW *AB1J. *KK1X. *K2PO/7 (K2PO/7). *NN7S (K6UFO). *K2PAL *W37BME. *KM6I. *W47BME. *KM6I. *W47BME. *KM6I. *W11-OPERA	40,796 24,823 5,994 5,700 3,680	SN70 9A7R US51 (US510) S59AKR (S52X) LN92 (IB1G) DR10TCC (DK3DM) IK6VXO OK8YD DF9ZP OK3C (OK2ZC) 7 MH S53M (S51FB) I4IKW HF4K (SP4K) GM3SEK YT1VP RL4R (RW4PL) ESSRY AN1A (EA1AST) IW1PNJ DL6JZ 3.5 MI 9A1CCY (9A3NM) I4AVG EMØX (UT2XO) DL4MCF OY3JE IZØKBR YU7AU ESSGP DJ3IW SP6AXW SINGLE OPERATOR ALL BA *CT1ILT	2,079,004 1,987,925 1,546,360 1,538,537 1,465,568 1,463,924 1,352,754 1,264,304 1,246,278 2,4715,540 4,258,738 4,715,540 4,258,738 4,258,738 1,455,920 1,752,184 2,648,268 2,351,076 1,752,184 2,648,268 1,435,980 1,445,598 1,435,980 1,292,846,304 2,007,880 1,269,884 1,299,840 1,028,700 8,99,640 8,00,808 469,780 R LOW POWER ND 1,130,634 2,848,230 4,130,634 2,848,230 4,130,634 2,848,230 4,130,634 2,848,230 4,130,634 2,848,230 4,130,634 2,848,230	*UT5KO *UZ2HZ *UZ2HZ *VL2GGG *USØGH MULTI-C SINGLE TR ALL E73M JE1LB JE1LB JE1LB JE1LB JENE JENE MULTI-C TWO TRP ALL 403A 237M OHOR DLØCS LY2W EF7R IK1TWC (08MD RF3T MULTI-T MULTI-T ALL HG1S LZ9W	472,610 405,594 388,096 PERATOR ANSMITTER BAND

CLUB COMPETITION

UNITED STATES							
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Club # Entrants Scor POTOMAC VALLEY RADIO CLUB 3935,718,	e						
POTOMAC VALLEY RADIO CLUB	790						
NORTHERN CALIFORNIA CONTEST CLUB							
SOCIETY OF MIDWEST CONTESTERS							
FRANKFORD RADIO CLUB							
TENNESSEE CONTEST GROUP							
YANKEE CLIPPER CONTEST CLUB							
ALABAMA CONTEST GROUP	398						
GRAND MESA CONTESTERS OF COLORADO							
ROCHESTER (NY) DX ASSN	128						
FLORIDA CONTEST GROUP	597						
MINNESOTA WIRELESS ASSN20							
WILLAMETTE VALLEY DX CLUB	,361						
CENTRAL TEXAS DX AND CONTEST CLUB	494						
CTRI CONTEST GROUP	227						
MAD RIVER RADIO CLUB88	614						
ORDER OF BOILED OWLS OF NEW YORK	360						
ARIZONA OUTLAWS CONTEST CLUB	528						
SOUTH EAST CONTEST CLUB8	246						
BERGEN ARA							
SOUTHERN CALIFORNIA CONTEST CLUB8	372						
LOUISIANA CONTEST CLUB							
UTAH DX ASSOCIATION	762						
WESTERN NEW YORK DX ASSOCIATION	401						
WESTERN WASHINGTON DX CLUB	285						
KANSAS CITY DX CLUB44	540						
SKYVIEW RADIO SOCIETY	531						
SPOKANE DX ASSOCIATION	271						
KENTUCKY CONTEST GROUP	220						
HUDSON VALLEY CONTESTERS AND DXERS 3 637	091						
DELAWARE LEHIGH AMATEUR RADIO CLUB	255						
METRO DX CLUB	429						
NORTH COAST CONTESTERS	520						
PADUCAH AMATEUR RADIO ASSOCIATION	528						
CAROLINA DX ASSOCIATION 3. 151	356						
	000						
DX							
BAVARIAN CONTEST CLUB							
UKRAINIAN CONTEST CLUB	364						
RHEIN RUHR DX ASSOCIATION	983						
SLOVENIA CONTEST CLUB							
CONTEST CLUB FINLAND	811						
URAL CONTEST GROUP	638						

DX						
BAVARIAN CONTEST CLUB						
UKRAINIAN CONTEST CLUB	38	41,277,364				
RHEIN RUHR DX ASSOCIATION	55	34,017,983				
SLOVENIA CONTEST CLUB	10	18,770,755				
CONTEST CLUB FINLAND	8	15,703,811				
URAL CONTEST GROUP	10	13,551,638				
BLACK SEA CONTEST CLUB	27	12,600,778				
CROATIAN CONTEST CLUB	9	12,162,763				
BOSNIA AND HERZEGOVINA CONTEST CLUB	5	11,697,421				
CONTEST CLUB ONTARIO	18	10,568,671				
YU CONTEST CLUB	7	10.363.751				
CONTEST GROUP DU QUEBEC	7	9,932,123				
RUSSIAN CONTEST CLUB	7	9,766,394				
LU CONTEST GROUP						
YO DX CLUB	16	8,175,063				
BRITISH COLUMBIA DX CLUB						
KAUNAS UNIVERSITY OF TECHNOLOGY RADIO CLUB						
GMDX GROUP	5	7,289,616				
LATVIAN CONTEST CLUB	8	6,870,601				
SOUTH URAL CONTEST CLUB						
VYTAUTAS MAGNUS UNIVERSITY RADIO CLUB	3	6,676,759				
DL-DX RTTY CONTEST GROUP	13	6.637.615				
NONE	20	6.585.010				
ARAUCARIA DX GROUP	7	6.205.430				
CT3 MADEIRA CONTEST TEAM	3	4.978.292				
YAROSLAVL CONTEST CLUB						
BRITISH AMATEUR RADIO TELEDATA GROUP	3	4.394.807				
599 CONTEST CLUB	6	4.362.543				
WORLD WIDE YOUNG CONTESTERS	9	4.103.575				
SP DX CLUB	14	3.745.558				
RTTY CONTESTERS OF JAPAN	7	3 567 600				
LA CONTEST CLUB	3	2,862,876				
CHILTERN DX CLUB	44	2,619,745				
BELARUS CONTEST CLUB	44	2,314,813				
KKKK CONTEST CLUB KRASNODARSKOGO KRAYA	5	1,994,274				
CSM BAIA MARE	44	1,719,399				
CENTRAL SIBERIA DX CLUB	3	1,434,889				
VU CONTEST GROUP	44	1,413,160				
TEMIRTAU CONTEST CLUB	5	1,355,450				
VK CONTEST CLUB	44	1,303,096				
TULA RADIO CLUB	3	1,185,213				
RIO DX GROUP	6	958,661				
TOP OF EUROPE CONTESTERS	3	877,685				
PLIS PLAI CONTEST TEAM	3	855,872				
RU-QRP CLUB	3	695,595				
HAROS RADIO CLUB	4	361,481				
NORFOLK AMATEUR RADIO CLUB						
CANTAREIRA DX GROUP	44	202,432				
ALRS ST PETERSBURG	3	116,237				
BEIJING SUNNY HAM CLUB						
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compares the club name in your log to the CQ contest club name list and ignores any that do not match exactly. It is easy to add a club name to the list following the instructions on the club names web page.

Log Checking

Besides being a lot of fun, contesting improves operating skills. Today's log-checking technology provides insightful analysis. Log Check Reports (LCRs) are available on request from <w0yk@cgwpxrtty.com> and describe the detail of all the errors found in your log. A theoretical but unrealistic goal is zero errors. For one thing, the other station can make a mistake, such as inadvertently erasing your QSO from his log, or sending a different serial number than what he recorded in his log. These errors by the other station will cause you to lose the QSO credit and perhaps incur a NIL (Not In Log) penalty. Another consideration is operating very slowly and meticulously to avoid errors, but actually decreasing the potential score by working less stations. With the current state of log checking, an error rate less than 4% is good, and if it is less than 2%, one might wonder if too much time is being spent on accuracye.g., long exchanges, repeats, etc. As a reference, this set of logs had an average of 1.5% NILs, 1.2% busted (incorrect) callsigns, and 1.8% busted serial numbers.

Some single operator logs had a seemingly high error rate in their LCR, but it was largely due to operating beyond the 30-hour limit. Some operated 36 hours, perhaps going by the CW/SSB WPX rules, while others just wanted to operate more. There is no penalty for this at all and it adds to contest activity. Any QSOs beyond 30 hours of operating (with breaks less than 60 minutes included as operating time) are used, actually needed, in the log checking, but not included in the score.

Results and Records

Thanks to Don, AA5AU, and Randy, K5ZD, there is now a searchable database (www.cqwpxrtty.com/score_db.htm) of all results in the history of CQ WPX RTTY, as well as CW and SSB. It is easy to initiate a quick search for all the operations by a given callsign, or see the historical results of a country or region. This, in turn, provides a very rich and accurate set of records (www.cqwpxrtty.com/records.htm) for all categories and any geographical area. The Statistics link brings up a graph of submitted logs since the beginning of CQ WPX, 16 years ago.

Also, for expanded QRM and a list of ops of multi stations for the 2010 contest, see the CQ website: <www.cq-amateur-radio.com>.

Acknowlegements

In addition to Don and Randy, there are many who work to support WPX RTTY. Mark, K6UFO, assists wherever help is needed, such as fixing logs for Cabrillo compliance, entering paper logs (there were three this year!), proofing rules and website edits, printing one-off certificates, etc. Gail, K2RED, at CQ edits and takes care of the details for this article. Mike, K4GMH, manages the sponsored plague program, finding sponsors, collecting funds, producing the artwork, checking it twice (or more!), and ordering plagues all in a timely manner as soon as results are completed. Barry, W5GN, tackles the monumental job of producing hundreds of certificates and deciphering addresses in the Cabrillo headers to mail out all of them.



Juan, EA8CAC, Olli, EA4BQ, and Pekka, EA8AH, drove the EA8AH super-station under the callsign EE8E to dominate the MS class with 14.2M points, smashing the world record by 64%.

Ken, K1EA, and Randy, K5ZD, expertly support the log-checking process. SWL log checking is performed by Dan, I1-12387, using special log-check software written by Marek, SP7DQR.

See everyone in the next CQ WPX RTTY on 12–13 February 2011. 73, Ed, WØYK

QRM

Nice to have some sunspots around! Thanks for another good contest. Hope to be back next year. ... **2EØBPP**. My second ever RTTY contest, my first international RTTY HF contest. I think I've got the bug! I look forward to beating my score in the next contest. Thanks G3LDI, Roger for all your help with N1MM.... **2EØRKY**. First time in WPX RTTY. Surprized at the many stations. I did not work all the time. I was on vacation! ... 6V7V. I was able to enjoy this contest. Tnx for a fine contest again. ... 7N2UQC. First major contest flying solo. First 15 meter opening, including 7 JAs in a row. Why didn't someone tell me how much fun this is? ... AA4YL. Best condx for a WPX RTTY contest in several years. Welcome back sunspots! ... AA5AU. I had a blast in this contest. The improved solar conditions made for a great time on 15 meters. As a little gun station, I'll take whatever solar help I can get. There were lots of new callsigns, both foreign and domestic, making their way into the log during this contest. No contacts were made on 10 meters. Let's hope for more sunspots and a higher solar flux as the year goes on. ... AE5PW. First I want to say many thanks to my friend Jim (W7EJ) for inviting me, giving me the oportunity to work the contest from his very nice Morocan station. Many thanks to all the stations I worked during these days. ... CN2R. This time it was very hard! Due to a cyclone in my zone a few days before the Christmas day, I lost all my antenna system. So for this test I made a homemade dipole for 14 MHz and TX with only 80W. You can imagine! Anyway, I enjoyed all the numbers exchanged! .. CT1EEK. What a contest. This was my first "serious" RTTY contest attempt! Running a K3 and a IC-746PRO in a SO2R setup with Writelog was big fun. I am surprised what can be done in RTTY with just 100 watts. And due to low power operation no BCI/TVI complaints from neighbors. ... DK5WL. The contest took place in the middle of the very busy summer season in Antarctica, so my time to participate was rather limited. I enjoyed good propagation to North America on 20m, and managed to work a few new RTTY countries to finish my DXCC from Antarctica. The location is Neumayer Station III in Dronning Maud Land, grid locator IB59UH. ... DP1POL. A bit more propagation on Sunday than Saturday, but I spent good hours in this contest. ... EE5J. My sixth RTTY WPX Contest and the best. Good conditions on 80m to 15m. I hope that the propagation will continue to improve. I tried 10m from time to time, but nobody, nobody. Thanks to all who worked me. ... F5RD. I'd almost forgotten how fun 15m can be! ... GØMTN. A much better event than last year. Sad there was no 10m opening, but we did try the band. Very enjoyable as ever and shows what can be done with a little pistol station. ... G6BOX. First time on this mode in 21 years of hamming! So quite a fun introduction! ... G7DDN. Thanks to everyone for the QSOs, especially the wonderful run of W/VE stations on Saturday evening (your time). But above all, thanks to all the spouses, partners, and cheerleaders who allowed us to enjoy a RTTY contest on Valentine's Day! ... GM3SEK. Without any earlier experience I tried the mode and I am satisfied with the result. Many thanks for the contacts! Rig TS-530SP 25W, ant end-fed wire 21 mtrs long above flat roof. ... HA2MN. Great fun with my R7 vertical, 400W, and TS2000X. I improved my last year score by a 30% and I hope next year to do much better hoping for a good 10 meter opening. ... IK2SAI. It was a contest that was able to be enjoyed by all bands this time. This is because "sunspot number" coming up. ... JA1BWA. I was able to work more stations than I thought thanks to good propagation for Europe on 15 meter band. Thanks to those who called me. See you again next year. ... JA6DIJ. My first RTTY WPX. 80m DX conditions were not the best, but a fair opening to EU on Saturday night made things more interesting. Fun contest! ... KØPK. What a blast! This is one fun contest! Like last year, the computer decided to mess me up. Spent two hours troubleshooting an audio problem, but I still bested my last year's score by 156 Q's and 166,212 points! Thanks CQ for a fun weekend! ... KA1C. The XYL got her ticket after more than two decades of marriage and now wants to contest. I Love It! ... KC4WQ. What a difference a few sunspots make. Moved up to 15 meters and had great luck with DX contacts. If I could hear them I could usually work them.



Jim, W4TMO, shown here, really enjoys operating MS RTTY with fatherin-law Bert, N4CW, at Bert's North Carolina station.

Not bad for an attic antennna, 75 watts, and parttime operating. ... KFØIQ. It was interesting to work single-band (40m) in a contest and try to make a valid go of it. Watching live scoring made an additional motivation. Also my first contest as a part of YCCC made me work for the team a little harder. ... KK1X. It was nice to have some propagation for a change, but the window to Europe was fairly short up here in the Pacific Northwest. Backup station and antennas worked well, but should have the whole shooting match for upcoming contests, finally! Thanks to all those guys who jumped in giving out contacts. I had a blast! ... **KK700**. What a rollercoaster ride of RTTY fun! Had some great propagation on 15 meters, some challenging propagation to Europe on 20 meters, some exciting contacts on 40 meters, all mixing together for an awesome RTTY weekend. My best score yet! Thanks for the contacts and to CQ for sponsoring the biggest fun RTTY weekend of the year. The bands were bursting with RTTY signals, wow! ... KL8DX. Decided to work on my 15m DXCC and have some fun. High point was working 6W2SC for a new one. Go Sunspots! ... KX7L. Brilliant fun. Great having 15m open in such good shape. ... MMØGPZ. Murphy lives in my shack. ... N2EIK. Some nice DX found during the contest, always a bonus. Thanks to all the guys and gals who heard my 100 watts and apologies to the guy I left on 80m mid QSO when the rig finally died on that band. The real plus was to be, once again, in a contest with the SFI above 90. FANTASTIC! ... N2FF. Tried to fight off a cold with Nyquil. Should have fought off the Nyquil. Got lots of sleep in between short bouts of operating. ... N6DW. Our first effort as a multi-operator in this contest. Had a ball despite a rare six inch snowfall the first night. With fairly decent band conditions we managed over 1800 QSOs and hope to do better next year. ... NC4CS. Very nice moment spent with RTTY friends but a big power crash in the computer killed my end of the contest! ... ON5SV. Very nice contest after doing the PACC Dutch contest. ... PE2KP. Our first RTTY contest! ... RM3M. Wow! The upcoming sunspot cycle looks promising. 15m was a real blast with good openings both to JA and W. Can't wait for it to get even better. This was my 4th RTTY contest ever. Much fun! 99% run and just a few QSOs S&P. Thanks to everyone for calling! ... SM6U. Goodbye spotless days, welcome Solar Cycle 24! ... SV1BDO. Very good contest and very good propagation. 73s ... TA7KA. Over 300 Europeans just on 40 meters! Tks to VU2LBW for calling in on 15 meters! ... VA3DX. Work gets in the way again. I will have to retire soon so I can contest without interruptions! ... VA3PC. Murphy's Law: The more you practice and prepare before the contest the more likely it is that something will screw up when the contest starts. ... VE5RI. Great to see growing RTTY activity spreading so widely across the formerly quiet bands. Welcome back sunspots! Thanks to all who pointed to VK! ... VK3TDX. This was my first RTTY contest and I couldn't spend a lot of time on air as it was my birthday and Valentine's Day! Still I enjoyed operating mainly on 15m and 40m. Can't wait to do a serious effort in this contest next year to give lots of people the VK8 prefix. ... VK8PDX. Some of the biggest signals ever from North America were heard on 15m. This is very heartening and shows promise for the upcoming contest season. Even 10m showed some life to EU and Africa. I was running between 100 watts to 200 watts depending on mains power availability. ... VU2PTT. QRP operation using standalone NUE-PSK modem. Worked beyond my expectations! ... VX3CW. Great contest. Conditions were better on the first day. First time I've been able to get a run going on 15 meters. Good to see a lot of new contesters. ... WØEM. This contesting thing can really get under your skin My second contest in almost 40 years. What great fun. I am looking forward to many more. ... W7JDE. Wow! 15 was OPEN. Even made some Q's on 10! ... **WA9IVH**. Great to see 10 meters open for this year's contest. Let's hope the Sun gods continue the trend and keep things rockin'. ... WB8JUI. First contest for father and son team. We had a lot of fun and enjoyed 15 meter opening. ... **XE2AUD**. Was glad to run my first CQ WPX RTTY contest after three decades of classic RTTY traffic! Enjoyed the excellent TTY facilities of the IC-7000 and MMTTY combination. ... YO2IS. Poor condx into NA here! PACC Contest put out many RTTY active PA stations. ... YUTAU. A casual entry this year. Still learning how to drive N1MM and MMTTY. Spent quite a bit of time hunting the WWW in vain for suitable message files to import into N1MM (seems I will have to publish mine!). Apologies for messing up the odd exchange. N1MM's Enter-Sends-Message mode is particular about getting the right info entered in the right sequence, but my fingers don't always play ball. Took several breaks to feed an orphan lamb rescued from the forest on Sunday. Such is the life of a ZL contester. ... ZM4G.